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каталог, описание, технические, характеристики, datasheet, параметры, маркировка, габариты, фото, модуль,
Murrelektronik, даташит, модуль, преобразователь,

Каталог Murrelektronik2025г.

Murrelektronik в Беларуси

купить, продажа в Минске, Беларусь
электронные компоненты

[где и как купить в Минске?](#)



Продукция Murrelektronik

о компании Murrelektronik

Murrelektronik - это немецкая компания, специализирующаяся на разработке и производстве электронных компонентов и систем для промышленной автоматизации. Компания была основана в 1975 году и имеет свою штаб-квартиру в Опфенбахе, Германия.

Murrelektronik является одним из ведущих производителей электронных компонентов и систем для промышленной автоматизации, включая:

1. **Модульные системы:** компания предлагает широкий спектр модульных систем для промышленной автоматизации, включая системы управления, системы питания и системы связи.
2. **Силовая электроника:** Murrelektronik производит различные компоненты силовой электроники, включая преобразователи, фильтры и удлинители.
3. **Системы управления:** компания предлагает системы управления для промышленной автоматизации, включая системы управления двигателями, системы управления насосами и системы управления вентиляторами.
4. **Сенсорная техника:** Murrelektronik предлагает различные типы датчиков, включая датчики положения, датчики температуры, датчики давления и т.д.
5. **Системы связи:** компания предлагает системы связи для промышленной автоматизации, включая системы Ethernet, системы Wi-Fi и системы Modbus.

Murrelektronik имеет широкий спектр применения своих продуктов, включая:

1. **Автомобильная промышленность:** компания поставляет свои продукты в автомобильную промышленность, включая системы управления и системы питания для автомобильных заводов.
2. **Пищевая промышленность:** Murrelektronik предлагает решения для пищевой промышленности, включая системы управления и системы питания для пищевых предприятий.
3. **Химическая промышленность:** компания поставляет свои продукты в химическую промышленность, включая системы управления и системы питания для химических предприятий.
4. **Фармацевтическая промышленность:** Murrelektronik предлагает решения для фармацевтической промышленности, включая системы управления и системы питания для фармацевтических предприятий.

Murrelektronik имеет сильную позицию на мировом рынке и имеет офисы и представительства в более чем 50 странах мира. Компания известна своим высоким качеством продуктов и услуг, а также своим инновационным подходом к разработке новых решений для промышленной автоматизации.

Некоторые из ключевых преимуществ Murrelektronik включают:

- **Высокое качество:** компания гарантирует высокое качество своих продуктов и услуг, включая сертификацию по ISO 9001.
- **Инновации:** Murrelektronik инвестирует в исследования и разработку новых технологий и решений для промышленной автоматизации.
- **Глобальная поддержка:** компания имеет широкую сеть офисов и представительств по всему миру, обеспечивая глобальную поддержку своих клиентов.
- **Энергетическая эффективность:** Murrelektronik предлагает решения для энергетической эффективности, включая системы управления и системы питания, которые помогают снизить энергопотребление.

Xtreme - Mobile Applications

- with open ended wires
- compatible with:
- Deutsch DT 06

Deutsch MDC 06-2S

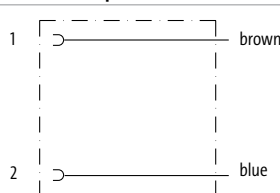
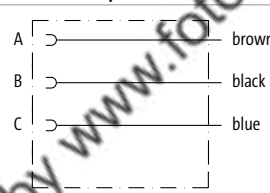
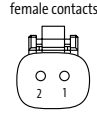
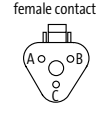
Male straight



Deutsch MDC 06-3S

Male straight



1 Form		72011	72081
Type		2-pole	3-pole
		12...230 V AC/DC	6...230 V AC/DC
		without components	without components
Circuit diagram			
Contact layout		Male female contacts 	Male female contacts 
2 Cable Type		Jacket Color	
Wire diameter 0.75 mm ²		black	yellow
PUR/PVC		750	
PUR (UL/CSA), robots/C-tracks		754	145
			564
3 Cable Length			
1.5 m		0150	
3.0 m		0300	
5.0 m		0500	
7.5 m		0750	
10.0 m		1000	
Technical Data			
Operating voltage		12...230 V AC/DC	6...230 V AC/DC
Protection		IP68 inserted and tightened	
Temperature range		-25...+85 °C, depending on cable quality	
Article No.			
The composition of your article number is explained on page 3.1.i		7 0 7 2	— — — —
		1 Form	2 Cable Type 3 Cable Length
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

MOBILE APPLICATIONS

Xtreme - Mobile Applications

- with open ended wires
- compatible with:
- Deutsch DT 06

Deutsch MDC 06-4S

Male straight



Deutsch MDC 06-6S

Male straight



1 Form

72161

72221

Type

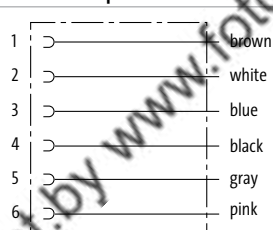
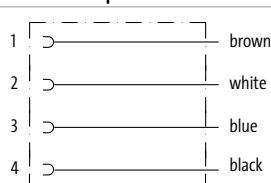
4-pole

6-pole

6...230 V AC/DC

6...230 V AC/DC

Circuit diagram



Contact layout

Male
female contacts



Male
female contacts



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 0.75 mm²

PUR (UL/CSA), robots/C-tracks

black

569

black

572

3 Cable Length

1.5 m	0150
3.0 m	0300
5.0 m	0500
7.5 m	0750
10.0 m	1000

Technical Data

Operating voltage	6...230 V AC/DC
Protection	IP68 inserted and tightened
Temperature range	-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 0 7 2

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

MOBILE APPLICATIONS

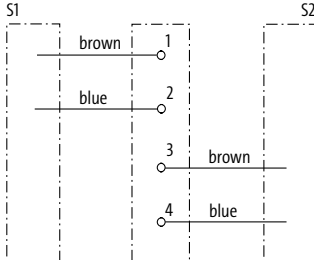
Xtreme - Mobile Applications

- with open ended wires
- compatible with:
- Deutsch DT 06

Deutsch MDC 06-4S

Y connector
Male



1 Form		72191	
Type	4-/2-pole		
	6...230 V AC/DC		
	without components		
Circuit diagram			
Contact layout			
2 Cable Type		Jacket Color	
Wire diameter 0.75 mm²		black	yellow
PUR (UL/CSA), robots/C-tracks		754	145
3 Cable Length			
1.5 m		0150	
3.0 m		0300	
5.0 m		0500	
7.5 m		0750	
10.0 m		1000	
Technical Data			
Operating voltage		6...230 V AC/DC	
Protection		IP68 inserted and tightened	
Temperature range		-25...+85 °C, depending on cable quality	
Article No.			
The composition of your article number is explained on page 3.1.i		7 0 7 2 - 7 2 1 9 1 -	
		1 Form	2 Cable Type
		3 Cable Length	
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

MOBILE APPLICATIONS

Xtreme - Mobile Applications

- with open ended wires
- compatible with:
- Deutsch DT 06

Deutsch MDC 04-2P

Female straight



Deutsch MDC 04-3P

Female straight



1 Form

723 01

723 81

Type

2-pole

3-pole

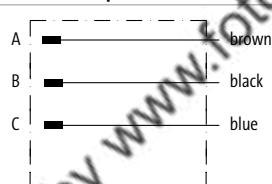
6...230 V AC/DC

6...230 V AC/DC

without components

without components

Circuit diagram



Contact layout

Female
male contacts



Female
male contacts



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 0.75 mm²

PUR/PVC

PUR (UL/CSA), robots/Ctracks

black	yellow
750	
754	145

black

564

3 Cable Length

1.5 m	0150
3.0 m	0300
5.0 m	0500
7.5 m	0750
10.0 m	1000

Technical Data

Operating voltage	6...230 V AC/DC
Protection	IP68 inserted and tightened
Temperature range	-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 0 7 2

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

Xtreme - Mobile Applications

- with open ended wires
- compatible with:
- Deutsch DT 06

Deutsch MDC 04-4P

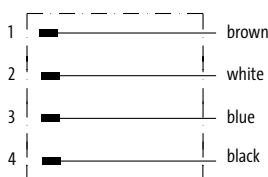
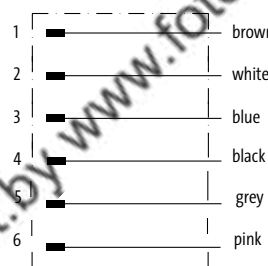
Female straight



Deutsch MDC 04-6P

Female straight



1 Form		72461	72521
Type		4-pole	6-pole
		6...230 V AC/DC	6...230 V AC/DC
		without components	without components
Circuit diagram			
Contact layout		Female male contacts 	Female male contacts 
2 Cable Type		Jacket Color	
Wire diameter 0.75 mm²		black	black
PUR (UL/CSA), robots/C-tracks		569	572
3 Cable Length			
1.5 m		0150	
3.0 m		0300	
5.0 m		0500	
7.5 m		0750	
10.0 m		1000	
Technical Data			
Operating voltage		6...230 V AC/DC	
Protection		IP68 inserted and tightened	
Temperature range		-25...+85 °C, depending on cable quality	
Article No.			
The composition of your article number is explained on page 3.1.i		7 0 7 2	– – – – –
		1 Form	2 Cable Type 3 Cable Length
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

MOBILE APPLICATIONS

Xtreme - Mobile Applications

- with open ended wires
- compatible with:
- AMP SuperSeal 1.5

SuperSeal MSC1.5-2S

Male straight



SuperSeal MSC1.5-3S

Male straight



1 Form

73001

73081

Type

2-pole

3-pole

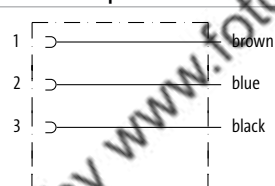
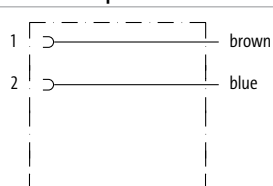
max. 24 V DC

max. 24 V DC

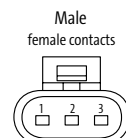
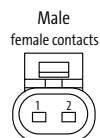
without components

without components

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 0.75 mm²

PUR (UL), C-tracks

black

512

black

513

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 24 V DC

Protection

IP67 inserted and tightened (EN 60529)

Temperature range

-40...+125 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 0 7 2

-

-

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

MOBILE APPLICATIONS

Xtreme - Mobile Applications

- with open ended wires
- compatible with:
- AMP SuperSeal 1.5

SuperSeal MSC1.5-4S

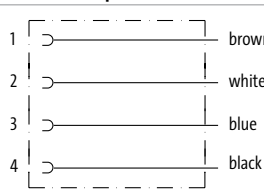
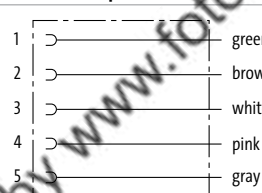
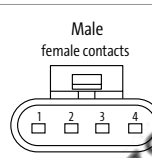
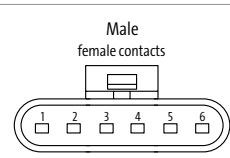
Male straight



SuperSeal MSC1.5-6S

Male straight



1 Form		73161	73221
Type		4-pole	6-pole
		max. 24 V DC	max. 24 V DC
		without components	without components
Circuit diagram			
Contact layout			
2 Cable Type		Jacket Color	
Wire diameter 0.75 mm²		black	black
PUR (UL), C-tracks		514	516
3 Cable Length			
1.5 m		0150	
3.0 m		0300	
5.0 m		0500	
7.5 m		0750	
10.0 m		1000	
Technical Data			
Operating voltage		max. 24 V DC	
Protection		IP67 inserted and tightened (EN 60529)	
Temperature range		-40...+125 °C, depending on cable quality	
Article No.			
The composition of your article number is explained on page 3.1.i		7 0 7 2	- - - - -
		1 Form	2 Cable Type 3 Cable Length
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

MOBILE APPLICATIONS

Xtreme - Mobile Applications

- with open ended wires
- compatible with:
- AMP SuperSeal 1.5

SuperSeal MSC1.5-2P

Female straight



SuperSeal MSC1.5-3P

Female straight



1 Form

73301

73381

Type

2-pole

3-pole

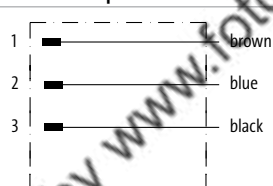
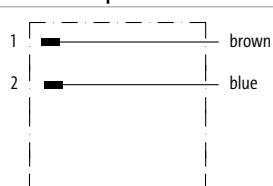
max. 24 V DC

max. 24 V DC

without components

without components

Circuit diagram

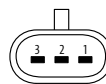


Contact layout

Female
male contacts



Female
male contacts



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 0.75 mm²

PUR (UL), C-tracks

black

512

black

513

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 24 V DC

Protection

IP67 inserted and tightened (EN 60529)

Temperature range

-40...+125 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 0 7 2

-

-

1

Form

2

Cable Type

3

Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

Xtreme - Mobile Applications

- with open ended wires
- compatible with:
- AMP SuperSeal 1.5

SuperSeal MSC1.5-4P

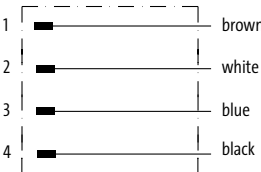
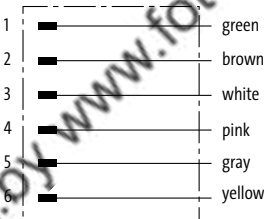
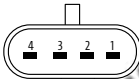
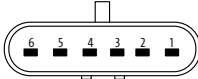
Female straight



SuperSeal MSC1.5-6P

Female straight



1	Form	73461	73521				
	Type	4-pole max. 24 V DC without components	6-pole max. 24 V DC without components				
	Circuit diagram						
	Contact layout						
	Cable Type	Jacket Color	Jacket Color				
	Wire diameter 0.75 mm² PUR (UL), C-tracks	black 514	black 516				
3	Cable Length						
	1.5 m 3.0 m 5.0 m 7.5 m 10.0 m	0150 0300 0500 0750 1000					
Technical Data							
	Operating voltage	max. 24 V DC					
	Protection	IP67 inserted and tightened (EN 60529)					
	Temperature range	-40...+125 °C, depending on cable quality					
Article No.							
	The composition of your article number is explained on page 3.1.i	7072 - -					
		1	Form	2	Cable Type	3	Cable Length
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.					



M23 ROUND PLUG CONNECTORS MADE FOR DISTRIBUTION BOXES

- Highly resistant, halogen-free molding
- Safely sealed – acc. to IP67
- Reliable – 100% tested

COMPACT CONNECTOR FOR SAFE SIGNAL TRANSFER

Murrelektronik's M23 connectors are specially designed for distribution systems with M23 connections. They ensure a safe signal transfer from the distribution box to the control cabinet and a safe power supply to the distributor as well as the sensors and actuators connected to it.

With Open Ended Wires



M23 female, 12-pole

- Straight/90°
- For unshielded distribution boxes

Page 3.9.1



M23 female, 19-pole

- Straight/90°
- For unshielded distribution boxes

Page 3.9.2



M23 female, 19-pole

- Straight
- For shielded distribution boxes

Page 3.9.4

M23 ROUND PLUG CONNECTORS

With open ended wires

– 12-pole

Female

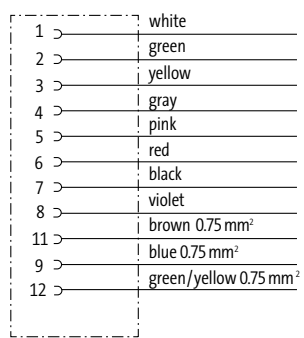
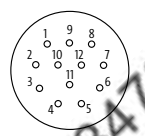
straight



Female

90°



1 Form		23051	23151
Type		11-pole used for 8-way distribution box, 4-pole	11-pole used for 8-way distribution box, 4-pole
Circuit diagram			
Contact layout		Female 	
2 Cable Type		Jacket Color – No./diameter of wires	
PUR/PVC (UL/CSA), Ctracks		gray 362 – 8 × 0.34 + 3 × 0.75 mm²	gray 362 – 8 × 0.34 + 3 × 0.75 mm²
3 Cable Length			
5.0 m		0500	
10.0 m		1000	
15.0 m		1500	
Technical Data			
Operating voltage		max. 125 V AC/DC	
Protection		IP65 and IP67 when plugged and screwed down (EN 60529)	
Temperature range		-25...+85 °C, depending on cable quality	
Article No.			
The composition of your article number is explained on page 3.1.i		7 0 0 0 – — — — — – — — — — – — — — —	
		1 Form	2 Cable Type
		3 Cable Length	
Notes		Other versions on request.	

M23 ROUND PLUG CONNECTORS

With open ended wires

– 19-pole

Female

straight



1 Form

23251

23251

Approvals

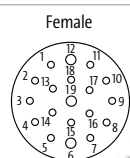
Type

Circuit diagram

15	white
7	gray/ pink
5	green
4	red/blue
16	yellow
8	white/ green
3	gray
14	brown/ green
17	pink
9	white/yellow
2	red
13	yellow/brown
11	black
10	white/gray
1	violet
18	gray/brown
19	brown 0.75mm ²
6	blue 0.75mm ²
12	green/yellow 0.75mm ²

15	white
7	gray/ pink
5	green
4	red/blue
16	yellow
8	white/ green
3	gray
14	brown/ green
17	pink
9	white/yellow
2	red
13	yellow/brown
11	black
10	white/gray
1	violet
18	gray/brown
19	brown 1.0mm ²
6	blue 1.0mm ²
12	green/yellow 1.0mm ²

Contact layout



2 Cable Type

Jacket Color – No./diameter of wires

	gray	gray
PUR/PVC (UL/CSA), C-tracks	398 – 16 × 0.34 + 3 × 0.75 mm ²	
PUR (UL/CSA), robots/C-tracks		452 – 16 × 0.5 + 3 × 1.0 mm ²

3 Cable Length

5.0 m	0500
10.0 m	1000
15.0 m	1500

Technical Data

Operating voltage	max. 125 V AC/DC
Protection	IP67 inserted and tightened (EN 60529)
Temperature range	-5...+70 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 0 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request.

M23 ROUND PLUG CONNECTORS

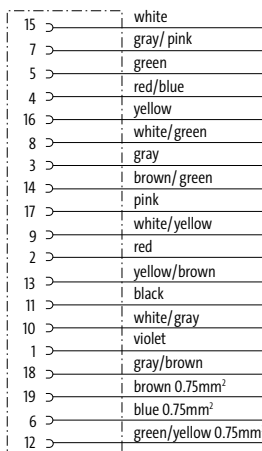
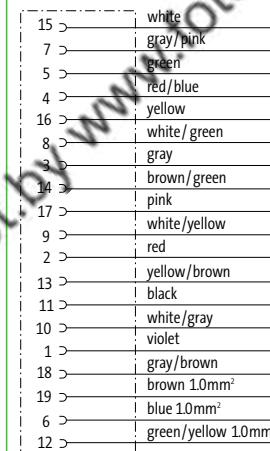
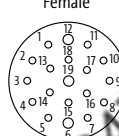
With open ended wires

– 19-pole

Female

90°



1	Form	23351	23351
Approvals			cULus
Type	19-pole used	19-pole used	
	for 8-way distribution boxes, 5-pole	for 8-way distribution boxes, 5-pole	
Circuit diagram			
Contact layout			
2	Cable Type	Jacket Color – No./diameter of wires	gray
	PUR/PVC (UL/CSA), C-tracks	398 – 16 × 0.34 + 3 × 0.75 mm ²	
	PUR (UL/CSA), robots/C-tracks	452 – 16 × 0.5 + 3 × 1.0 mm ²	
3	Cable Length		
	5.0 m	0500	
	10.0 m	1000	
	15.0 m	1500	
Technical Data			
Operating voltage	max. 125 V AC/DC		
Protection	IP67 inserted and tightened (EN 60529)		
Temperature range	-5...+70 °C, depending on cable quality		-5...+70 °C, depending on cable quality
Article No.			
The composition of your article number is explained on page 3.1.i	7 0 0 0	–	–
	1	Form	2 Cable Type 3 Cable Length
Notes			
	Other versions on request.		

M23 ROUND PLUG CONNECTORS

With open ended wires

– 19-pole

Female

straight



1 Form

23711

23751

Type

11-pole used

19-pole used

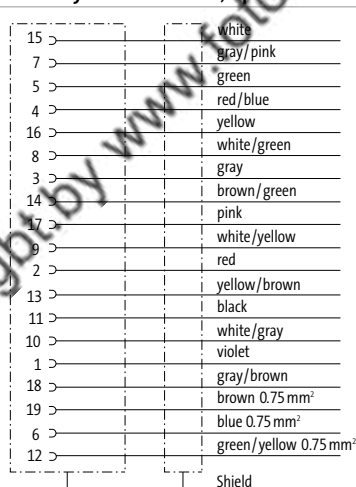
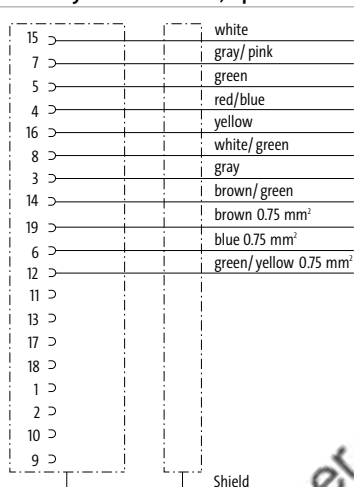
shielded

shielded

for 4-way distribution boxes, 5-pole

for 8-way distribution boxes, 5-pole

Circuit diagram



Contact layout



2 Cable Type

Jacket Color – No./diameter of wires

gray

gray

PUR (UL/CSA), robots/C-tracks

373 – 8 × 0.34 + 3 × 0.75 mm²

401 – 16 × 0.34 + 3 × 0.75 mm²

3 Cable Length

5.0 m

0500

10.0 m

1000

15.0 m

1500

Technical Data

Operating voltage

max. 125 V AC/DC

Protection

IP65 and IP67 when plugged and screwed down (EN 60529)

Temperature range

-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 0 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request.



ROUND PLUG CONNECTORS

POWER

POWERFUL AND SAFE

- Proven and reliable
- Molded and encapsulated plug connector
- Easy and safe connection

PLUG CONNECTOR FOR HIGH POWER TRANSFER

Perfect electrical connection, tightness and media resistance are the basic requirements for all types of plug connectors. In the field of motor connection technology, additional special properties are required: large connection cross-sections, high power with the smallest possible design and – most importantly – integrated anti-vibration locks that keeps the connector securely in place even if severe vibrations occur.

- The **M12 Power** is an extremely compact and performant M12 plug connector.
- The **MQ15 X-Power** enables particularly fast installation.
- The **7/8" round plug connector** has been optimized for highest performance

As a matter of course, all our plug connectors are tested 100%.

M12 Power



With open ended wires

M12 male/female

- Straight
- K-coded, L-coded, S-coded, T-coded

Page 3.10.1



Connection cables

M12 male – M12 female

- Straight
- K-coded, L-coded, S-coded, T-coded

Page 3.10.5



Field-wireable
Screw terminals

M12 male/female

- Straight
- S-coded, T-coded

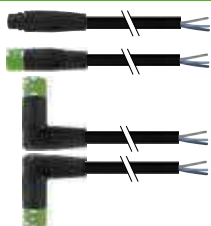
Field-wireable
Terminals with Insulation
Displacement Technology (IDC)

M12 male/female

- Straight
- L-coded

Page 3.10.7

MQ15 X-Power



With open ended wires

MQ15 X-Power male/female

- Unshielded/shielded
- Straight
- 90°

Page 3.10.10



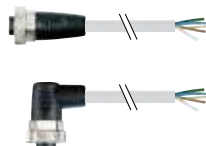
Connection cables

MQ15 X-Power male – MQ15 X-Power female

- Unshielded/shielded
- Straight

Page 3.10.25

7/8"

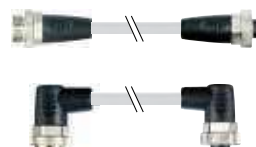


With open ended wires

7/8" male/female

- Straight/90°

Page 3.10.29



Connection cables

7/8" male – 7/8" female

- Straight/90°

Page 3.10.30



Field-wireable
Screw terminals

7/8" male/female

- Straight/90°

Page 3.10.31



Field-wireable
Terminals with Insulation
Displacement Technology (IDC)

7/8" male/female

- Straight

Page 3.10.33

M23 Drives (Motors)



*We offer a wide range
for M23 Drives. Just talk to us!*

ROUND PLUG CONNECTORS POWER

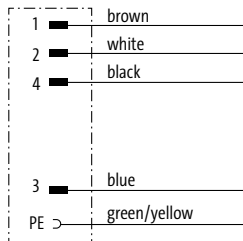
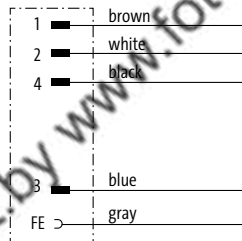
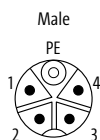
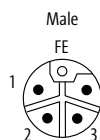
With open ended wires

– M12 Power

Male

straight



1 Form		P3201	P4201
Type		5-pole K-coded Operating current: max. 12 A	5-pole L-coded Operating current: max. 16 A
Circuit diagram			
Contact layout			
2 Cable Type		Jacket Color	Jacket Color
Wire diameter 1.5 mm ²		black	gray
PUR/PVC			966
PUR (UL/CSA), robots/C-tracks		P05	P04
3 Cable Length			
1.5 m		0150	
3.0 m		0300	
5.0 m		0500	
7.5 m		0750	
10.0 m		1000	
Technical Data			
Operating voltage		max. 630 V AC/DC	max. 63 V AC/DC
Protection		IP65 and IP67 when plugged and screwed down (EN 60529)	
Temperature range		-25...+85 °C, depending on cable quality	
Article No.			
The composition of your article number is explained on page 3.1.i		7 0 0 0 - - - - -	- - - - -
		1 Form	2 Cable Type
			3 Cable Length
Notes			
		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

ROUND PLUG CONNECTORS POWER

With open ended wires

– M12 Power

Female

straight



1 Form

P 3 2 2 1

P 4 2 2 1

Type

5-pole

5-pole

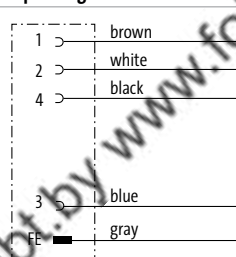
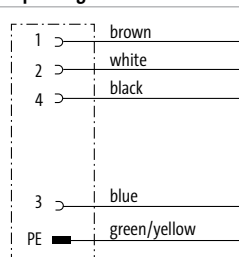
K-coded

L-coded

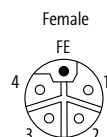
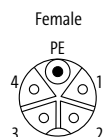
Operating current: max. 12 A

Operating current: max. 16 A

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.5 mm²

PUR/PVC

PUR (UL/CSA), robots/Ctracks

black

P05

gray

966

black

P04

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 630 V AC/DC

max. 63 V AC/DC

Protection

IP65 and IP67 when plugged and screwed down (EN 60529)

Temperature range

-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 0 0 0

-

-

1

Form

2

Cable Type

3

Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

ROUND PLUG CONNECTORS POWER

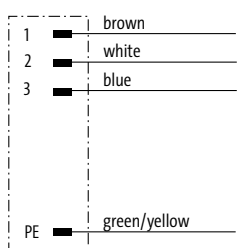
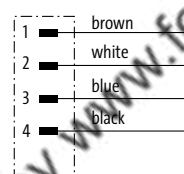
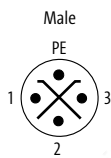
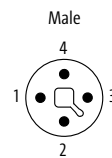
With open ended wires

– M12 Power

Male

straight



1 Form		P 62 01	P 72 01
Type		4-pole	4-pole
		S-coded	T-coded
		Operating current: max. 12 A	Operating current: max. 12 A
Circuit diagram			
Contact layout			
2 Cable Type		Jacket Color	Jacket Color
Wire diameter 1.5 mm ²		black	black
PUR (UL/CSA), robots/C-tracks		P06	P07
3 Cable Length			
1.5 m		0150	
3.0 m		0300	
5.0 m		0500	
7.5 m		0750	
10.0 m		1000	
Technical Data			
Operating voltage		max. 630 V AC/DC	max. 63 V AC/DC
Protection		IP65 and IP67 when plugged and screwed down (EN 60529)	
Temperature range		-25...+85 °C, depending on cable quality	
Article No.			
The composition of your article number is explained on page 3.1.i		7 0 0 0 - - - - -	
		1 Form	2 Cable Type
		3 Cable Length	
Notes			
		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

ROUND PLUG CONNECTORS POWER

With open ended wires

– M12 Power

Female

straight



1 Form

P 6221

P 7221

Type

4-pole

4-pole

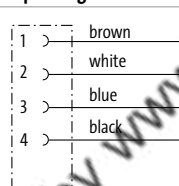
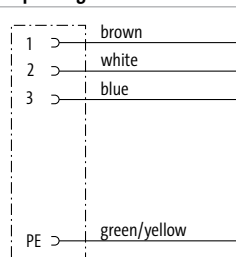
S-coded

T-coded

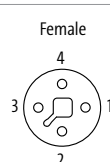
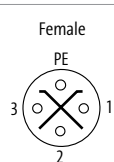
Operating current: max. 12 A

Operating current: max. 12 A

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.5 mm²

PUR (UL/CSA), robots/C-tracks

black

P06

black

P07

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 630 V AC/DC

max. 63 V AC/DC

Protection

IP65 and IP67 when plugged and screwed down (EN 60529)

Temperature range

-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 0 0 0

-

-

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

ROUND PLUG CONNECTORS POWER

Connection cables

– M12 Power

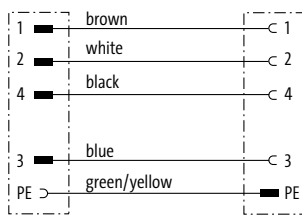
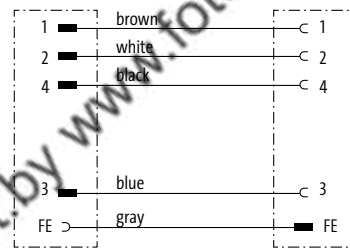
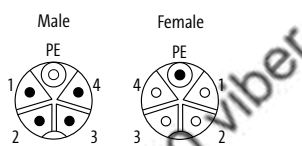
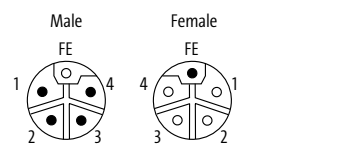
Male

straight

Female

straight



1 Form		P 3 2 4 1	P 4 2 4 1
Type		5-pole K-coded Operating current: max. 12 A	5-pole L-coded Operating current: max. 16 A
Circuit diagram			
Contact layout			
2 Cable Type		Jacket Color	Jacket Color
Wire diameter 1.5 mm ²		black	gray
PUR/PVC			966
PUR (UL/CSA), robots/C-tracks		P05	P04
3 Cable Length			
1.5 m		0150	
3.0 m		0300	
5.0 m		0500	
7.5 m		0750	
10.0 m		1000	
Technical Data			
Operating voltage		max. 630 V AC/DC	max. 63 V AC/DC
Protection		IP65 and IP67 when plugged and screwed down (EN 60529)	
Temperature range		-25...+85 °C, depending on cable quality	
Article No.			
The composition of your article number is explained on page 3.1.i		7 0 0 0 - - - - -	- - - - -
		1 Form	2 Cable Type
			3 Cable Length
Notes			
		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

ROUND PLUG CONNECTORS POWER

Connection cables

– M12 Power

Male

straight

Female

straight



1 Form

P 6241

P 7241

Type

4-pole

4-pole

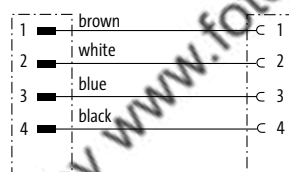
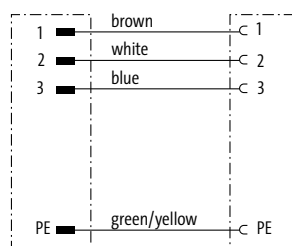
Circuit diagram

S-coded

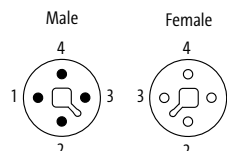
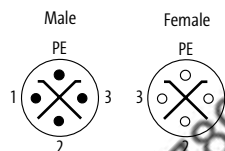
T-coded

Operating current: max. 12 A

Operating current: max. 12 A



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.5 mm²

PUR (UL/CSA), robots/C-tracks

black

P06

black

P07

3 Cable Length

1.5 m	0150
3.0 m	0300
5.0 m	0500
7.5 m	0750
10.0 m	1000

Technical Data

Operating voltage	max. 630 V AC/DC
Protection	IP65 and IP67 when plugged and screwed down (EN 60529)
Temperature range	-25...+85 °C, depending on cable quality

max. 63 V AC/DC

Article No.

The composition of your article number is explained on page 3.1.i

7 0 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

ROUND PLUG CONNECTORS POWER

Field-wireable

– M12 Power

– Screw terminals

Approvals:  **us**

Male

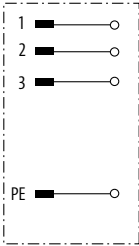
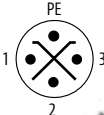
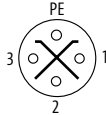
straight



Female

straight



1	Form	P 6391	P 6411
Type		4-pole S-coded	4-pole S-coded
Circuit diagram			
Sealing range (cable Ø)	8...10 mm		
Contact layout	Male  Female 		
Technical Data			
Operating voltage	max. 630 V AC/DC		
Rated surge voltage	6 kV		
Operating current per contact	max. 12 A		
Material group	IEC 60664-1, category III		
Connection cross section	max. 1.5 mm²		
Coding	S-coded		
Sealing range (cable Ø)	8...10 mm		
Locking of ports	Screw thread M12 × 1 mm (recommended torque 0.6 Nm) self-securing		
Protection	IP67 inserted and tightened (EN 60529)		
Material	PA		
suitable for corrugated tube (internal Ø)	without		
Temperature range	-40...+85 °C		
Article No.			
The composition of your article number is explained on page 3.1.i	7 0 0 0 - - 0 0 0 0 0 0 0		
	1 Form		
Notes	Other versions on request.		

ROUND PLUG CONNECTORS POWER

Field-wireable

– M12 Power

– Screw terminals

Approvals: 

Male

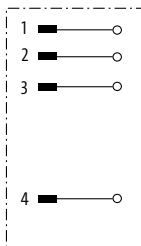
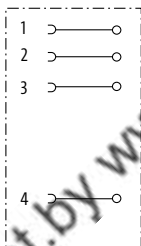
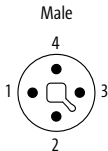
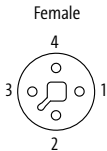
straight



Female

straight



1	Form	P7391	P7411
Type	4-pole	4-pole	4-pole
	T-coded	T-coded	T-coded
Circuit diagram			
Sealing range (cable Ø)	8...10 mm		
Contact layout	Male 	Female 	
Technical Data			
Operating voltage	max. 63 V AC/DC		
Rated surge voltage	1.5 kV		
Operating current per contact	max. 12 A		
Material group	IEC 60664-1, category III		
Connection cross section	max. 1.5 mm ²		
Coding	T-coded		
Sealing range (cable Ø)	8...10 mm		
Locking of ports	Screw thread M12 × 1 mm (recommended torque 0.6 Nm) self-securing		
Protection	IP67 inserted and tightened (EN 60529)		
Material	PA		
suitable for corrugated tube (internal Ø)	without		
Compression gland	M12 (SW18)		
Temperature range	-40...+85 °C		
Article No.			
The composition of your article number is explained on page 3.1.i	7 0 0 0 - - 0 0 0 0 0 0 0		
	1 Form		
Notes	Other versions on request.		

ROUND PLUG CONNECTORS POWER

Field-wireable

– M12 Power

– IDC terminals

Male

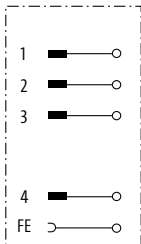
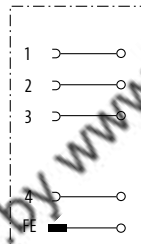
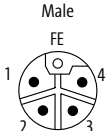
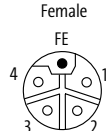
straight



Female

straight



1 Form		P4391	P4421
Type		5-pole L-coded	5-pole L-coded
Circuit diagram			
Contact layout		Male 	Female 
Technical Data			
Operating voltage		max. 63 V DC	
Operating current per contact		max. 12 A	
Connection cross section		max. 1.5 mm ²	
Coding		L-coded	
Sealing range (cable Ø)		5.8...13.5 mm	
Locking of ports		Screw thread M12 × 1 mm (recommended torque 0.6 Nm) self-securing	
Compression gland		M12 (SW17)	
Protection		IP65 and IP67 when plugged and screwed down (EN 60529)	
Material		Zinc die casting	
suitable for corrugated tube (internal Ø)		without	
Mating cycles		≥ 500	
Temperature range		-40...+85 °C	
Article No.			
The composition of your article number is explained on page 3.1.i		7 0 0 0	0 0 0 0
		1 Form	
Notes		Other versions on request.	

ROUND PLUG CONNECTORS POWER

With open ended wires

– MQ15 X-Power

Male

straight



1	Form	P 8101		P 8101	
	Type	6-pole		6-pole	
		max. 13 A (Power); max. 10 A (Signal)		max. 16 A (Power); max. 10 A (Signal)	
	Circuit diagram	1 black 1 2 black 2 3 black 3 PE green/yellow A black 4 B black 5			
	Contact layout	Male 1 2 3 A B			
2	Cable Type	Jacket Color		Jacket Color	
	Wire diameter 1.5 mm ²				
	PVC (UL)				
	PUR (UL), C-tracks				
	Wire diameter 2.5 mm ²				
	PUR (UL), C-tracks				
	PVC (UL)				
3	Cable Length				
	1.0 m	0100			
	2.0 m	0200			
	3.0 m	0300			
	5.0 m	0500			
	10.0 m	1000			
	Technical Data				
	Operating voltage	max. 600 V AC (Power); max. 63 V AC/DC (Signal)			
	Protection	IP67 inserted and tightened (EN 60529)			
	Temperature range	-25...+80 °C, depending on cable quality			
	Article No.				
	The composition of your article number is explained on page 3.1.i				

ROUND PLUG CONNECTORS POWER

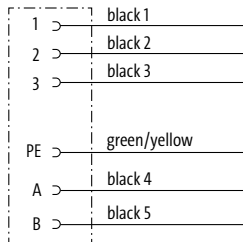
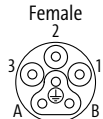
With open ended wires

– MQ15 X-Power

Female

straight



1 Form		P 8121	P 8121
Type		6-pole max. 13 A (Power); max. 10 A (Signal)	6-pole max. 16 A (Power); max. 10 A (Signal)
Circuit diagram			
Contact layout			
2 Cable Type		Jacket Color	Jacket Color
Wire diameter 1.5 mm ²		black	black
PVC (UL)		P24	
PUR (UL), C-tracks		P84	
Wire diameter 2.5 mm ²			
PUR (UL), C-tracks			P01
PVC (UL)			P21
3 Cable Length			
1.0 m		0100	
2.0 m		0200	
3.0 m		0300	
5.0 m		0500	
10.0 m		1000	
Technical Data			
Operating voltage		max. 600 V AC (Power); max. 63 V AC/DC (Signal)	
Protection		IP67 inserted and tightened (EN 60529)	
Temperature range		-25...+80 °C, depending on cable quality	
Article No.			
The composition of your article number is explained on page 3.1.i		7 0 0 0	
		1 Form	2 Cable Type
		3 Cable Length	
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

ROUND PLUG CONNECTORS POWER

With open ended wires

– MQ15 X-Power

Male

straight



1 Form

P 8 2 0 1

P 8 2 0 1

Type

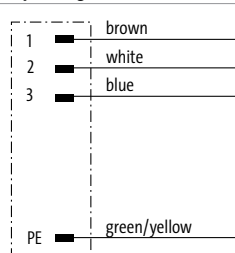
4-pole

4-pole

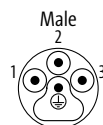
Operating current: max. 13 A

Operating current: max. 16 A

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.5 mm²

PVC (UL)

PUR (UL), C-tracks

Wire diameter 2.5 mm²

PUR (UL), C-tracks

PVC (UL)

black

P22

P02

black

P03

P23

3 Cable Length

1.0 m

0100

2.0 m

0200

3.0 m

0300

5.0 m

0500

10.0 m

1000

Technical Data

Operating voltage

max. 600 V AC

Protection

IP67 inserted and tightened (EN 60529)

Temperature range

-25...+80 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 0 0 0

-

-

1

Form

2

Cable Type

3

Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

ROUND PLUG CONNECTORS POWER

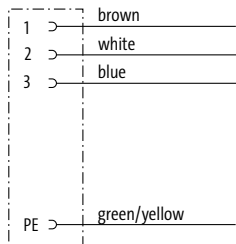
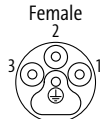
With open ended wires

– MQ15 X-Power

Female

straight



1 Form		P 8 2 2 1	P 8 2 2 1
Type		4-pole Operating current: max. 13 A	4-pole Operating current: max. 16 A
Circuit diagram			
Contact layout			
2 Cable Type		Jacket Color	Jacket Color
Wire diameter 1.5 mm ²		black	black
PVC (UL)		P22	
PUR (UL), C-tracks		P02	
Wire diameter 2.5 mm ²			
PUR (UL), C-tracks			P03
PVC (UL)			P23
3 Cable Length			
1.0 m		0100	
2.0 m		0200	
3.0 m		0300	
5.0 m		0500	
10.0 m		1000	
Technical Data			
Operating voltage		max. 600 V AC	
Protection		IP67 inserted and tightened (EN 60529)	
Temperature range		-25...+80 °C, depending on cable quality	
Article No.			
The composition of your article number is explained on page 3.1.i		7 0 0 0 - - - - - - - - - -	- - - - -
		1 Form	2 Cable Type
			3 Cable Length
Notes			
		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

ROUND PLUG CONNECTORS POWER

With open ended wires

– MQ15 X-Power

Female

90°



1 Form

P 8131

P 8131

Type

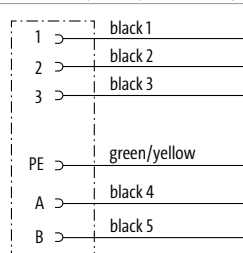
6-pole

6-pole

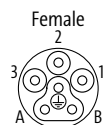
max. 13 A (Power); max. 10 A (Signal)

max. 16 A (Power); max. 10 A (Signal)

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.5 mm²

PVC (UL)

PUR (UL), C-tracks

Wire diameter 2.5 mm²

PUR (UL), C-tracks

PVC (UL)

black

P24

P84

black

P01

P21

3 Cable Length

1.0 m

0100

2.0 m

0200

3.0 m

0300

5.0 m

0500

10.0 m

1000

Technical Data

Operating voltage

max. 600 V AC (Power); max. 63 V AC/DC (Signal)

Protection

IP67 inserted and tightened (EN 60529)

Temperature range

-25...+80 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 0 0 0

-

-

1

Form

2

Cable Type

3

Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

ROUND PLUG CONNECTORS POWER

With open ended wires

– MQ15 X-Power

Female

90°



1	Form	P 8132	P 8132
	Type	6-pole	6-pole
		max. 13 A (Power); max. 10 A (Signal)	max. 16 A (Power); max. 10 A (Signal)
	Circuit diagram	1 2 3 PE A B black 1 black 2 black 3 green/yellow black 4 black 5	
	Contact layout	Female 2 3 1 A B	
2	Cable Type	Jacket Color	Jacket Color
	Wire diameter 1.5 mm²	black	black
	PVC (UL)	P24	
	PUR (UL), C-tracks	P84	
	Wire diameter 2.5 mm²		
	PUR (UL), C-tracks		P01
	PVC (UL)		P21
3	Cable Length		
	1.0 m	0100	
	2.0 m	0200	
	3.0 m	0300	
	5.0 m	0500	
	10.0 m	1000	
	Technical Data		
	Operating voltage	max. 600 V AC (Power); max. 63 V AC/DC (Signal)	
	Protection	IP67 inserted and tightened (EN 60529)	
	Temperature range	-25...+80 °C, depending on cable quality	
	Article No.		
	The composition of your article number is explained on page 3.1.i	7 0 0 0 - -	
		1	Form
		2	Cable Type
		3	Cable Length
	Notes		
	Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.		

ROUND PLUG CONNECTORS POWER

With open ended wires

– MQ15 X-Power

Male

90°



1	Form	P 8 2 1 1					
	Type	4-pole					
		Operating current: max. 13 A					
	Circuit diagram	1 2 3 black (1) black (2) black (3) PE green/yellow					
	Contact layout	Male 1 2 3					
2	Cable Type	Jacket Color					
	Wire diameter 1.5 mm²	black					
	PVC (UL)	P22					
3	Cable Length						
	1.0 m	0100					
	2.0 m	0200					
	3.0 m	0300					
	5.0 m	0500					
	10.0 m	1000					
	Technical Data						
	Operating voltage	max. 600 V AC					
	Protection	IP67 inserted and tightened (EN 60529)					
	Temperature range	-25...+80 °C, depending on cable quality					
	Article No.						
	The composition of your article number is explained on page 3.1.i	7 0 0 0 - P 8 2 1 1 -					
		1	Form	2	Cable Type	3	Cable Length
	Notes	Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.					

ROUND PLUG CONNECTORS POWER

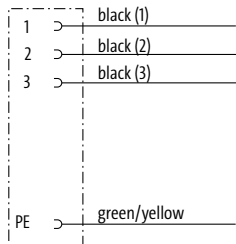
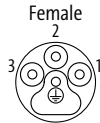
With open ended wires

– MQ15 X-Power

Female

90°



1 Form		P 8 2 3 1	P 8 2 3 1
Type		4-pole Operating current: max. 13 A	4-pole Operating current: max. 16 A
Circuit diagram			
Contact layout			
2 Cable Type		Jacket Color	Jacket Color
Wire diameter 1.5 mm²		black	black
PVC (UL)		P22	
PUR (UL), C-tracks		P02	
Wire diameter 2.5 mm²			
PUR (UL), C-tracks			P03
PVC (UL)			P23
3 Cable Length			
1.0 m		0100	
2.0 m		0200	
3.0 m		0300	
5.0 m		0500	
10.0 m		1000	
Technical Data			
Operating voltage		max. 600 V AC	
Protection		IP67 inserted and tightened (EN 60529)	
Temperature range		-25...+80 °C, depending on cable quality	
Article No.			
The composition of your article number is explained on page 3.1.i		7 0 0 0	
		1 Form	2 Cable Type
		3 Cable Length	
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

ROUND PLUG CONNECTORS POWER

With open ended wires

– MQ15 X-Power

Female

90°



1 Form

P 8 2 3 2

P 8 2 3 2

Type

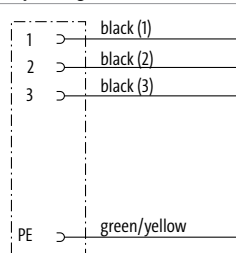
4-pole

4-pole

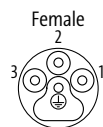
Operating current: max. 13 A

Operating current: max. 16 A

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.5 mm²

PVC (UL)

PUR (UL), C-tracks

Wire diameter 2.5 mm²

PUR (UL), C-tracks

PVC (UL)

black

P22

P02

black

P03

P23

3 Cable Length

1.0 m

0100

2.0 m

0200

3.0 m

0300

5.0 m

0500

10.0 m

1000

Technical Data

Operating voltage

max. 600 V AC

Protection

IP67 inserted and tightened (EN 60529)

Temperature range

-25...+80 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 0 0 0

-

-

1

Form

2

Cable Type

3

Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

ROUND PLUG CONNECTORS POWER

With open ended wires

– MQ15 X-Power

Male

straight



Female

straight



1 Form

P 8301

P 8321

Type

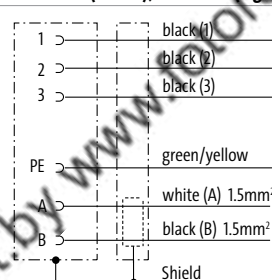
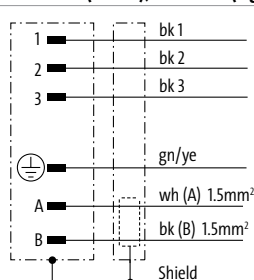
6-pole, shielded

6-pole, shielded

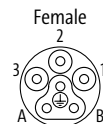
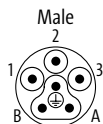
max. 16 A (Power); max. 10 A (Signal)

max. 16 A (Power); max. 10 A (Signal)

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

4×2.5 + 2×1.5 mm²

PUR (UL), C-tracks

orange

P11

orange

P11

3 Cable Length

1.0 m

0100

2.0 m

0200

3.0 m

0300

5.0 m

0500

10.0 m

1000

Technical Data

Operating voltage

max. 600 V AC (Power); max. 63 V AC/DC (Signal)

Protection

IP67 inserted and tightened (EN 60529)

Temperature range

-25...+80 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 0 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

ROUND PLUG CONNECTORS POWER

With open ended wires

– MQ15 X-Power

Male

straight



1	Form	P 8 0 0 1		P 8 0 0 1	
	Type	4-pole, shielded		4-pole, shielded	
		Operating current: max. 13 A		Operating current: max. 16 A	
	Circuit diagram				
	Contact layout				
2	Cable Type	Jacket Color		Jacket Color	
	Wire diameter 1.5 mm² PUR (UL), C-tracks	orange P12		orange	
	Wire diameter 2.5 mm² PUR (UL), C-tracks			P13	
3	Cable Length				
	1.0 m	0100			
	2.0 m	0200			
	3.0 m	0300			
	5.0 m	0500			
	10.0 m	1000			
	Technical Data				
	Operating voltage	max. 600 V AC			
	Protection	IP67 inserted and tightened (EN 60529)			
	Temperature range	-25...+80 °C, depending on cable quality			
	Article No.				
	The composition of your article number is explained on page 3.1.i	7 0 0 0 - -			
		1 Form		2 Cable Type	
				3 Cable Length	
	Notes	Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.			

ROUND PLUG CONNECTORS POWER

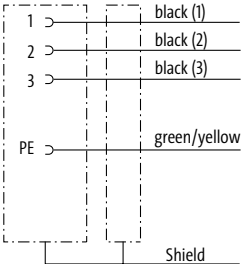
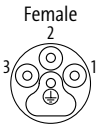
With open ended wires

– MQ15 X-Power

Female

straight



1	Form	P 8 0 2 1		P 8 0 2 1	
	Type	4-pole, shielded		4-pole, shielded	
		Operating current: max. 13 A		Operating current: max. 16 A	
Circuit diagram					
	Contact layout				
2	Cable Type	Jacket Color		Jacket Color	
	Wire diameter 1.5 mm² PUR (UL), Ctracks	orange P12		orange	
	Wire diameter 2.5 mm² PUR (UL), Ctracks			P13	
3	Cable Length				
	1.0 m 2.0 m 3.0 m 5.0 m 10.0 m	0100 0200 0300 0500 1000			
Technical Data					
Operating voltage		max. 600 V AC			
Protection		IP67 inserted and tightened (EN 60529)			
Temperature range		-25...+80 °C, depending on cable quality			
Article No.					
The composition of your article number is explained on page 3.1.i		7 0 0 0 - - - - - - - - - -			
		1 Form 2 Cable Type 3 Cable Length			
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.			

ROUND PLUG CONNECTORS POWER

With open ended wires

– MQ15 X-Power

Female

90°



1 Form

P 8331

P 8332

Type

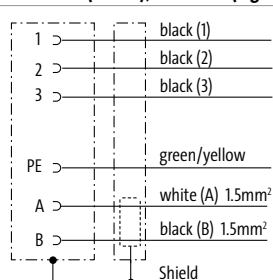
6-pole, shielded

6-pole, shielded

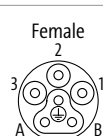
max. 16 A (Power); max. 10 A (Signal)

max. 16 A (Power); max. 10 A (Signal)

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

4×2.5 + 2×1.5 mm²

orange

orange

PUR (UL), C-tracks

P11

P11

3 Cable Length

1.0 m

0100

2.0 m

0200

3.0 m

0300

5.0 m

0500

10.0 m

1000

Technical Data

Operating voltage

max. 600 V AC (Power); max. 63 V AC/DC (Signal)

Protection

IP67 inserted and tightened (EN 60529)

Temperature range

-25...+80 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 0 0 0

-

-

1

Form

2

Cable Type

3

Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

ROUND PLUG CONNECTORS POWER

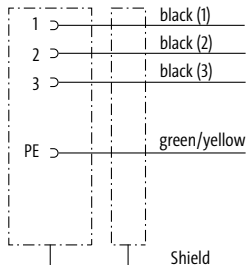
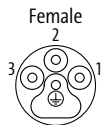
With open ended wires

– MQ15 X-Power

Female

90°



1 Form		P 8 0 3 1	P 8 0 3 1
Type		4-pole, shielded Operating current: max. 13 A	4-pole, shielded Operating current: max. 16 A
Circuit diagram			
Contact layout			
2 Cable Type		Jacket Color	Jacket Color
Wire diameter 1.5 mm² PUR (UL), C-tracks		orange P12	orange
Wire diameter 2.5 mm² PUR (UL), C-tracks			P13
3 Cable Length			
1.0 m		0100	
2.0 m		0200	
3.0 m		0300	
5.0 m		0500	
10.0 m		1000	
Technical Data			
Operating voltage		max. 600 V AC	
Protection		IP67 inserted and tightened (EN 60529)	
Temperature range		-25...+80 °C, depending on cable quality	
Article No.			
The composition of your article number is explained on page 3.1.i		7 0 0 0 - - - - -	- - - - -
		1 Form	2 Cable Type
			3 Cable Length
Notes			
		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

ROUND PLUG CONNECTORS POWER

With open ended wires

– MQ15 X-Power

Female

90°



1 Form

P 8 0 3 2

P 8 0 3 2

Type

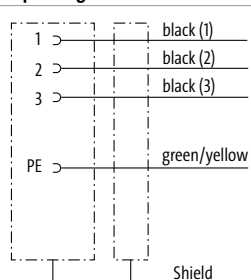
4-pole, shielded

4-pole, shielded

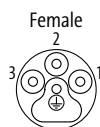
Operating current: max. 13 A

Operating current: max. 16 A

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.5 mm²

PUR (UL), C-tracks

orange

orange

Wire diameter 2.5 mm²

PUR (UL), C-tracks

P12

P13

3 Cable Length

1.0 m

0100

2.0 m

0200

3.0 m

0300

5.0 m

0500

10.0 m

1000

Technical Data

Operating voltage

max. 600 V AC

Protection

IP67 inserted and tightened (EN 60529)

Temperature range

-25...+80 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 0 0 0

-

-

1

Form

2

Cable Type

3

Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

ROUND PLUG CONNECTORS POWER

Connection cables

– MQ15 X-Power

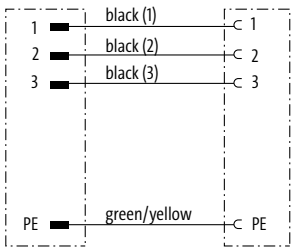
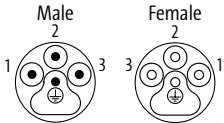
Male

straight

Female

straight



1 Form		P 8 2 4 1	P 8 2 4 1
Type		4-pole Operating current: max. 13 A	4-pole Operating current: max. 16 A
Circuit diagram			
Contact layout			
2 Cable Type		Jacket Color	Jacket Color
Wire diameter 1.5 mm ²		black	black
PVC (UL)		P22	
PUR (UL), C-tracks		P02	
Wire diameter 2.5 mm ²			
PUR (UL), C-tracks			P03
PVC (UL)			P23
3 Cable Length			
1.0 m		0100	
2.0 m		0200	
3.0 m		0300	
5.0 m		0500	
10.0 m		1000	
Technical Data			
Operating voltage		max. 600 V AC	
Protection		IP67 inserted and tightened (EN 60529)	
Temperature range		-25...+80 °C, depending on cable quality	
Article No.			
The composition of your article number is explained on page 3.1.i		7 0 0 0 - - - - -	- - - - -
		1 Form	2 Cable Type
			3 Cable Length
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

ROUND PLUG CONNECTORS POWER

Connection cables

– MQ15 X-Power

Male

straight

Female

straight



1 Form

P 8141

P 8141

Type

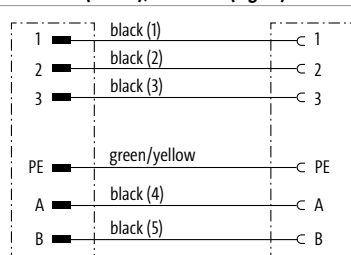
6-pole

6-pole

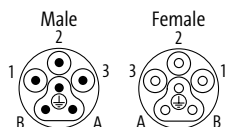
max. 13 A (Power); max. 10 A (Signal)

max. 16 A (Power); max. 10 A (Signal)

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.5 mm²

PVC (UL)

PUR (UL), C-tracks

Wire diameter 2.5 mm²

PUR (UL), C-tracks

PVC (UL)

black

P24

P84

black

P01

P21

3 Cable Length

1.0 m

0100

2.0 m

0200

3.0 m

0300

5.0 m

0500

10.0 m

1000

Technical Data

Operating voltage

max. 600 V AC (Power); max. 63 V AC/DC (Signal)

Protection

IP67 inserted and tightened (EN 60529)

Temperature range

-25...+80 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 0 0 0

–

–

–

–

–

1

Form

2

Cable Type

3

Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

ROUND PLUG CONNECTORS POWER

Connection cables

– MQ15 X-Power

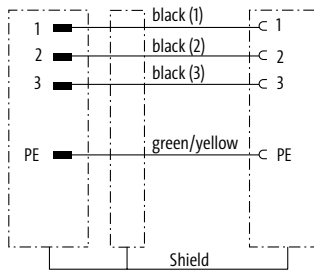
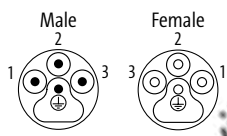
Male

straight

Female

straight



1 Form		P 8 0 4 1	P 8 0 4 1
Type		4-pole, shielded Operating current: max. 13 A	4-pole, shielded Operating current: max. 16 A
Circuit diagram			
Contact layout			
2 Cable Type		Jacket Color	Jacket Color
Wire diameter 1.5 mm ² PUR (UL), C-tracks		orange P12	orange
Wire diameter 2.5 mm ² PUR (UL), C-tracks			P13
3 Cable Length			
1.0 m		0100	
2.0 m		0200	
3.0 m		0300	
5.0 m		0500	
10.0 m		1000	
Technical Data			
Operating voltage		max. 600 V AC	
Protection		IP67 inserted and tightened (EN 60529)	
Temperature range		-25...+80 °C, depending on cable quality	
Article No.			
The composition of your article number is explained on page 3.1.i		7 0 0 0 - - - - -	- - - - -
		1 Form	2 Cable Type
			3 Cable Length
Notes			
		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

ROUND PLUG CONNECTORS POWER

Connection cables

– MQ15 X-Power

Male straight

Female straight



1	Form	P 8 3 4 1		
	Type	6-pole, shielded		
		max. 16 A (Power); max. 10 A (Signal)		
	Circuit diagram			
	Contact layout			
2	Cable Type	Jacket Color		
	4×2.5 + 2×1.5 mm²	orange		
	PUR (UL), C-tracks	P11		
3	Cable Length			
	1.0 m	0100		
	2.0 m	0200		
	3.0 m	0300		
	5.0 m	0500		
	10.0 m	1000		
Technical Data				
	Operating voltage	max. 600 V AC (Power); max. 63 V AC/DC (Signal)		
	Protection	IP67 inserted and tightened (EN 60529)		
	Temperature range	-25...+80 °C, depending on cable quality		
Article No.				
	The composition of your article number is explained on page 3.1.i	7 0 0 0 - P 8 3 4 1 - - - -		
		1 Form 2 Cable Type 3 Cable Length		
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.		

ROUND PLUG CONNECTORS POWER

With open ended wires

– 7/8"

Approvals:

* only for products with UL/CSA approved cable

Female
straight



Female
90°



1 Form		78021	78051
Type		5-pole Power cable	5-pole Power cable
Circuit diagram			
Contact layout			
2 Cable Type		Jacket Color	Jacket Color
Wire diameter 1.0 mm² PUR/PVC		gray 965	gray 965
Wire diameter 2.5 mm² PUR (UL/CSA), robots/C-tracks		962	962
Wire diameter 1.5 mm² PUR (UL/CSA), robots/C-tracks		961	961
3 Cable Length			
1.5 m		0150	
3.0 m		0300	
5.0 m		0500	
7.5 m		0750	
10.0 m		1000	
Technical Data			
Operating voltage		max. 230/400 V AC/DC	
Protection		IP67 inserted and tightened (EN 60529)	
Temperature range		-25...+85 °C, depending on cable quality	
Article No.			
The composition of your article number is explained on page 3.1.i		7 0 0 0	
		1 Form	2 Cable Type
			3 Cable Length
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

ROUND PLUG CONNECTORS POWER

Connection cables

– 7/8"

Approvals: 

* only for products with UL/CSA approved cable

Male

straight



Female

straight

Male

90°



Female

90°

1 Form

50 021

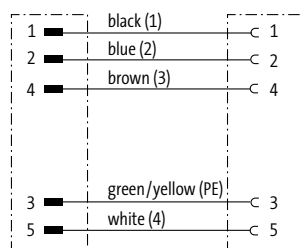
50 051

Type

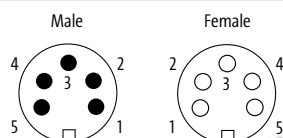
5-pole

5-pole

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.0 mm²

PUR/PVC

gray

965

gray

965

Wire diameter 2.5 mm²

PUR (UL/CSA), robots/C-tracks

962

962

Wire diameter 1.5 mm²

PUR (UL/CSA), robots/C-tracks

961

961

3 Cable Length

0.3 m

0030

0.6 m

0060

1.0 m

0100

1.5 m

0150

2.0 m

0200

Technical Data

Operating voltage

max. 230/400 V AC/DC

Protection

IP67 inserted and tightened (EN 60529)

Temperature range

-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 0 0 0

-

-

1

Form

2

Cable Type

3

Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

ROUND PLUG CONNECTORS POWER

Field-wireable

– 7/8"

– Screw terminals

Approvals:  **us**

Male

straight



Male

90°



1 Form		78081	me✕	78101	me✕	78141	me✕
Type	5-pole		5-pole		5-pole		
Circuit diagram	1 2 4 3 5						
Sealing range (cable Ø)	6...8 mm		10...12 mm		6...8.7 mm		
Contact layout	Male 4 3 2 5 1						
Technical Data							
Operating voltage	max. 250 V AC/DC						
Operating current per contact	max. 9 A						
Connection cross section	max. 1.5 mm²						
Sealing range (cable Ø)	6...8 mm		10...12 mm		6...8.7 mm		
Locking of ports	Screw thread 7/8" (recommended torque 1.5 Nm) self-securing						
Protection	IP67 inserted and tightened (EN 60529)						
Temperature range	-25...+85 °C						
Article No.							
The composition of your article number is explained on page 3.1.i	7 0 0 0		— — — — —		0 0 0		0 0 0 0
			1 Form				
Notes							
Other versions on request.							

ROUND PLUG CONNECTORS POWER

Field-wireable

– 7/8"

– Screw terminals

Approvals:  **us**

Female

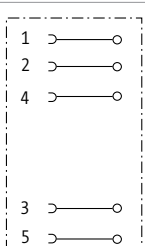
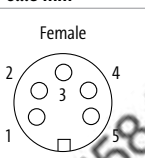
straight



Female

90°



1	Form	78201	me✖	78221	me✖	78261	me✖
Type		5-pole		5-pole		5-pole	
Circuit diagram							
Sealing range (cable Ø)		6...8 mm		10...12 mm		6...8.7 mm	
Contact layout							
Technical Data							
Operating voltage		max. 250 V AC/DC					
Operating current per contact		max. 9 A					
Connection cross section		max. 1.5 mm²					
Sealing range (cable Ø)		6...8 mm		10...12 mm		6...8.7 mm	
Protection		IP67 inserted and tightened (EN 60529)					
Locking of ports		Screw thread 7/8" (recommended torque 1.5 Nm) self-securing					
Locking material		Zinc die casting, matte nickel plated					
Temperature range		-25...+85 °C					
Article No.							
The composition of your article number is explained on page 3.1.i		7 0 0 0 - - 0 0 0 0 0 0 0					
		1 Form					
Notes							
		Other versions on request.					

ROUND PLUG CONNECTORS POWER

Field-wireable

– 7/8"

– IDC terminals

Male

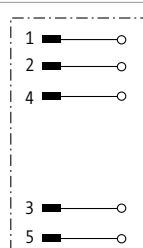
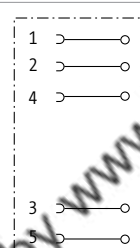
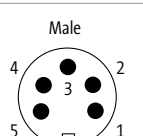
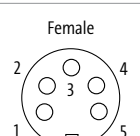
straight



Female

straight



1	Form	78091	me	78211	me
Type		5-pole		5-pole	
Circuit diagram					
Connection cross section		0.75...1.5 mm ²			
Contact layout		Male 		Female 	
Technical Data					
Operating voltage		max. 230/400 V AC/DC			
Rated surge voltage		4 kV			
Operating current per contact		max. 10 A			
Material group		IEC 60664-1, category I			
Connection cross section		0.75...1.5 mm ² (conductor diameter min. 0.15 mm)			
Coding		A-coded, 5-pole			
Sealing range (cable Ø)		6.8...9.5 mm			
Wire isolation		PVC, PP, TPE			
Outer wire Ø		max. 2.8 mm			
Locking of ports		Screw thread 7/8" (recommended torque 1.5 Nm) self-securing			
Protection		IP65 and IP67 when plugged and screwed down (EN 60529)			
Locking material		Brass			
Temperature range		-40...+85 °C			
Article No.					
The composition of your article number is explained on page 3.1.i		7 0 0 0 - - - - -		0 0 0 0 0 0 0 0	
		1 Form			
Notes					
Other versions on request.					

ROUND PLUG CONNECTORS POWER

Connection accessories			Art-No.
	Flange 7/8" male, pre-wired 0.2 m		
	5-pole	7/8" Round Plug Connectors	7000-78341-9780020
	Flange 7/8" female, pre-wired 0.2 m		
	5-pole	7/8" Round Plug Connectors	7000-78381-9780020
	Control cabinet entry system 7/8"		
		7/8" Round Plug Connectors Ethernet CAT5	7000-50111-0000000
	T-coupler 7/8"-7/8", female/male		
	5-pole		7000-50061-0000000
Mounting accessories			Art-No.
	Torque wrench set		
	7/8" (1.5 Nm, SW22)	7/8" data connenctor moulded (IDC terminal)	7000-99104-0000000
	Torque wrench set		
	7/8" (1.5 Nm, SW24)	7700-XXXXX - 7/8" data connenctor moulded (screw terminals)	7000-99105-0000000
	Torque wrench		
	7/8" (1.5 Nm, SW22)	7/8" data connenctor moulded (IDC terminal)	7000-99096-0000000
	Torque wrench		
	7/8" (1.5 Nm, SW24)	7700-XXXXX - 7/8" data connenctor moulded (screw terminals)	7000-99097-0000000



TPE SERIES – THE NORTH AMERICAN STANDARD

- Product range RJ45, M12, 7/8"
- High material resistance
- Reliable – 100% tested

FROM SIGNAL AND DATA TO POWER

Our Ethernet products developed for the requirements of the North American market use shielded UL-approved cables and are approved for a voltage of 600 V.

The 4- and 8-pole cables are available in a great variety of configurations. The three cable types are suitable for moving applications, fulfil the CAT5 requirements and are resistant against different media such as welding sparks, oils and UV radiation. The S7V cable is ITC/PLTC/CMX-Outdoor-approved and suitable for PROFINET.

The MINI-A (7/8") cables are the perfect solution for current and switching circuit connections. The cables are cULus-listed. Available with 3, 4 and 5 pole and all configurations of head types. The range of 600 V cables in AWG 16 includes a TC-ER-approved TPR variant with flame resistance FT4 and a halogen-free PUR type.

Signal



M12 male
• Straight
• 90°

Page 3.11.1



M12 female
• Straight
• 90°

Page 3.11.3



M12 male
• Straight
• 90°

M12 female
• Straight
• 90°

Page 3.11.5

Data



M12 male (shielded)

- Straight
- 90°

EtherNet/IP
PROFINET
EtherCAT

Page 3.11.9



M12 female flange plug (shielded)

- Straight

EtherNet/IP
PROFINET

Page 3.11.11



RJ45 male (shielded)

- Straight

EtherNet/IP
PROFINET

Page 3.11.12

EtherNet/IP

PROFINET

EtherCAT



M12 male (shielded)

- Straight
- 90°

M12 female flange plug (shielded)

- Straight

RJ45 male (shielded)

- Straight

M12 male (shielded)

- Straight
- 90°

M12 female (shielded)

- Straight

M12 female flange plug (shielded)

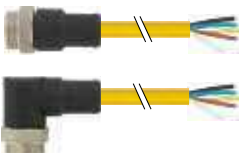
- Straight

RJ45 male (shielded)

- Straight

Page 3.11.17

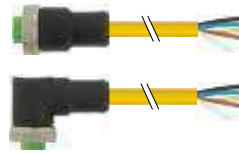
Power



7/8" MINI male

- Straight
- 90°

Page 3.11.36



7/8" MINI female

- Straight
- 90°

Page 3.11.42



7/8" MINI male

- Straight
- 90°

7/8" MINI female

- Straight
- 90°

Page 3.11.48

TPE SERIES - THE NORTH AMERICAN STANDARD

With open ended wires M12

– ITC, PLTC cable

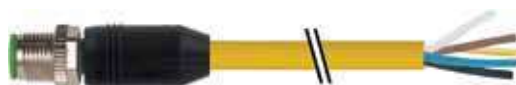
– Signal

Approvals: ^{*}
Listed

^{*} only for products with UL/CSA approved cable

Male

straight



Male

90°



1	Form	12021	12101
	Type	4-pole	4-pole
	Circuit diagram	1 2 4 brown (+) white (N/C) black (N/O) 3 blue (-)	
	Contact layout	Male 4 3 1 2	
2	Cable Type	Jacket Color	Jacket Color
	Wire diameter 0.75 mm ²	yellow	yellow
	TPE (UL/CSA), welding spark, C-tracks	150	150
3	Cable Length		
	1.5 m	0150	
	3.0 m	0300	
	5.0 m	0500	
	7.5 m	0750	
	10.0 m	1000	
	Technical Data		
	Operating voltage	max. 250 V AC/DC	
	Protection	IP65, IP66K, IP67 inserted and tightened (EN 60529)	
	Temperature range	-25...+85 °C, depending on cable quality	
	Article No.		
	The composition of your article number is explained on page 3.1.i	7 7 0 0 - -	
		1 Form	2 Cable Type
			3 Cable Length
	Notes		
		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

TPE SERIES - THE NORTH AMERICAN STANDARD

With open ended wires M12

– ITC, PLTC cable

– Signal

Approvals:  ^{*}
Listed

^{*} only for products with UL/CSA approved cable

Male

straight



Male

90°



1 Form

12041

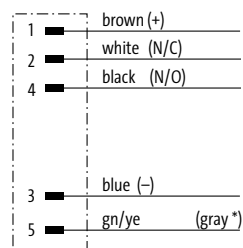
12121

Type

5-pole

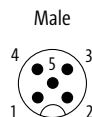
5-pole

Circuit diagram



(* for cable type 162)

Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 0.75 mm²

TPE (UL/CSA), welding spark, C-tracks

yellow

161 (162)

yellow

161 (162)

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 125 V AC/DC

Protection

IP65, IP66K, IP67 inserted and tightened (EN 60529)

Temperature range

-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

-

-

1

Form

2

Cable Type

3

Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

With open ended wires M12

– ITC, PLTC cable

– Signal

Approvals: 

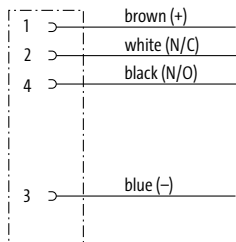
* only for products with UL/CSA approved cable

Female
straight



Female
90°



1 Form		12221	12341
Type		4-pole	4-pole
Circuit diagram			
Contact layout	Female 		
2 Cable Type		Jacket Color	Jacket Color
Wire diameter 0.75 mm²		yellow	yellow
TPE (UL/CSA), welding spark, C-tracks		150	150
3 Cable Length			
1.5 m		0150	
3.0 m		0300	
5.0 m		0500	
7.5 m		0750	
10.0 m		1000	
Technical Data			
Operating voltage		max. 250 V AC/DC	
Protection		IP65, IP66K, IP67 inserted and tightened (EN 60529)	
Temperature range		-25...+85 °C, depending on cable quality	
Article No.			
The composition of your article number is explained on page 3.1.i		7 7 0 0 - - - - -	- - - - -
		1 Form	2 Cable Type 3 Cable Length
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

TPE SERIES - THE NORTH AMERICAN STANDARD

With open ended wires M12

– ITC, PLTC cable

– Signal

Approvals:  ^{*}
Listed

^{*} only for products with UL/CSA approved cable

Female

straight



Female

90°



1 Form

12241

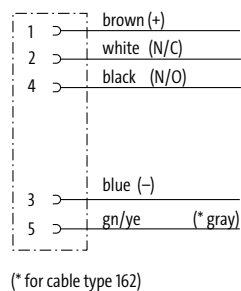
12361

Type

5-pole

5-pole

Circuit diagram



Contact layout

Female



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 0.75 mm²

TPE (UL/CSA), welding spark, C-tracks

yellow

161 (162)

yellow

161 (162)

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 125 V AC/DC

Protection

IP65, IP66K, IP67 inserted and tightened (EN 60529)

Temperature range

-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

-

-

1

Form

2

Cable Type

3

Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables M12 - M12

– ITC, PLTC cable

– Signal

Male
straight

Female
straight

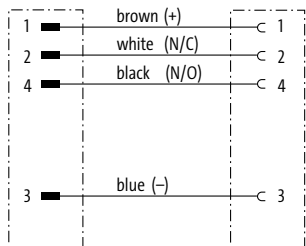
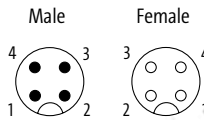
Male
straight

Female
90°



Approvals: 

* only for products with UL/CSA approved cable

1 Form		40021	40121
Type		4-pole	4-pole
Circuit diagram			
Contact layout			
2 Cable Type		Jacket Color	Jacket Color
Wire diameter 0.75 mm²		yellow	yellow
TPE (UL/CSA), welding spark, C-tracks		150	150
3 Cable Length			
0.3 m		0030	
0.6 m		0060	
1.0 m		0100	
1.5 m		0150	
2.0 m		0200	
Technical Data			
Operating voltage		max. 250 V AC/DC	
Protection		IP65, IP66K, IP67 inserted and tightened (EN 60529)	
Temperature range		-25...+85 °C, depending on cable quality	
Article No.			
The composition of your article number is explained on page 3.1.i		7 7 0 0	
		1 Form	2 Cable Type
		3 Cable Length	
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables M12 - M12

– ITC, PLTC cable

– Signal

Approvals:  ^{*}
Listed

^{*} only for products with UL/CSA approved cable

Male

90°

Female

straight



Male

90°

Female

90°



1 Form

4 0 2 0 1

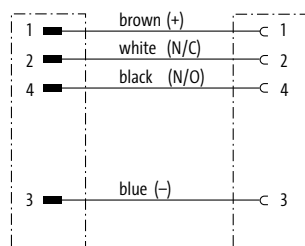
4 0 2 6 1

Type

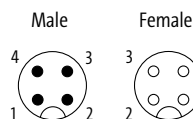
4-pole

4-pole

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 0.75 mm²

yellow

yellow

TPE (UL/CSA), welding spark, C-tracks

150

150

3 Cable Length

0.3 m

0030

0.6 m

0060

1.0 m

0100

1.5 m

0150

2.0 m

0200

Technical Data

Operating voltage

max. 250 V AC/DC

Protection

IP65, IP66K, IP67 inserted and tightened (EN 60529)

Temperature range

-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

-

-

1

Form

2

Cable Type

3

Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables M12 - M12

– ITC, PLTC cable

– Signal

Male
straight

Female
straight

Male
straight

Female
90°



Approvals: ^{*}
Listed

* only for products with UL/CSA approved cable

1 Form		40041	40141
Type		5-pole	5-pole
Circuit diagram			
Contact layout			
2 Cable Type		Jacket Color	Jacket Color
Wire diameter 0.75 mm²		yellow	yellow
TPE (UL/CSA), welding spark, C-tracks		161 (162)	161 (162)
3 Cable Length			
0.3 m		0030	
0.6 m		0060	
1.0 m		0100	
1.5 m		0150	
2.0 m		0200	
Technical Data			
Operating voltage		max. 125 V AC/DC	
Protection		IP65, IP66K, IP67 inserted and tightened (EN 60529)	
Temperature range		-25...+85 °C, depending on cable quality	
Article No.			
The composition of your article number is explained on page 3.1.i		7 7 0 0 - - - - -	- - - - -
		1 Form	2 Cable Type 3 Cable Length
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables M12 - M12

– ITC, PLTC cable

– Signal

Approvals:  ^{*}
Listed

^{*} only for products with UL/CSA approved cable

Male

90°



Female

straight

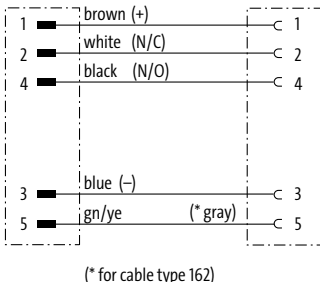
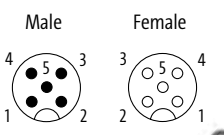
Male

90°



Female

90°

1 Form		4 0 2 2 1	4 0 2 8 1
Type		5-pole	5-pole
Circuit diagram			
Contact layout			
2 Cable Type		Jacket Color	Jacket Color
Wire diameter 0.75 mm ²		yellow	yellow
TPE (UL/CSA), welding spark, C-tracks		161 (162)	161 (162)
3 Cable Length			
0.3 m		0030	
0.6 m		0060	
1.0 m		0100	
1.5 m		0150	
2.0 m		0200	
Technical Data			
Operating voltage		max. 125 V AC/DC	
Protection		IP65, IP66K, IP67 inserted and tightened (EN 60529)	
Temperature range		-25...+85 °C, depending on cable quality	
Article No.			
The composition of your article number is explained on page 3.1.i		7 7 0 0	— — — —
		1 Form	2 Cable Type
		3 Cable Length	
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

TPE SERIES - THE NORTH AMERICAN STANDARD

with open ended wires RJ45

– CMX-Outdoor

– Data

EtherNet/IP™

Approvals: ^{*}
Listed

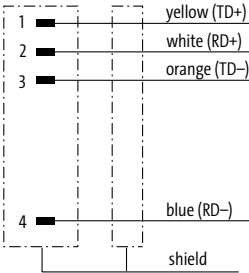
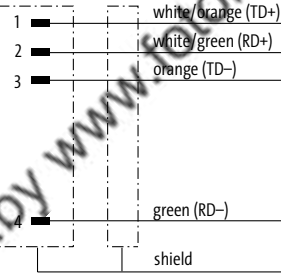
* only for products with UL/CSA approved cable

Male
straight
ITC, PLTC cable



Male
straight



1 Form		14541		14541	
Type		4-pole, shielded		4-pole, shielded	
D-coded				D-coded	
Circuit diagram					
Contact layout		Male 			
2 Cable Type		Jacket Color		Jacket Color	
2×2×0.34 mm²		green		blue	
TPE (UL/CSA), robots/C-tracks		S7V			
2×2×0.25 mm²				S4U	
TPE (UL/CSA), robots/C-tracks					
3 Cable Length					
1.5 m		0150			
3.0 m		0300			
5.0 m		0500			
7.5 m		0750			
10.0 m		1000			
Technical Data					
Operating voltage		max. 60 V DC			
Protection		IP65, IP66K, IP67 inserted and tightened (EN 60529)			
Temperature range		-25...+85 °C, depending on cable quality			
Article No.					
The composition of your article number is explained on page 3.1.i		7700 - -			
		1 Form		2 Cable Type	
				3 Cable Length	
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.			

TPE SERIES - THE NORTH AMERICAN STANDARD

with open ended wires RJ45

– CMX-Outdoor

– Data

PROFI[®] EtherNet/IP[™]

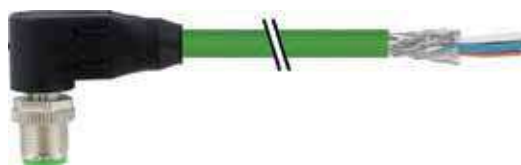
Approvals:  ^{*}
Listed

* only for products with UL/CSA approved cable

Male

90°

ITC, PLTC cable



Male

90°



1 Form

14561

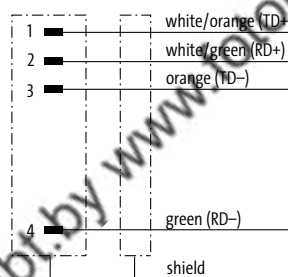
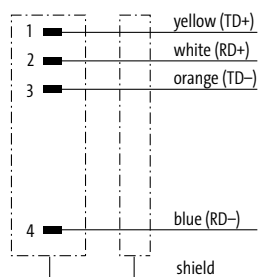
14561

Type

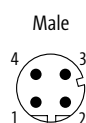
4-pole, shielded

4-pole, shielded

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

2×2×0.34 mm²

TPE (UL/CSA), robots/C-tracks

green

S7V

blue

2×2×0.25 mm²

TPE (UL/CSA), robots/C-tracks

S4U

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 60 V DC

Protection

IP65, IP66K, IP67 inserted and tightened (EN 60529)

Temperature range

-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

-

-

1

Form

2

Cable Type

3

Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

with open ended wires RJ45

– CMX-Outdoor

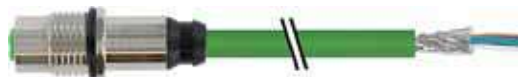
– Data

EtherNet/IP

Approvals:

Flange female

ITC, PLTC cable



Flange female



1 Form	14511	14511
Type	4-pole, shielded D-coded Rear mounting	4-pole, shielded D-coded Rear mounting
Circuit diagram		
Contact layout	Female 	
2 Cable Type	Jacket Color	Jacket Color
2×2×0.34 mm ² TPE (UL/CSA), robots/C-tracks	green S7V	blue S4U
2×2×0.25 mm ² TPE (UL/CSA), robots/C-tracks		
3 Cable Length		
1.5 m	0150	
3.0 m	0300	
5.0 m	0500	
7.5 m	0750	
10.0 m	1000	
Technical Data		
Operating voltage	max. 60 V DC	
Protection	IP67 inserted and tightened (EN 60529)	
Temperature range	-25...+85 °C, depending on cable quality	
Article No.		
The composition of your article number is explained on page 3.1.i	7 7 0 0 - - - - -	- - - - -
	1 Form	2 Cable Type 3 Cable Length
Notes	Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

TPE SERIES - THE NORTH AMERICAN STANDARD

with open ended wires RJ45

– CMX-Outdoor

– Data

PROFI[®] EtherNet/IP[™]

Approvals:  ^{*}
Listed

* only for products with UL/CSA approved cable

Male

straight
ITC, PLTC cable



Male

straight



1 Form		74101		74101	
Type		4-pole, shielded		4-pole, shielded	
Circuit diagram		1 2 3 6 yellow (TD+) orange (TD-) white (RD+) blue (RD-) shield		1 2 3 6 white/orange (TD+) orange (TD-) white/green (RD+) green (RD-) shield	
Contact layout		Male 6 321			
2 Cable Type		Jacket Color		Jacket Color	
2×2×0.34 mm²		green		blue	
TPE (UL/CSA), robots/C-tracks		S7V			
2×2×0.25 mm²				S4U	
TPE (UL/CSA), robots/C-tracks					
3 Cable Length					
1.5 m		0150			
3.0 m		0300			
5.0 m		0500			
7.5 m		0750			
10.0 m		1000			
Technical Data					
Operating voltage		max. 60 V DC			
Protection		IP20 inserted and tightened (EN 60529)			
Temperature range		-25...+85 °C, depending on cable quality			
Article No.					
The composition of your article number is explained on page 3.1.i		7 7 0 0 - -			
		1 Form		2 Cable Type	
				3 Cable Length	
Notes					
Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.					

TPE SERIES - THE NORTH AMERICAN STANDARD

With open ended wires M12

– CMX-Outdoor

– Data

 EtherNet/IP™

Male

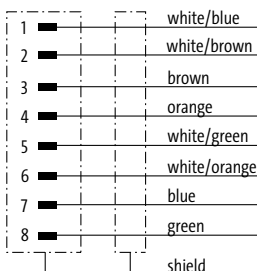
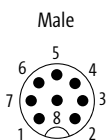
straight



Male

90°



1	Form	17541	17561
	Type	8-pole, shielded	8-pole, shielded
	Circuit diagram		
	Contact layout		
2	Cable Type	Jacket Color	Jacket Color
	4×2×0.25 mm²	blue	blue
	TPE (UL/CSA), robots/C-tracks	S4W	S4W
3	Cable Length		
	1.5 m	0150	
	3.0 m	0300	
	5.0 m	0500	
	7.5 m	0750	
	10.0 m	1000	
	Technical Data		
	Operating voltage	max. 60 V AC/DC	
	Protection	IP65, IP66K, IP67 inserted and tightened (EN 60529)	
	Temperature range	-25...+85 °C, depending on cable quality	
	Article No.		
	The composition of your article number is explained on page 3.1.i	7700 - -	
		1	Form
		2	Cable Type
		3	Cable Length
	Notes		
		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

TPE SERIES - THE NORTH AMERICAN STANDARD

With open ended wires M12

– CMX-Outdoor

– Data

PROFI® EtherNet/IP™

Female

straight



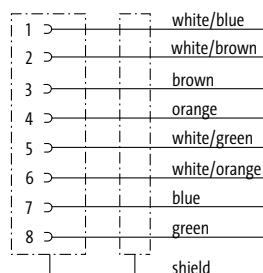
1 Form

17581

Type

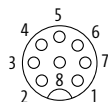
8-pole, shielded

Circuit diagram



Contact layout

Female



2 Cable Type

Jacket Color

4×2×0.25 mm²

blue

TPE (UL/CSA), robots/C-tracks

S4W

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 60 V AC/DC

Protection

IP65, IP66K, IP67 inserted and tightened (EN 60529)

Temperature range

-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

-

1 7 5 8 1

-

1

Form

2

Cable Type

3

Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

With open ended wires M12

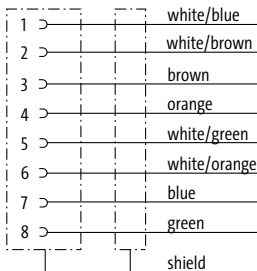
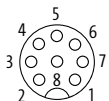
– CMX-Outdoor

– Data

PROFI® EtherNet/IP™
NET

Flange female



1 Form	17511
Type	8-pole, shielded Rear mounting
Circuit diagram	
Contact layout	Female 
2 Cable Type	Jacket Color
4x2x0.25 mm ² TPE (UL/CSA), robots/C-tracks	blue S4W
3 Cable Length	
1.5 m	0150
3.0 m	0300
5.0 m	0500
7.5 m	0750
10.0 m	1000
Technical Data	
Operating voltage	max. 60 V AC/DC
Protection	IP67 inserted and tightened (EN 60529)
Temperature range	-25...+85 °C, depending on cable quality
Article No.	
The composition of your article number is explained on page 3.1.i	7 7 0 0 - 1 7 5 1 1 - — — — — — — —
	1 Form 2 Cable Type 3 Cable Length
Notes	Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

with open ended wires RJ45

– CMX-Outdoor

– Data

PROFI® EtherNet/IP™

Male

straight



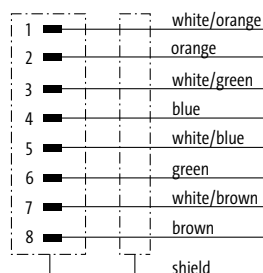
1 Form

74118

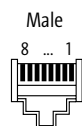
Type

8-pole, shielded

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

4×2×0.25 mm²

blue

TPE (UL/CSA), robots/C-tracks

S4W

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 60 V DC

Protection

IP20 inserted and tightened (EN 60529)

Temperature range

-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

–

7 4 1 1 8

–

– – –

– – – –

1

Form

2

Cable Type

3

Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables M12 - M12

– CMX-Outdoor

– Data

EtherNet/IP **PROFI**
NET

Approvals:  ^{*}
Listed

* only for products with UL/CSA approved cable

Male

straight
ITC, PLIC cable

Male

straight

Male

straight

Male

straight



1 Form

4 4 5 1 1

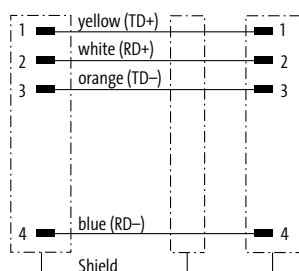
4 4 5 1 1

Type

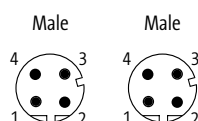
4-pole, shielded

4-pole, shielded

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

2×2×0.34 mm²

TPE (UL/CSA), robots/C-tracks

green

S7V

blue

2×2×0.25 mm²

TPE (UL/CSA), robots/C-tracks

S4U

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 60 V DC

Protection

IP65, IP66K, IP67 inserted and tightened (EN 60529)

Temperature range

-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables M12 - M12

– CMX-Outdoor

– Data

PROFI® EtherNet/IP™

Approvals:  ^{*}
Listed

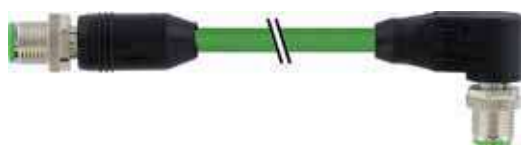
* only for products with UL/CSA approved cable

Male

straight
ITC, PLTC cable

Male

90°



Male

straight

Male

90°



1 Form

4 4 5 4 1

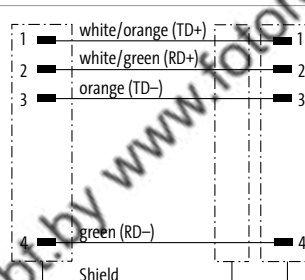
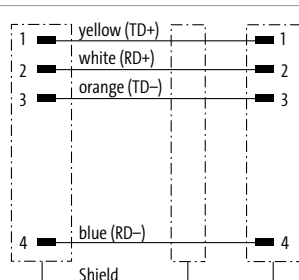
4 4 5 4 1

Type

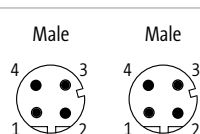
4-pole, shielded

4-pole, shielded

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

2×2×0.34 mm²

TPE (UL/CSA), robots/C-tracks

green

S7V

blue

2×2×0.25 mm²

TPE (UL/CSA), robots/C-tracks

S4U

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 60 V DC

Protection

IP65, IP66K, IP67 inserted and tightened (EN 60529)

Temperature range

-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

-

-

1

Form

2

Cable Type

3

Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables M12 - M12

– CMX-Outdoor

– Data

PROFI® EtherNet/IP™
NET

Approvals:  ^{*}
Listed

* only for products with UL/CSA approved cable

Male

90°
ITC, PLTC cable

Male

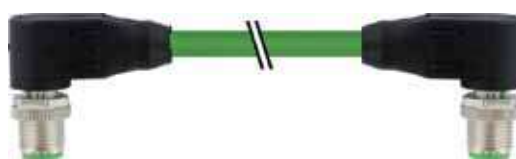
90°

Male

90°

Male

90°



1 Form

4 4 5 6 1

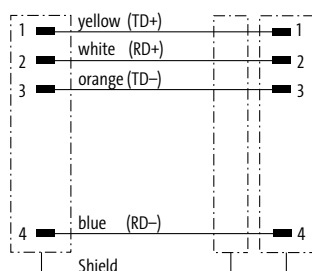
4 4 5 6 1

Type

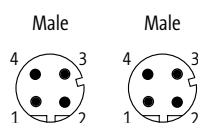
4-pole, shielded

4-pole, shielded

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

2×2×0.34 mm²
TPE (UL/CSA), robots/C-tracks
2×2×0.25 mm²
TPE (UL/CSA), robots/C-tracks

green
S7V

blue
S4U

3 Cable Length

1.5 m **0150**
3.0 m **0300**
5.0 m **0500**
7.5 m **0750**
10.0 m **1000**

Technical Data

Operating voltage max. 60 V DC
Protection IP65, IP66K, IP67 inserted and tightened (EN 60529)
Temperature range -25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables M12 - M12

– CMX-Outdoor

– Data

PROFI® EtherNet/IP™

Approvals:  **UL** ^{us}
Listed

* only for products with UL/CSA approved cable

Male

straight
ITC, PLTC cable

Female

straight



Male

straight

Female

straight



1 Form

4 4 5 7 1

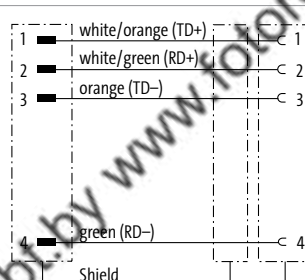
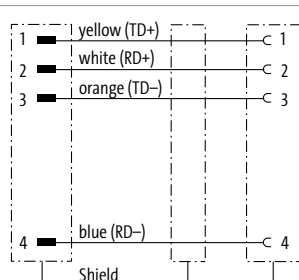
4 4 5 7 1

Type

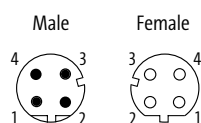
4-pole, shielded

4-pole, shielded

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

2×2×0.34 mm²

TPE (UL/CSA), robots/C-tracks

green

S7V

blue

2×2×0.25 mm²

TPE (UL/CSA), robots/C-tracks

S4U

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 60 V DC

Protection

IP65, IP66K, IP67 inserted and tightened (EN 60529)

Temperature range

-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables M12 - M12

– CMX-Outdoor

– Data

PROFI® EtherNet/IP™

Approvals:  ^{us}
Listed

* only for products with UL/CSA approved cable

Male

straight
ITC, PLIC cable

Flange female

Male

straight

Flange female



1 Form

44811

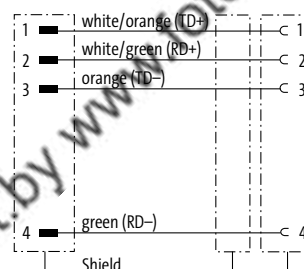
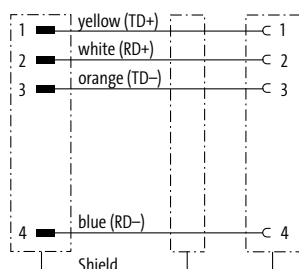
44811

Type

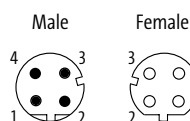
4-pole, shielded

4-pole, shielded

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

2×2×0.34 mm²

TPE (UL/CSA), robots/C-tracks

green

S7V

blue

2×2×0.25 mm²

TPE (UL/CSA), robots/C-tracks

S4U

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 60 V DC

Protection

IP67 inserted and tightened (EN 60529)

Temperature range

-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables M12 - RJ45

– CMX-Outdoor

– Data

PROFI[®] EtherNet/IP[™]

Approvals:  ^{*}
Listed

* only for products with UL/CSA approved cable

Male

straight
ITC, PLTC cable

Male

straight

Male

straight

Male

straight



1 Form

4 4 7 1 1

4 4 7 1 1

Type

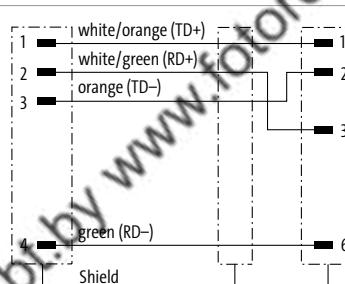
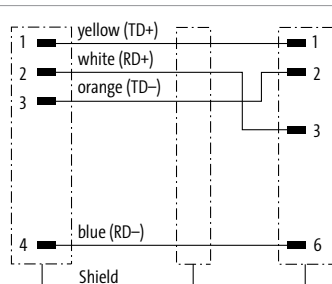
4-pole, shielded

4-pole, shielded

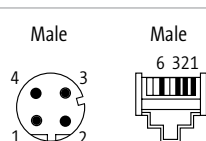
D-coded

D-coded

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

2×2×0.34 mm²

TPE (UL/CSA), robots/C-tracks

green

S7V

blue

2×2×0.25 mm²

TPE (UL/CSA), robots/C-tracks

S4U

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 60 V DC

Protection

IP67 (M12) - IP20 (RJ45)

Temperature range

-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

-

-

1

Form

2

Cable Type

3

Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables M12 - RJ45

– CMX-Outdoor

– Data

PROFI® EtherNet/IP™
NET

Approvals: ^{*}
Listed

* only for products with UL/CSA approved cable

Male

90°
ITC, PLTC cable

Male

straight

Male

90°

Male

straight



1 Form

44761

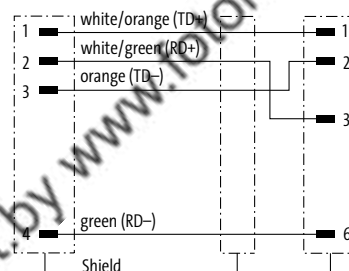
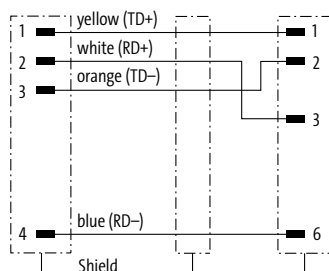
44761

Type

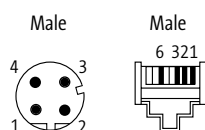
4-pole, shielded

4-pole, shielded

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

2×2×0.34 mm²
TPE (UL/CSA), robots/C-tracks
2×2×0.25 mm²
TPE (UL/CSA), robots/C-tracks

green
S7V

blue

S4U

3 Cable Length

1.5 m **0150**
3.0 m **0300**
5.0 m **0500**
7.5 m **0750**
10.0 m **1000**

Technical Data

Operating voltage max. 60 V DC
Protection IP67 (M12) - IP20 (RJ45)
Temperature range -25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0 - - - - -

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables M12 - RJ45

– CMX-Outdoor

– Data

PROFI® EtherNet/IP™

Approvals:  ^{*}
Listed

* only for products with UL/CSA approved cable

Flange female

ITC, PLTC cable

Male

straight



Flange female

Male

straight



1 Form

4 4 8 5 1

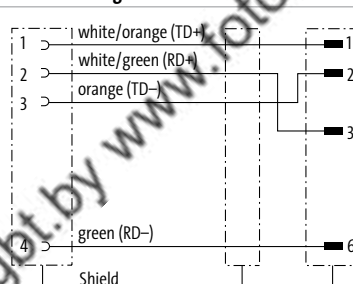
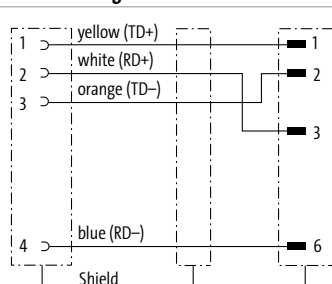
4 4 8 5 1

Type

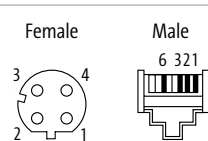
4-pole, shielded

4-pole, shielded

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

2×2×0.34 mm²
TPE (UL/CSA), robots/C-tracks

green
S7V

blue

2×2×0.25 mm²
TPE (UL/CSA), robots/C-tracks

S4U

3 Cable Length

1.5 m 0150
3.0 m 0300
5.0 m 0500
7.5 m 0750
10.0 m 1000

Technical Data

Operating voltage max. 60 V DC
Protection IP67 (M12) - IP20 (RJ45)
Temperature range -25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables RJ45 - RJ45

– CMX-Outdoor

– Data

PROFI® EtherNet/IP™

Approvals: ^{*}
Listed

* only for products with UL/CSA approved cable

Male

straight
ITC, PLIC cable

Male

straight

Male

straight

Male

straight



1 Form		743 01	743 01
Type		4-pole, shielded	4-pole, shielded
Circuit diagram			
Contact layout			
2 Cable Type		Jacket Color	
2×2×0.34 mm ²		green	blue
TPE (UL/CSA), robots/C-tracks		S7V	
2×2×0.25 mm ²			S4U
TPE (UL/CSA), robots/C-tracks			
3 Cable Length			
1.5 m		0150	
3.0 m		0300	
5.0 m		0500	
7.5 m		0750	
10.0 m		1000	
Technical Data			
Operating voltage		max. 60 V DC	
Protection		IP20 inserted and tightened (EN 60529)	
Temperature range		-25...+85 °C, depending on cable quality	
Article No.			
The composition of your article number is explained on page 3.1.i		7 7 0 0	
		1 Form	2 Cable Type
		3 Cable Length	
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables M12 - M12

– CMX-Outdoor

– Data

PROFI® EtherNet/IP™

Male

straight

Male

straight

Male

straight

Male

90°



1 Form

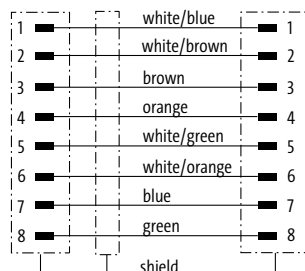
4 8 5 1 1

4 8 5 4 1

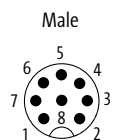
Type
Circuit diagram

8-pole, shielded

8-pole, shielded



Contact layout



2 Cable Type

Jacket Color

Jacket Color

4×2×0.25 mm²

TPE (UL/CSA), robots/C-tracks

blue

S4W

blue

S4W

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 60 V AC/DC

Protection

IP65 and IP67 when plugged and screwed down (EN 60529)

Temperature range

-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

-

-

1

Form

2

Cable Type

3

Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables M12 - M12

– CMX-Outdoor

– Data

PROFI® EtherNet/IP™
NET

Male

90°

Male

90°



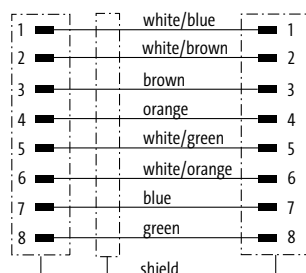
1 Form

4 8 5 6 1

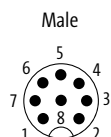
Type

8-pole, shielded

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

4x2x0.25 mm²

blue

TPE (UL/CSA), robots/C-tracks

S4W

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 60 V AC/DC

Protection

IP65 and IP67 when plugged and screwed down (EN 60529)

Temperature range

-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

–

4 8 5 6 1

–

– – –

– – – –

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables M12 - M12

– CMX-Outdoor

– Data

PROFI® EtherNet/IP™

Male

straight

Female

straight



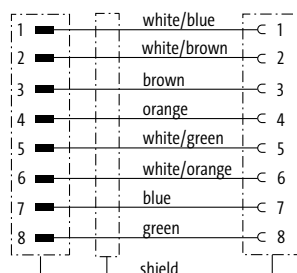
1 Form

48571

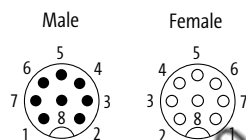
Type

8-pole, shielded

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

4×2×0.25 mm²

blue

TPE (UL/CSA), robots/C-tracks

S4W

3 Cable Length

1.5 m	0150
3.0 m	0300
5.0 m	0500
7.5 m	0750
10.0 m	1000

Technical Data

Operating voltage	max. 60 V AC/DC
Protection	IP65 and IP67 when plugged and screwed down (EN 60529)
Temperature range	-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

–

4 8 5 7 1

–

– – –

– – – –

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables M12 - M12

– CMX-Outdoor

– Data

PROFI® EtherNet/IP™
NET

Male
straight

Male
straight

Male
90°

Male
straight



1	Form	48521	48551
	Type	8-pole, shielded	8-pole, shielded
	Circuit diagram		
	Contact layout		
2	Cable Type	Jacket Color	Jacket Color
	4x2x0.25 mm ² TPE (UL/CSA), robots/C-tracks	blue S4W	blue S4W
3	Cable Length		
	1.5 m	0150	
	3.0 m	0300	
	5.0 m	0500	
	7.5 m	0750	
	10.0 m	1000	
Technical Data	Operating voltage	max. 30 V AC/DC	
	Protection	IP67 (M12) - IP20 (RJ45)	
	Temperature range	-25...+85 °C, depending on cable quality	
Article No.			
The composition of your article number is explained on page 3.1.i		7 7 0 0	- - - - -
		1 Form	2 Cable Type 3 Cable Length
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables M12 - M12

– CMX-Outdoor

– Data

PROFI® EtherNet/IP™

Flange female

Male

straight



1 Form

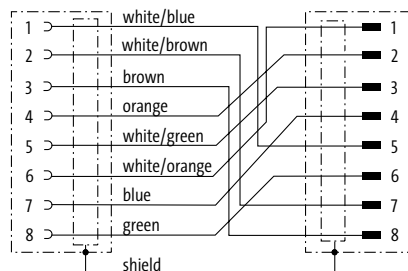
48851

Type

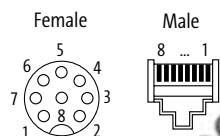
8-pole, shielded

Rear mounting

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

4×2×0.25 mm²

blue

TPE (UL/CSA), robots/C-tracks

S4W

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 30 V AC/DC

Protection

IP67 (M12) - IP20 (RJ45)

Temperature range

-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

-

4 8 8 5 1

-

1

Form

2

Cable Type

3

Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables RJ45 - RJ45

– CMX-Outdoor

– Data

PROFI® EtherNet/IP™
NET

Male

straight

Male

straight



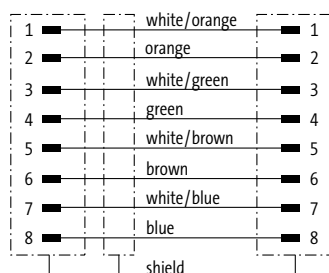
1 Form

74718

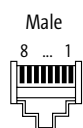
Type

8-pole, shielded

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

4x2x0.25 mm²

blue

TPE (UL/CSA), robots/C-tracks

S4W

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 60 V DC

Protection

IP20 inserted and tightened (EN 60529)

Temperature range

-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

-

7 4 7 1 8

-

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables M12 - M12

– CMX-Outdoor

– Data

– X-coded

PROFI® EtherNet/IP™

* only for products with UL/CSA approved cable

Male

straight



Male

straight

Male

straight



Male

90°

1 Form	510 01	51011
Approvals	cULus *	
Type	8-pole, shielded	8-pole, shielded
	X-coded	X-coded
Circuit diagram		
Contact layout		
2 Cable Type	Jacket Color	Jacket Color
4x2x0.14 mm ² TPE (UL/CSA), robots/C-tracks	blue S4X	blue S4X
3 Cable Length		
1.5 m	0150	
3.0 m	0300	
5.0 m	0500	
7.5 m	0750	
10.0 m	1000	
Technical Data		
Operating voltage	max. 50 V AC/60 V DC	
Protection	IP67 inserted and tightened (EN 60529)	
Temperature range	-25...+85 °C, depending on cable quality	
Article No.		
The composition of your article number is explained on page 3.1.i	7 7 0 0 - - - - - - - - - -	
	1 Form	2 Cable Type
		3 Cable Length
Notes	Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.	

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables M12 - M12

– CMX-Outdoor

– Data

– X-coded

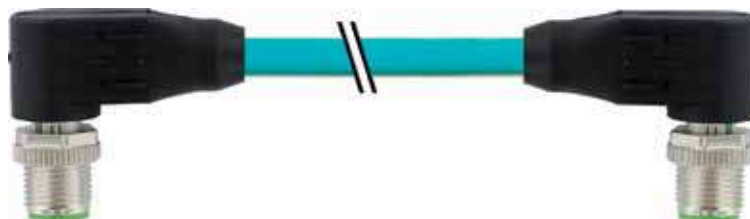
PROFI® EtherNet/IP™
NET

Male

90°

Male

90°



1 Form	51021
Type	8-pole, shielded X-coded
Circuit diagram	
Contact layout	
2 Cable Type	Jacket Color
4×2×0.14 mm ² TPE (UL/CSA), robots/C-tracks	blue S4X
3 Cable Length	
1.5 m	0150
3.0 m	0300
5.0 m	0500
7.5 m	0750
10.0 m	1000
Technical Data	
Operating voltage	max. 50 V AC/60 V DC
Protection	IP67 inserted and tightened (EN 60529)
Temperature range	-25...+85 °C, depending on cable quality
Article No.	
The composition of your article number is explained on page 3.1.i	7 7 0 0 - 5 1 0 2 1 - --- ---
	1 Form 2 Cable Type 3 Cable Length
Notes	Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables M12 - RJ45

– CMX-Outdoor

– Data

– X-coded

PROFI® EtherNet/IP™

Male

straight

Male

straight

Male

90°

Male

straight



1 Form

51101

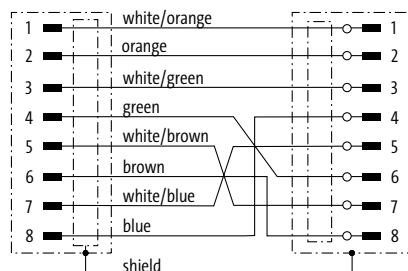
51201

Type

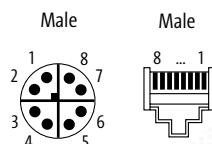
8-pole, shielded

8-pole, shielded

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

4×2×0.14 mm²

TPE (UL/CSA), robots/C-tracks

blue

S4X

blue

S4X

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 60 V DC

Protection

IP66K, IP67 (M12) - IP20 (RJ45)

Temperature range

-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

-

-

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

Connection cables RJ45 - RJ45

– CMX-Outdoor

– Data

– X-coded

PROFI® EtherNet/IP™
NET

Male

straight

Male

straight

Male

straight



1 Form

74315

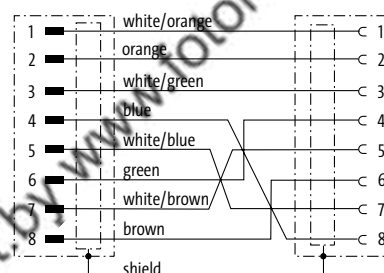
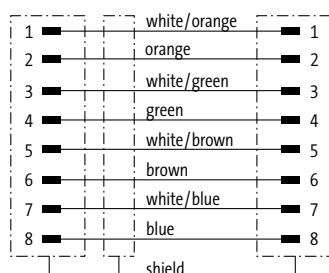
51551

Type

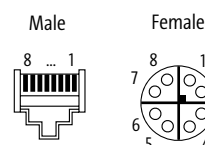
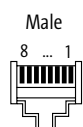
8-pole, shielded

8-pole, shielded

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

4×2×0.14 mm²

TPE (UL/CSA), robots/C-tracks

blue

S4X

blue

S4X

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 60 V DC

Protection

IP20 inserted and tightened (EN 60529)

IP67 (M12) - IP20 (RJ45)

Temperature range

-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

With open ended wires

– 7/8" MINI

– Power

Approvals: 

* only for products with UL/CSA approved cable

Male

straight
TC-ER



Male

straight



1 Form

A3001

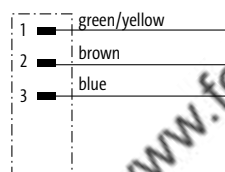
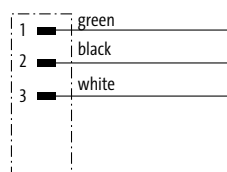
A3001

Type

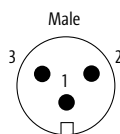
3-pole

3-pole

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.5 mm²

PUR (UL/CSA), C-tracks

TPE (UL/CSA), robots

yellow

U1B

black

UMB

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 600 V AC/DC

Protection

IP68 inserted and tightened (EN 60529)

Temperature range

-25...+80 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

-

-

1

Form

2

Cable Type

3

Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

With open ended wires

– 7/8" MINI

– Power

Approvals: 

* only for products with UL/CSA approved cable

Male
straight
TC-ER



Male
straight



1 Form		A4001		A4001	
Type		4-pole		4-pole	
Circuit diagram		1 2 3 4 black white red green		1 2 3 4 brown white blue black	
Contact layout		Male 3 2 4 1		Male 1 3 2 4	
2 Cable Type		Jacket Color		Jacket Color	
Wire diameter 1.5 mm²		yellow		black	
PUR (UL/CSA), C-tracks				UMC	
TPE (UL/CSA), robots		U1C			
3 Cable Length					
1.5 m		0150			
3.0 m		0300			
5.0 m		0500			
7.5 m		0750			
10.0 m		1000			
Technical Data					
Operating voltage		max. 600 V AC/DC			
Protection		IP68 inserted and tightened (EN 60529)			
Temperature range		-25...+80 °C, depending on cable quality			
Article No.					
The composition of your article number is explained on page 3.1.i		7 7 0 0 - -			
		1 Form		2 Cable Type	
				3 Cable Length	
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.			

TPE SERIES - THE NORTH AMERICAN STANDARD

With open ended wires

– 7/8" MINI

– Power

Approvals:  ^{*}
Listed

^{*} only for products with UL/CSA approved cable

Male

straight
TC-ER



Male

straight



1 Form

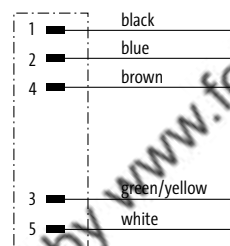
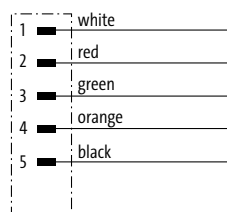
A 5 0 0 1

A 5 0 0 1

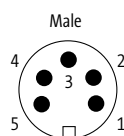
Type
Circuit diagram

5-pole

5-pole



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.5 mm²
PUR (UL/CSA), C-tracks
TPE (UL/CSA), robots

yellow

U1D

black

UMD

3 Cable Length

1.5 m	0150
3.0 m	0300
5.0 m	0500
7.5 m	0750
10.0 m	1000

Technical Data

Operating voltage	max. 600 V AC/DC
Protection	IP68 inserted and tightened (EN 60529)
Temperature range	-25...+80 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

With open ended wires

– 7/8" MINI

– Power

Approvals: 

* only for products with UL/CSA approved cable

Male

90°

TC-ER



Male

90°



1	Form	A3011		A3011	
Type		3-pole		3-pole	
Circuit diagram		1 2 3 green black white		1 2 3 green/yellow brown blue	
Contact layout		Male 3 1 2			
2	Cable Type	Jacket Color		Jacket Color	
Wire diameter 1.5 mm²		yellow		black	
PUR (UL/CSA), C-tracks				UMB	
TPE (UL/CSA), robots		U1B			
3	Cable Length				
1.5 m		0150			
3.0 m		0300			
5.0 m		0500			
7.5 m		0750			
10.0 m		1000			
Technical Data					
Operating voltage		max. 600 V AC/DC			
Protection		IP68 inserted and tightened (EN 60529)			
Temperature range		-25...+80 °C, depending on cable quality			
Article No.					
The composition of your article number is explained on page 3.1.i		7 7 0 0 - -			
		1 Form		2 Cable Type	
				3 Cable Length	
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.			

TPE SERIES - THE NORTH AMERICAN STANDARD

With open ended wires

– 7/8" MINI

– Power

Approvals: 

* only for products with UL/CSA approved cable

Male

90°
TC-ER



Male

90°



1 Form

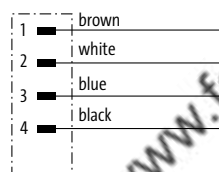
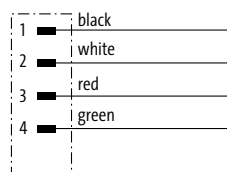
A4 011

A4 011

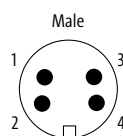
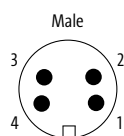
Type
Circuit diagram

4-pole

4-pole



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.5 mm²
PUR (UL/CSA), C-tracks
TPE (UL/CSA), robots

yellow

U1C

black

UMC

3 Cable Length

1.5 m	0150
3.0 m	0300
5.0 m	0500
7.5 m	0750
10.0 m	1000

Technical Data

Operating voltage	max. 600 V AC/DC
Protection	IP68 inserted and tightened (EN 60529)
Temperature range	-25...+80 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

With open ended wires

– 7/8" MINI

– Power

Approvals: 

* only for products with UL/CSA approved cable

Male

90°

TC-ER



Male

90°



1 Form		A5011		A5011	
Type		5-pole		5-pole	
Circuit diagram		1 2 3 4 5 white red green orange black		1 2 4 3 5 black blue brown green/yellow white	
Contact layout		Male 4 3 2 5 1			
2 Cable Type		Jacket Color		Jacket Color	
Wire diameter 1.5 mm ²		yellow		black	
PUR (UL/CSA), C-tracks				UMD	
TPE (UL/CSA), robots		U1D			
3 Cable Length					
1.5 m		0150			
3.0 m		0300			
5.0 m		0500			
7.5 m		0750			
10.0 m		1000			
Technical Data					
Operating voltage		max. 600 V AC/DC			
Protection		IP68 inserted and tightened (EN 60529)			
Temperature range		-25...+80 °C, depending on cable quality			
Article No.					
The composition of your article number is explained on page 3.1.i		7 7 0 0 - -			
		1 Form		2 Cable Type	
				3 Cable Length	
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.			

TPE SERIES - THE NORTH AMERICAN STANDARD

With open ended wires

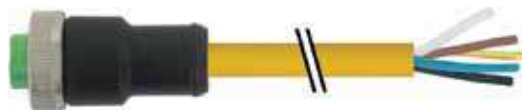
– 7/8" MINI

– Power

Approvals:  ^{*}
Listed

^{*} only for products with UL/CSA approved cable

Female
straight
TC-ER



Female
straight

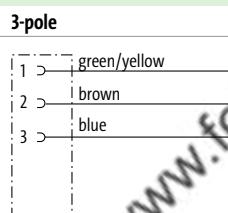
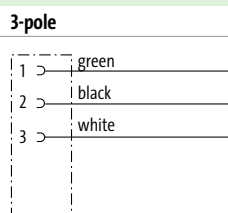


1 Form

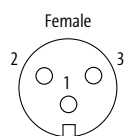
A3021

A3021

Type
Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.5 mm²
PUR (UL/CSA), C-tracks
TPE (UL/CSA), robots

yellow
U1B

black
UMB

3 Cable Length

1.5 m 0150
3.0 m 0300
5.0 m 0500
7.5 m 0750
10.0 m 1000

Technical Data

Operating voltage max. 600 V AC/DC
Protection IP68 inserted and tightened (EN 60529)
Temperature range -25...+80 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

With open ended wires

– 7/8" MINI

– Power

Approvals: 

* only for products with UL/CSA approved cable

Female

straight
TC-ER



Female

straight



1 Form

A 4 0 2 1

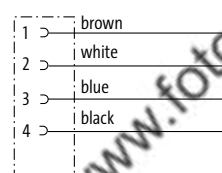
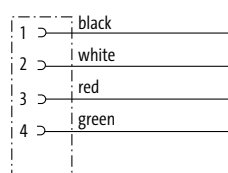
A 4 0 2 1

Type

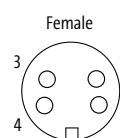
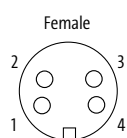
4-pole

4-pole

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.5 mm²

PUR (UL/CSA), C-tracks

TPE (UL/CSA), robots

yellow

U1C

black

UMC

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 600 V AC/DC

Protection

IP68 inserted and tightened (EN 60529)

Temperature range

-25...+80 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

With open ended wires

– 7/8" MINI

– Power

Approvals:  ^{*}
Listed

^{*} only for products with UL/CSA approved cable

Female

straight
TC-ER



Female

straight



1 Form

A 5021

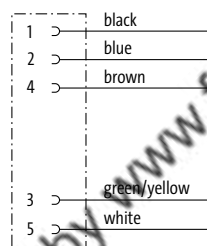
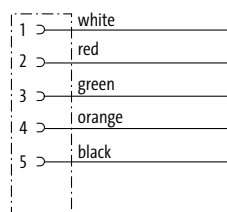
A 5021

Type

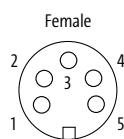
5-pole

5-pole

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.5 mm²

PUR (UL/CSA), C-tracks

TPE (UL/CSA), robots

yellow

U1D

black

UMD

3 Cable Length

1.5 m	0150
3.0 m	0300
5.0 m	0500
7.5 m	0750
10.0 m	1000

Technical Data

Operating voltage	max. 600 V AC/DC
Protection	IP68 inserted and tightened (EN 60529)
Temperature range	-25...+80 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

With open ended wires

– 7/8" MINI

– Power

Approvals: 

* only for products with UL/CSA approved cable

Female

90°
TC-ER



Female

90°



1 Form		A3031		A3031	
Type		3-pole		3-pole	
Circuit diagram		1 2 3 green black white		1 2 3 green/yellow brown blue	
Contact layout		Female 2 1 3			
2 Cable Type		Jacket Color		Jacket Color	
Wire diameter 1.5 mm²		yellow		black	
PUR (UL/CSA), C-tracks				UMB	
TPE (UL/CSA), robots		U1B			
3 Cable Length					
1.5 m		0150			
3.0 m		0300			
5.0 m		0500			
7.5 m		0750			
10.0 m		1000			
Technical Data					
Operating voltage		max. 600 V AC/DC			
Protection		IP68 inserted and tightened (EN 60529)			
Temperature range		-25...+80 °C, depending on cable quality			
Article No.					
The composition of your article number is explained on page 3.1.i		7 7 0 0 - -			
		1 Form		2 Cable Type	
				3 Cable Length	
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.			

TPE SERIES - THE NORTH AMERICAN STANDARD

With open ended wires

– 7/8" MINI

– Power

Approvals: 

* only for products with UL/CSA approved cable

Female

90°

TC-ER



Female

90°



1 Form

A4031

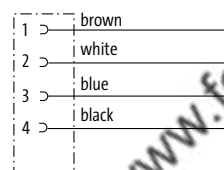
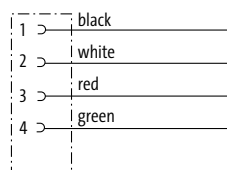
A4031

Type

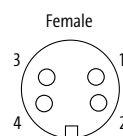
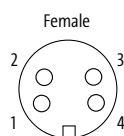
4-pole

4-pole

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.5 mm²

PUR (UL/CSA), C-tracks

TPE (UL/CSA), robots

yellow

U1C

black

UMC

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 600 V AC/DC

Protection

IP68 inserted and tightened (EN 60529)

Temperature range

-25...+80 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

With open ended wires

– 7/8" MINI

– Power

Approvals: 

* only for products with UL/CSA approved cable

Female

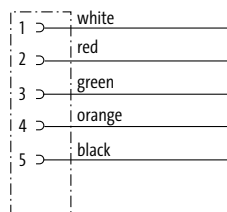
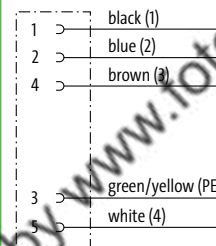
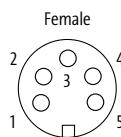
90°
TC-ER



Female

90°



1 Form		A 5 0 3 1		A 5 0 3 1	
Type		5-pole		5-pole	
Circuit diagram					
Contact layout					
2 Cable Type		Jacket Color		Jacket Color	
Wire diameter 1.5 mm²		yellow		black	
PUR (UL/CSA), C-tracks				UMD	
TPE (UL/CSA), robots		U1D			
3 Cable Length					
1.5 m		0150			
3.0 m		0300			
5.0 m		0500			
7.5 m		0750			
10.0 m		1000			
Technical Data					
Operating voltage		max. 600 V AC/DC			
Protection		IP68 inserted and tightened (EN 60529)			
Temperature range		-25...+80 °C, depending on cable quality			
Article No.					
The composition of your article number is explained on page 3.1.i		7 7 0 0 - -			
		1 Form		2 Cable Type	
				3 Cable Length	
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.			

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables

– 7/8" MINI - 7/8" MINI

– Power

Approvals: 

* only for products with UL/CSA approved cable

Male

straight
TC-ER

Female

straight

Male

straight

Female

straight



1 Form

A3A01

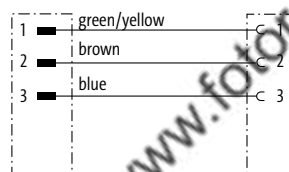
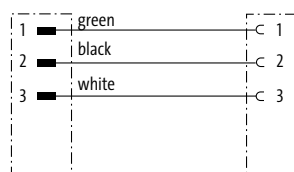
A3A01

Type

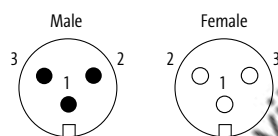
3-pole

3-pole

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.5 mm²

PUR (UL/CSA), C-tracks

TPE (UL/CSA), robots

yellow

U1B

black

UMB

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 600 V AC/DC

Protection

IP68 inserted and tightened (EN 60529)

Temperature range

-25...+80 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

-

-

1

Form

2

Cable Type

3

Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables

– 7/8" MINI - 7/8" MINI

– Power

Approvals: ^{*}
Listed

* only for products with UL/CSA approved cable

Male

90°

TC-ER

Female

90°

Male

90°

Female

90°



1 Form

A3A31

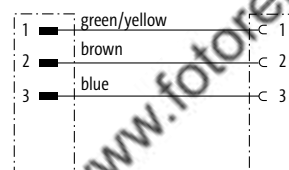
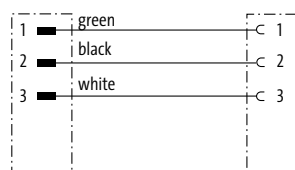
A3A31

Type

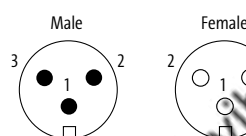
3-pole

3-pole

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.5 mm²

PUR (UL/CSA), C-tracks

TPE (UL/CSA), robots

yellow

U1B

black

UMB

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 600 V AC/DC

Protection

IP68 inserted and tightened (EN 60529)

Temperature range

-25...+80 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables

– 7/8" MINI - 7/8" MINI

– Power

Approvals: 

* only for products with UL/CSA approved cable

Male

straight
TC-ER

Female

straight



Male

straight

Female

straight



1 Form

A4A01

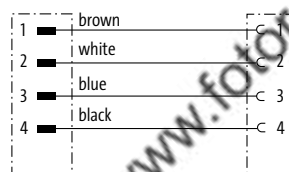
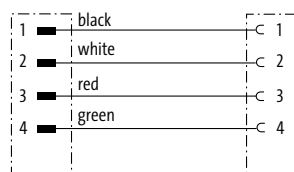
A4A01

Type

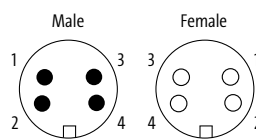
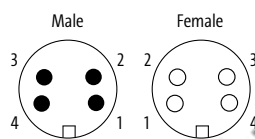
4-pole

4-pole

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.5 mm²

PUR (UL/CSA), C-tracks

TPE (UL/CSA), robots

yellow

U1C

black

UMC

3 Cable Length

1.5 m	0150
3.0 m	0300
5.0 m	0500
7.5 m	0750
10.0 m	1000

Technical Data

Operating voltage	max. 600 V AC/DC
Protection	IP68 inserted and tightened (EN 60529)
Temperature range	-25...+80 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables

– 7/8" MINI - 7/8" MINI

– Power

Approvals: ^{*}
Listed

* only for products with UL/CSA approved cable

Male

90°

TC-ER

Female

90°

Male

90°

Female

90°



1 Form

A4A31

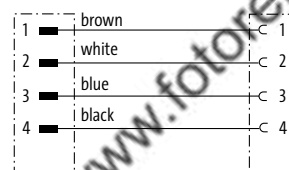
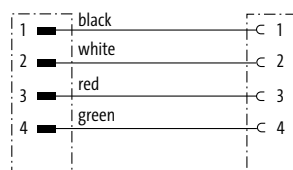
A4A31

Type

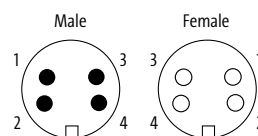
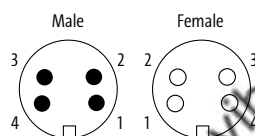
4-pole

4-pole

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.5 mm²

PUR (UL/CSA), C-tracks

TPE (UL/CSA), robots

yellow

U1C

black

UMC

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 600 V AC/DC

Protection

IP68 inserted and tightened (EN 60529)

Temperature range

-25...+80 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables

– 7/8" MINI - 7/8" MINI

– Power

Approvals: 

* only for products with UL/CSA approved cable

Male

straight
TC-ER

Female

straight



Male

straight

Female

straight



1 Form

A5A01

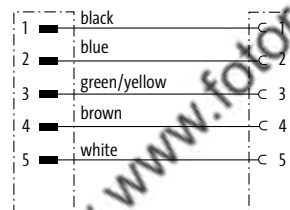
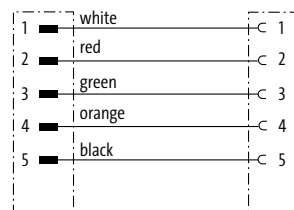
A5A01

Type

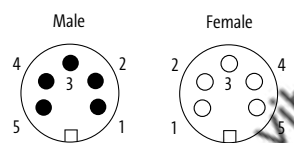
5-pole

5-pole

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.5 mm²

PUR (UL/CSA), C-tracks

TPE (UL/CSA), robots

yellow

U1D

black

UMD

3 Cable Length

1.5 m	0150
3.0 m	0300
5.0 m	0500
7.5 m	0750
10.0 m	1000

Technical Data

Operating voltage	max. 600 V AC/DC
Protection	IP68 inserted and tightened (EN 60529)
Temperature range	-25...+80 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

TPE SERIES - THE NORTH AMERICAN STANDARD

Connection cables

– 7/8" MINI - 7/8" MINI

– Power

Approvals: ^{*}
Listed

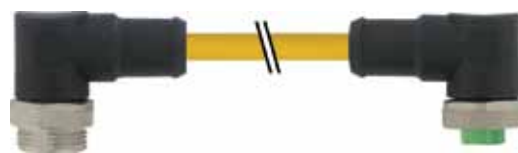
* only for products with UL/CSA approved cable

Male

90°
TC-ER

Female

90°



Male

90°

Female

90°



1 Form

A5A31

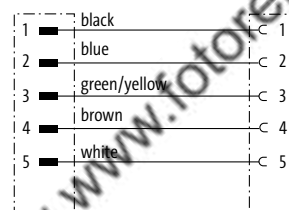
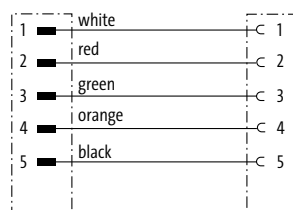
A5A31

Type

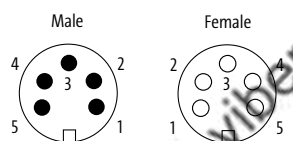
5-pole

5-pole

Circuit diagram



Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 1.5 mm²

PUR (UL/CSA), C-tracks

TPE (UL/CSA), robots

yellow

U1D

black

UMD

3 Cable Length

1.5 m

0150

3.0 m

0300

5.0 m

0500

7.5 m

0750

10.0 m

1000

Technical Data

Operating voltage

max. 600 V AC/DC

Protection

IP68 inserted and tightened (EN 60529)

Temperature range

-25...+80 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 7 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.



VALVE CONNECTORS MORE MODELS THAN EVER

- Molded construction – resistant to shock and vibration
- Tested to ensure reliability
- IP65 to IP67 Rated

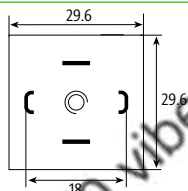
THE CONNECTOR FOR VALVES AND PRESSURE SWITCHES

25 years ago, Murrelektronik developed and produced the first pre-wired and molded valve connector.

It was a revolution! Now, more than ever, Murrelektronik's valve plugs enjoy long-running success as a result of continuous improvement. A captive gasket, integrated LED status indicator and suppression are the top features of Murrelektronik's MSUD valve plug.

With Open Ended Wires

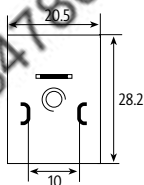
Valve Diagram



MSUD Valve Connector

- Form A
- acc. to EN 175301-803 (ISO 4400)
- Pin spacing 18 mm

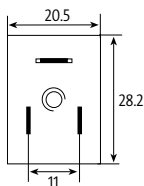
Page 3.12.1



MSUD Valve Connector

- Form B
- acc. to EN 175301-803 (ISO 6952)
- Pin spacing 10 mm

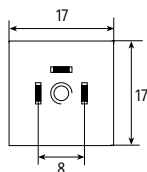
Page 3.12.4



MSUD Valve Connector

- Form BI
- Industrial standard
- Pin spacing 11 mm

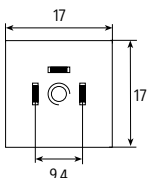
Page 3.12.6



MSUD Valve Connector

- Form C
- acc. to EN 175301-803 (ISO 6952)
- Pin spacing 8 mm

Page 3.12.8

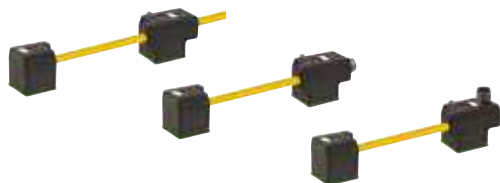


MSUD Valve Connector

- Form CI
- Industrial standard
- Pin spacing 9.4 mm

Page 3.12.10

Connection Cables



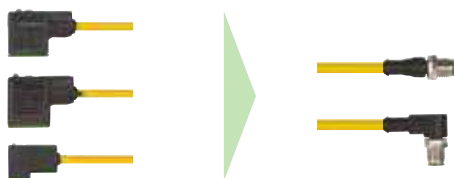
MSUD Double Valve Connector

- Form A
- Form B
- Form BI
- Form C
- Form CI

M12 male

- Top connection
- Rear connection
- With connection cable

Page 3.12.12



MSUD Valve Connector

- Form A
- Form B
- Form BI
- Form C
- Form CI

M12 male

- Straight
- 90°

Page 3.12.19



MSUD Valve Connector Adapter

- Form A
- Form B
- Form BI
- Form C
- Form CI

M12 male

- Top connection
- Rear connection

Page 3.12.23

Field-Wireable



Screw Terminals

SVS Valve Connector

- Form A
- Form B
- Form BI

Page 3.12.27



Insulation Displacement Technology (IDC)

MOSA Valve Connector

- Form C
- Form CI

Page 3.12.35



Screw Terminals

SVS Eco Valve Connector

- Form A
- Form B
- Form BI
- Form C
- Form CI

Page 3.12.36

VALVE CONNECTORS

MSUD

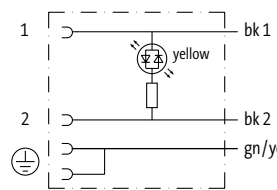
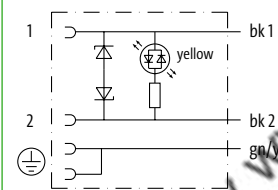
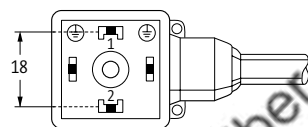
– with open ended wires

Approvals: 

* only for products with UL/CSA approved cable

Form A (18 mm)



1	Form	18001	18021			18041				
	Type	24 V AC/DC ±25%		24 V AC ±20% / DC ±25%			110 V AC/DC ±10%			
		LED		LED and suppression			LED and suppression			
	Circuit diagram									
Contact layout										
2	Cable Type	Jacket Color			Jacket Color			Jacket Color		
	Wire diameter 0.75 mm²	yellow	gray	black	yellow	gray	black	yellow	gray	black
	PVC	016	216	616	016	216	616	016	216	616
	PUR/PVC (UL/CSA)	026	226	626	026	226	626	026	226	626
	PUR (UL/CSA), robots/C-tracks	036	236	636	036	236	636	036	236	636
	PUR (UL/CSA), welding spark	056	256	656	056	256	656	056	256	656
3	Cable Length									
	1.5 m	0150								
	3.0 m	0300								
	5.0 m	0500								
	7.5 m	0750								
	10.0 m	1000								
Technical Data										
Operating voltage		24 V AC/DC ±25%			24 V AC ±20% / DC ±25%			110 V AC/DC ±10%		
Protection		IP67 inserted and tightened (EN 60529)								
Temperature range		-25...+85 °C, depending on cable quality								
Article No.										
The composition of your article number is explained on page 3.1.i		7 0 0 0			- - - - -			- - - - -		
		1 Form			2 Cable Type			3 Cable Length		
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.								

VALVE CONNECTORS

MSUD

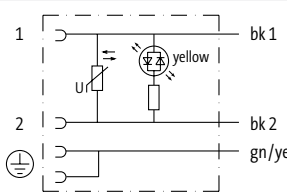
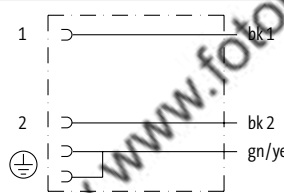
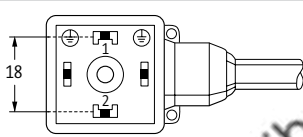
– with open ended wires

Approvals: 

* only for products with UL/CSA approved cable

Form A (18 mm)



1	Form	18061			18081		
	Type	230 V AC/DC ±10%			max. 230 V AC/DC		
	Circuit diagram						
	Contact layout						
2	Cable Type	Jacket Color			Jacket Color		
	Wire diameter 0.75 mm²	yellow	gray	black	yellow	gray	black
	PVC	016	216	616	016	216	616
	PUR/PVC (UL/CSA)	026	226	626	026	226	626
	PUR (UL/CSA), robots/C-tracks	036	236	636	036	236	636
	PUR (UL/CSA), welding spark	056	256	656	056	256	656
3	Cable Length						
	1.5 m	0150					
	3.0 m	0300					
	5.0 m	0500					
	7.5 m	0750					
	10.0 m	1000					
Technical Data							
Operating voltage		230 V AC/DC ±10%			max. 230 V AC/DC		
Protection		IP67 inserted and tightened (EN 60529)					
Temperature range		-25...+85 °C, depending on cable quality					
Article No.							
The composition of your article number is explained on page 3.1.i		7 0 0 0 - -					
		1 Form		2 Cable Type		3 Cable Length	
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.					

VALVE CONNECTORS

MSUD

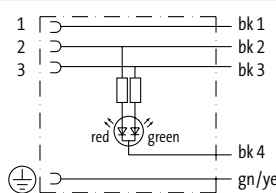
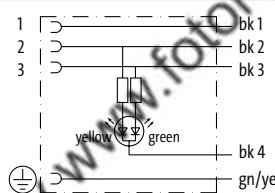
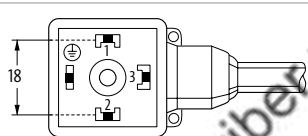
- with open ended wires
- for pressure switches

Approvals: 

* only for products with UL/CSA approved cable

Form A (18 mm)



1 Form		18121			18141		
Type		24 V DC ±25%			24 V DC ±25%		
		LED (red/green)			LED (yellow/green)		
Circuit diagram							
Contact layout							
2 Cable Type		Jacket Color			Jacket Color		
Wire diameter 0.75 mm²		yellow	gray	black	yellow	gray	black
PVC		018	218	618	018	218	618
PUR/PVC (UL/CSA)		028	228	628	028	228	628
PUR (UL/CSA), robots/C-tracks		038	238	638	038	238	638
3 Cable Length							
1.5 m		0150					
3.0 m		0300					
5.0 m		0500					
7.5 m		0750					
10.0 m		1000					
Technical Data							
Operating voltage		24 V DC ±25%					
Protection		IP67 inserted and tightened (EN 60529)					
Temperature range		-25...+85 °C, depending on cable quality					
Article No.							
The composition of your article number is explained on page 3.1.i		7000 - -					
		1 Form		2 Cable Type		3 Cable Length	
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.					

VALVE CONNECTORS

MSUD

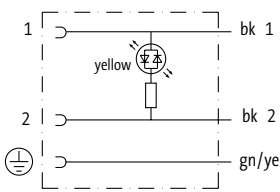
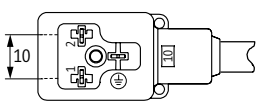
– with open ended wires

Approvals: 

* only for products with UL/CSA approved cable

Form B (10 mm)



1	Form	10001	10021	10041
	Type	24 V AC/DC ±25%	24 V AC ±20% / DC ±25%	110 V AC/DC ±10%
	LED	LED	LED and suppression	LED and suppression
	Circuit diagram			
Contact layout				
2	Cable Type	Jacket Color		
	Wire diameter 0.75 mm²	yellow	gray	black
	PVC	016	216	616
	PUR/PVC (UL/CSA)	026	226	626
	PUR (UL/CSA), robots/C-tracks	036	236	636
	PUR (UL/CSA), welding spark	056	256	656
3	Cable Length	Jacket Color		
	1.5 m	0150	016	616
	3.0 m	0300	026	626
	5.0 m	0500	036	636
	7.5 m	0750	056	656
	10.0 m	1000	056	656
Technical Data		Jacket Color		
Operating voltage		24 V AC/DC ±25%	24 V AC ±20% / DC ±25%	110 V AC/DC ±10%
Protection		IP67 inserted and tightened (EN 60529)		
Temperature range		-25...+85 °C, depending on cable quality		
Article No.		Jacket Color		
The composition of your article number is explained on page 3.1.i		7 0 0 0	-	-
		1	Form	2
		2	Cable Type	3
		3	Cable Length	
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.		

VALVE CONNECTORS

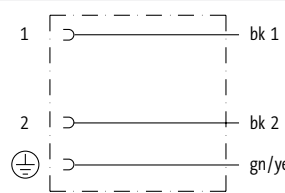
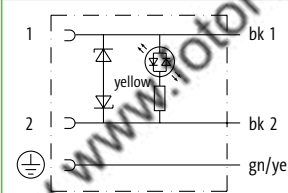
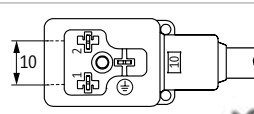
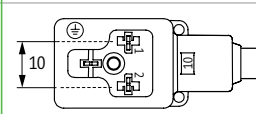
MSUD

– with open ended wires

Form B (10 mm)


Approvals: 

* only for products with UL/CSA approved cable

1 Form		10061		10081					
Type		max. 230 V AC/DC without components		24 V AC ±20% / DC ±25% LED and suppression					
Circuit diagram									
Contact figure		PE at cable entry (0°)		PE opposite cable entry (180°)					
Contact layout									
2 Cable Type		Jacket Color		Jacket Color					
Wire diameter 0.75 mm²		yellow	gray	black	yellow	gray	black		
PVC		016	216	616	016	216	616		
PUR/PVC (UL/CSA)		026	226	626	026	226	626		
PUR (UL/CSA), robots/C-tracks		036	236	636	036	236	636		
PUR (UL/CSA), welding spark		056	256	656	056	256	656		
3 Cable Length									
1.5 m		0150							
3.0 m		0300							
5.0 m		0500							
7.5 m		0750							
10.0 m		1000							
Technical Data									
Operating voltage		max. 230 V AC/DC		24 V AC ±20% / DC ±25%					
Protection		IP67 inserted and tightened (EN 60529)							
Temperature range		-25...+85 °C, depending on cable quality							
Article No.									
The composition of your article number is explained on page 3.1.i		7 0 0 0		-		-			
		1 Form		2 Cable Type		3 Cable Length			
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.							

VALVE CONNECTORS

MSUD

– with open ended wires

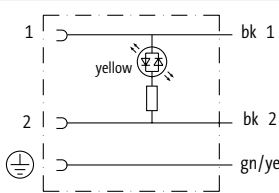
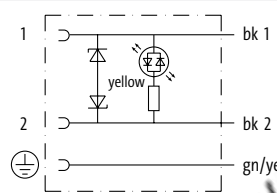
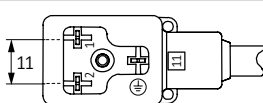
Approvals: 

* only for products with UL/CSA approved cable

Form BI (11 mm)

Industrial standard



1	Form	11001			11021			11041		
	Type	24 V AC/DC ±25%			24 V AC ±20% / DC ±25%			110 V AC/DC ±10%		
		LED			LED and suppression			LED and suppression		
	Circuit diagram									
	Contact layout									
2	Cable Type	Jacket Color			Jacket Color			Jacket Color		
	Wire diameter 0.75 mm²	yellow	gray	black	yellow	gray	black	yellow	gray	black
	PVC	016	216	616	016	216	616	016	216	616
	PUR/PVC (UL/CSA)	026	226	626	026	226	626	026	226	626
	PUR (UL/CSA), robots/C-tracks	036	236	636	036	236	636	036	236	636
	PUR (UL/CSA), welding spark	056	256	656	056	256	656	056	256	656
3	Cable Length									
	1.5 m	0150								
	3.0 m	0300								
	5.0 m	0500								
	7.5 m	0750								
	10.0 m	1000								
Technical Data										
Operating voltage		24 V AC/DC ±25%			24 V AC ±20% / DC ±25%			110 V AC/DC ±10%		
Protection		IP67 inserted and tightened (EN 60529)								
Temperature range		-25...+85 °C, depending on cable quality								
Article No.										
The composition of your article number is explained on page 3.1.i		7 0 0 0			- - - - -			- - - - -		
		1			Form			2		
								Cable Type		
								3		
								Cable Length		
Notes										
		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.								

VALVE CONNECTORS

MSUD

– with open ended wires

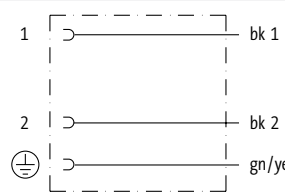
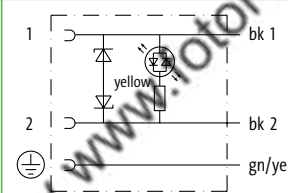
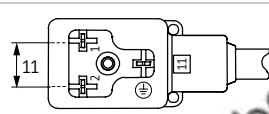
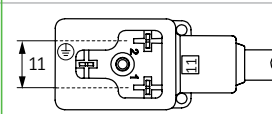
Form BI (11 mm)

Industrial standard



Approvals: 

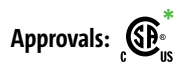
* only for products with UL/CSA approved cable

1 Form		11061			11081		
Type		max. 250 V AC/DC without components			24 V AC ±20% / DC ±25% LED and suppression		
Circuit diagram							
Contact figure		PE at cable entry (0°)			PE opposite cable entry (180°)		
Contact layout							
2 Cable Type		Jacket Color			Jacket Color		
Wire diameter 0.75 mm²		yellow	gray	black	yellow	gray	black
PVC		016	216	616	016	216	616
PUR/PVC (UL/CSA)		026	226	626	026	226	626
PUR (UL/CSA), robots/C-tracks		036	236	636	036	236	636
PUR (UL/CSA), welding spark		056	256	656	056	256	656
3 Cable Length							
1.5 m		0150					
3.0 m		0300					
5.0 m		0500					
7.5 m		0750					
10.0 m		1000					
Technical Data							
Operating voltage		max. 250 V AC/DC			24 V AC ±20% / DC ±25%		
Protection		IP67 inserted and tightened (EN 60529)					
Temperature range		-25...+85 °C, depending on cable quality					
Article No.							
The composition of your article number is explained on page 3.1.i		7000 - -					
		1 Form 2 Cable Type 3 Cable Length					
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.					

VALVE CONNECTORS

MSUD

– with open ended wires



* only for products with UL/CSA approved cable

Form C (8 mm)



1	Form	8 0 0 0 1			8 0 0 2 1		
	Type	24 V AC/DC ±25%			24 V AC ±20% / DC ±25%		
	Circuit diagram						
Contact layout							
2	Cable Type	Jacket Color			Jacket Color		
	Wire diameter 0.75 mm²	yellow	gray	black	yellow	gray	black
	PVC	016	216	616	016	216	616
	PUR/PVC (UL/CSA)	026	226	626	026	226	626
	PUR (UL/CSA), robots/C-tracks	036	236	636	036	236	636
	PUR (UL/CSA), welding spark	056	256	656	056	256	656
3	Cable Length						
	1.5 m	0150					
	3.0 m	0300					
	5.0 m	0500					
	7.5 m	0750					
	10.0 m	1000					
Technical Data							
Operating voltage		24 V AC/DC ±25%			24 V AC ±20% / DC ±25%		
Protection		IP67 inserted and tightened (EN 60529)					
Temperature range		-25...+85 °C, depending on cable quality					
Article No.							
The composition of your article number is explained on page 3.1.i							
		1 Form		2 Cable Type		3 Cable Length	
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.					

| VALVE CONNECTORS

MSUD

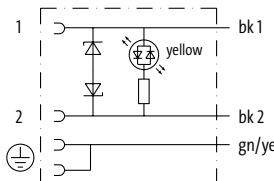
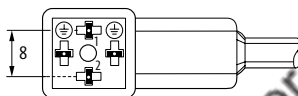
– with open ended wires

Form C (8 mm)



Approvals: 

* only for products with UL/CSA approved cable

1	Form	80041			80061		
	Type	110 V AC/DC ±10%			max. 230 V AC/DC		
		LED and suppression			without components		
	Circuit diagram						
	Contact layout						
2	Cable Type	Jacket Color			Jacket Color		
	Wire diameter 0.75 mm²	yellow	gray	black	yellow	gray	black
	PVC	016	216	616	016	216	616
	PUR/PVC (UL/CSA)	026	226	626	026	226	626
	PUR (UL/CSA), robots/C-tracks	036	236	636	036	236	636
	PUR (UL/CSA), welding spark	056	256	656	056	256	656
3	Cable Length						
	1.5 m	0150					
	3.0 m	0300					
	5.0 m	0500					
	7.5 m	0750					
	10.0 m	1000					
Technical Data							
Operating voltage		110 V AC/DC ±10%			max. 230 V AC/DC		
Protection		IP67 inserted and tightened (EN 60529)					
Temperature range		-25...+85 °C, depending on cable quality					
Article No.							
The composition of your article number is explained on page 3.1.i		7 0 0 0			-		-
		1 Form		2 Cable Type		3 Cable Length	
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.					

VALVE CONNECTORS

MSUD

– with open ended wires

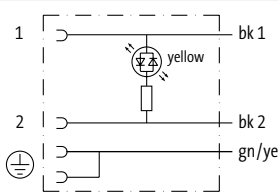
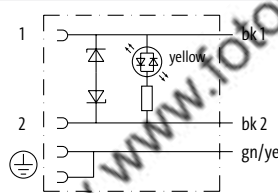
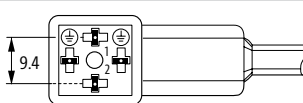
Approvals: 

* only for products with UL/CSA approved cable

Form CI (9.4 mm)

Industrial standard



1	Form	94001			94021		
	Type	24 V AC/DC ±25%			24 V AC ±20% / DC ±25%		
	Circuit diagram						
Contact layout							
2	Cable Type	Jacket Color			Jacket Color		
	Wire diameter 0.75 mm²	yellow	gray	black	yellow	gray	black
	PVC	016	216	616	016	216	616
	PUR/PVC (UL/CSA)	026	226	626	026	226	626
	PUR (UL/CSA), robots/C-tracks	036	236	636	036	236	636
	PUR (UL/CSA), welding spark	056	256	656	056	256	656
3	Cable Length						
	1.5 m	0150					
	3.0 m	0300					
	5.0 m	0500					
	7.5 m	0750					
	10.0 m	1000					
Technical Data							
Operating voltage		24 V AC/DC ±25%			24 V AC ±20% / DC ±25%		
Protection		IP67 inserted and tightened (EN 60529)					
Temperature range		-25...+85 °C, depending on cable quality					
Article No.							
The composition of your article number is explained on page 3.1.i		7000 - -					
		1 Form			2 Cable Type		3 Cable Length
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.					

VALVE CONNECTORS

MSUD

– with open ended wires

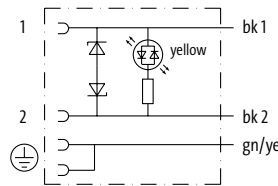
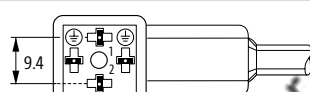
Approvals: 

* only for products with UL/CSA approved cable

Form CI (9.4 mm)

Industrial standard



1	Form	94041			94061		
	Type	110 V AC/DC ±10%			max. 230 V AC/DC		
		LED and suppression			without components		
	Circuit diagram						
	Contact layout						
2	Cable Type	Jacket Color			Jacket Color		
	Wire diameter 0.75 mm²	yellow	gray	black	yellow	gray	black
	PVC	016	216	616	016	216	616
	PUR/PVC (UL/CSA)	026	226	626	026	226	626
	PUR (UL/CSA), robots/C-tracks	036	236	636	036	236	636
	PUR (UL/CSA), welding spark	056	256	656	056	256	656
3	Cable Length						
	1.5 m	0150					
	3.0 m	0300					
	5.0 m	0500					
	7.5 m	0750					
	10.0 m	1000					
Technical Data							
Operating voltage		110 V AC/DC ±10%			max. 230 V AC/DC		
Protection		IP67 inserted and tightened (EN 60529)					
Temperature range		-25...+85 °C, depending on cable quality					
Article No.							
The composition of your article number is explained on page 3.1.i		7000 - -					
		1 Form		2 Cable Type		3 Cable Length	
Notes							
		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.					

VALVE CONNECTORS

MSUD - MSUD

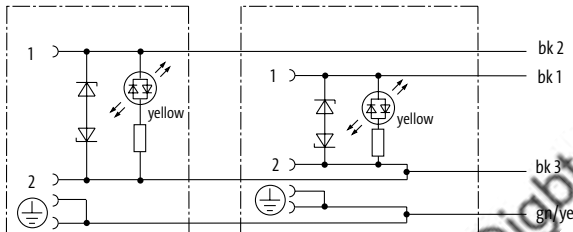
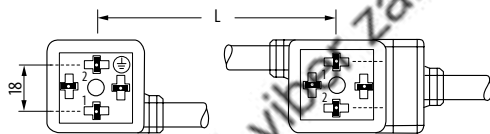
– Double valve plugs with connection cable

Approvals: 

* only for products with UL/CSA approved cable

Form A (18 mm)



1	Form	58001			58021			58041					
	Type	24 V AC ±20% / DC ±25%			24 V AC ±20% / DC ±25%			24 V AC ±20% / DC ±25%					
		LED and suppression			LED and suppression			LED and suppression					
		L = 110 mm			L = 150 mm			L = 200 mm					
	Circuit diagram	Valve plug 2Valve plug 1Connection cable 											
	Contact layout												
2	Cable Type	Jacket Color			Jacket Color			Jacket Color					
	Wire diameter 0.75 mm²	yellow	gray	black	yellow	gray	black	yellow	gray	black			
	PVC	017	217	617	017	217	617	017	217	617			
	PUR/PVC (UL/CSA)	027	227	627	027	227	627	027	227	627			
	PUR (UL/CSA), robots/C-tracks	037	237	637	037	237	637	037	237	637			
3	Cable Length												
	1.5 m	0150											
	3.0 m	0300											
	5.0 m	0500											
	7.5 m	0750											
	10.0 m	1000											
	Technical Data												
	Operating voltage	24 V AC ±20% / DC ±25%											
	Protection	IP67 inserted and tightened (EN 60529)											
	Temperature range	-25...+85 °C, depending on cable quality											
	Article No.												
	The composition of your article number is explained on page 3.1.i	7 0 0 0 - -											
		1		Form		2		Cable Type		3		Cable Length	
	Notes	Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.											

VALVE CONNECTORS

MSUD - MSUD

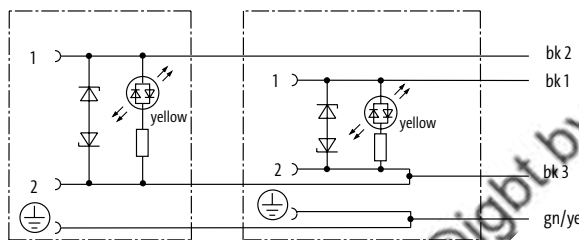
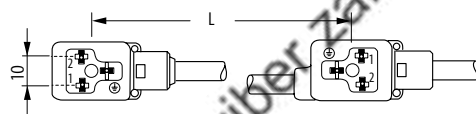
– Double valve plugs with connection cable

Approvals: 

* only for products with UL/CSA approved cable

Form B (10 mm)



1 Form	58201	58221	58241
Type	24 V AC ±20% / DC ±25%	24 V AC ±20% / DC ±25%	24 V AC ±20% / DC ±25%
LED and suppression	LED and suppression	LED and suppression	LED and suppression
L = 100 mm	L = 150 mm	L = 200 mm	
Circuit diagram			
Contact layout			
2 Cable Type	Jacket Color		
Wire diameter 0.75 mm²	yellow	gray	black
PVC	017	217	617
PUR/PVC (UL/CSA)	027	227	627
PUR (UL/CSA), robots/C-tracks	037	237	637
3 Cable Length	Jacket Color		
1.5 m	0150		
3.0 m	0300		
5.0 m	0500		
7.5 m	0750		
10.0 m	1000		
Technical Data	Jacket Color		
Operating voltage	24 V AC ±20% / DC ±25%		
Protection	IP67 inserted and tightened (EN 60529)		
Temperature range	-25...+85 °C, depending on cable quality		
Article No.	Jacket Color		
The composition of your article number is explained on page 3.1.i	7 0 0 0	-	-
	1 Form	2 Cable Type	3 Cable Length
Notes	Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.		

VALVE CONNECTORS

MSUD - MSUD

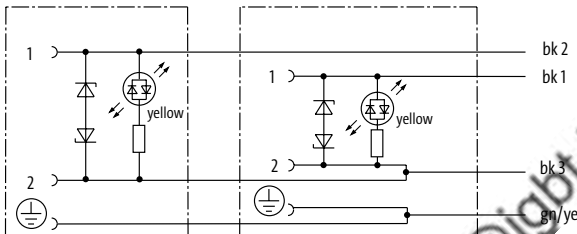
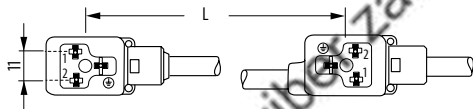
– Double valve plugs with connection cable

Approvals: 

* only for products with UL/CSA approved cable

Form BI (11 mm)



1	Form	58101				58121				58141															
	Type	24 V AC ±20% / DC ±25%				24 V AC ±20% / DC ±25%				24 V AC ±20% / DC ±25%															
		LED and suppression				LED and suppression				LED and suppression															
		L = 100 mm				L = 150 mm				L = 200 mm															
Circuit diagram		Valve plug 2 Valve plug 1 Connection cable 																							
Contact layout																									
2	Cable Type	Jacket Color				Jacket Color				Jacket Color															
	Wire diameter 0.75 mm²	yellow	gray	black	yellow	gray	black	yellow	gray	black															
	PVC	017	217	617	017	217	617	017	217	617															
	PUR/PVC (UL/CSA)	027	227	627	027	227	627	027	227	627															
	PUR (UL/CSA), robots/C-tracks	037	237	637	037	237	637	037	237	637															
3	Cable Length																								
	1.5 m	0150																							
	3.0 m	0300																							
	5.0 m	0500																							
	7.5 m	0750																							
	10.0 m	1000																							
Technical Data																									
Operating voltage		24 V AC ±20% / DC ±25%																							
Protection		IP67 inserted and tightened (EN 60529)																							
Temperature range		-25...+85 °C, depending on cable quality																							
Article No.																									
The composition of your article number is explained on page 3.1.i		7 0 0 0 - -																							
		1				Form				2				Cable Type				3				Cable Length			
Notes																									
		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.																							

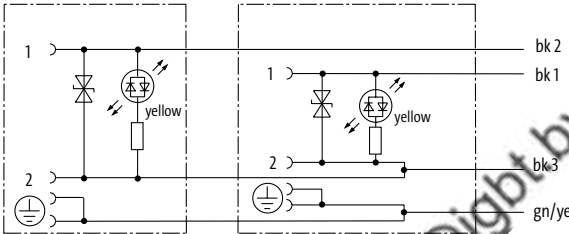
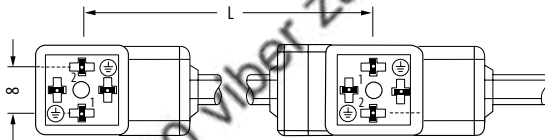
VALVE CONNECTORS

MSUD - MSUD

– Double valve plugs with connection cable

Form C (8 mm)



1	Form	58401			58411			58421					
	Type	24 V AC ±20% / DC ±25%			24 V AC ±20% / DC ±25%			24 V AC ±20% / DC ±25%					
		LED and suppression			LED and suppression			LED and suppression					
		L = 110 mm			L = 150 mm			L = 200 mm					
Circuit diagram		Valve plug 2 Valve plug 1 Connection cable 											
Contact layout													
2	Cable Type	Jacket Color			Jacket Color			Jacket Color					
	Wire diameter 0.75 mm²	yellow	gray	black	yellow	gray	black	yellow	gray	black			
	PVC	017	217	617	017	217	617	017	217	617			
	PUR/PVC (UL/CSA)	027		627	027		627	027		627			
3	Cable Length												
	1.5 m	0150											
	3.0 m	0300											
	5.0 m	0500											
	7.5 m	0750											
	10.0 m	1000											
	Technical Data												
Operating voltage	24 V AC ±20% / DC ±25%												
Protection	IP67 inserted and tightened (EN 60529)												
Temperature range	-25...+85 °C, depending on cable quality												
Article No.													
The composition of your article number is explained on page 3.1.i		7000 - -											
		1		Form		2		Cable Type		3		Cable Length	
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.											

VALVE CONNECTORS

MSUD - MSUD

– Double valve plugs with connection cable

Form CI (9.4 mm)

Industrial standard



1	Form	58431			58441			58451							
	Type	24 V AC ±20% / DC ±25%			24 V AC ±20% / DC ±25%			24 V AC ±20% / DC ±25%							
		LED and suppression			LED and suppression			LED and suppression							
		L = 110 mm			L = 150 mm			L = 200 mm							
Circuit diagram	Valve plug 2 Valve plug 1 Connection cable														
	Contact layout														
2	Cable Type	Jacket Color			Jacket Color			Jacket Color							
	Wire diameter 0.75 mm²	yellow	gray	black	yellow	gray	black	yellow	gray	black					
	PVC	017	217	617	017	217	617	017	217	617					
	PUR/PVC (UL/CSA)	027		627	027		627	027		627					
3	Cable Length														
	1.5 m	0150													
	3.0 m	0300													
	5.0 m	0500													
	7.5 m	0750													
	10.0 m	1000													
Technical Data															
Operating voltage		24 V AC ±20% / DC ±25%													
Protection		IP67 inserted and tightened (EN 60529)													
Temperature range		-25...+85 °C, depending on cable quality													
Article No.															
The composition of your article number is explained on page 3.1.i		7 0 0 0 0 - -													
		1			Form			2		Cable Type		3		Cable Length	
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.													

VALVE CONNECTORS

MSUD - MSUD

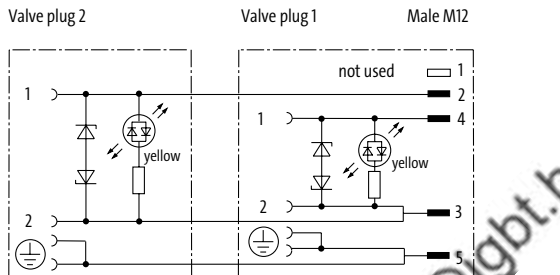
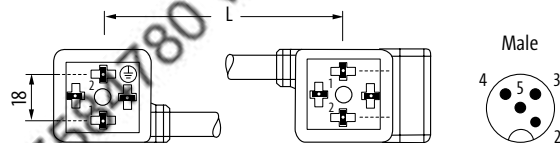
– Double valve plugs with M12 male, connector top entry

Form A (18 mm)



Approvals: 

* only for products with UL/CSA approved cable

1	Form	41501	41521	41541
Type		24 V AC $\pm 20\%$ / DC $\pm 25\%$	24 V AC $\pm 20\%$ / DC $\pm 25\%$	24 V AC $\pm 20\%$ / DC $\pm 25\%$
LED and suppression		LED and suppression	LED and suppression	LED and suppression
L = 110 mm		L = 150 mm	L = 200 mm	
Circuit diagram				
Contact layout				
2	Cable Type	Jacket Color		
Wire diameter 0.75 mm ²		yellow	gray	black
PVC		016	216	616
PUR/PVC (UL/CSA)		026	226	626
PUR (UL/CSA), robots/C-tracks		036	236	636
Technical Data				
Operating voltage		24 V AC $\pm 20\%$ / DC $\pm 25\%$		
Protection		IP67 inserted and tightened (EN 60529)		
Temperature range		-25...+85 °C, depending on cable quality		
Article No.				
The composition of your article number is explained on page 3.1.i		7 0 0 0 - 0 0 0 0		
		1	Form	2
		2	Cable Type	
Notes		Other versions on request.		

VALVE CONNECTORS

MSUD - MSUD

– Double valve plugs with M12 male, connector at the rear

Approvals: 

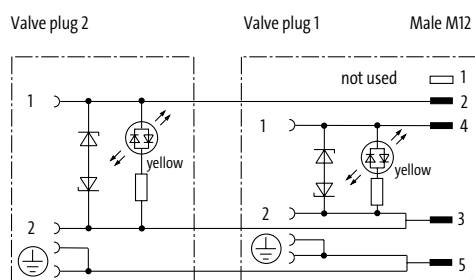
* only for products with UL/CSA approved cable

Form A (18 mm)

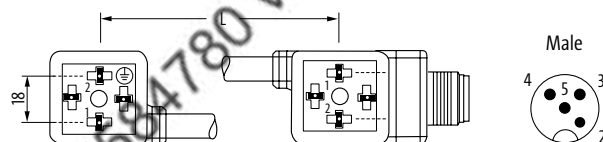


1 Form	41561	41581	41601
Type	24 V AC ±20% / DC ±25%	24 V AC ±20% / DC ±25%	24 V AC ±20% / DC ±25%
LED and suppression	LED and suppression	LED and suppression	LED and suppression
L = 110 mm	L = 150 mm	L = 200 mm	

Circuit diagram



Contact layout



2 Cable Type	Jacket Color			Jacket Color			Jacket Color		
Wire diameter 0.75 mm²	yellow	gray	black	yellow	gray	black	yellow	gray	black
PVC	016	216	616	016	216	616	016	216	616
PUR/PVC (UL/CSA)	026	226	626	026	226	626	026	226	626
PUR (UL/CSA), robots/C-tracks	036	236	636	036	236	636	036	236	636

Technical Data

Operating voltage	24 V AC ±20% / DC ±25%
Protection	IP67 inserted and tightened (EN 60529)
Temperature range	-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 0 0 0

-

-

0 0 0 0

1 Form

2 Cable Type

Notes

Other versions on request.

VALVE CONNECTORS

MSUD - M12

– Connection cables

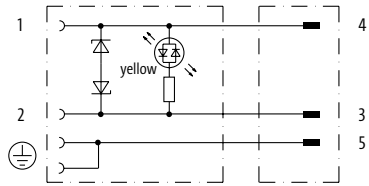
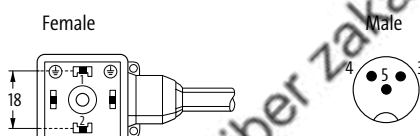
Form A (18 mm)

Male M12

straight


Approvals: 

* only for products with UL/CSA approved cable

1	Form	40881
Type	24 V AC $\pm 20\%$ / DC $\pm 25\%$	
	LED and suppression	
Circuit diagram		
Contact layout		
2	Cable Type	Jacket Color
Wire diameter 0.75 mm ²	yellow	gray
PVC	016	216
PUR/PVC (UL/CSA)	026	226
PUR (UL/CSA), robots/C-tracks	036	236
PUR (UL/CSA), welding spark	056	256
		black
		616
		626
		636
		656
3	Cable Length	
0.3 m	0030	
0.6 m	0060	
1.0 m	0100	
1.5 m	0150	
2.0 m	0200	
Technical Data		
Operating voltage	24 V AC $\pm 20\%$ / DC $\pm 25\%$	
Protection	IP67 inserted and tightened (EN 60529)	
Temperature range	-25...+85 °C, depending on cable quality	
Article No.		
The composition of your article number is explained on page 3.1.i	7 0 0 0 - 4 0 8 8 1 -	
	1	Form
	2	Cable Type
	3	Cable Length
Notes		
Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.		

VALVE CONNECTORS

MSUD - M12

– Connection cables

– for pressure switches

Approvals: 

* only for products with UL/CSA approved cable

Form A (18 mm)

Male M12

straight



1	Form	40921			40931		
	Type	24 V DC ±25%			24 V DC ±25%		
Circuit diagram	LED (red/green)						
	LED (yellow/green)						
Contact layout							
2	Cable Type	Jacket Color			Jacket Color		
	Wire diameter 0.34 mm²	yellow	gray	black	yellow	gray	black
	PVC (UL/CSA)	015	215 (219)	615 (619)	015	215 (219)	615 (619)
	PUR/PVC (UL/CSA)	025	225	625	025	225	625
	PUR (UL/CSA), robots/C-tracks	035	235	635	035	235	635
PUR (UL/CSA), welding spark	055	255	655	055	255	655	
3	Cable Length						
	0.3 m	0030					
	0.6 m	0060					
	1.0 m	0100					
	1.5 m	0150					
2.0 m	0200						
Technical Data	Operating voltage	24 V DC ±25%					
	Protection	IP67 inserted and tightened (EN 60529)					
	Temperature range	-25...+85 °C, depending on cable quality					
Article No.							
The composition of your article number is explained on page 3.1.i	7000 - -						
Notes							

VALVE CONNECTORS

MSUD - M12

– Connection cables

Form B (10 mm)

Male M12
straight

Form BI (11 mm)

Industrial standard

Male M12
straight


Approvals:

* only for products with UL/CSA approved cable

1 Form		41001			40961			
Type		24 V AC ±20% / DC ±25%			24 V AC ±20% / DC ±25%			
		LED and suppression			LED and suppression			
Circuit diagram								
Contact layout								
2 Cable Type		Jacket Color			Jacket Color			
Wire diameter 0.75 mm²		yellow	gray	black	yellow	gray	black	
PVC		016	216	616	016	216	616	
PUR/PVC (UL/CSA)		026	226	626	026	226	626	
PUR (UL/CSA), robots/C-tracks		036	236	636	036	236	636	
PUR (UL/CSA), welding spark		056	256	656	056	256	656	
3 Cable Length								
0.3 m		0030						
0.6 m		0060						
1.0 m		0100						
1.5 m		0150						
2.0 m		0200						
Technical Data								
Operating voltage		24 V AC ±20% / DC ±25%						
Protection		IP67 inserted and tightened (EN 60529)						
Temperature range		-25...+85 °C, depending on cable quality						
Article No.								
The composition of your article number is explained on page 3.1.i		7000 - -						
		1 Form		2 Cable Type		3 Cable Length		
Notes		Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.						

VALVE CONNECTORS

MSUD - M12

– Connection cables

Form C (8 mm)

Male M12
straight

Form CI (9.4 mm)

Industrial standard

Male M12

straight



Approvals: 

* only for products with UL/CSA approved cable

1 Form

41081

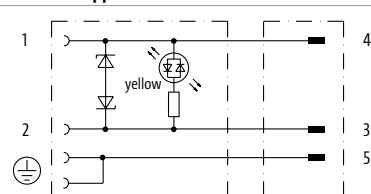
41041

Type

24 V AC $\pm 20\%$ / DC $\pm 25\%$

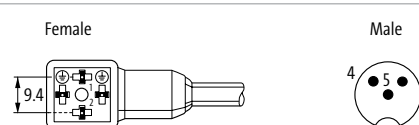
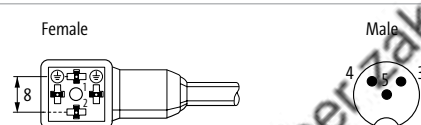
24 V AC $\pm 20\%$ / DC $\pm 25\%$

Circuit diagram



LED and suppression

Contact layout



2 Cable Type

Jacket Color

Jacket Color

Wire diameter 0.75 mm²

yellow	gray	black	yellow	gray	black
016	216	616	016	216	616
026	226	626	026	226	626
036	236	636	036	236	636
056	256	656	056	256	656

PVC	016	216	616	016	216	616
PUR/PVC (UL/CSA)	026	226	626	026	226	626
PUR (UL/CSA), robots/C-tracks	036	236	636	036	236	636
PUR (UL/CSA), welding spark	056	256	656	056	256	656

3 Cable Length

0.3 m	0030
0.6 m	0060
1.0 m	0100
1.5 m	0150
2.0 m	0200

Technical Data

Operating voltage	24 V AC $\pm 20\%$ / DC $\pm 25\%$
Protection	IP67 inserted and tightened (EN 60529)
Temperature range	-25...+85 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

7 0 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Other versions on request. Differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

MSUD - M12

– Adapter

Approvals: 

Form A (18 mm)

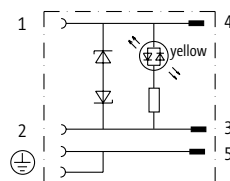
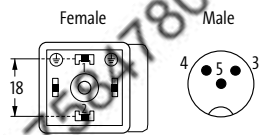
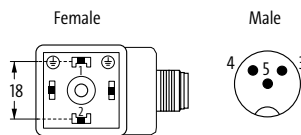
Top connection



Form A (18 mm)

Rear connection



1 Form		413 01		414 21	
Type		24 V AC ±20% / DC ±25% M12, 3-pole LED and suppression		24 V AC ±20% / DC ±25% M12, 3-pole LED and suppression	
Circuit diagram					
Contact layout					
Technical Data					
Operating voltage		24 V AC ±20% / DC ±25%			
Rated surge voltage		0.8 kV			
Operating current per contact		max. 4 A			
Configuration		2 contacts + bridged PE			
Locking of ports		M3/M12 × 1 mm (recommended torque 0.4/0.6 Nm)			
Protection		IP67 inserted and tightened (EN 60529)			
Temperature range		-25...+85 °C			
Article No.					
The composition of your article number is explained on page 3.1.i		7000 - - 000 0000			
		1 Form			
Notes					
Other versions on request.					

VALVE CONNECTORS

MSUD - M12

– Adapter

Approvals:
 

Form A (18 mm)

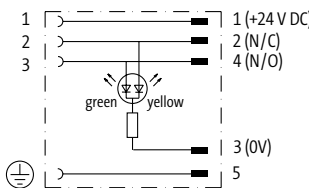
Top connection



Form A (18 mm)

Rear connection



1	Form	41321	41441
	Type	24 V DC ±25%	24 V DC ±25%
		M12, 5-pole	M12, 5-pole
		for pressure switches	for pressure switches
Circuit diagram			
	Contact layout		
Technical Data			
Operating voltage		24 V DC ±25%	
Rated surge voltage		0.8 kV	
Operating current per contact		max. 4 A	
Configuration		3 contacts + PE	
Locking of ports		M3/M12 × 1 mm (recommended torque 0.4/0.6 Nm)	
Protection		IP67 inserted and tightened (EN 60529)	
Temperature range		-25...+85 °C	
Article No.			
The composition of your article number is explained on page 3.1.i		7 0 0 0 - 1 Form - 0 0 0 0 0 0 0	
		1 Form	
Notes			
		Other versions on request.	

VALVE CONNECTORS

MSUD - M12

– Adapter

Approvals: 

Form B (10 mm)

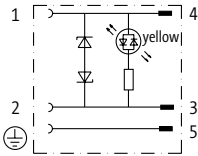
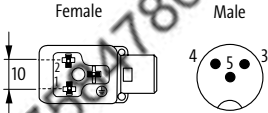
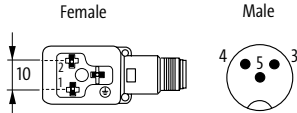
Top connection



Form B (10 mm)

Rear connection



1 Form		419 01		419 61	
Type		24 V AC ±20% / DC ±25%		24 V AC ±20% / DC ±25%	
		M12, 3-pole		M12, 3-pole	
		LED and suppression		LED and suppression	
Circuit diagram					
Contact layout					
Technical Data					
Operating voltage		24 V AC ±20% / DC ±25%			
Rated surge voltage		0.8 kV			
Operating current per contact		max. 4 A			
Configuration		2 contacts + PE			
Locking of ports		M3/M12 × 1 mm (recommended torque 0.4/0.6 Nm)			
Protection		IP67 inserted and tightened (EN 60529)			
Temperature range		-25...+85 °C			
Article No.					
The composition of your article number is explained on page 3.1.i		7000 - - 000 0000			
		1 Form			
Notes					
Other versions on request.					

VALVE CONNECTORS

MSUD - M12

- Adapter

Approvals: 

Form BI (11 mm)

Industrial standard
Top connection



Form BI (11 mm)

Industrial standard
Rear connection



1 Form		42021	42081
Type	24 V AC ±20% / DC ±25%		24 V AC ±20% / DC ±25%
	M12, 3-pole		M12, 3-pole
	LED and suppression		LED and suppression
Circuit diagram			
Contact layout			
Technical Data			
Operating voltage	24 V AC ±20% / DC ±25%		
Rated surge voltage	0.8 kV		
Operating current per contact	max. 4 A		
Configuration	2 contacts + PE		
Locking of ports	M3/M12 × 1 mm (recommended torque 0.4/0.6 Nm)		
Protection	IP67 inserted and tightened (EN 60529)		
Temperature range	-25...+85 °C		
Article No.			
The composition of your article number is explained on page 3.1.i	7 0 0 0 - - - - - 0 0 0 0 0 0 0		
	1 Form		
Notes			
Other versions on request.			

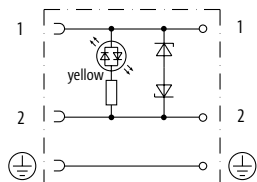
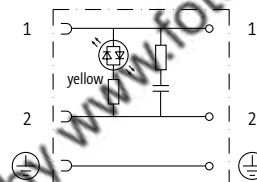
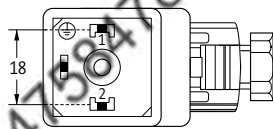
VALVE CONNECTORS

SVS

- Field-wireable
- Convenient connection, screw terminals

Form A (18 mm)



1	Form	29001	29021	29041	29061
	Type	24 V AC ±20% / DC ±25%	24 V AC ±20% / DC ±25%	max. 24 V AC/DC	max. 24 V AC/DC
	LED and Z-diode		LED and Z-diode	LED and RC	LED and RC
	metric		PG9	metric	PG9
	Circuit diagram				
	Contact figure	Cable outlet can be turned in 90° steps			
	Contact layout				
Technical Data					
	Operating voltage	24 V AC ±20% / DC ±25%		max. 24 V AC/DC	
	Operating current per contact	max. 4 A		max. 2 A	
	Configuration	2 contacts + PE			
	Locking of ports	M3 (recommended torque 0.4 Nm)			
	Protection	IP65 inserted and tightened (EN 60529)			
	Temperature range	-20...+60 °C			
Article No.					
	The composition of your article number is explained on page 3.1.i	7 0 0 0 - 1 Form - 0 0 0 0 0 0 0			
	Notes	Other versions on request.			

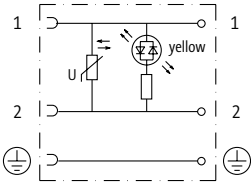
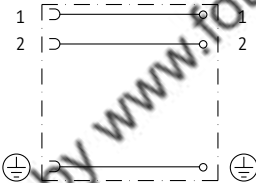
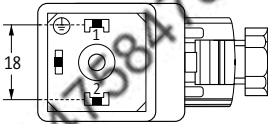
VALVE CONNECTORS

SVS

- Field-wireable
- Convenient connection, screw terminals

Form A (18 mm)



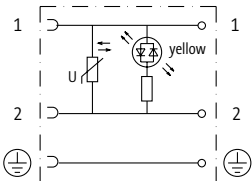
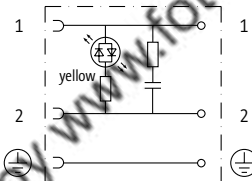
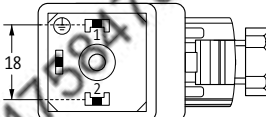
1	Form	29081	29101	29241	29261
Type		max. 110 V AC/DC	max. 110 V AC/DC	max. 230 V AC/DC	max. 230 V AC/DC
		LED and VDR	LED and VDR	without components	without components
		metric	PG9	metric	PG9
Circuit diagram					
Contact figure		Cable outlet can be turned in 90° steps			
Contact layout					
Technical Data					
Operating voltage		max. 110 V AC/DC		max. 230 V AC/DC	
Operating current per contact		max. 1 A		max. 10 A	
Configuration		2 contacts + PE			
Locking of ports		M3 (recommended torque 0.4 Nm)			
Protection		IP65 inserted and tightened (EN 60529)			
Temperature range		-20...+60 °C			
Article No.					
The composition of your article number is explained on page 3.1.i		7 0 0 0 - - 0 0 0 0 0 0 0			
		1 Form			
Notes		Other versions on request.			

SVS

- Field-wireable
- Convenient connection, screw terminals

Form A (18 mm)



1	Form	29161	29181	29121	29141
	Type	max. 230 V AC/DC	max. 230 V AC/DC	110 V AC/DC and 230 V AC/DC	110 V AC/DC and 230 V AC/DC
	LED and VDR	LED and VDR	LED and VDR	LED and RC	LED and RC
	metric		PG9	metric	PG9
	Circuit diagram				
Contact figure		Cable outlet can be turned in 90° steps			
Contact layout					
Technical Data					
Operating voltage		max. 230 V AC/DC		110 V AC/DC and 230 V AC/DC	
Operating current per contact		max. 1 A			
Configuration		2 contacts + PE			
Locking of ports		M3 (recommended torque 0.4 Nm)			
Protection		IP65 inserted and tightened (EN 60529)			
Temperature range		-20...+60 °C			
Article No.					
The composition of your article number is explained on page 3.1.i		7 0 0 0		0 0 0	
		-		-	
		1		Form	
Notes		Other versions on request.			

VALVE CONNECTORS

SVS

- Field-wireable
- Convenient connection, screw terminals

Form A (18 mm)



1	Form	29481	29501	29521	29541
Type		12...30 V DC LED and switching amplifier metric	12...30 V DC LED and switching amplifier PG9	24...230 V AC/DC LED and bridge rectifier metric	24...230 V AC/DC LED and bridge rectifier PG9
Circuit diagram					
Contact figure		Cable outlet can be turned in 90° steps			
Contact layout					
Technical Data		Operating voltage 12...30 V DC Operating current per contact max. 2 A (short-circuit protected) Configuration 2 contacts + PE Locking of ports M3 (recommended torque 0.4 Nm) Protection IP65 inserted and tightened (EN 60529) Temperature range -20...+60 °C		24...230 V AC/DC max. 1 A	
Article No.					
The composition of your article number is explained on page 3.1.i		7 0 0 0 - - 0 0 0 0 0 0 0			
		1 Form			

Notes

Other versions on request.

SVS

- Field-wireable
- Convenient connection, screw terminals
- for pressure switches

Form A (18 mm)



1	Form	29281	29301	29441	29461
Type		24...230 V AC/DC	24...230 V AC/DC	max. 24 V AC/DC	max. 24 V AC/DC
		LED red (2) green (3)	LED red (2) green (3)	LED green (1) yellow (3)	LED green (1) yellow (3)
		metric	PG9	metric	PG9
Circuit diagram					
Contact figure		Cable outlet can be turned in 90° steps			
Contact layout					
Technical Data					
Operating voltage		24...230 V AC/DC		max. 24 V AC/DC	
Operating current per contact		max. 4 A			
Configuration		3 contacts + PE			
Locking of ports		M3 (recommended torque 0.4 Nm)			
Protection		IP65 inserted and tightened (EN 60529)			
Temperature range		-20...+60 °C			
Article No.					
The composition of your article number is explained on page 3.1.i		7 0 0 0 - - 0 0 0 0 0 0 0			
		1 Form			
Notes		Other versions on request.			

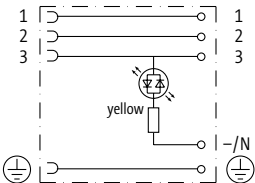
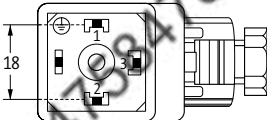
VALVE CONNECTORS

SVS

- Field-wireable
- Convenient connection, screw terminals
- for pressure switches

Form A (18 mm)



1	Form	29361	29381	29401	29421
Type		24...230 V AC/DC	24...230 V AC/DC	max. 230 V AC/DC	max. 230 V AC/DC
		LED yellow (3)	LED yellow (3)	without components	without components
		metric	PG9	metric	PG9
Circuit diagram					
Contact figure		Cable outlet can be turned in 90° steps			
Contact layout					
Technical Data					
Operating voltage		24...230 V AC/DC		max. 230 V AC/DC	
Operating current per contact		max. 4 A		max. 10 A	
Configuration		3 contacts + PE			
Locking of ports		M3 (recommended torque 0.4 Nm)			
Protection		IP65 inserted and tightened (EN 60529)			
Temperature range		-20...+60 °C			
Article No.					
The composition of your article number is explained on page 3.1.i		7 0 0 0 - 0 0 0 - 0 0 0 0			
		1 Form			

Notes

Other versions on request.

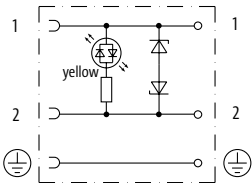
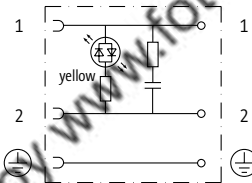
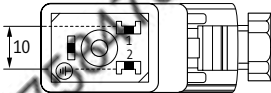
VALVE CONNECTORS

SVS

- Field-wireable
- Convenient connection, screw terminals

Form B (10 mm)



1	Form	29561	29581	29601	29621
Type		24 V AC ±20% / DC ±25%	24 V AC ±20% / DC ±25%	max. 24 V AC/DC	max. 24 V AC/DC
		LED and Z-diode	LED and Z-diode	LED and RC	LED and RC
		metric	PG9	metric	PG9
Circuit diagram					
Contact figure		Cable outlet can be turned in 180° steps			
Contact layout					
Technical Data					
Operating voltage		24 V AC ±20% / DC ±25%		max. 24 V AC/DC	
Operating current per contact		max. 4 A		max. 2 A	
Configuration		2 contacts + PE			
Locking of ports		M3 (recommended torque 0.4 Nm)			
Protection		IP65 inserted and tightened (EN 60529)			
Temperature range		-20...+60 °C			
Article No.					
The composition of your article number is explained on page 3.1.i		7 0 0 0		0 0 0	0 0 0 0
		1		Form	
Notes		Other versions on request.			

VALVE CONNECTORS

SVS

- Field-wireable
- Convenient connection, screw terminals

Form BI (11 mm)

Industrial standard



1	Form	29801	29821	29841	29861
Type		24 V AC ±20% / DC ±25%	24 V AC ±20% / DC ±25%	max. 24 V AC/DC	max. 24 V AC/DC
		LED and Z-diode	LED and Z-diode	LED and RC	LED and RC
		metric	PG9	metric	PG9
Circuit diagram					
Contact figure		Cable outlet can be turned in 180° steps			
Contact layout					
Technical Data					
Operating voltage		24 V AC ±20% / DC ±25%		max. 24 V AC/DC	
Operating current per contact		max. 4 A		max. 2 A	
Configuration		2 contacts + PE			
Locking of ports		M3 (recommended torque 0.4 Nm)			
Protection		IP65 inserted and tightened (EN 60529)			
Temperature range		-20...+60 °C			
Article No.					
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		1 Form			
Notes		Other versions on request.			

VALVE CONNECTORS

MOSA

– Field-wireable

– IDC terminals

Form C (8 mm)



Form CI (9.4 mm)

Industrial standard



1	Form	80081	94081
Type		24 V AC/DC ±25%	24 V AC/DC ±25%
		LED and suppression	LED and suppression
Circuit diagram			
Contact figure		Cable outlet can be turned in 90° steps	
Contact layout			
Technical Data			
Operating voltage		24 V AC/DC ±25%	
Operating current per contact		max. 3 A	
Configuration		3 contacts + PE	
Contact figure		Cable outlet can be turned in 3 × 90° steps	
Protection		IP65 inserted and tightened (EN 60529)	
Temperature range		-25...+85 °C	
Article No.			
The composition of your article number is explained on page 3.1.i		7000 - - 000 0000	
		1 Form	
Notes			
Other versions on request.			

VALVE CONNECTORS

SVS Eco

- Field-wireable
- Screw terminals
- without components

Form A (18 mm)



Form A (18 mm)

for pressure switches



1 Form

29245

29405

Type

max. 250 V AC/DC

max. 250 V AC/DC

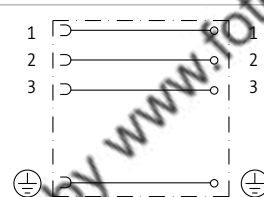
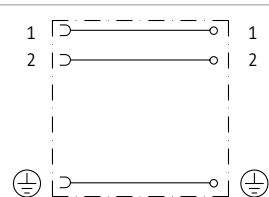
without components

without components

metric

metric

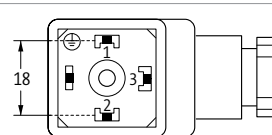
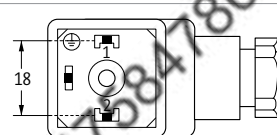
Circuit diagram



Contact figure

Cable outlet can be turned in 90° steps

Contact layout



Technical Data

Operating voltage

max. 250 V AC/DC

Operating current per contact

max. 10 A

Configuration

2 contacts + PE

3 contacts + PE

Locking of ports

M3 (recommended torque 0.4 Nm)

Contact figure

Cable outlet can be turned in 90° steps

Protection

IP65 inserted and tightened (EN 60529)

Temperature range

-40...+90 °C

Article No.

The composition of your article number is explained on page 3.1.i

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1 Form

Notes

Other versions on request.

VALVE CONNECTORS

SVS Eco

- Field-wireable
- Screw terminals
- without components

Form B (10 mm)



Form BI (11 mm)



1	Form	29765	30005
Type	max. 250 V AC/DC	max. 250 V AC/DC	
	without components	without components	
	metric	metric	
Circuit diagram			
Contact figure	Cable outlet can be turned in 180° steps		
Contact layout			
Technical Data			
Operating voltage	max. 250 V AC/DC		
Operating current per contact	max. 10 A		
Configuration	2 contacts + PE		
Locking of ports	M3 (recommended torque 0.4 Nm)		
Contact figure	Cable outlet can be turned in 180° steps		
Protection	IP65 inserted and tightened (EN 60529)		
Temperature range	-40...+90 °C		
Article No.			
The composition of your article number is explained on page 3.1.i	7000 - - 000 0000		
	1 Form		
Notes	Other versions on request.		

VALVE CONNECTORS

SVS Eco

- Field-wireable
- Screw terminals
- without components

Form C (8 mm)



Form CI (9.4 mm)

Industrial standard



1 Form

30055

30155

Type

max. 250 V AC/DC

max. 250 V AC/DC

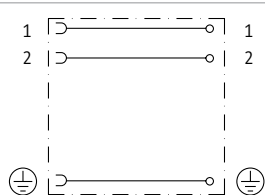
without components

without components

metric

metric

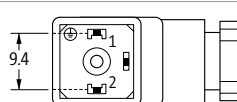
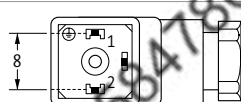
Circuit diagram



Contact figure

Cable outlet can be turned in 90° steps

Contact layout



Technical Data

Operating voltage

max. 250 V AC/DC

Operating current per contact

max. 6 A

Configuration

2 contacts + PE

Locking of ports

M2.5 (recommended torque 0.4 Nm)

M3 (recommended torque 0.4 Nm)

Contact figure

Cable outlet can be turned in 90° steps

Protection

IP65 inserted and tightened (EN 60529)

Temperature range

-40...+90 °C

Article No.

The composition of your article number is explained on page 3.1.i

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Form

Notes

Other versions on request.

VALVE CONNECTORS

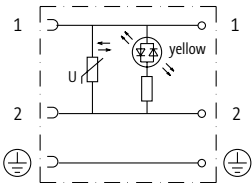
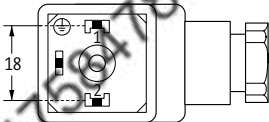
SVS Eco, LED

– Field-wireable

– Screw terminals

Form A (18 mm)



1	Form	29005	29085	29165
	Type	24 V AC/DC ±10%	110 V AC/DC ±10%	230 V AC/DC
		LED and VDR	LED and VDR	LED and VDR
		metric	metric	metric
Circuit diagram				
Contact figure	Cable outlet can be turned in 90° steps			
Contact layout				
Technical Data				
Operating voltage	24 V AC/DC ±10%	110 V AC/DC ±10%	230 V AC/DC ±10%	
Operating current per contact	max. 1.5 A			
Configuration	2 contacts + PE			
Locking of ports	M3 (recommended torque 0.4 Nm)			
Contact figure	Cable outlet can be turned in 90° steps			
Protection	IP65 inserted and tightened (EN 60529)			
Temperature range	-40...+60 °C			
Article No.				
The composition of your article number is explained on page 3.1.i				
	7 0 0 0	-	0 0 0	0 0 0 0
1		Form		
Notes				
Other versions on request.				

VALVE CONNECTORS

SVS Eco, LED

– Field-wireable

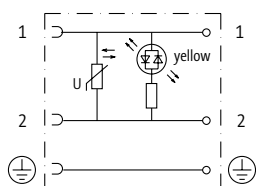
– Screw terminals

Form B (10 mm)



1 Form	29565	29645	29685
Type	24 V AC/DC $\pm 10\%$	110 V AC/DC $\pm 10\%$	230 V AC/DC $\pm 10\%$
	LED and VDR	LED and VDR	LED and VDR
	metric	metric	metric

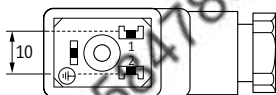
Circuit diagram



Contact figure

Cable outlet can be turned in 180° steps

Contact layout



Technical Data

Operating voltage	24 V AC/DC $\pm 10\%$	110 V AC/DC $\pm 10\%$	230 V AC/DC $\pm 10\%$
Operating current per contact	max. 1.5 A		
Configuration	2 contacts + PE		
Locking of ports	M3 (recommended torque 0.4 Nm)		
Contact figure	Cable outlet can be turned in 180° steps		
Protection	IP65 inserted and tightened (EN 60529)		
Temperature range	-40...+60 °C		

Article No.

The composition of your article number is explained on page 3.1.i

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1 Form

Notes

Other versions on request.

VALVE CONNECTORS

SVS Eco, LED

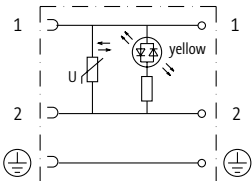
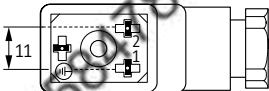
– Field-wireable

– Screw terminals

Form BI (11 mm)

Industrial standard



1 Form	29805	29885	29925
Type	24 V AC/DC ±10%	110 V AC/DC ±10%	230 V AC ±10%
	LED and VDR	LED and VDR	LED and VDR
	metric	metric	metric
Circuit diagram			
Contact figure	Cable outlet can be turned in 180° steps		
Contact layout			
Technical Data			
Operating voltage	24 V AC/DC ±10%	110 V AC/DC ±10%	230 V AC ±10%
Operating current per contact	max. 1.5 A		
Configuration	2 contacts + PE		
Locking of ports	M3 (recommended torque 0.4 Nm)		
Contact figure	Cable outlet can be turned in 180° steps		
Protection	IP65 inserted and tightened (EN 60529)		
Temperature range	-40...+60 °C		
Article No.			
The composition of your article number is explained on page 3.1.i	7 0 0 0 - - 0 0 0 0 0 0 0		
	1 Form		
Notes			
Other versions on request.			

VALVE CONNECTORS

SVS Eco, LED

– Field-wireable

– Screw terminals

Form C (8 mm)



1	Form	30105	30115	30125
	Type	24 V AC/DC ±10%	110 V AC/DC ±10%	230 V AC/DC ±10%
		LED and VDR	LED and VDR	LED and VDR
		metric	metric	metric
	Circuit diagram			
Contact figure		Cable outlet can be turned in 90° steps		
Contact layout				
Technical Data				
Operating voltage		24 V AC/DC ±10%	110 V AC/DC ±10%	230 V AC/DC ±10%
Operating current per contact		max. 1.5 A		
Configuration		2 contacts + PE		
Locking of ports		M2.5 (recommended torque 0.4 Nm)		
Contact figure		Cable outlet can be turned in 90° steps		
Protection		IP65 inserted and tightened (EN 60529)		
Temperature range		-40...+60 °C		
Article No.				
The composition of your article number is explained on page 3.1.i		7 0 0 0	-	0 0 0
				0 0 0 0
		1	Form	
Notes		Other versions on request.		

VALVE CONNECTORS

SVS Eco, LED

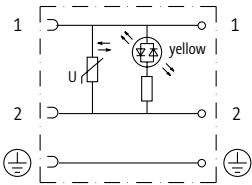
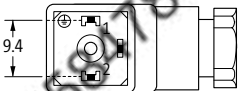
– Field-wireable

– Screw terminals

Form CI (9.4 mm)

Industrial standard



1 Form		3 0 2 0 5	3 0 2 1 5
Type		24 V AC/DC ±10%	110 V AC/DC ±10%
		LED and VDR	LED and VDR
		metric	metric
Circuit diagram			
Contact figure	Cable outlet can be turned in 90° steps		
Contact layout			
Technical Data			
Operating voltage	24 V AC/DC ±10%	110 V AC/DC ±10%	
Operating current per contact	max. 1.5 A		
Configuration	2 contacts + PE		
Locking of ports	M3 (recommended torque 0.4 Nm)		
Contact figure	Cable outlet can be turned in 90° steps		
Protection	IP65 inserted and tightened (EN 60529)		
Temperature range	-40...+60 °C		
Article No.			
The composition of your article number is explained on page 3.1.i	7000 - - 000 0000		
	1 Form		
Notes	Other versions on request.		

VALVE CONNECTORS

Labeling accessories			Art-No.
	ACS label plate (KM 5)		
	for self marking (9 × 20 mm)		7000-99001-0000000
	for self marking with ADEMARK markers		7000-99003-0000000
Gasket accessories			Art-No.
	Silicon gasket	Valve plug (form A)	7000-99011-0000000
	Flat gasket, NBR	Valve plug (form A)	7000-99012-0000000
	Silicon gasket	Valve plug (form B, BI)	7000-99013-0000000
	Flat gasket, NBR	Valve plug (form B, BI)	7000-99014-0000000
	Accessories set		
	Screw, isolation plate, label plate, flat gasket	Valve plug (form A)	7000-99015-0000000
	Screw, isolation plate, label plate, flat gasket	Valve plug (form A), field wireable	7000-99016-0000000
	Screw, isolation plate, label plate, flat gasket	Valve plug (form B, BI)	7000-99017-0000000
	Screw, isolation plate, label plate, flat gasket	Valve plug (form B, BI), field wireable	7000-99018-0000000
	Screw, isolation plate, label plate, flat gasket	Valve plug (form C)	7000-99019-0000000
	Screw, isolation plate, label plate, flat gasket	Valve plug (form CI)	7000-99020-0000000
	Hexagonal screw		
	Metal	Valve plug (form A)	7000-99021-0000000
	Metal	Valve plug (form A, B, BI), field wireable	7000-99022-0000000
	Stainless Steel 1.4404 (V4A)	Valve plug (form A)	7000-99024-0000000
	Plastic	Valve plug (form A)	7000-99023-0000000
	Gasket for valve plug socket		
	2 contacts + PE and 3 contacts + PE	Valve plug (form A)	7000-99251-0000000
	2 contacts + PE and 3 contacts + PE	Valve plug (form A)	7000-99255-0000000
	FPM		
	2 contacts + PE	Valve plug (form B)	7000-99271-0000000
	2 contacts + PE	Valve plug (form BI)	7000-99261-0000000
	2 contacts + PE and 3 contacts + PE	Valve plug (form C)	7000-99291-0000000
	2 contacts + PE and 3 contacts + PE	Valve plug (form CI)	7000-99281-0000000
End fitting accessories			Art-No.
	Cable compression gland PG 9		
	(gray)	Valve plug (form A, B, BI), field wireable	7000-99025-0000000
	(black)	Valve plug (form A, B, BI), field wireable	7000-99026-0000000

VALVE CONNECTORS

End fitting accessories			Art-No.
	Tube adapter		
	snap-in for corrugated tube (size 13mm)	Cable diameter (4...7 mm)	7000-99081-0000000
	Valve plug socket		
	2 contacts + PE	Valve plug (form A)	7000-99201-0000000
	2 contacts + PE	Valve plug (form B)	7000-99221-0000000
	2 contacts + PE	Valve plug (form Bl)	7000-99211-0000000
	2 contacts + PE	Valve plug (form C)	7000-99241-0000000
	2 contacts + PE	Valve plug (form Cl)	7000-99231-0000000
	Valve plug socket		
	3 contacts + PE	Valve plug (form A)	7000-99205-0000000
	3 contacts + PE	Valve plug (form C)	7000-99245-0000000
	3 contacts + PE	Valve plug (form Cl)	7000-99235-0000000

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Cables										
yellow	gray	black	No./diameter of wires	Wire isolation	C-track properties	Material (jacket)	Outer Ø	Bend radius (moving)	Temperature range (fixed)	Temperature range (mobile)
010	210	610	3 × 0.25 mm ²	PVC (br, bl, bk)		PVC (UL/CSA)	4.5 ±5%	10 × outer Ø	-30...+80 °C	-5...+80 °C
011	211	611	4 × 0.25 mm ²	PVC (br, wh, bl, bk)		PVC (UL/CSA)	4.8 ±5%	10 × outer Ø	-30...+80 °C	-5...+80 °C
013	213	613	3 × 0.34 mm ²	PVC (br, bl, bk)		PVC (UL/CSA)	4.6 ±5%	10 × outer Ø	-30...+80 °C	-5...+80 °C
014	214	614	4 × 0.34 mm ²	PVC (br, wh, bl, bk)		PVC (UL/CSA)	5.0 ±5%	10 × outer Ø	-30...+80 °C	-5...+80 °C
015	215	615	5 × 0.34 mm ²	PVC (br, wh, bl, bk, gnye)		PVC (UL/CSA)	5.2 ±5%	10 × outer Ø	-30...+80 °C	-5...+80 °C
–	219	619	5 × 0.34 mm ²	PVC (br, wh, bl, bk, gr)		PVC (UL/CSA)	5.2 ±5%	10 × outer Ø	-30...+80 °C	-5...+80 °C
015	215	615	5 × 0.34 mm ²	PVC (br, wh, bl, bk, gnye)		PVC (UL/CSA)	5.2 ±5%	10 × outer Ø	-30...+80 °C	-5...+80 °C
016	216	616	3 × 0.75 mm ²	PVC (bk num, gnye)		PVC	5.9 ±5%	10 × outer Ø	-30...+70 °C	-5...+70 °C
017	217	617	4 × 0.75 mm ²	PVC (bk num, gnye)		PVC	6.5 ±5%	10 × outer Ø	-30...+70 °C	-5...+70 °C
018	218	618	5 × 0.75 mm ²	PVC (bk num, gnye)		PVC	7.0 ±5%	10 × outer Ø	-30...+70 °C	-5...+70 °C
020	220	620	3 × 0.25 mm ²	PVC (br, bl, bk)	2 Mio.	PUR/PVC (UL/CSA)	4.5 ±5%	15 × outer Ø	-30...+80 °C	-5...+80 °C
021	221	621	4 × 0.25 mm ²	PVC (br, wh, bl, bk)	2 Mio.	PUR/PVC (UL/CSA)	4.8 ±5%	15 × outer Ø	-30...+80 °C	-5...+80 °C
023	223	623	3 × 0.34 mm ²	PVC (br, bl, bk)	2 Mio.	PUR/PVC (UL/CSA)	4.9 ±5%	15 × outer Ø	-30...+80 °C	-5...+80 °C
024	224	624	4 × 0.34 mm ²	PVC (br, wh, bl, bk)	2 Mio.	PUR/PVC (UL/CSA)	5.2 ±5%	15 × outer Ø	-30...+80 °C	-5...+80 °C
025	225	625	5 × 0.34 mm ²	PVC (br, wh, bl, bk, gnye)	2 Mio.	PUR/PVC (UL/CSA)	5.9 ±5%	15 × outer Ø	-30...+80 °C	-5...+80 °C
025	225	625	5 × 0.34 mm ²	PVC (br, wh, bl, bk, gnye)	2 Mio.	PUR/PVC (UL/CSA)	5.9 ±5%	15 × outer Ø	-30...+80 °C	-5...+80 °C
026	226	626	3 × 0.75 mm ²	PVC (bk num, gnye)	2 Mio.	PUR/PVC (UL/CSA)	5.9 ±5%	15 × outer Ø	-30...+80 °C	-5...+80 °C
027	227	627	4 × 0.75 mm ²	PVC (bk num, gnye)	2 Mio.	PUR/PVC (UL/CSA)	6.5 ±5%	15 × outer Ø	-30...+80 °C	-5...+80 °C
028	228	628	5 × 0.75 mm ²	PVC (bk num, gnye)	2 Mio.	PUR/PVC (UL/CSA)	7.0 ±5%	15 × outer Ø	-30...+80 °C	-5...+80 °C
030	230	630	3 × 0.25 mm ²	PP (br, bl, bk)	5 Mio.	PUR (UL/CSA)	4.3 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
031	231	631	4 × 0.25 mm ²	PP (br, wh, bl, bk)	5 Mio.	PUR (UL/CSA)	4.7 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
033	233	633	3 × 0.34 mm ²	PP (br, bl, bk)	5 Mio.	PUR (UL/CSA)	4.3 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
034	234	634	4 × 0.34 mm ²	PP (br, wh, bl, bk)	5 Mio.	PUR (UL/CSA)	4.7 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
035	235	635	5 × 0.34 mm ²	PP (br, wh, bl, bk, gnye)	5 Mio.	PUR (UL/CSA)	5.0 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
126	–	732	5 × 0.34 mm ²	PP (br, wh, bl, bk, gr)	5 Mio.	PUR (UL/CSA)	5.0 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
035	235	635	5 × 0.34 mm ²	PP (br, wh, bl, bk, gnye)	5 Mio.	PUR (UL/CSA)	5.0 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
036	236	636	3 × 0.75 mm ²	PP (bk num, gnye)	5 Mio.	PUR (UL/CSA)	5.9 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
037	237	637	4 × 0.75 mm ²	PP (bk num, gnye)	5 Mio.	PUR (UL/CSA)	6.5 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
038	238	638	5 × 0.75 mm ²	PP (bk num, gnye)	5 Mio.	PUR (UL/CSA)	7.0 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
050	250	650	3 × 0.25 mm ²	PP (br, bl, bk)	10 Mio.	PUR (UL/CSA),welding spark	4.3 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
051	251	651	4 × 0.25 mm ²	PP (br, wh, bl, bk)	10 Mio.	PUR (UL/CSA),welding spark	4.7 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
053	253	653	3 × 0.34 mm ²	PP (br, bl, bk)	10 Mio.	PUR (UL/CSA),welding spark	4.3 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
054	254	654	4 × 0.34 mm ²	PP (br, wh, bl, bk)	10 Mio.	PUR (UL/CSA),welding spark	4.7 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
055	255	655	5 × 0.34 mm ²	PP (br, wh, bl, bk, gnye)	10 Mio.	PUR (UL/CSA),welding spark	5.0 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
055	255	655	5 × 0.34 mm ²	PP (br, wh, bl, bk, gnye)	10 Mio.	PUR (UL/CSA),welding spark	5.0 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
056	256	656	3 × 0.75 mm ²	PP (bk num, gnye)	10 Mio.	PUR (UL/CSA),welding spark	5.2 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
114	292	722	8 × 0.25 mm ²	PP (wh, br, gn, ye, gr, pk, bl, rd)	5 Mio.	PUR (UL/CSA)	6.0 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C

CABLES

Cables								
green	No./diameter of wires	Wire isolation	C-track properties	Material (jacket)	Outer Ø	Bend radius (moving)	Temperature range (fixed)	Temperature range (mobile)
659 shielded	2×2×0.34 mm ²	PE (wh, ye, bl, or)	2 Mio.	PUR (UL/CSA)	7.4 ±5%	12 × outer Ø	-40...+80 °C	-30...+70 °C
794 shielded	2×2×0.34 mm ²	PE (wh, ye, bl, or)		PUR (UL/CSA)	6.5 ±5%	12 × outer Ø	-40...+80 °C	-20...+60 °C

green	black	red	No./diameter of wires	Wire isolation	C-track properties	Material (jacket)	Outer Ø	Bend radius (moving)	Temperature range (fixed)	Temperature range (mobile)
478	380	578	4×2×0.14 mm ²	PE (bkor, or, bkgn, gn, bkbl, bl, bkbr, br)		FRNC	5.9 ±5%	3 × outer-Ø	0...+50 °C	-20...+60 °C
796 shielded	851 shielded	792 shielded	2×2×0.34 mm ²	PO (wh, ye, bl, or)	3 Mio.	PUR (UL/CSA)	6.7 ±5%	12 × outer Ø	-40...+80 °C	-30...+70 °C

gray	black	No./diameter of wires	Wire isolation	C-track properties	Material (jacket)	Outer Ø	Bend radius (moving)	Temperature range (fixed)	Temperature range (mobile)
200 shielded	600 shielded	3 × 0.34 mm ²	PVC (br, bl, bk)		PVC (UL/CSA)	5.0 ±5%		-30...+80 °C	-5...+80 °C
201 shielded	601 shielded	4 × 0.34 mm ²	PVC (br, wh, bl, bk)		PVC (UL/CSA)	5.3 ±5%		-30...+80 °C	-5...+80 °C
202 shielded	602 shielded	5 × 0.34 mm ²	PVC (br, wh, bl, bk, gnye)		PVC (UL/CSA)	5.6 ±5%		-30...+80 °C	-5...+80 °C
203 shielded	603 shielded	5 × 0.34 mm ²	PVC (br, wh, bl, bk, gr)		PVC (UL/CSA)	5.6 ±5%		-30...+80 °C	-5...+80 °C
204 shielded	604 shielded	8 × 0.25 mm ²	PVC (bl, wh, gn, ye, gr, pk, rd, br)		PVC (UL/CSA)	7.0 ±5%		-30...+80 °C	-5...+80 °C
205 shielded	605 shielded	8 × 0.25 mm ²	PVC (br, wh, bl, bk, gr, pk, vi, or)		PVC (UL/CSA)	7.0 ±5%		-30...+80 °C	-5...+80 °C
206 shielded	706 shielded	12 × 0.14 mm ²	PP (br, bl, wh, gn, pk, ye, bk, gr, rd, vi, grpk, rdbl)	5 Mio.	PUR (UL/CSA)	6.5 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
207	607	8 × 0.25 mm ²	PVC (bl, wh, gn, ye, gr, pk, rd, br)		PVC (UL/CSA)	6.0 ±5%	10 × outer Ø	-30...+80 °C	-5...+80 °C
208	608	8 × 0.25 mm ²	PVC (br, wh, bl, bk, gr, pk, vi, or)		PVC (UL/CSA)	6.0 ±5%	10 × outer Ø	-30...+80 °C	-5...+80 °C
209	609	12 × 0.14 mm ²	PVC (br, bl, wh, gn, pk, ye, bk, gr, rd, vi, grpk, rdbl)		PVC (UL/CSA)	6.0 ±5%	10 × outer Ø	-30...+80 °C	-5...+80 °C
240 shielded	640 shielded	3 × 0.34 mm ²	PP (br, bl, bk)	5 Mio.	PUR (UL/CSA)	5.0 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
241 shielded	641 shielded	4 × 0.34 mm ²	PP (br, wh, bl, bk)	5 Mio.	PUR (UL/CSA)	5.3 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
242 shielded	642 shielded	5 × 0.34 mm ²	PP (br, wh, bl, bk, gnye)	5 Mio.	PUR (UL/CSA)	5.6 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
243 shielded	643 shielded	5 × 0.34 mm ²	PP (br, wh, bl, bk, gr)	5 Mio.	PUR (UL/CSA)	5.6 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
291 shielded	717 shielded	8 × 0.25 mm ²	PP (wh, br, gn, ye, gr, pk, bl, rd)	5 Mio.	PUR (UL/CSA)	7.0 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
294 shielded	715 shielded	8 × 0.25 mm ²	PP (br, wh, bl, bk, gr, pk, vi, or)	5 Mio.	PUR (UL/CSA)	7.0 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C

Cables									
black	violet	No./diameter of wires	Wire isolation	C-track properties	Material (jacket)	Outer Ø	Bend radius (moving)	Temperature range (fixed)	Temperature range (mobile)
838 shielded	803 shielded	2×0.25 + 2×0.34 mm ²	PE (rd, bk), (bl, wh)		PUR (UL/CSA)	6.9 ±5%	10 × outer Ø	-40...+80 °C	-30...+70 °C

black	green	No./diameter of wires	Wire isolation	C-track properties	Material (jacket)	Outer Ø	Bend radius (moving)	Temperature range (fixed)	Temperature range (mobile)
805	831	4×0.5 + 1×4×0.14 mm ²	PUR (bl, wh, br, bk, (whor, or)) + (whgn, gn)	5 Mio.	PUR (UL/CSA)	8.1 ±5%	10 × outer Ø	-50...+80 °C	-40...+80 °C

black	yellow	No./diameter of wires	Wire isolation	C-track properties	Material (jacket)	Outer Ø	Bend radius (moving)	Temperature range (fixed)	Temperature range (mobile)
754	145	2 × 0.75 mm ²	PP (br, bl)	5 Mio.	PUR (UL/CSA)	5.0 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C

multi-colored	No./diameter of wires	Wire isolation	C-track properties	Material (jacket)	Outer Ø	Bend radius (moving)	Temperature range (fixed)	Temperature range (mobile)
901	4 × 0.34 mm ²	PVC (br, wh, bl, bk)			1.3 ±5%		-40...+105 °C	-5...+105 °C
902	5 × 0.34 mm ²	PVC (br, wh, bl, bk, gr)			1.4 ±5%		-40...+105 °C	-5...+105 °C
903	8 × 0.25 mm ²	PVC (bl, wh, gn, ye, gr, pk, rd, br)			1.15 ±5%		-40...+105 °C	-5...+105 °C
910	3 × 0.25 mm ²	PVC (br, bl, bk)			1.15 ±5%		-40...+105 °C	-5...+105 °C
911	4 × 0.25 mm ²	PVC (br, wh, bl, bk)			2.0 ±5%		-40...+105 °C	-5...+105 °C
940	4 × 1.5 mm ²	PPE (bk num, gnye)					-40...+85 °C	
941	4 × 1.5 mm ²	PVC (br, wh, bl, bk)					-40...+85 °C	
969	4 × 0.25 mm ²	PP (br, bk, bl, wh)			1.1 ±5%		-40...+90 °C	-25...+90 °C
970	3 × 0.25 mm ²	PP (br, bk, bl)			1.1 ±5%		-40...+90 °C	-25...+90 °C
971	4 × 0.34 mm ²	PP (br, wh, bl, bk)			1.3 ±5%		-40...+90 °C	-25...+90 °C
973	8 × 0.25 mm ²	PUR (wh, br, gn, ye, gr, pk, bl, rd)			1.25 ±5%		-40...+90 °C	-25...+90 °C
975	5 × 0.34 mm ²	PUR (br, wh, bl, bk, gnye)			1.3 ±5%		-40...+90 °C	-25...+90 °C
972	5 × 0.34 mm ²	PUR (br, wh, bl, bk, gn)			1.3 ±5%		-40...+90 °C	-25...+90 °C
978	5 × 0.75 mm ²	PVC (br, wh, bl, bk, gnye)			3.1 ±5%		-25...+85 °C	-10...+50 °C
980	5 × 1.5 mm ²	PUR (br, wh, bl, bk, gr)			2.4 ±5%		-40...+90 °C	-25...+90 °C
P80	6 × 2.5 mm ²	PVC (bk, bl, num, gnye)			3.7 ±5%		-40...+70 °C	
P81	4 × 1.5 mm ²	PVC (bk num, gnye)			3.1 ±5%		-40...+70 °C	
P82	4 × 2.5 mm ²	PVC (bk num, gnye)			3.7 ±5%		-40...+70 °C	

gray	No./diameter of wires	Wire isolation	C-track properties	Material (jacket)	Outer Ø	Bend radius (moving)	Temperature range (fixed)	Temperature range (mobile)
202 shielded	5 × 0.34 mm ²	PVC (br, wh, bl, bk, gnye)		PVC (UL/CSA)	5.6 ±5%		-30...+80 °C	-5...+80 °C
203 shielded	5 × 0.34 mm ²	PVC (br, wh, bl, bk, gr)		PVC (UL/CSA)	5.6 ±5%		-30...+80 °C	-5...+80 °C
215	5 × 0.34 mm ²	PVC (br, wh, bl, bk, gnye)		PVC (UL/CSA)	5.2 ±5%	10 × outer Ø	-30...+80 °C	-5...+80 °C
295	8 × 0.25 mm ²	PP (br, wh, bl, bk, gr, pk, vi, or)	5 Mio.	PUR (UL/CSA)	6.0 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C

CABLES

Cables								
gray	No./diameter of wires	Wire isolation	C-track properties	Material (jacket)	Outer Ø	Bend radius (moving)	Temperature range (fixed)	Temperature range (mobile)
301	12 × 0.25 mm ²	PP (br, bl, wh, gn, pk, ye, bk, gr, rd, vi, grpk, rdbl)	3 Mio.	PUR (UL/CSA)	6.9 ±5%	15 × outer Ø	-40...+80 °C	-20...+80 °C
302	12 × 0.25 mm ²	PP (br, bl, wh, gn, pk, ye, bk, gr, rd, vi, grpk, rdbl)	5 Mio.	PUR (UL/CSA),welding spark	6.9 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
336	4 × 0.34 mm ²	TPE-S (br, wh, bl, bk)		TPE-S	5.2 ±5%	15 × outer Ø	-50...+125 °C	-30...+105 °C
414	2 × 0.5 mm ²	PP (br, bl)	5 Mio.	PUR (UL/CSA)	4.4 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
588	2 × 1.5 mm ²	PP (br, bl)	5 Mio.	PUR (UL/CSA)	8.0 ±5%	15 × outer Ø	-50...+80 °C	-25...+80 °C
777	2×2×AWG26	FRNC (wh, bl, wh, or)		FRNC	5.0 ±5%	10 × outer Ø	0...+50 °C	-20...+60 °C
862	4 × 0.75 mm ²	PP (br, wh, bl, bk)	5 Mio.	PUR (UL/CSA)	6.5 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
961	5 × 1.5 mm ²	PP (br, wh, bl, bk, gnye)	5 Mio.	PUR (UL/CSA)	8.7 ±5%	10 × outer Ø	-50...+80 °C	-20...+80 °C
962	5 × 2.5 mm ²	PP (br, wh, bl, bk num, gnye)	5 Mio.	PUR (UL/CSA)	9.7 ±5%	10 × outer Ø	-50...+80 °C	-20...+80 °C
965	5 × 1.0 mm ²	PP (br, wh, bl, bk num, gnye)		PUR/PVC	7.2 ±5%	10 × outer Ø	-30...+70 °C	-5...+70 °C
966	5 × 1.5 mm ²	PP (br, wh, bl, bk, gr)		PUR/PVC	8.7 ±5%	10 × outer Ø	-30...+70 °C	-5...+70 °C

yellow	No./diameter of wires	Wire isolation	C-track properties	Material (jacket)	Outer Ø	Bend radius (moving)	Temperature range (fixed)	Temperature range (mobile)
150	4 × 0.75 mm ²	PVC (br, wh, bl, bk)	10 Mio.	TPE (UL/CSA)	7.2 ±5%	15 × outer Ø	-40...+105 °C	-20...+90 °C
161	5 × 0.75 mm ²	PVC (br, wh, bl, bk, gnye)	10 Mio.	TPE (UL/CSA)	7.7 ±5%	15 × outer Ø	-40...+105 °C	-20...+90 °C
162	5 × 0.75 mm ²	PVC (br, wh, bl, bk, gr)	10 Mio.	TPE (UL/CSA)	7.7 ±5%	15 × outer Ø	-40...+105 °C	-20...+90 °C
U1B	3 × 1.5 mm ²	PVC (bk, gn, wh)		TPE (UL/CSA)	8.4 ±5%	10 × outer Ø	-50...+105 °C	-20...+90 °C
U1C	4 × 1.5 mm ²	PVC (bk, gn, rd, wh)		TPE (UL/CSA)	9.0 ±5%	10 × outer Ø	-50...+105 °C	-20...+90 °C
U1D	5 × 1.5 mm ²	PVC (bk, or, gn, rd, wh)		TPE (UL/CSA)	9.8 ±5%	10 × outer Ø	-50...+105 °C	-20...+90 °C

green	No./diameter of wires	Wire isolation	C-track properties	Material (jacket)	Outer Ø	Bend radius (moving)	Temperature range (fixed)	Temperature range (mobile)
659 shielded	2×2×0.34 mm ²	PE (wh, ye, bl, or)	2 Mio.	PUR (UL/CSA)	7.4 ±5%	12 × outer Ø	-40...+80 °C	-30...+70 °C
790 shielded	4×2×0.14 mm ²	PE (whbl, bl, whor, or, whgn, gn, whbr, br)		PUR (UL/CSA)	6.4 ±5%	12 × outer Ø	-30...+80 °C	-10...+50 °C
791 shielded	1×4×0.15 mm ²	PE (wh, ye, bl, or)	5 Mio.	PUR (UL/CSA)	4.9 ±5%	12 × outer Ø	-20...+80 °C	-20...+50 °C
793 shielded	1×4×0.34 mm ²	PE (wh, ye, bl, or)		PUR (UL/CSA)	6.6 ±5%	12 × outer Ø	-40...+80 °C	-20...+60 °C
794 shielded	2×2×0.34 mm ²	PE (wh, ye, bl, or)		PUR (UL/CSA)	6.5 ±5%	12 × outer Ø	-40...+80 °C	-20...+60 °C
800 shielded	2×2×0.34 mm ²	PE (wh, ye, bl, or)	2 Mio.	PVC (UL/CSA)	6.5 ±5%	15 × outer Ø	-30...+80 °C	-10...+70 °C
802 shielded	4×0.5 + 2×0.25 mm ²	TPE (bl, wh, br, bk), (gr, pk)	5 Mio.	PUR (UL/CSA)	7.9 ±5%	10 × outer Ø	-50...+80 °C	-40...+80 °C
57V shielded	2×2×0.34 mm ²	HDPE (wh, ye, bl, or)	1 Mio.	TPE (UL)	7.9 ±5%	10 × outer Ø	-40...+80 °C	-20...+80 °C

Cables								
violet	No./diameter of wires	Wire isolation	C-track properties	Material (jacket)	Outer Ø	Bend radius (moving)	Temperature range (fixed)	Temperature range (mobile)
840 shielded	1×2×0.25 mm ²	PE (rd, gn)	5 Mio.	PUR (UL/CSA)	7.8 ±5%	12 × outer Ø	-40...+80 °C	-20...+60 °C
841 shielded	1×2×0.25 mm ²	PE (rd, gn)	5 Mio.	PUR (UL/CSA)	7.7 ±5%	12 × outer Ø	-40...+80 °C	-20...+60 °C
843 shielded	1×2×0.25 mm ²	PE (rd, gn)		PUR (UL/CSA)	8.0 ±5%	12 × outer Ø	-40...+80 °C	-20...+50 °C
850 shielded	1×2×0.25 mm ²	PE (rd, gn)	2 Mio.	PVC (UL)	7.8 ±5%	12 × outer Ø	-25...+70 °C	-20...+60 °C
black	No./diameter of wires	Wire isolation	C-track properties	Material (jacket)	Outer Ø	Bend radius (moving)	Temperature range (fixed)	Temperature range (mobile)
512	2 × 0.75 mm ²	PP (br, bl)	4 Mio.	PUR (UL)	5.0 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
513	3 × 0.75 mm ²	PP (br, bl, bk)	4 Mio.	PUR (UL)	5.3 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
514	4 × 0.75 mm ²	PP (br, wh, bl, bk)	2 Mio.	PUR (UL)	5.7 ±5%	6 × outer Ø	-40...+80 °C	-25...+80 °C
516	6 × 0.75 mm ²	PP (br, gn, ye, gr, pk, wh)	4 Mio.	PUR (UL)	6.9 ±5%	12 × outer Ø	-40...+80 °C	-25...+80 °C
564	3 × 0.75 mm ²	PP (br, bl, bk)	5 Mio.	PUR (UL/CSA)	5.9 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
569	4 × 0.75 mm ²	PP (br, wh, bl, bk)	5 Mio.	PUR (UL/CSA)	6.5 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
572	6 × 0.75 mm ²	PP (br, wh, bl, bk, gr, pk)	5 Mio.	PUR (UL/CSA)	7.3 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
634	4 × 0.34 mm ²	PP (br, wh, bl, bk)	5 Mio.	PUR (UL/CSA)	4.7 ±5%	10 × outer Ø	-40...+80 °C	-25...+80 °C
703 shielded	12 × 0.14 mm ²	PVC (br, bl, wh, gn, pk, ye, bk, gr, rd, vi, grp, rdbl)		PVC (UL/CSA)	6.5 ±5%	10 × outer Ø	-30...+80 °C	-5...+80 °C
705	12 × 0.14 mm ²	PP (br, bl, wh, gn, pk, ye, bk, gr, rd, vi, grp, rdbl)	2 Mio.	PUR (UL/CSA)	6.0 ±5%	10 × outer Ø	-40...+85 °C	-25...+85 °C
740	2 × 0.5 mm ²	TPE (bk, wh)	2 Mio.	PUR	5.0 ±5%	10 × outer Ø	-50...+90 °C	-30...+90 °C
750	2 × 0.75 mm ²	PVC (br, bl)		PUR/PVC	5.9 ±5%	15 × outer Ø	-40...+80 °C	-5...+80 °C
P01	6 × 2.5 mm ²	TPM (bk num, gnye)	5 Mio.	PUR (UL)	11.1 ±5%	10 × outer Ø	-40...+80 °C	-20...+60 °C
P02	4 × 1.5 mm ²	TPM (bk num, gnye)	5 Mio.	PUR (UL)	7.4 ±5%	10 × outer Ø	-50...+80 °C	-20...+70 °C
P03	4 × 2.5 mm ²	TPM (bk num, gnye)	5 Mio.	PUR (UL)	9.0 ±5%	10 × outer Ø	-50...+80 °C	-20...+70 °C
P04	5 × 1.5 mm ²	PP (br, wh, bl, bk, gr, num)	5 Mio.	PUR (UL/CSA)	8.7 ±5%	10 × outer Ø	-50...+80 °C	-20...+80 °C
P05	5 × 1.5 mm ²	PP (br, wh, bl, bk num, gnye)	5 Mio.	PUR (UL/CSA)	8.7 ±5%	10 × outer Ø	-50...+80 °C	-20...+80 °C
P06	4 × 1.5 mm ²	PP (br, wh, bl, num; gnye longitudinally striped)	5 Mio.	PUR (UL/CSA)	7.7 ±5%	10 × outer Ø	-50...+80 °C	-20...+80 °C
P07	4 × 1.5 mm ²	PP (br, wh, bl, bk, num)	5 Mio.	PUR (UL/CSA)	7.7 ±5%	10 × outer Ø	-50...+80 °C	-20...+80 °C
P21	6 × 2.5 mm ²	PP (bk num, gnye)		PVC (UL)	11.0 ±5%	15 × outer Ø	-20...+80 °C	-5...+80 °C
P22	4 × 1.5 mm ²	PP (bk num, gnye)		PVC (UL)	7.4 ±5%	15 × outer Ø	-20...+80 °C	-5...+80 °C
P23	4 × 2.5 mm ²	PP (bk num, gnye)		PVC (UL)	9.1 ±5%	15 × outer Ø	-20...+80 °C	-5...+80 °C
P24	6 × 1.5 mm ²	PP (bk num, gnye)		PVC (UL)	9.0 ±5%	15 × outer Ø	-20...+80 °C	-5...+80 °C
P84	6 × 1.5 mm ²	TPM (bk num, gnye)	5 Mio.	PUR (UL)	9.0 ±5%	6.8 × outer Ø	-50...+80 °C	-20...+70 °C
UMB	3 × 1.5 mm ²	TPM (br, bl, gnye)	5 Mio.	PUR (UL/CSA)	7.4 ±5%	10 × outer Ø	-40...+80 °C	-20...+80 °C
UMC	4 × 1.5 mm ²	TPM (br, wh, bl, bk)	5 Mio.	PUR (UL/CSA)	8.0 ±5%	10 × outer Ø	-50...+80 °C	-20...+80 °C
UMD	5 × 1.5 mm ²	TPM (br, wh, bl, bk, gnye)	5 Mio.	PUR (UL/CSA)	8.7 ±5%	10 × outer Ø	-50...+80 °C	-20...+80 °C

CABLES

Cables								
orange	No./diameter of wires	Wire isolation	C-track properties	Material (jacket)	Outer Ø	Bend radius (moving)	Temperature range (fixed)	Temperature range (mobile)
P11 shielded	4×2.5 + 2×1.5 mm ²	TPM (bk num, gnye)	5 Mio.	PUR (UL)	12.8 ±5%	10 × outer Ø	-25...+80 °C	-20...+80 °C
P12 shielded	4 × 1.5 mm ²	TPM (bk num, gnye)	5 Mio.	PUR (UL)	8.0 ±5%	10 × outer Ø	-40...+80 °C	-20...+60 °C
P13 shielded	4 × 2.5 mm ²	TPM (bk num, gnye)	5 Mio.	PUR (UL)	10.6 ±5%	7.5 × outer Ø	-50...+80 °C	-35...+70 °C
pastel blue	No./diameter of wires	Wire isolation	C-track properties	Material (jacket)	Outer Ø	Bend radius (moving)	Temperature range (fixed)	Temperature range (mobile)
315	3 × 0.34 mm ²	PP (br, bl, bk)	4 Mio.	TPE-S (UL)	4.3 ±5%	10 × outer Ø	-40...+105 °C	-25...+105 °C
321	4 × 0.34 mm ²	PP (br, wh, bl, bk)	4 Mio.	TPE-S	4.7 ±5%	10 × outer Ø	-40...+105 °C	-25...+105 °C
339	5 × 0.34 mm ²	PP (br, wh, bl, bk, gnye)	4 Mio.	TPE (UL)	5.0 ±5%	10 × outer Ø	-40...+105 °C	-25...+105 °C
blue	No./diameter of wires	Wire isolation	C-track properties	Material (jacket)	Outer Ø	Bend radius (moving)	Temperature range (fixed)	Temperature range (mobile)
S4U shielded	2×2×0.25 mm ²	HDPE (whor, or, whgn, gn)	1 Mio.	TPE (UL/CSA)	6.6 ±5%	10 × outer Ø	-40...+80 °C	-20...+80 °C
S4W shielded	4×2×0.25 mm ²	HDPE (whbl, bl, whor, or, whgn, gn, whbr, br)	1 Mio.	TPE (UL/CSA)	7.6 ±5%	10 × outer Ø	-40...+80 °C	-20...+80 °C
S4X shielded	4×2×0.14 mm ²	HDPE (whbl, bl, whor, or, whgn, gn, whbr, br)	1 Mio.	TPE (UL/CSA)	7.4 ±5%	10 × outer Ø	-40...+80 °C	-20...+80 °C
gray	No./diameter of wires		C-track properties	Material (jacket)	Outer Ø	Bend radius (moving)	Temperature range (fixed)	Temperature range (mobile)
333	4×0.34 + 3×0.75 mm ²		2 Mio.	PUR/PVC	7.4 ±5%	12 × outer Ø	-30...+80 °C	-5...+80 °C
334	4×0.34 + 2×0.75 mm ²		5 Mio.	PUR (UL/CSA)	7.6 ±5%	10 × outer Ø	-40...+80 °C	-5...+60 °C
337	4×0.34 + 2×0.75 mm ²		2 Mio.	PUR/PVC	6.9 ±5%	10 × outer Ø	-30...+80 °C	-5...+60 °C
350	6×0.34 + 2×0.75 mm ²		2 Mio.	PUR/PVC	7.8 ±5%	10 × outer Ø	-30...+80 °C	-5...+60 °C
356	6×0.34 + 2×0.75 mm ²		5 Mio.	PUR (UL/CSA)	8.5 ±5%	10 × outer Ø	-40...+80 °C	-5...+60 °C
357	8×0.34 + 2×0.75 mm ²		2 Mio.	PUR/PVC	8.6 ±5%	10 × outer Ø	-30...+80 °C	-5...+60 °C
358	8×0.34 + 2×0.75 mm ²		1.5 Mio.	PUR/PVC	8.6 ±5%	12 × outer Ø	-30...+70 °C	-5...+60 °C
359	8×0.34 + 2×0.75 mm ²		5 Mio.	PUR (UL/CSA)	9.2 ±5%	10 × outer Ø	-40...+80 °C	-5...+60 °C
360	8×0.34 + 2×0.75 mm ²		5 Mio.	PUR (UL/CSA)	9.2 ±5%	10 × outer Ø	-40...+80 °C	-5...+60 °C
362	8×0.34 + 3×0.75 mm ²		2 Mio.	PUR/PVC (UL/CSA)	8.1 ±5%	10 × outer Ø	-30...+80 °C	-5...+70 °C
363	8×0.34 + 3×0.75 mm ²		2 Mio.	PUR/PVC (UL/CSA)	8.1 ±5%	10 × outer Ø	-30...+80 °C	-5...+70 °C
373 shielded	8×0.34 + 3×0.75 mm ²		5 Mio.	PUR (UL/CSA)	9.3 ±5%	12 × outer Ø	-40...+90 °C	-40...+90 °C
374	8×0.34 + 5×0.75 mm ²		1.5 Mio.	PUR/PVC	9.2 ±5%	12 × outer Ø	-30...+80 °C	-30...+80 °C
384	10×0.34 + 2×0.75 mm ²		5 Mio.	PUR (UL/CSA)	9.3 ±5%	10 × outer Ø	-40...+80 °C	-5...+60 °C
385	10×0.34 + 2×0.75 mm ²		2 Mio.	PUR/PVC	8.3 ±5%	10 × outer Ø	-30...+80 °C	-5...+60 °C
386	12×0.34 + 2×0.75 mm ²		1.5 Mio.	PUR/PVC	8.8 ±5%	12 × outer Ø	-30...+70 °C	-5...+60 °C
389	12×0.34 + 2×0.75 mm ²		5 Mio.	PUR (UL/CSA)	9.5 ±5%	10 × outer Ø	-40...+80 °C	-5...+60 °C
395	16×0.34 + 2×0.75 mm ²		1.5 Mio.	PUR/PVC	9.6 ±5%	12 × outer Ø	-30...+70 °C	-5...+60 °C
396	16×0.34 + 2×0.75 mm ²		5 Mio.	PUR (UL/CSA)	10.4 ±5%	10 × outer Ø	-40...+80 °C	-5...+60 °C
398	16×0.34 + 3×0.75 mm ²		2 Mio.	PUR/PVC (UL/CSA)	10.0 ±5%	10 × outer Ø	-30...+80 °C	-5...+70 °C
401 shielded	16×0.34 + 3×0.75 mm ²		5 Mio.	PUR (UL/CSA)	11.7 ±5%	12 × outer Ø	-40...+90 °C	-40...+90 °C
403	16×0.34 + 5×0.75 mm ²		5 Mio.	PUR (UL/CSA)	11.5 ±5%	10 × outer Ø	-40...+90 °C	-40...+90 °C
404	16×0.34 + 5×0.75 mm ²		1.5 Mio.	PUR/PVC	12.5 ±5%	12 × outer Ø	-30...+80 °C	-30...+80 °C
407	20×0.34 + 3×0.75 mm ²		2 Mio.	PUR/PVC (UL/CSA)	10.0 ±5%	12 × outer Ø	-30...+80 °C	-5...+60 °C
408	20×0.34 + 3×0.75 mm ²		5 Mio.	PUR (UL/CSA)	10.4 ±5%	10 × outer Ø	-40...+80 °C	-5...+80 °C
411	20×0.34 + 2×0.75 mm ²		5 Mio.	PUR (UL/CSA)	11.3 ±5%	10 × outer Ø	-40...+80 °C	-5...+60 °C
412	20×0.34 + 2×0.75 mm ²		1.5 Mio.	PUR/PVC	10.4 ±5%	12 × outer Ø	-30...+70 °C	-5...+60 °C
447	8×0.5 + 3×1.0 mm ²		5 Mio.	PUR (UL/CSA)	9.4 ±5%	10 × outer Ø	-40...+80 °C	-5...+80 °C
448	8×0.5 + 3×1.0 mm ²		5 Mio.	PUR (UL/CSA)	9.1 ±5%	10 × outer Ø	-40...+90 °C	-40...+90 °C
452	16×0.5 + 3×1.0 mm ²		5 Mio.	PUR (UL/CSA)	11.5 ±5%	10 × outer Ø	-40...+80 °C	-5...+80 °C



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4

I/O SYSTEMS

4

I/O SYSTEMS

Cube67	4.1
Cube20	4.2
Cube20S	4.3
MVK Metal	4.4
SOLID67	4.5
Impact67	4.6
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MASI Control Cabinet	4.8
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CUBE67 MODULAR I/O STATION IP67

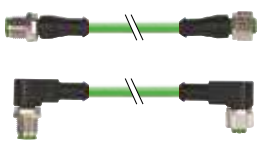
- Distributed
- Flexible
- Open system

THE COMPACT MODULAR I/O SYSTEM

Cube is a modular field bus system for perfect distributed installation concepts. Its flexibility facilitates developing the perfect solution for any application – with consistent degrees of protection from IP20 to IP69K.

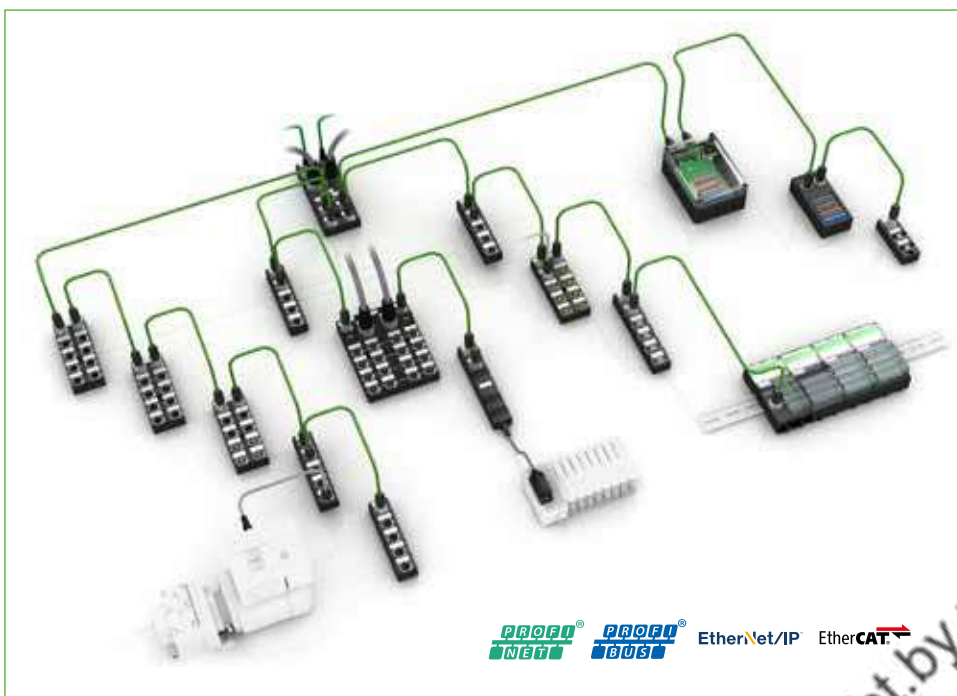
Cube's characteristics are: great functionality, plug-in connections, a robust and compact design, encapsulated modules, and multi-functional inputs and outputs. The modules are installed next to the sensors and actuators.

Cube67 I/O modules

 Bus nodes • PROFIBUS DP • PROFINET IO • EtherNet/IP • EtherCAT Page 4.1.1	 Diagnostic gateway • Diagnostics made easy • Ethernet TCP/IP Page 4.1.3
 Digital inputs • NPN • VPN Page 4.1.4	 Digital inputs/outputs • Multifunctional Page 4.1.7
 Function modules • IO-Link • Counter module • Communication module Page 4.1.14	 IO-Link  Analog inputs/outputs • Voltage/current • For resistors and temperature • For thermo elements Page 4.1.17
 Safe outputs • Passive Page 4.1.20	 IO-Link  Function modules hygienic design • Multifunctional • IO-Link Page 4.1.21
 Cable/Valve • Digital outputs • Digital inputs/outputs (multifunctional) • Safe outputs • Valve connections • With open ended wires Page 4.1.23	 Please do not hesitate to contact us. We offer a wide range for Cube67 system cables.

HIGHLIGHTS OF THE CUBE SYSTEM

- **Customer-oriented installation concepts**, perfectly customized solutions for any given application
- **Great cost-benefit ratio** through lower planning and installation effort
- **Extreme flexibility** through multi-functional slots and numerous function modules (IO-Link, RS485/ MOVIMOT®...)
- System-independent through **"bus replacement without system replacement"** for all common bus systems worldwide
- **Maximized transparency** through precise and detailed diagnostics options

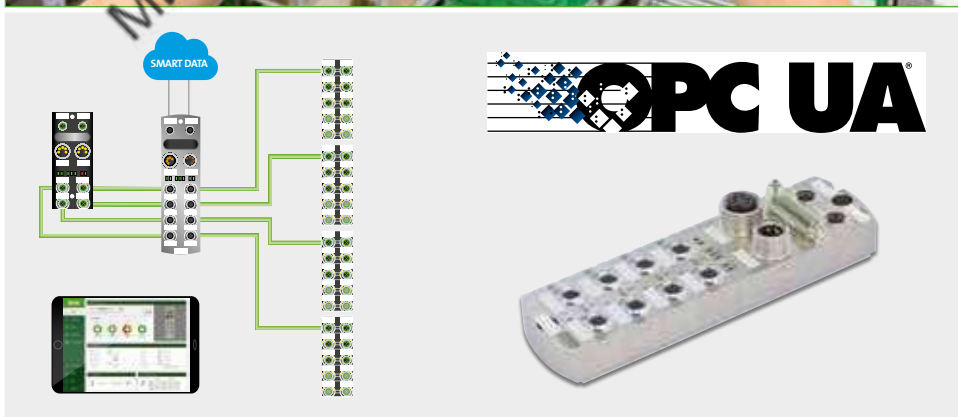


PROFI[®] NET PROFI[®] BUS EtherNet/IP EtherCAT[®]

CUBE67 DIAGNOSTICS GATEWAY

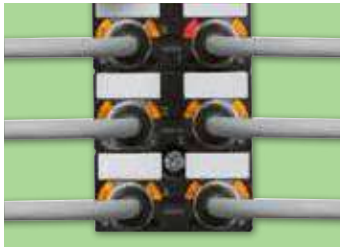
Diagnostics made easy

- **Commissioning engineers** use the diagnostics gateway to examine the topology of the Cube system and to detect installation faults at an early stage.
- The service personnel of the machine or system builder quickly identifies errors by temporarily integrating the diagnostics gateway. Moreover, this system is a perfect solution for machine acceptance tests. Permanent integration is also of great interest in order to be able to guide, for example the electrician, in the field via remote access.
- The **operator of a machine or system** who incorporates the diagnostics gateway permanently is able to react to potential problems at an early stage. In a best-case scenario, instructions for troubleshooting have already been implemented, allowing the installer to bring the required spare part right with him when he comes for repairs.



OPC UA[®]

FUNCTIONALITY WITH GREAT UTILIZABLE VALUE



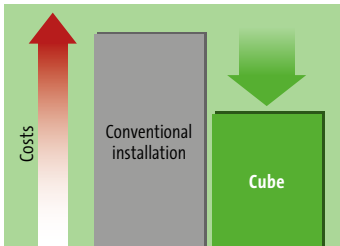
Diagnostics

Detailed diagnostics messages to the controller and LED status indicators at the slots facilitate fast localization of errors. **This reduces commissioning time and downtimes.**



Multi-functional I/Os

Connections can – depending on the requirement at any given location in the distributed installation – be parameterized as inputs, diagnostic inputs or outputs. This allows the connection of various components to a module. **As a result, there is great flexibility and a reduced number of variants.**



Saves time and money

Maximized economy through reduced effort in design and installation of hardware and software. Increased production capacities and shorter lead times. **This is how Cube secures you a competitive edge.**



Safety

Cube enables passive safety technology solutions. The M12 outputs and connections for the valve terminals can be used in installations up to category 3 and performance level d (according DIN EN ISO 13849). **This facilitates easy integration of safety technology without great wiring effort.**



Cable

Cube67 only needs a single system bus cable for both power supply and data transmission. Prefabricated cables minimize error sources. **The installation requires just half the space and can be completed in half the time.**



IO-Link by Murrelektronik

The integration of up to 128 smart IO-Link devices in Cube67+ opens up additional possibilities in using variable machines. Cube67+ in combination with IO-Link offers this additional functionality for M12 ports. **This enables flexible and automated parameterization of devices.**

CUBE67

Bus nodes, Cube67+

– up to 32 modules



Approvals:  Listed

Cube67+ BN-P

PROFIBUS DP

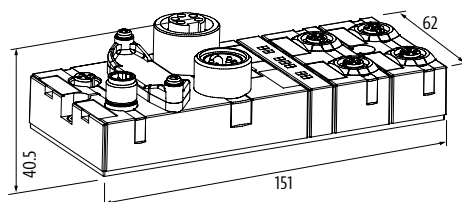


Cube67+ BN-PNIO

PROFINET IO



Order Data	Art-No.	Art-No.
PROFIBUS DP	56521	
PROFINET IO		56526
Connections		
Fieldbus	PROFIBUS 12 Mbit/s; M12, B-coded	Ethernet 10/100Mbit/s; M12, D-coded
Sensor-system/actuator supply	7/8", 5-pole, 2 × max. 8 A	
Internal system connection	4 × M12 (female) A-coded, 6-pole, 2 × max. 4 A	
Module Supply		
Operating voltage	24 V DC (EN 61131-2)	
Current consumption	max. 120 mA	max. 200 mA
PROFIBUS		
Addressing	Rotary switch 0...99	
PROFINET		
Addressing	–	DCP
Specification	–	V2.2, Conformance Class B
Cube system		
Module capacity	max. 32	
I/O capacity	max. 244 Byte (Input), max. 244 Byte (Output)	max. 1024 Byte (Input), max. 1024 Byte (Output)
Machine Option Management	yes	
No. of masterports (IO-Link)	max. 12	max. 128
Diagnostic		
Communication status	via LED and BUS	
Diagnostic via LED	per module and channel	
Diagnostic via BUS	per module and channel	
Monitoring - under voltage	yes	
Monitoring - no voltage	yes	
Short-circuit and overload	yes	
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	0...+55 °C (storage temperature -20...+75 °C)	
Dimension drawing		



Notes

Cube67+ modules can only be operated on Cube67+, EtherNet/IP, Profibus + ProfiNet bus nodes.

CUBE67

Bus nodes, Cube67+

– up to 32 modules

EtherNet/IP EtherCAT

Cube67+ BN-E

EtherNet/IP

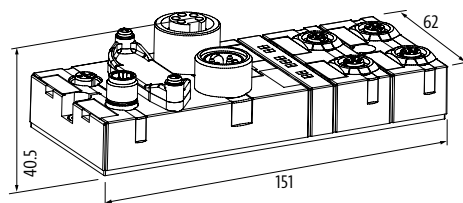
Cube67+ BN-EC

EtherCAT



Approvals:  Listed

Order Data	Art-No.	Art-No.	Art-No.
EtherNet/IP	56535		
EtherCAT		56527	
EtherCAT Rotary Switch			5652701
Connections			
Fieldbus	Ethernet 10/100Mbit/s; M12, D-coded		
Sensor-system/actuator supply	7/8", 5-pole, 2 × max. 8 A		
Internal system connection	4 × M12 (female) A-coded, 6-pole, 2 × max. 4 A		
Module Supply			
Operating voltage	24 V DC (EN 61131-2)		
Current consumption	max. 200 mA		
EtherNet/IP			
Addressing	DHCP, BOOTP or IP address by rotary switch	–	
EtherCAT			
Addressing	–	automatic	Rotary switch 0...999
Cube system			
Module capacity	max. 32		
I/O capacity	max. 504 Byte (Input), max. 500 Byte (Output)	max. 65 636 Byte (Input), max. 65 636 Byte (Output)	
Machine Option Management	yes	–	
No. of masterports (IO-Link)	max. 128	–	
Diagnostic			
Communication status	via LED and BUS		
Diagnostic via LED	per module and channel		
Diagnostic via BUS	per module and channel		
Monitoring - under voltage	yes		
Monitoring - no voltage	yes		
Short-circuit and overload	yes		
General data			
Protection	IP67		
Mounting method	2-hole screw mounting		
Temperature range	0...+55 °C (storage temperature -20...+75 °C)		
Dimension drawing			



Notes

Cube67+ modules can only be operated on Cube67+, EtherNet/IP, Profibus + ProfiNet bus nodes.

CUBE67

Diagnostic gateway

– Ethernet TCP/IP

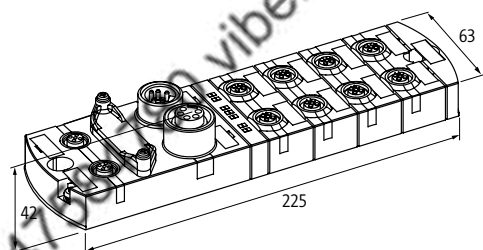
Cube67

Diagnostics made easy



Approvals:  UL
Listed

Order Data		Art-No.
Diagnostic Gateway		56968
Connections		
Fieldbus	2 × M12 (female), D-coded	
Internal system connection	8 × M12 (female), 6-pole	
Supply	2 × 7/8" (male/female), 5-pole	
Module Supply		
Operating voltage	24 V DC ±25%	
Current consumption	max. 200 mA	
Cube system		
Cube67 system connection	yes	
Protection		
Reverse polarity protection module	yes	
Over voltage protection	yes	
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	0...+55 °C (storage temperature -25...+70 °C)	
Dimension drawing		



Notes

Current manuals can be downloaded at: www.murrelektronik.com

CUBE67

Digital inputs

Cube67 DI16 C - 8×M12

Compact module



Cube67 DI8 C - 4×M12

Compact module

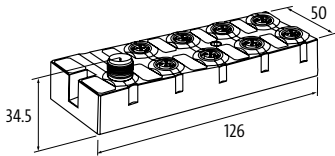
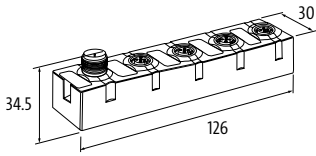
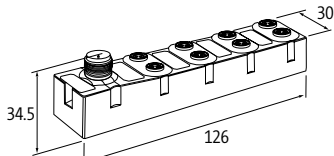


Cube67 DI8 C - 8×M8

Compact module



Approvals:  US
Listed

Order Data		Art-No.	Art-No.
DI16 - (C) 8×M12	56602		
DI8 - (C) 4×M12		56612	
DI8 - (C) 8×M8			56622
Internal communication			
Current consumption	max. 50 mA	max. 30 mA	
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)		
Terminating resistor	integrated into the module		
Connections			
Fieldbus	via internal system connection		
Sensor-system/actuator supply	via internal system connection (max. 2×4 A)		
I/O ports	M12 (female) 5-pole, A-coded	M8 (female) 3-pole, A-coded	
Input			
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected		24 V DC (EN 61131-2), max. 200 mA (M8 female), short-circuit and overload protected
Type	for 3-wire sensors or mechanical switches, PNP		
Input filter	1 ms		
Parameterization			
PIN 2	Input/Diagnostic	-	
PIN 4	Input		
Diagnostic			
Communication status	via LED		
Diagnostic via LED	per module and channel		
Diagnostic via BUS	per module and channel		
Monitoring - under voltage	yes		
Monitoring - no voltage	yes		
Short-circuit and overload	yes		
General data			
Protection	IP67		
Mounting method	2-hole screw mounting		
Temperature range	0...+55 °C (storage temperature -20...+75 °C)		
Dimension drawing			
			
			
Notes			

Digital inputs

Cube67 DI16 E - 8×M12

Expansion module



Cube67 DI8 E - 4×M12

Expansion module



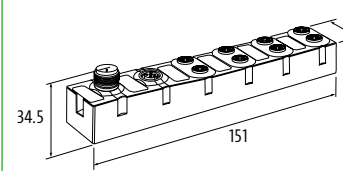
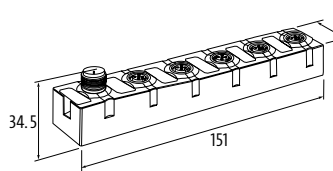
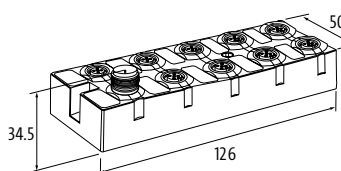
Cube67 DI8 E - 8×M8

Expansion module



Approvals:  **UL**
Listed

Order Data	Art-No.	Art-No.	Art-No.
DI16 - (E) PNP (8×M12)	56603		
DI8 - (E) PNP (4×M12)		56613	
DI8 - (E) PNP (8×M8)			56623
Internal communication			
Current consumption	max. 50 mA		max. 30 mA
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)		
Connections			
Fieldbus	via internal system connection		
Sensor-system/actuator supply	via internal system connection (max. 2×4 A)		
I/O ports	M12 (female) 5-pole, A-coded		M8 (female) 3-pole, A-coded
Input			
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected		24 V DC (EN 61131-2), max. 200 mA (M8 female), short-circuit and overload protected
Type	for 3-wire sensors or mechanical switches, PNP		
Input filter	1 ms		
Parameterization			
PIN 2	Input/Diagnostic		–
PIN 4	Input		
Diagnostic			
Communication status	via LED		
Diagnostic via LED	per module and channel		
Diagnostic via BUS	per module and channel		
Monitoring - under voltage	yes		
Monitoring - no voltage	yes		
Short-circuit and overload	yes		
General data			
Protection	IP67		
Mounting method	2-hole screw mounting		
Temperature range	0...+55 °C (storage temperature -20...+75 °C)		
Dimension drawing			



Notes

CUBE67

Digital inputs

Cube67 DI16 E - 8×M12

Expansion module
Form NPN



Cube67 DI8 E - 4×M12

Expansion module
Form NPN



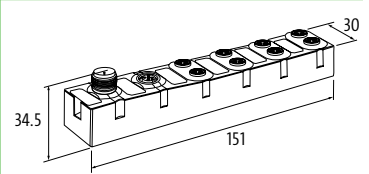
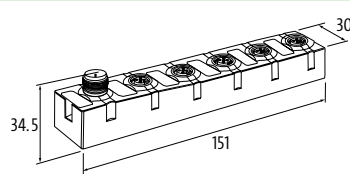
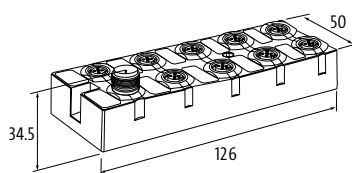
Cube67 DI8 E - 8×M8

Expansion module
Form NPN



Approvals:  US
Listed

Order Data	Art-No.	Art-No.	Art-No.
DI16 - (E) NPN (8×M12)	56606		
DI8 - (E) NPN (4×M12)		56616	
DI8 - (E) NPN (8×M8)			56626
Internal communication			
Current consumption	max. 50 mA		max. 30 mA
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)		
Connections			
Fieldbus	via internal system connection		
Sensor-system/actuator supply	via internal system connection (max. 2×4 A)		
I/O ports	M12 (female) 5-pole, A-coded		M8 (female) 3-pole, A-coded
Input			
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected		24 V DC (EN 61131-2), max. 200 mA (M8 female), short-circuit and overload protected
Type	for 3-wire sensors or mechanical switches, NPN, (EN 61131-2)		
Input filter	1 ms		
Parameterization			
PIN 2	Input/Diagnostic		–
PIN 4	Input		
Diagnostic			
Communication status	via LED		
Diagnostic via LED	per module and channel		
Diagnostic via BUS	per module and channel		
Monitoring - under voltage	yes		
Monitoring - no voltage	yes		
Short-circuit and overload	yes		
General data			
Protection	IP67		
Mounting method	2-hole screw mounting		
Temperature range	0...+55 °C (storage temperature -20...+75 °C)		
Dimension drawing			



Notes

Digital inputs/outputs (multifunctional)

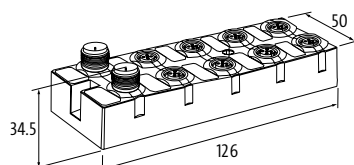
Cube67 DIO16 C - 8×M12

Compact module
additional actuator supply 1 × 4 A



Approvals: UL US
Listed

Order Data	Art-No.	Art-No.
DIO16 - 0.5 A (C) 8×M12	56600	
DIO16 - 1.6 A (C) 8×M12		56640
Internal communication		
Current consumption	max. 50 mA	
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)	
Terminating resistor	integrated into the module	
Connections		
Fieldbus	via internal system connection	
Sensor-system/actuator supply	via internal system connection (max. 2×4 A)	
I/O ports	M12 (female) 5-pole, A-coded	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	
Type	for 3-wire sensors or mechanical switches, PNP	
Input filter	1 ms	
Output		
Actuator supply UA	24 V DC (EN 61131-2), via system connection (max. 4 A) + right actuators via supply right (max. 4 A)	
Switching current per output	max. 0.5 A (short-circuit and overload protected)	max. 1.6 A (short-circuit and overload protected)
Parameterization		
PIN 2	Input/Output/Diagnostic	
PIN 4	Input/Output	
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module and channel	
Diagnostic via BUS	per module and channel	
Monitoring - under voltage	yes	
Monitoring - no voltage	yes	
Short-circuit and overload	yes	
Actuator warning	per channel via LED and BUS	
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	0...+55 °C (storage temperature -20...+75 °C)	
Dimension drawing		



Notes

CUBE67

Digital inputs/outputs (multifunctional)

Cube67 DIO8 C - 4×M12

Compact module



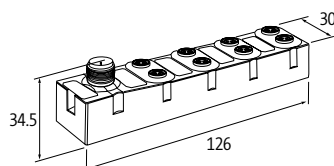
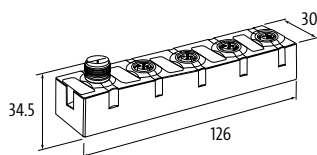
Cube67 DIO8 C - 8×M12

Compact module



Approvals:  US
Listed

Order Data	Art-No.	Art-No.
DIO8 - 0.5 A (C) 4×M12	56610	
DIO8 - 0.5 A (C) 8×M8		56620
Internal communication		
Current consumption	max. 50 mA	max. 30 mA
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)	
Terminating resistor	integrated into the module	
Connections		
Fieldbus	via internal system connection	
Sensor-system/actuator supply	via internal system connection (max. 2×4 A)	
I/O ports	M12 (female) 5-pole, A-coded	M8 (female) 3-pole, A-coded
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	24 V DC (EN 61131-2), max. 200 mA (M8 female), short-circuit and overload protected
Type	for 3-wire sensors or mechanical switches, PNP	
Input filter	1 ms	
Output		
Actuator supply UA	24 V DC (EN 61131-2), via system connection (max. 4 A)	
Switching current per output	max. 0.5 A (short-circuit and overload protected)	
Parameterization		
PIN 2	Input/Output/Diagnostic	–
PIN 4	Input/Output	
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module and channel	
Diagnostic via BUS	per module and channel	
Monitoring - under voltage	yes	
Monitoring - no voltage	yes	
Short-circuit and overload	yes	
Actuator warning	per channel via LED and BUS	
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	0...+55 °C (storage temperature -20...+75 °C)	
Dimension drawing		



Notes

CUBE67

Digital inputs/outputs (multifunctional)

Cube67 DIO16 E - 8×M12

Expansion module



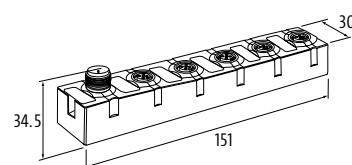
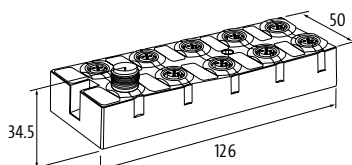
Cube67 DIO8 E - 4×M12

Expansion module



Approvals: UL US
Listed

Order Data	Art-No.	Art-No.
DIO16 - 0.5 A (E) 8×M12	56601	
DIO8 - 0.5 A (E) 4×M12		56611
Internal communication		
Current consumption	max. 50 mA	
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)	
Connections		
Fieldbus	via internal system connection	
Sensor-system/actuator supply	via internal system connection (max. 2×4 A)	
I/O ports	M12 (female) 5-pole, A-coded	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	
Type	for 3-wire sensors or mechanical switches, PNP	
Input filter	1 ms	
Output		
Actuator supply UA	24 V DC (EN 61131-2), via system connection (max. 4 A)	
Switching current per output	max. 0.5 A (short-circuit and overload protected)	
Parameterization		
PIN 2	Input/Output/Diagnostic	
PIN 4	Input/Output	
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module and channel	
Diagnostic via BUS	per module and channel	
Monitoring - under voltage	yes	
Monitoring - no voltage	yes	
Short-circuit and overload	yes	
Actuator warning	per channel via LED and BUS	
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	0...+55 °C (storage temperature -20...+75 °C)	
Dimension drawing		



Notes

CUBE67

Digital inputs/outputs
(multifunctional)

Cube67 DIO8 E - 4×M12

Expansion module



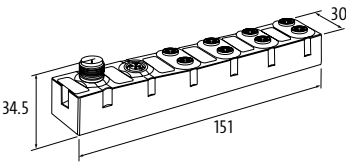
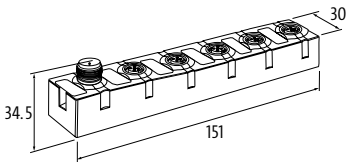
Cube67 DIO8 E - 8×M8

Expansion module



Approvals:  US
Listed

Order Data	Art-No.		Art-No.
DIO8 - 1.0 A (E) 4×M12	56631		
DIO8 - 0.5 A (E) 8×M8			56621
Internal communication			
Current consumption	max. 50 mA	max. 30 mA	
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)		
Connections			
Fieldbus	via internal system connection		
Sensor-system/actuator supply	via internal system connection (max. 2×4 A)		
I/O ports	M12 (female) 5-pole, A-coded	M8 (female) 3-pole, A-coded	
Input			
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	24 V DC (EN 61131-2), max. 200 mA (M8 female), short-circuit and overload protected	
Type	for 3-wire sensors or mechanical switches, PNP		
Input filter	1 ms		
Output			
Actuator supply UA	24 V DC (EN 61131-2), via system connection (max. 4 A)		
Switching current per output	max. 1 A (short-circuit and overload protected)	max. 0.5 A (short-circuit and overload protected)	
Parameterization			
PIN 2	Input/Output/Diagnostic	–	
PIN 4	Input/Output		
Diagnostic			
Communication status	via LED		
Diagnostic via LED	per module and channel		
Diagnostic via BUS	per module and channel		
Monitoring - under voltage	yes		
Monitoring - no voltage	yes		
Short-circuit and overload	yes		
Actuator warning	per channel via LED and BUS		
General data			
Protection	IP67		
Mounting method	2-hole screw mounting		
Temperature range	0...+55 °C (storage temperature -20...+75 °C)		
Dimension drawing			



Notes

Digital inputs/outputs (multifunctional)

Approvals: UL US
Listed

Cube67 DIO8 C - 4×M8

Compact module
4-pole



Cube67 DIO8 E - 0.5 A 8×M8

Expansion module
4-pole



Cube67

Contact layout

Female



PIN 1: Us: +24 V
PIN 2: DIO 0.5 A 0.x
PIN 3: 0 V DC
PIN 4: DIO 0.5 A 1.x

Order Data

DIO8 - 0.5 A (C) 4×M8

Art-No.

56627

Art-No.

DIO16 - 0.5 A (E) 8×M8

56625

Internal communication

Current consumption

max. 30 mA

LED display

US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)

Connections

Fieldbus

via internal system connection

Sensor-system/actuator supply

via internal system connection (max. 2×4 A)

I/O ports

M8 (female), 4-pole, A-coded

Input

Sensor supply US

24 V DC (EN 61131-2), max. 200 mA (M8 female), short-circuit and overload protected

Type

for 3-wire sensors or mechanical switches, PNP

Input filter

1 ms

Output

Actuator supply UA

24 V DC (EN 61131-2), via system connection (max. 4 A)

Switching current per output

max. 0.5 A (short-circuit and overload protected)

Parameterization

PIN 4

Input/Output

PIN 2

Input/Output/Diagnostic

Diagnostic

Communication status

via LED

Diagnostic via LED

per module and channel

Diagnostic via BUS

per module and channel

Monitoring - under voltage

yes

Monitoring - no voltage

yes

Short-circuit and overload

yes

Actuator warning

per channel via LED and BUS

General data

Protection

IP67

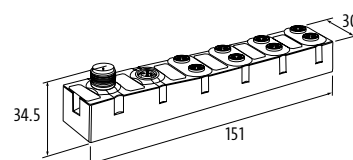
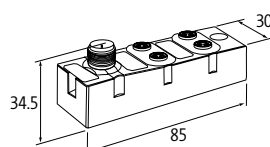
Mounting method

2-hole screw mounting

Temperature range

0...+55 °C (storage temperature -20...+75 °C)

Dimension drawing



CUBE67

Digital inputs/outputs (multifunctional)

Cube67 DIO32 E - 16×M12

Expansion module

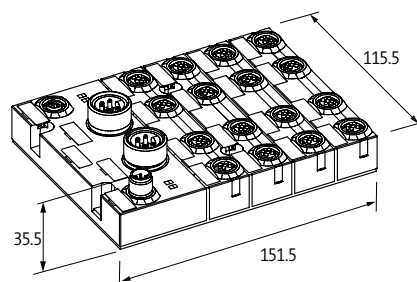
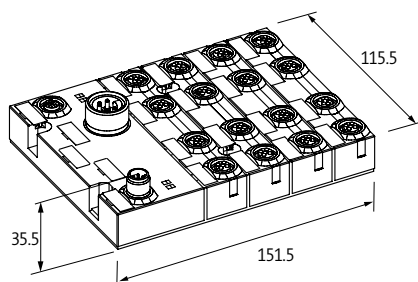


Cube67 DIO16 DO16 E - 1.6/2 A 16×M12

Expansion module



Order Data	Art-No.	Art-No.
DIO32 - 0.5 A (E) 16×M12	56642	
DIO16 - 1.6 A DO16 - 2 A (E) 16×M12		56641
Internal communication		
Current consumption	max. 60 mA	max. 50 mA
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)	
Connections		
Fieldbus	via internal system connection	
Sensor-system/actuator supply	via internal system connection (max. 2×4 A)	
I/O ports	M12 (female) 5-pole, A-coded	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	
Type	for 3-wire sensors or mechanical switches, PNP	
Input filter	1 ms	
Output		
Actuator supply (8×M12 left side)	24 V DC (EN 61131-2), via 7/8" male (max. 1 × 9 A)	24 V DC (EN 61131-2), via 7/8" male (max. 2 × 9 A)
Actuator supply (8×M12 right side)	24 V DC (EN 61131-2), via 7/8" male (max. 1 × 9 A)	24 V DC (EN 61131-2), via 7/8" male (max. 2 × 9 A)
Switching current per output (8×M12 left)	max. 0.5 A (short-circuit and overload protected)	max. 1.6 A (short-circuit and overload protected), coincidence factor 50% per port
Switching current per output (8×M12 right)	max. 0.5 A (short-circuit and overload protected)	max. 2 A (short-circuit and overload protected), coincidence factor 50% per port
Parameterization		
PIN 2 (8 × M12 left side)	Input/Output/Diagnostic	
PIN 4 (8 × M12 left side)	Input/Output	
PIN 2 (8 × M12 right side)	Input/Output/Diagnostic	Output
PIN 4 (8 × M12 right side)	Input/Output	Output
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module and channel	
Diagnostic via BUS	per module and channel	
Monitoring - under voltage	yes	
Monitoring - no voltage	yes	
Short-circuit and overload	yes	
Actuator warning	per channel via LED and BUS	
General data		
Protection	IP67	
Mounting method	4 hole screw mounting	
Temperature range	0...+55 °C (storage temperature -20...+75 °C)	
Dimension drawing		



Terminal modules

– Digital inputs/outputs
(multifunctional)

– Digital inputs

Cube67 DIO8/DI8 E (TB-Box)

Expansion module



Cube67 DIO8/DI8 E (TB-Box)

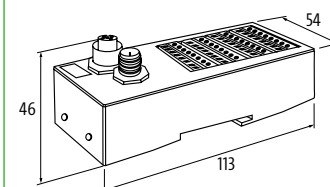
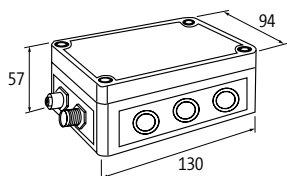
Expansion module
with additional potential terminals

Cube67 DIO8/DI8 E (TB-Rail)

Expansion module



Order Data	Art-No.	Art-No.	Art-No.
DIO8/DI8 - (E) TB-Box	56681	5668100	
DIO8/DI8 - (E) TB-Rail			cULus 56691
Internal communication			
Current consumption	max. 50 mA		
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)		
Connections			
Fieldbus	via internal system connection		
Sensor-system/actuator supply	via internal system connection (max. 2×4 A)		
I/O ports	16 × Spring clamp plug-in terminals, max. 2.5 mm²		
Input			
Sensor supply US	24 V DC (EN 61131-2), max. 8 × 200 mA		
Type	for 3-wire sensors or mechanical switches, PNP		
Input filter	1 ms		
Output			
Actuator supply UA	24 V DC (EN 61131-2), via system connection (max. 4 A)		
Switching current per output	max. 0.5 A (short-circuit and overload protected)		
Parameterization			
Terminal row X0 (8 channels)	Input		
Terminal row X1 (8 channels)	Input/Output		
Diagnostic			
Communication status	via LED		
Diagnostic via LED	per module and channel		
Diagnostic via BUS	per module and channel		
Monitoring - under voltage	yes		
Monitoring - no voltage	yes		
Short-circuit and overload	yes		
Actuator warning	per channel via LED and BUS		
General data			
Protection	IP66	IP20	
Mounting method	screw fixing	DIN-rail mountable (EN 60715)	
Temperature range	0...+55 °C (storage temperature -20...+75 °C)		
Dimension drawing			



Notes

CUBE67

Function modules

– multifunctional

– IO-Link Master

IO-Link

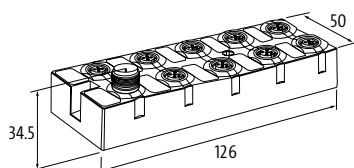
Approvals:  Listed

Cube67+ DIO12 IOL4 - E 8×M12

Expansion module



Order Data		Art-No.
DIO12/IOL4 - (E) 8×M12		56766
Internal communication		
Current consumption	max. 100 mA	
LED display	US: sensor supply (green: OK); IOL: (green: OK); UA: actuator supply (green: OK)	
Connections		
Fieldbus	via internal system connection	
Sensor-system/actuator supply	via internal system connection (max. 2×4 A)	
I/O ports	M12 (female) 5-pole, A-coded	
IO-Link		
IO-Link	4 × Master	
Operating modes	COM1; COM2; COM3 (automatic)	
Transfer parameters	32 Byte (via IO-Link Port)	
Port class	Class A + B (not galvanically separated)	
Specification	IO-Link Master V1.12	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (port 0...3); max. 700 mA (port 4...7)	
Type	for 3-wire sensors or mechanical switches, PNP	
Input filter	1 ms	
Output		
Actuator supply UA	24 V DC (EN 61131-2), via system connection (max. 4 A)	
Switching current per output	max. 1.6 A (short-circuit and overload protected)	
Parameterization		
PIN 2	Input/Output/Diagnostic	
PIN 4	Input/Output (port 0...3); IO-Link Master (port 4...7)	
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module and channel	
Diagnostic via BUS	per module and channel	
Monitoring - under voltage	yes	
Monitoring - no voltage	yes	
Short-circuit and overload	yes	
Actuator warning	per channel via LED and BUS	
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	0...+55 °C (storage temperature -20...+75 °C)	
Dimension drawing		



Notes

Cube67+ modules can only be operated on Cube67+, EtherNet/IP, Profibus + ProfiNet bus nodes.

Function modules

– Counter module with preprocessing

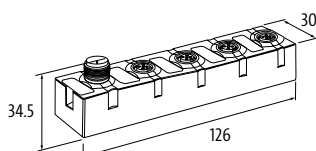
Approvals:  UL Listed

Cube67 CNT2 - C 4xM12

Compact module



Order Data		Art-No.
Compact module		56750
Internal communication		
Current consumption	max. 50 mA	
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)	
Connections		
Fieldbus	via internal system connection	
Sensor-system/actuator supply	via internal system connection (max. 2×4 A)	
I/O ports	M12 (female) 5-pole, A-coded	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	
Type	for 3-wire sensors or mechanical switches, PNP	
Input filter	1 ms	
Output		
Actuator supply UA	24 V DC (EN 61131-2), via system connection (max. 4 A)	
Switching current per output	max. 1.6 A (short-circuit and overload protected)	
Counter		
Counter frequency	max. 300 kHz	
Counter input	EN 61131-2	
Counter depth	32 Bit (31 Bit + sign)	
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module and channel	
Diagnostic via BUS	per module and channel	
Monitoring - under voltage	yes	
Monitoring - no voltage	yes	
Short-circuit and overload	yes	
Actuator warning	per channel via LED and BUS	
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	0...+55 °C (storage temperature -20...+75 °C)	
Dimension drawing		



Notes	
Cube67+ modules can only be operated on Cube67+, EtherNet/IP, Profibus + ProfiNet bus nodes.	

Function modules

– Communication module

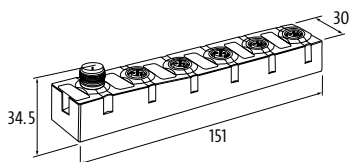
Cube67+ DIO4 RS232/485 - E 4×M12 MOVIMOT®

Expansion module
Serial interface



Approvals:  Listed

Order Data		Art-No.
DIO4 - (E) RS232/485 (4×M12) MOVIMOT®		56761
Internal communication		
Current consumption	max. 80 mA	
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)	
Connections		
Fieldbus	via internal system connection	
Sensor-system/actuator supply	via internal system connection (max. 2×4 A)	
I/O ports	M12 (female) 5-pole, A-coded	
Technical Data		
Transfer parameters	RS232: 230.4 kBaud, full duplex; RS485: 230.4 kBaud, half duplex	
RS232-Type	galvanically separated, M12 female 5-pole, B-coded	
RS485-Type	galvanically separated, M12 female 5-pole, B-coded	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	
Type	for 3-wire sensors or mechanical switches, PNP	
Input filter	1 ms	
Output		
Actuator supply UA	24 V DC (EN 61131-2), via system connection (max. 4 A)	
Switching current per output	max. 0.5 A (short-circuit and overload protected)	
Parameterization		
PIN 2	Input/Output/Diagnostic	
PIN 4	Input/Output	
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module and channel	
Diagnostic via BUS	per module and channel	
Monitoring - under voltage	yes	
Monitoring - no voltage	yes	
Short-circuit and overload	yes	
Actuator warning	per channel via LED and BUS	
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	0...+55 °C (storage temperature -20...+75 °C)	
Dimension drawing		



Notes

Cube67+ modules can only be operated on Cube67+, EtherNet/IP, Profibus + ProfiNet bus nodes.

CUBE67

Analog inputs

– Voltage/current

Cube67 AI4 C - 4×M12

Compact module
Voltage

Cube67 AI4 C - 4×M12

Compact module
Current

Cube67 AI4 E - 4×M12

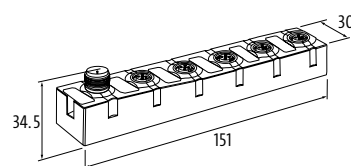
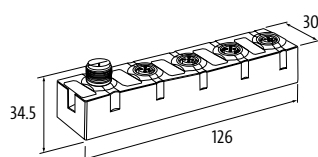
Expansion module
Voltage

Cube67 AI4 E - 4×M12

Expansion module
Current



Order Data	Art-No.	Art-No.	Art-No.	Art-No.
AI4 - (C) 4×M12 (U)	cULus	56700		
AI4 - (C) 4×M12 (I)		cULus	56730	
AI4 - (E) 4×M12 (U)			cULus	56701
AI4 - (E) 4×M12 (I)				56731
Internal communication				
Current consumption	max. 50 mA			
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)			
Connections				
Fieldbus	via internal system connection			
Sensor-system/actuator supply	via internal system connection (max. 2×4 A)			
I/O ports	M12 (female) 5-pole, A-coded			
Input				
Conversion time (analog)	approx. 2 ms (per channel)			
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected			
Resolution (analog)	15 Bit + sign	15 Bit	15 Bit + sign	15 Bit
Accuracy	max. ±0.5% (of range limit)			
Voltage inputs				
Input resistor	approx. 1 MOhm, differential input	–	approx. 1 MOhm, differential input	–
Input range	±10 V DC, 0...10 V DC		±10 V DC, 0...10 V DC	–
Current input signals				
Load	–	approx. 300 Ohm, differential input	–	approx. 300 Ohm, differential input
Input range	–	0...20 mA, 4...20 mA	–	0...20 mA, 4...20 mA
Diagnostic				
Communication status	via LED			
Diagnostic via LED	per module and channel			
Diagnostic via BUS	per module and channel			
Monitoring - under voltage	yes			
Monitoring - no voltage	yes			
Short-circuit and overload	yes			
Actuator warning	per channel via LED and BUS			
Wire break upper/lower limit overload	per channel via LED and BUS			
General data				
Protection	IP67			
Mounting method	2-hole screw mounting			
Temperature range	0...+55 °C (storage temperature -20...+75 °C)			
Dimension drawing				



Notes

CUBE67

Analog inputs

– for resistors and temperature

– for thermo elements

Cube67 AI4 C (RTD) - 4×M12

Compact module
for resistors and temperature



Cube67 AI4 C (TH) - 4×M12

Compact module
for thermo elements

Cube67 AI4 E (RTD) - 4×M12

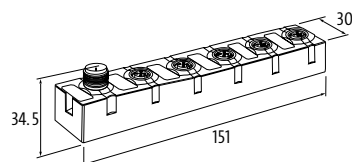
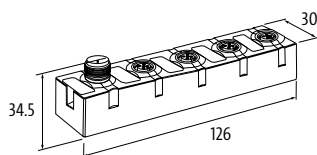
Expansion module
for resistors and temperature



Cube67 AI4 E (TH) - 4×M12

Expansion module
for thermo elements

Order Data	Art-No.	Art-No.	Art-No.	Art-No.
AI4 - (C) 4×M12 (RTD)	cULus	56740		
AI4 - (C) 4×M12 (TH)		cULus	56748	
AI4 - (E) 4×M12 (RTD)			56741	
AI4 - (E) 4×M12 (TH)				56749
Internal communication				
Current consumption	max. 50 mA			
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)			
Connections				
Fieldbus	via internal system connection			
Sensor-system/actuator supply	via internal system connection (max. 2×4 A)			
I/O ports	M12 (female) 5-pole, A-coded			
Input				
Sensor type	Pt100, 200, 500, 1000; Ni100, 120, 200, 500, 1000; R 0...3000 Ohm	K, N, J, E, R	Pt100, 200, 500, 1000; Ni100, 120, 200, 500, 1000; R 0...3000 Ohm	K, N, J, E, R
Conversion time (analog)	approx. 58 ms per channel	approx. 65 ms per channel	approx. 58 ms per channel	approx. 65 ms per channel
Resolution (analog)	15 Bit + sign			
Accuracy	max. ±0.5% (of range limit)			
Accuracy (Ni)	max. ±1% (of range limit)	–	max. ±1% (of range limit)	–
Connection	2-, 3-, 4-wire technology	2-wire technology	2-, 3-, 4-wire technology	2-wire technology
Cold junction compensation	–	inside M12 connector	–	inside M12 connector
Diagnostic				
Communication status	via LED			
Diagnostic via LED	per module and channel			
Diagnostic via BUS	per module and channel			
Monitoring - under voltage	yes			
Monitoring - no voltage	yes			
Short-circuit and overload	yes			
Actuator warning	per channel via LED and BUS			
Wire break upper/lower limit overload	per channel via LED and BUS			
General data				
Protection	IP67			
Mounting method	2-hole screw mounting			
Temperature range	0...+55 °C (storage temperature -20...+75 °C)			
Dimension drawing				



Notes

Analog outputs

– Voltage/current

Cube67 AO4 C 4×M12

Compact module
Voltage

Cube67 AO4 C 4×M12

Compact module
Current

Cube67 AO4 E 4×M12

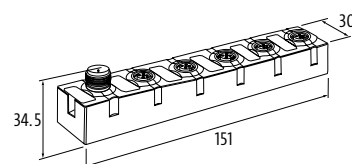
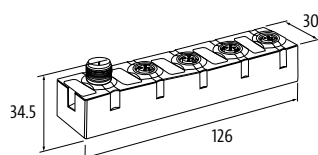
Expansion module
Voltage

Cube67 AO4 E 4×M12

Expansion module
Current



Order Data	Art-No.	Art-No.	Art-No.
AO4 - (C) 4×M12 (U)	cULus	56710	
AO4 - (C) 4×M12 (I)		cULus	56720
AO4 - (E) 4×M12 (U)			56711
AO4 - (E) 4×M12 (I)			56721
Internal communication			
Current consumption	max. 50 mA		
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)		
Connections			
Fieldbus	via internal system connection		
Sensor-system/actuator supply	via internal system connection (max. 2×4 A)		
I/O ports	M12 (female) 5-pole, A-coded		
Output			
Supply voltage	24 V DC (EN 61131-2), via system connection (max. 4 A)		
Conversion time (analog)	approx. 1 ms (per channel)		
Actuator supply UA	24 V DC (EN 61131-2), max. 1.6 A per M12 female, (short-circuit and overload protected)		
Resolution (analog)	11 Bit + sign	11 Bit	11 Bit + sign
Accuracy	max. ±0.5% (of range limit)		
Voltage output signals			
Load	min. 500 Ohm	–	min. 500 Ohm
Input range	±10 V DC, 0...10 V DC	–	±10 V DC, 0...10 V DC
Current outputs			
Load	–	max. 500 Ohm	–
Input range	–	0...20 mA, 4...20 mA	–
Diagnostic			
Communication status	via LED		
Diagnostic via LED	per module and channel		
Diagnostic via BUS	per module and channel		
Monitoring - under voltage	yes		
Monitoring - no voltage	yes		
Short-circuit and overload	yes		
Actuator warning	per channel via LED and BUS		
Wire break upper/lower limit overload	per channel via LED and BUS		
General data			
Protection	IP67		
Mounting method	2-hole screw mounting		
Temperature range	0...+55 °C (storage temperature -20...+75 °C)		
Dimension drawing			



Notes

CUBE67

Safe outputs (Safety)

– passive safety

– Output groups up to PLd (EN ISO 13849-1) can be switched off via safety relays

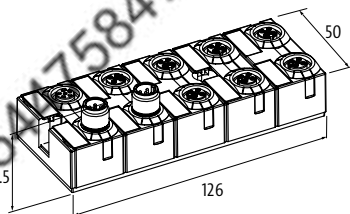
Approvals:  Listed

Cube67 DO6/DO6 - E 6×M12 (K3)

Expansion module



Order Data		Art-No.
DO6/DO6 - (E) 6×M12 (K3)		56605
Internal communication		
Current consumption	max. 50 mA	
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)	
Connections		
Fieldbus	via internal system connection	
Sensor-system/actuator supply	via internal system connection (max. 1×4 A) / actuators via external cable (max. 4×2 A)	
I/O ports	M12 (female) 5-pole, A-coded	
Output		
Actuator supply UA	24 V DC (EN 61131-2), 2 circuits, (max. 2 × 4 A)	
Switching current per output	max. 1.6 A (short-circuit and overload protected)	
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module and channel	
Diagnostic via BUS	per module and channel	
Monitoring - under voltage	yes	
Monitoring - no voltage	yes	
Short-circuit and overload	yes	
Actuator warning	per channel via LED and BUS	
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	0...+55 °C (storage temperature -20...+70 °C)	
Dimension drawing		



Notes

Function modules

– Hygienic Design

– multifunctional

– IP69K

IO-Link

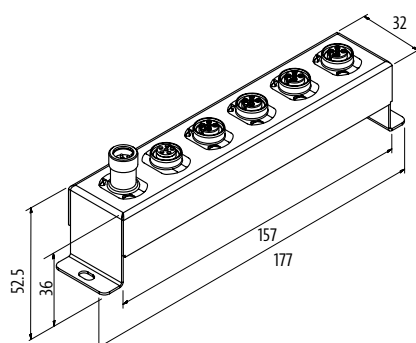
Cube67+ DIO12 IOL4 - E 8×M12 HD

Expansion module

IO-Link Master



Order Data	Art-No.
DIO12/IOL4 - (E) 8×M12	5676660
Internal communication	
Current consumption	max. 100 mA
LED display	US: sensor supply (green: OK); IOL: (green: OK); UA: actuator supply (green: OK)
Connections	
Fieldbus	via internal system connection
Sensor-system/actuator supply	via internal system connection (max. 2×4 A)
I/O ports	M12 (female) 5-pole, A-coded
IO-Link	
IO-Link	4 × Master
Operating modes	COM1; COM2; COM3 (automatic)
Transfer parameters	32 Byte (via IO-Link Port)
Port class	Class A + B (not galvanically separated)
Specification	IO-Link Master V1.12
Input	
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (port 0...3); max. 700 mA (port 4...7)
Type	for 3-wire sensors or mechanical switches, PNP
Input filter	1 ms
Output	
Actuator supply UA	24 V DC (EN 61131-2), via system connection (max. 4 A)
Switching current per output	max. 1.6 A (short-circuit and overload protected)
Parameterization	
PIN 2	Input/Output/Diagnostic
PIN 4	Input/Output (port 0...3); IO-Link Master (port 4...7)
Diagnostic	
Communication status	via LED
Diagnostic via LED	per module and channel
Diagnostic via BUS	per module and channel
Monitoring - under voltage	yes
Monitoring - no voltage	yes
Short-circuit and overload	yes
Actuator warning	per channel via LED and BUS
General data	
Protection	IP69K
Mounting method	2-hole screw mounting
Temperature range	0...+55 °C (storage temperature -20...+75 °C)
Dimension drawing	



CUBE67

Hygienic Design

– multifunctional

– IP69K

Cube67 DIO8 E - 4×M12 HD

Expansion module

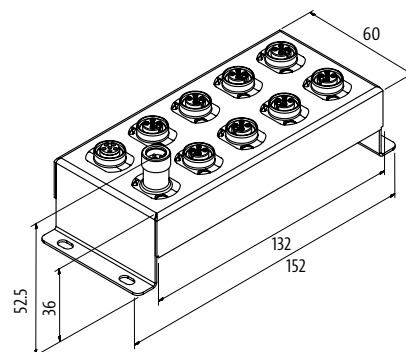
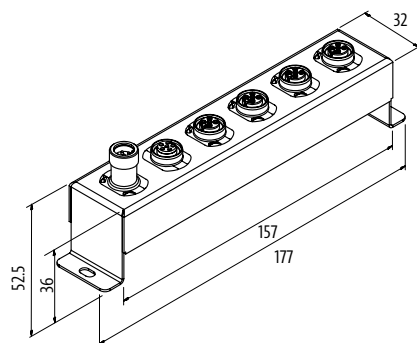


Cube67 DIO16 E - 8×M12 HD

Expansion module



Order Data	Art-No.	Art-No.
DIO8 - 0.5 A (E) 4×M12	5661160	
DIO16 - 0.5 A (E) 8×M12		5660160
Internal communication		
Current consumption	max. 50 mA	
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)	
Connections		
Fieldbus	via internal system connection	
Sensor-system/actuator supply	via internal system connection (max. 2×4 A)	
I/O ports	M12 (female) 5-pole, A-coded	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	
Type	for 3-wire sensors or mechanical switches, PNP	
Input filter	1 ms	
Output		
Actuator supply UA	24 V DC (EN 61131-2), via system connection (max. 4 A)	
Switching current per output	max. 0.5 A (short-circuit and overload protected)	
Parameterization		
PIN 2	Input/Output/Diagnostic	
PIN 4	Input/Output	
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module and channel	
Diagnostic via BUS	per module and channel	
Monitoring - under voltage	yes	
Monitoring - no voltage	yes	
Short-circuit and overload	yes	
Actuator warning	per channel via LED and BUS	
General data		
Protection	IP69K	
Mounting method	2-hole screw mounting	
Temperature range	0...+55 °C (storage temperature -20...+75 °C)	
Dimension drawing		



Notes

Digital outputs

– with open ended wires

Cube67 D08 - Valve

Expansion module

Cube67 D016 - E Valve

Expansion module

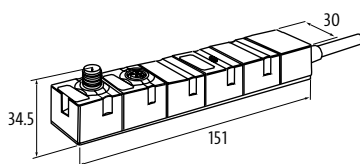
Cube67 D032 - E Valve

Expansion module



Approvals:  UL
Listed

Order Data	Art-No.	Art-No.	Art-No.
DO8 - 0.5 A (E) 0.5 m (open cable)	56655		
DO16 - 60 mA (E) 0.5 m (open cable)		56651	
DO32 - 0.5 A (E) 0.5 m (open cable)			56656
Internal communication			
Current consumption	max. 50 mA		
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)		
Connections			
Fieldbus	via internal system connection		
Sensor-system/actuator supply	via internal system connection (max. 2×4 A)		
I/O ports	Open cable		
Output			
Actuator supply UA	24 V DC (EN 61131-2), via system connection (max. 4 A)		
Switching current per output	max. 0.5 A (short-circuit and overload protected)	max. 60 mA (short-circuit and overload protected)	max. 0.5 A (short-circuit and overload protected)
Cables			
No./diameter of wires	10 × 0.34 mm²	18 × 0.25 mm²	36 × 0.14 mm²
Material (jacket)	PUR	PVC	
Cable length	0.5 m		
Diagnostic			
Communication status	via LED		
Diagnostic via LED	per module		
Diagnostic via BUS	per module and channel		
Monitoring - under voltage	yes		
Monitoring - no voltage	yes		
Short-circuit and overload	yes		
Actuator warning	per channel via BUS		
General data			
Protection	IP67		
Mounting method	2-hole screw mounting		
Temperature range	0...+55 °C (storage temperature -20...+75 °C)		
Dimension drawing			



Notes

CUBE67

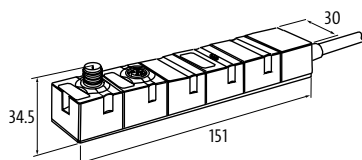
Digital inputs/outputs (multifunctional)

Cube67 DIO8 E - Cable

Expansion module



Order Data	Art-No.		Art-No.
DIO8 - 60 mA (E) 0.5 m (open cable)	cUlus	56661	
DIO8 - 60 mA (E) 2 m (open cable)			5666100
Internal communication			
Current consumption	max. 30 mA		
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)		
Connections			
Fieldbus	via internal system connection		
Sensor-system/actuator supply	via internal system connection (max. 2×4 A)		
I/O ports	Open cable		
Input			
Sensor supply US	24 V DC (EN 61131-2), max. 1.6 A		
Type	for 3-wire sensors or mechanical switches, PNP		
Input filter	1 ms		
Output			
Actuator supply UA	24 V DC (EN 61131-2), via system connection (max. 4 A)		
Switching current per output	max. 60 mA (short-circuit and overload protected)		
Cables			
No./diameter of wires	10 × 0.34 mm²		
Material (jacket)	PVC		
Cable length	0.5 m	2.0 m	
Parameterization			
I/O channels	Input/Output		
Diagnostic			
Communication status	via LED		
Diagnostic via LED	per module		
Diagnostic via BUS	per module and channel		
Monitoring - under voltage	yes		
Monitoring - no voltage	yes		
Short-circuit and overload	yes		
Actuator warning	per channel via BUS		
General data			
Protection	IP67		
Mounting method	2-hole screw mounting		
Temperature range	0...+55 °C (storage temperature -20...+75 °C)		
Dimension drawing			



Notes

Digital inputs/outputs (multifunctional)

Cube67 DIO16 E - Cable

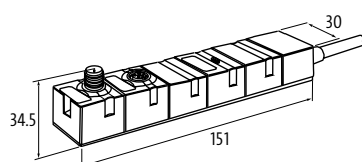
Expansion module

Cube67 DI16 DO16 E - Cable

Expansion module



Order Data	Art-No.	Art-No.	Art-No.
DIO16 - 0.5 A (E) 0.5 m (open cable)	cULus	56662	
DIO16 - 0.5 A (E) 1.5 m (open cable)		5666200	
DI16/DO16 - 0.5 A (E) 0.5 m (open cable)			56671
Internal communication			
Current consumption	max. 30 mA		max. 50 mA
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)		
Connections			
Fieldbus	via internal system connection		
Sensor-system/actuator supply	via internal system connection (max. 2×4 A)		
I/O ports	Open cable		
Input			
Sensor supply US	24 V DC (EN 61131-2), max. 0.5 A		24 V DC (EN 61131-2), max. 0.2 A
Type	for 3-wire sensors or mechanical switches, PNP		
Input filter	1 ms		
Output			
Actuator supply UA	24 V DC (EN 61131-2), via system connection (max. 4 A)		
Switching current per output	max. 0.5 A (short-circuit and overload protected)		
Cables			
No./diameter of wires	20 × 0.14 mm²		36 × 0.14 mm²
Material (jacket)	PVC		
Cable length	0.5 m	1.5 m	0.5 m
Parameterization			
I/O channels	Input/Output		–
Diagnostic			
Communication status	via LED		
Diagnostic via LED	per module		
Diagnostic via BUS	per module and channel		
Monitoring - under voltage	yes		
Monitoring - no voltage	yes		
Short-circuit and overload	yes		
Actuator warning	per channel via BUS		
General data			
Protection	IP67		
Mounting method	2-hole screw mounting		
Temperature range	0...+55 °C (storage temperature -20...+75 °C)		
Dimension drawing			



Notes

CUBE67

Digital inputs/outputs (multifunctional)

– Digital outputs

Cube67 D07 - E Cable M12

for Modlight70 Pro basic
Expansion module



Cube67 DIO8 E - Cable M12

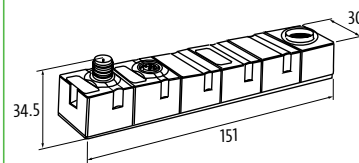
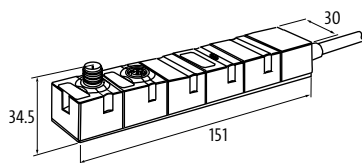
Expansion module

Cube67 DIO8 - E M16 female

Expansion module



Order Data	Art-No.		Art-No.
D07 - 0.5 A (E) 0.5 m (M12)	Modlight70 Pro - M12 (female) 8-pole	5665503	
DIO8 - 60 mA (E) 0.5 m (M12)		cULus	5666201
DIO8 - 0.5 A (E) M16			cULus
			56663
Internal communication			
Current consumption	max. 50 mA		max. 30 mA
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)		
Connections			
Fieldbus	via internal system connection		
Sensor-system/actuator supply	via internal system connection (max. 2x4 A)		
I/O ports	Modlight70 Pro - M12 (female) 8-pole	M12 (male) 5-pole, A-coded	M16 (female)
Input			
Sensor supply US	–	24 V DC (EN 61131-2), max. 0.5 A	24 V DC (EN 61131-2), max. 200 mA
Type	–	for 3-wire sensors or mechanical switches, PNP	
Input filter	–	1 ms	
Output			
Actuator supply UA	24 V DC (EN 61131-2), via system connection (max. 4 A)		
Switching current per output	max. 0.5 A (short-circuit and overload protected)	max. 60 mA (short-circuit and overload protected)	max. 0.5 A (short-circuit and overload protected)
Cables			
No./diameter of wires	8 × 0.25 mm²		–
Material (jacket)	PUR		–
Cable length	0.5 m		–
Parameterization			
I/O channels	7 outputs	Input/Output	
Diagnostic			
Communication status	via LED		
Diagnostic via LED	per module		
Diagnostic via BUS	per module and channel		
Monitoring - under voltage	yes		
Monitoring - no voltage	yes		
Short-circuit and overload	yes		
Actuator warning	per channel via BUS		
General data			
Protection	IP67		
Mounting method	2-hole screw mounting		
Temperature range	0...+55 °C (storage temperature -20...+75 °C)		
Dimension drawing			



Notes

CUBE67

Safe outputs (Safety)

- passive safety
- Output groups up to PLd (EN ISO 13849-1) can be switched off via safety relays

Cube67 DO16 - C Valve (K3)

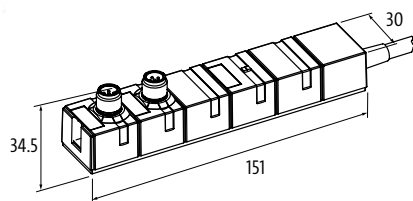
Compact module

Cube67 DO8 - C Valve (K3)

Compact module



Order Data	Art-No.	Art-No.
DO16 - 0.5 A Valve (C) 0.5 m (K3)	FESTO - CPV (SUB-D25) – cULus	56650
DO8 - 0.5 A Valve (C) 0.5 m (K3)		FESTO - CPV (SUB-D9)5665003
Internal communication		
Current consumption	max. 50 mA	
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)	
Connections		
Fieldbus	via internal system connection	
Sensor-system/actuator supply	via internal system connection (max. 1×4 A) / actuators via external cable (max. 4×2 A)	
I/O ports	FESTO - CPV (SUB-D25)	FESTO - CPV (SUB-D9)
Output		
Actuator supply UA	24 V DC (EN 61131-2), max. 4 × 2 A	
Switching current per output	max. 0.5 A (short-circuit and overload protected)	
Cables		
No./diameter of wires	4×4×0.14 mm²	
Material (jacket)	PVC, cross-link safe	
Cable length	0.5 m	
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module	
Diagnostic via BUS	per module and channel	
Monitoring - under voltage	yes	
Monitoring - no voltage	yes	
Short-circuit and overload	yes	
Actuator warning	per channel via BUS	
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	0...+55 °C (storage temperature -20...+70 °C)	
Dimension drawing		



Notes

Digital outputs

Cube67 DO16 - C Valve

Compact module
(4 × actuator supply UA)



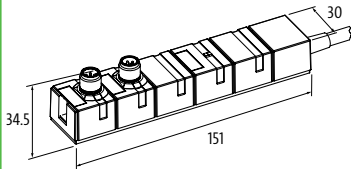
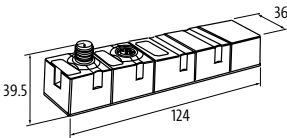
Cube67 DO32 - E Valve

Expansion module



Cube67 DO16 - E Valve

Expansion module

Order Data		Art-No.	Art-No.
DO16 - 0.5 A Valve (C) 0.5 m	SMC - SUB-D25	5665000	
	SMC - Series SV/VQ	5665002	
	FESTO - MPA (SUB-D25)	5665001	
	FESTO - CPV (SUB-D25)	5665004	
DO32 - 0.5 A Valve (E)		MAC - SUB-D44	56657
DO16 - 0.5 A Valve (E)			MAC - SUB-D44
Internal communication			
Current consumption	max. 50 mA		
LED display	US: sensor supply and internal supply voltage (green: OK); UA: actuator supply (green: OK)		
Connections			
Fieldbus	via internal system connection		
Sensor-system/actuator supply	via internal system connection (max. 1×4 A) / actuators via external cable (max. 4×2 A)	via internal system connection (max. 2×4 A)	
I/O ports	SMC - SUB-D25	MAC - SUB-D44	
Output			
Actuator supply UA	24 V DC (EN 61131-2), max. 4 × 2 A	24 V DC (EN 61131-2)	
Switching current per output	max. 0.5 A (short-circuit and overload protected)		
Cables			
No./diameter of wires	4×4×0.14 mm²	—	
Material (jacket)	PVC, cross-link safe	—	
Cable length	0.5 m	—	
Diagnostic			
Communication status	via LED		
Diagnostic via LED	per module		
Diagnostic via BUS	per module and channel		
Monitoring - under voltage	yes		
Monitoring - no voltage	yes		
Short-circuit and overload	yes		
Actuator warning	per channel via BUS		
General data			
Protection	IP67		
Mounting method	2-hole screw mounting		
Temperature range	0...+55 °C (storage temperature -20...+70 °C)		
Dimension drawing			
	 		
Notes			

Versions			Art-No.
	based of: Art.-No. 56655		
	Multipole plug (70 mA)	FESTO - CPV	5665500
	Multipole plug (70 mA)	FESTO - CPV (SUB-D9)	5665501
	Multipole plug (0.5 A)	FESTO - MPA	5665502
	based of: Art.-No. 56651		
	Multipole plug (70 mA)	SMC - Series SV/VQ	5665119
	Multipole plug (0.5 A)	SMC - Series SV/VQ	5665120
	Multipole plug (0.5 A)	FESTO - CPV-VA (SUB-D25)	5665151
	based of: Art.-No. 56651		
	Multipole plug (70 mA)	FESTO - CPV (cULus-Listed)	5665100
	Multipole plug (70 mA)	PARKER - Series V	5665101
	Multipole plug (70 mA)	NORGREN - V20/22	5665110
	Multipole plug (70 mA)	NORGREN - VM10	5665111
	Multipole plug (70 mA)	NORGREN - V20/22	5665112
	Multipole plug (70 mA)	SMC - Series SV/VQ	5665113
	Multipole plug (70 mA)	SMC - M27	5665114
	Multipole plug (70 mA)	NORGREN - V20/220	5665115
	Multipole plug (0.5 A)	MAC Valves	5665116
	Multipole plug (70 mA)	FESTO - MPA	5665118
	Multipole plug (70 mA)	FESTO - VTSA	5665105
	Multipole plug (70 mA)	FESTO - CPV-SC (SUB-D15)	5665102
	Multipole plug (70 mA)	FESTO - CPV-SC (SUB-D26)	5665103
	Multipole plug (0.5 A)	HDM (SUB-D25)	5665106
	based of: Art.-No. 56656		
	Multipole plug (0.5 A)	NORGREN - VM10	5665600
	Multipole plug (0.5 A)	FESTO - MPA	5665601
	Multipole plug (0.5 A)	AVENTICS - HF03	5665602
	Multipole plug (0.5 A)	NORGREN - VM10	5665603
	Multipole plug (0.5 A)	SMC - Series SV	5665604
	Multipole plug (0.5 A)	FESTO - CPA	5665605
	Multipole plug (0.5 A)	AVENTICS - HF04	5665621
	Multipole plug (0.5 A)	AVENTICS - HF02/03-LG	5665606
	Multipole plug (0.5 A)	SMC - M27	5665607
	Multipole plug (0.5 A)	MAC Valves (UL-Listed)	5665609
	Multipole plug (0.5 A)	VESTA (SUB-D37)	5665610
	Multipole plug (0.5 A)	VESTA (SUB-D25)	5665611
	Multipole plug (0.5 A)	FESTO - VTSA	5665613
	Multipole plug (0.5 A)	SMC - SUB-D25	5665614
	Multipole plug (0.5 A)	FESTO - CPA-SC	5665615
	Multipole plug (0.5 A)	FESTO - MPA-L	5665616
	Multipole plug (0.5 A)	AVENTICS - HF02/03-LG	5665617
	Multipole plug (0.5 A)	Numatics Generation 2000 (UL-Listed)	5665618
	Multipole plug (0.5 A)	FESTO - MPA-L	5665619
	based of: Art.-No. 56671		
	DI16/DO16 - 0.5 A (E) AMP (0.5 m)	with AMP connector 32-pole (female)	5667100
	DI16/DO16 - 0.5 A (E) SUB-D37 (0.5 m)	with SUB-D37 (female)	5667101
	DI16/DO16 - 0.5 A (E) SUB-D37 (5 m)	with SUB-D37 (female)	5667102
	DI16/DO16 - 0.5 A E (0.72 m)	with open ended wires	5667103
	DI16/DO16 - 0.5 A E (2 m)	with open ended wires	5667104
	DI16/DO16 - 0.5 A E (3 m)	with open ended wires	5667106
	DI16/DO16 - 0.5 A E (5 m)	with open ended wires	5667105

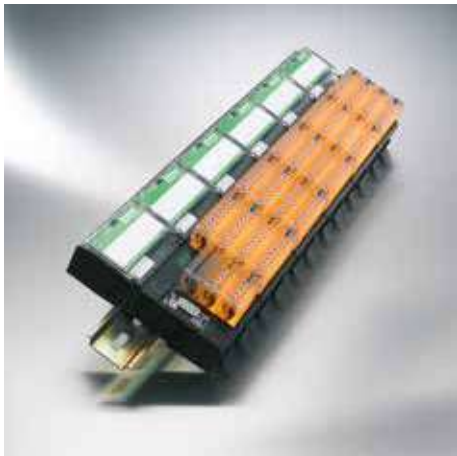
CUBE67

Labeling accessories			Art-No.
	Label plates 20 × 8 mm	(20 pieces per plate)	55318
	Label plates 20 × 8 mm (20 pieces per plate)	Safety	55316
Blind Plug/caps			Art-No.
	Screw plug M8 × 1 mm (for female) Plastic, hex without gasket	Quantity: 10 pcs.	3858627
	Screw plug M12 × 1 mm (for female) Plastic, hex without gasket	Quantity: 10 pcs.	58627
	Screw plug M12 × 1 mm (for female) Plastic, hex without gasket	Quantity: 4 pcs.	56952
	Screw plug M12 × 1 mm (for male) Plastic	Quantity: 4 pcs.	56951
	Screw plug 7/8" (for male) Plastic		55385
	Blind plug diagnostic M12 × 1 mm Bridge PIN 1 and PIN 2		7000-13481-0000000
Connection accessories			Art-No.
	Ground strap 4 mm² 100 mm for screw (M4)		4000-71001-0410004
	T-coupler M12 – M12 Male straight - female straight straight, A-coded, 6-pole, shielded	Cube67 additional actuator power supply	7000-46101-0000000
	T-coupler M12/M12, female/male straight, A-coded, 6-pole, shielded	Cube67 additional actuator power supply	7000-46091-0000000

Connection accessories			Art-No.
	T-coupler 7/8"-7/8", female/male 5-pole		7000-50061-0000000
	Terminator M12 (male) straight, A-coded, 6-pole	Cube67	7000-15041-0000000
	Control cabinet entry system M12 straight, A-coded, 6-pole, shielded	Cube67	7000-46111-0000000
	Cube67 FSC Connector Set with mounting socket Han-Brid®, 6-pole - M12, 6-pole	Cable length (120 mm)	56953
	DIN-rail adapter	for bus nodes	56961
	DIN-rail adapter for extension modules	50 mm	56962
	DIN-rail adapter for extension modules	30 mm	56963
	Power distributor 4 x M12 for additional actuator supply		56955
	Repeater PROFIBUS DP + PROFI-safe 2 segments 3 segments		56960 56965

CUBE67

Connection accessories			Art-No.
	Male M12, field-wireable, screw terminals Analog input with integrated compensation	Cube67	56945
	Male M12, field-wireable, screw terminals Analog input with integrated compensation	Cube67	56946
	Male M12 Internal system connection		56947
	Female M12 Internal system connection with mounting socket		56948
	Female M12 Internal system connection		56949



CUBE20

MODULAR I/O STATION IP20

- High channel density due to compact design
- Modular structure
- I/O connections with maintenance-free terminals

INNOVATIVE INSTALLATION TECHNOLOGY

Cube20 is an expandable modular fieldbus I/O system for control cabinets. It can be operated as a stand-alone unit or with a Cube67. Cube20 is consistently designed for the requirements of modern control cabinet wiring. High costs due to handling of many individual components can be reduced to a minimum with Cube20.



Cube20 I/O Modules

 Bus nodes • PROFIBUS DP • PROFINET IO • EtherNet/IP Page 4.2.1	 System connection to Cube67 Page 4.2.3
 Digital inputs Page 4.2.5	 Digital inputs/outputs Page 4.2.5
 Digital outputs Page 4.2.6	 Analog inputs Page 4.2.8
 Analog outputs Page 4.2.10	

Bus Nodes

– Digital inputs



Approvals: UL Listed

Cube20 BN-P DI8

PROFIBUS DP

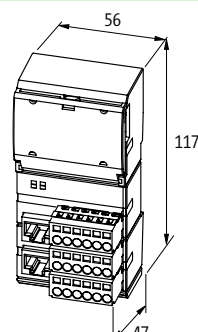
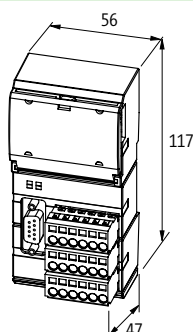


Cube20 BN-PNIO DI8

PROFINET IO



Order Data	Art-No.	Art-No.
PROFIBUS DP	56001	
PROFINET IO		56006
Connections		
Fieldbus	PROFIBUS 12 Mbit/s; SUB-D9	Ethernet 10/100 Mbit/s; 2 × RJ45 (female)
Sensor-system/actuator supply	4 × Spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A)	
Internal system connection	4 × Spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A)	
I/O ports	8 × Spring clamp plug-in terminals, max. 2.5 mm ²	
Module Supply		
Operating voltage	24 V DC (EN 61131-2)	
Current consumption	max. 150 mA	
PROFIBUS		
Addressing	Rotary switch 0...99	–
PROFINET		
Addressing	–	DCP
Specification	–	V2.2, Conformance Class B
Cube system		
Module capacity	max. 15	
I/O capacity	max. 244 Byte (Input), max. 244 Byte (Output)	max. 1024 Byte (Input), max. 1024 Byte (Output)
Machine Option Management	yes	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 700 mA per module	
Type	PNP (EN 61131-2)	
Input filter	1 ms	
Galvanic isolation	500 V DC between I/O and system electronics	
Parameterization		
Terminal row X2 (4 channels)	Input	
Terminal row X3 (4 channels)	Input	
Diagnostic		
Communication status	via LED and BUS	
Diagnostic via LED	per module	
Diagnostic via BUS	per module and channel	
Monitoring - under voltage	yes	
Monitoring - no voltage	no	
Short circuit and overload	yes	
General data		
Protection	IP20	
Mounting method	DIN-rail mountable (EN 60715)	
Temperature range	0...+55 °C (storage temperature -20...+85 °C)	
Dimension drawing		



CUBE20

Bus Nodes

– Digital inputs

EtherNet/IP™

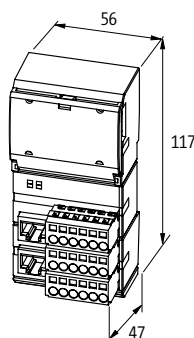
Cube20 BN-E DI8

EtherNet/IP



Approvals:  US
Listed

Order Data		Art-No.
EtherNet/IP		56005
Connections		
Fieldbus	Ethernet 10/100 Mbit/s; 2 × RJ45 (female)	
Sensor-system/actuator supply	4 × Spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A)	
Internal system connection	4 × Spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A)	
I/O ports	8 × Spring clamp plug-in terminals, max. 2.5 mm ²	
Module Supply		
Operating voltage	24 V DC (EN 61131-2)	
Current consumption	max. 150 mA	
EtherNet/IP		
Addressing	DHCP, BOOTP or IP address by rotary switch	
Cube system		
Module capacity	max. 15	
I/O capacity	max. 504 Byte (Input), max. 500 Byte (Output)	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 700 mA per module	
Type	PNP (EN 61131-2)	
Input filter	1 ms	
Galvanic isolation	500 V DC between I/O and system electronics	
Parameterization		
Terminal row X2 (4 channels)	Input	
Terminal row X3 (4 channels)	Input	
Diagnostic		
Communication status	via LED and BUS	
Diagnostic via LED	per module	
Diagnostic via BUS	per module and channel	
Monitoring - under voltage	yes	
Monitoring - no voltage	no	
Short circuit and overload	yes	
General data		
Protection	IP20	
Mounting method	DIN-rail mountable (EN 60715)	
Temperature range	0...+55 °C (storage temperature -20...+85 °C)	
Dimension drawing		



Notes

Cube20/67-Interface

– Digital inputs/outputs
(multifunctional)

– Cube67

Approvals:  **UL** US
Listed

Cube20 BN-67 DIO8

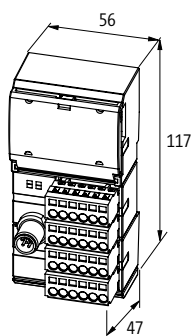
Power external



Cube20 BN-67 DIO8

M12 Power
via internal system connection

Order Data	Art-No.	Art-No.
Cube67 system connection	56450	564501
Connections		
Fieldbus	M12 (male) 6-pole	M12 (female) 6-pole
Sensor-system/actuator supply	4 × Spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A)	via internal system connection (max. 2×4 A)
I/O ports	8 × Spring clamp plug-in terminals, max. 2.5 mm ²	
Module Supply		
Operating voltage	24 V DC (EN 61131-2)	
Current consumption	max. 100 mA	
Cube system		
Module capacity	max. 3	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 700 mA per module, short-circuit and overload protected	
Type	PNP (EN 61131-2)	
Input filter	1 ms	
Galvanic isolation	500 V DC between I/O and system electronics	
Output		
Actuator supply UA	24 V DC (EN 61131-2), max. 12 A	24 V DC (EN 61131-2), max. 4 A
Switching current per output	max. 0.5 A (short-circuit and overload protected)	
Galvanic isolation	500 V DC between I/O and system electronics	
Lamp load	10 W	
Parameterization		
Terminal row X2 (4 channels)	Input/Output	
Terminal row X3 (4 channels)	Input/Output	
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module and channel (only outputs)	
Diagnostic via BUS	per module and channel	
Monitoring - under voltage	yes	
Monitoring - no voltage	no	
Short circuit and overload	yes	
General data		
Protection	IP20	
Mounting method	DIN-rail mountable (EN 60715)	
Temperature range	0...+55 °C (storage temperature -20...+85 °C)	
Dimension drawing		



Notes

CUBE20

Cube20/67-Interface

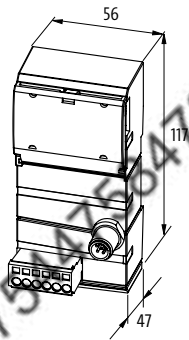
– Cube67

Approvals:  UL US
Listed

Cube20/67-Interface



Order Data		Art-No.
Cube67 system connection		56140
Connections		
Fieldbus	M12 (female) 6-pole	
Sensor-system/actuator supply	4 × Spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A)	
I/O ports	8 × Spring clamp plug-in terminals, max. 2.5 mm ²	
Module Supply		
Operating voltage	24 V DC (EN 61131-2)	
Current consumption	max. 25 mA	
Cube system		
Module capacity	max. 15	
Sensor supply US	24 V DC (18...30.2 V DC) EN 61131-2, max. 4 A	
Actuator supply UA	24 V DC (18...30.2 V DC) EN 61131-2, max. 4 A	
Diagnostic		
Communication status	via LED	
General data		
Protection	IP20	
Mounting method	DIN-rail mountable (EN 60715)	
Temperature range	0...+55 °C (storage temperature -20...+85 °C)	
Dimension drawing		



Notes

Digital inputs/outputs

Cube20 DI32 E

Expansion module

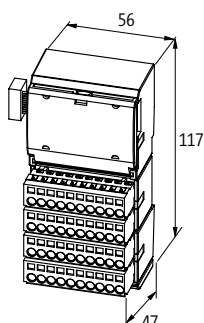


Cube20 DI16 DO16 E

Expansion module



Order Data	Art-No.	Art-No.
DI32 - (E)	cULus	56112
DI16/DO16 - (E)		56168
Internal communication		
Module Supply	via system connection	
Current consumption	max. 25 mA	
Connections		
Fieldbus	Ribbon cable connection	
Sensor-system/actuator supply	8 × Spring clamp plug-in terminals, max. 2.5 mm² (max. 12 A)	
I/O ports	32 × Spring clamp plug-in terminals, max. 2.5 mm²	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 700 mA per module	
Type	PNP (EN 61131-2)	
Input filter	1 ms	
Galvanic isolation	500 V DC between inputs and internal communication	
Output		
Actuator supply UA	–	24 V DC (EN 61131-2), max. 12 A
Galvanic isolation	–	500 V DC between outputs and internal communication
Switching current per output	–	max. 0.5 A (short-circuit and overload protected)
Lamp load	–	10 W
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module	per module and channel (only outputs)
Diagnostic via BUS	per module and channel	
Monitoring - under voltage	yes	
Monitoring - no voltage	no	
Short circuit and overload	yes	
General data		
Protection	IP20	
Mounting method	DIN-rail mountable (EN 60715)	
Temperature range	0...+55 °C (storage temperature -20...+85 °C)	
Dimension drawing		



Notes

CUBE20

Digital outputs

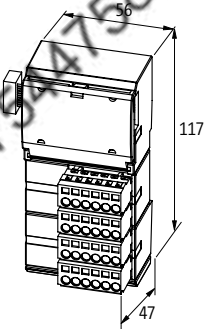
Cube20 DO16 E - 2 A

Expansion module



Approvals:  UL US
Listed

Order Data		Art-No.
DO16 - 2 A (E)		56117
Internal communication		
Module Supply	via system connection	
Current consumption	max. 25 mA	
Connections		
Fieldbus	Ribbon cable connection	
Sensor-system/actuator supply	8 × Spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A)	
I/O ports	16 × Spring clamp plug-in terminals, max. 2.5 mm ²	
Output		
Actuator supply UA	24 V DC (EN 61131-2), max. 12 A	
Switching current per output	max. 2 A	
Galvanic isolation	500 V DC between outputs and internal communication	
Lamp load	40 W	
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module and channel	
Diagnostic via BUS	per module and channel	
Monitoring - under voltage	yes	
Monitoring - no voltage	no	
Short circuit and overload	yes	
General data		
Protection	IP20	
Mounting method	DIN-rail mountable (EN 60715)	
Temperature range	0...+55 °C (storage temperature -20...+85 °C)	
Dimension drawing		



Notes

Digital outputs

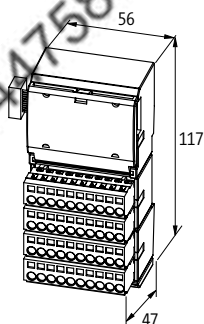
Cube20 DO32 E

Expansion module



Approvals:  UL Listed

Order Data		Art-No.
DO32 - (E)		56118
Internal communication		
Module Supply	via system connection	
Current consumption	max. 25 mA	
Connections		
Fieldbus	Ribbon cable connection	
Sensor-system/actuator supply	8 × Spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A)	
I/O ports	32 × Spring clamp plug-in terminals, max. 2.5 mm ²	
Output		
Actuator supply UA	24 V DC (EN 61131-2), max. 12 A	
Switching current per output	max. 0.5 A (short-circuit and overload protected)	
Galvanic isolation	500 V DC between outputs and internal communication	
Lamp load	10 W	
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module and channel	
Diagnostic via BUS	per module and channel	
Monitoring - under voltage	yes	
Monitoring - no voltage	no	
Short circuit and overload	yes	
General data		
Protection	IP20	
Mounting method	DIN-rail mountable (EN 60715)	
Temperature range	0...+55 °C (storage temperature -20...+85 °C)	
Dimension drawing		



Notes

CUBE20

Analog inputs

– Voltage/current

Cube20 AI4 E

Expansion module
Voltage/current



Approvals:  US
Listed

Order Data

AI4 - (E)

Art-No.

56200

Internal communication

Module Supply via system connection

Current consumption max. 25 mA from system, max. 60 mA externally (UI)

Connections

Fieldbus Ribbon cable connection

Sensor-system/actuator supply 4 × Spring clamp plug-in terminals, max. 2.5 mm² (max. 12 A)

I/O ports 24 × Spring clamp plug-in terminals, max. 2.5 mm²

Input

Conversion time (analog) max. 2 ms (per channel)

Resolution (analog) 15 Bit + sign

Accuracy max. 0.3%

Connection Differential voltage/current input

Voltage inputs

Input resistor min. 1 MOhm, (EN 61131-2)

Input range ±10 V DC, 0...10 V DC

Current input signals

Load max. 300 Ohm (20 mA), (EN 61131-2)

Input range 0...20 mA, 4...20 mA

Diagnostic

Communication status via LED

Diagnostic via LED per module

Diagnostic via BUS per module and channel

Monitoring - under voltage yes

Monitoring - no voltage no

Short circuit and overload yes

Wire break upper/lower limit overload per channel via LED and BUS

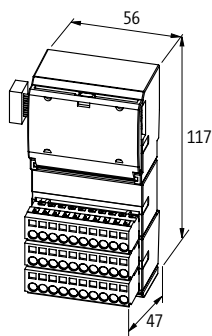
General data

Protection IP20

Mounting method DIN-rail mountable (EN 60715)

Temperature range 0...+55 °C (storage temperature -40...+85 °C)

Dimension drawing



Notes

Analog inputs

– Temperature converter

Approvals:  UL Listed

Cube20 AI4 E RTD

Expansion module
for resistors and temperature

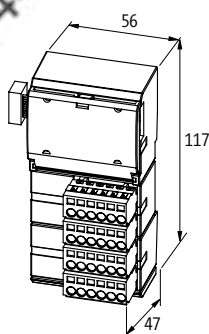


Cube20 AI4 E TH

Expansion module
for thermo elements



Order Data	Art-No.	Art-No.
AI4 - (E) RTD	56230	
AI4 - (E) TH		56240
Internal communication		
Module Supply	via system connection	
Current consumption	max. 25 mA from system, max. 70 mA externally (UI)	max. 25 mA from system, max. 45 mA externally (UI)
Connections		
Fieldbus	Ribbon cable connection	
Sensor-system/actuator supply	4 × Spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A)	
I/O ports	16 × Spring clamp plug-in terminals, max. 2.5 mm ²	12 × Spring clamp plug-in terminals, max. 2.5 mm ²
Input		
Conversion time (analog)	max. 600 ms (per channel)	max. 300 ms (per channel)
Type	Pt100, 200, 500; Ni100, 120, 200, 500, 1000, R 0...3000 Ohm	K, N, E, J, R
Resolution (analog)	15 Bit + sign	
Accuracy	0.7...1.4%	max. ±2%, cold junction compensation
Connection	2-wire input: +Rx, -Rx / 3-wire input: +Rx, RLx, -Rx	2-wire input; TH+x, TH-x
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module	
Diagnostic via BUS	per module and channel	
Monitoring - under voltage	yes	
Monitoring - no voltage	no	
Short circuit and overload	yes	
Wire break upper/lower limit overload	per channel via LED and BUS	
General data		
Protection	IP20	
Mounting method	DIN-rail mountable (EN 60715)	
Temperature range	0...+55 °C (storage temperature -20...+85 °C)	
Dimension drawing		



Notes

CUBE20

Analog outputs

– Voltage/current

Cube20 AO4 E

Expansion module
Voltage/current



Approvals:  US
Listed

Order Data

AO4 - (E) U/I	Art-No. 56220
---------------	---------------

Internal communication

Module Supply	via system connection
Current consumption	max. 25 mA from system, max. 90 mA externally (UI), idle load

Connections

Fieldbus	Ribbon cable connection
Sensor-system/actuator supply	4 × Spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A)
I/O ports	24 × Spring clamp plug-in terminals, max. 2.5 mm ²

Output

Conversion time (analog)	max. 1 ms (per channel)
Resolution (analog)	15 Bit + sign
Accuracy	max. 0.5%
Galvanic isolation	500 V DC between inputs and internal communication

Voltage output signals

Load	min. 1 kOhm, (EN 61131-2)
Input range	±10 V DC, 0...10 V DC

Current outputs

Load	max. 60 Ohm, (EN 61131-2)
Input range	0...20 mA, 4...20 mA

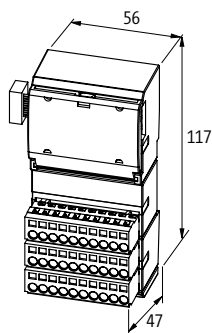
Diagnostic

Communication status	via LED
Diagnostic via LED	per module and channel
Diagnostic via BUS	per module and channel
Monitoring - under voltage	yes
Monitoring - no voltage	no
Short circuit and overload	yes
Actuator warning	per channel via LED and BUS
Wire break upper/lower limit overload	per channel via LED and BUS

General data

Protection	IP20
Mounting method	DIN-rail mountable (EN 60715)
Temperature range	0...+55 °C (storage temperature -20...+85 °C)

Dimension drawing



Notes

Connection accessories			Art-No.
	Bus Connection Plug 90°		
	SUB-D9 (male), screw terminals	PROFIBUS	55762
	SUB-D9 (female), screw terminals	CANopen	55760
	Bus Connection Plug 180°		
	SUB-D9 (male), IDC terminals, rigid cable	PROFIBUS	55584
	SUB-D9 (male), IDC terminals, flexible cable	PROFIBUS	55583
	Bus Connection Plug 90°		
	SUB-D9 (male), IDC terminals, rigid cable	PROFIBUS	55585
	SUB-D9 (male), IDC terminals, flexible cable	PROFIBUS	55587
	Bus Connection Plug 90°		
	SUB-D9 (male), IDC terminals, rigid cable, programming device conn.	PROFIBUS	55586
	SUB-D9 (male), IDC terminals, flexible cable, programming device conn.	PROFIBUS	55588
	Bus Connection Plug 90°		
	SUB-D9 (male), M12 × 1, B-coded	PROFIBUS	7000-99441-0000000
	Label-sheet		
	Quantity: 40 pcs.		56113
	Potential terminal block		
	gray/gray/brown/blue		56078
	gray/gray/yellow/blue		56079
	yellow/blue/yellow/blue		56080
	brown/blue/brown/blue		56081
	blue/yellow/brown/blue		56111
	gray/gray/gray/gray		56084
	blue/blue/blue/blue		56085
	brown/brown/brown/brown		56077
	brown/brown/blue/blue		56109
	blue/yellow		56110

CUBE20

Connection accessories



Potential terminal block

Multi color

Art-No.

56083



Potential terminal block

Slim Line

56082

Минск +375447584780 viber zakaz@igbt.by www.fotorele.net



CUBE20S

SMALL, SPEEDY, SAFE

- Extremely modular
- Up to 64 modules per bus node
- Quick reaction time: up to 20 μ s

A MEMBER OF THE CUBE-FAMILY

Murrelektronik's modular Cube20S I/O system expands the field-tested Cube family with another product line that is extremely useful.

The compact modules are only 12.9 millimeters wide and have modular design, allowing them to be installed in series easily, quickly and according to individual requirements – the integrated backplane bus connects the modules to energy and data.

Bus nodes for Cube20S are available for standard fieldbus protocols.



Cube20S I/O Modules

 Bus nodes/Power modules Page 4.3.1	 Supply module Page 4.3.4
 Digital inputs Page 4.3.6	 Digital outputs Page 4.3.8
 Analog inputs Page 4.3.11	 Analog outputs Page 4.3.13
 Safety modules • Digital inputs • Digital outputs Page 4.3.7/4.3.10	

Bus Nodes

– Power module included



Approvals: UL
Listed

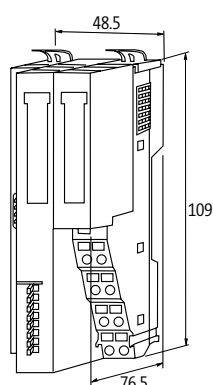
Cube20S



Cube20S



Order Data	Art-No.	Art-No.
PROFIBUS DP	57101	
PROFINET IO		57106
Connections		
Fieldbus	PROFIBUS 12 Mbit/s; SUB-D9	Ethernet 10/100 Mbit/s; 2 × RJ45 (female)
Internal system connection	4 × Spring clamp plug-in terminals, max. 1.5 mm ² (max. 10 A)	
Sensor-system/actuator supply	4 × Spring clamp plug-in terminals, max. 1.5 mm ² (max. 10 A)	
Module supply		
Operating voltage	24 V DC (EN 61131-2)	
Current consumption	max. 95 mA	
PROFIBUS		
Addressing	Address switch 1...125	–
PROFINET		
Addressing	–	DCP
Shared Device/Input	–	yes, for 3 controls
Specification	–	V2.2, Conformance Class B
MRP	–	yes
Cube system		
Module capacity	max. 64	
I/O capacity	max. 244 Byte (Input), max. 244 Byte (Output)	max. 512 Byte (Input), max. 512 Byte (Output)
Machine Option Management	–	yes
Output		
Output voltage (I/Os / Backplane)	24 V DC/5 V DC	
Output current (I/Os / Backplane)	10 A/3 A	
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module and channel	
Diagnostic via BUS	per module	
Monitoring - under voltage	no	
Monitoring - no voltage	yes	
Short circuit and overload	yes	
Actuator warning	no	
General data		
Protection	IP20	
Connection	Spring clamp plug-in terminals: max. 1.5 mm ² (max. 10 A)	
Mounting method	DIN-rail mountable (EN 60715)	
Temperature range	0...+60 °C (storage temperature -25...+70 °C)	
Dimension drawing		



CUBE20S

Bus Nodes

– Power module included

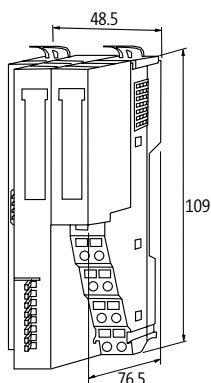
EtherNet/IP EtherCAT

Approvals:  Listed

Cube20S



Order Data	Art-No.	Art-No.
EtherNet/IP	57105	
EtherCAT		57103
Connections		
Fieldbus	Ethernet 10/100 Mbit/s; 1 × RJ45 (female)	Ethernet 10/100 Mbit/s; 2 × RJ45 (female)
Internal system connection	4 × Spring clamp plug-in terminals, max. 1.5 mm ² (max. 10 A)	
Sensor-system/actuator supply	4 × Spring clamp plug-in terminals, max. 1.5 mm ² (max. 10 A)	
Module supply		
Operating voltage	24 V DC (EN 61131-2)	
Current consumption	max. 95 mA	
EtherNet/IP		
Addressing	DHCP, BOOTP or IP address by rotary switch	–
EtherCAT		
Addressing	–	automatic
Operating modes	–	FreeRun, SyncManager-Event, Distributed Clock, HotConnect
Cube system		
Module capacity	max. 64	
I/O capacity	max. 1024 Byte (Input), max. 1024 Byte (Output)	
Output		
Output voltage (I/Os / Backplane)	24 V DC/5 V DC	
Output current (I/Os / Backplane)	10 A/3 A	
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module and channel	
Diagnostic via BUS	per module	
Monitoring - under voltage	no	
Monitoring - no voltage	yes	
Short circuit and overload	yes	
Actuator warning	no	
General data		
Protection	IP20	
Connection	Spring clamp plug-in terminals: max. 1.5 mm ² (max. 10 A)	
Mounting method	DIN-rail mountable (EN 60715)	
Temperature range	0...+60 °C (storage temperature -25...+70 °C)	
Dimension drawing		



Notes

Bus Nodes

– Power module included

CANopen 

Approvals:  **UL** US Listed

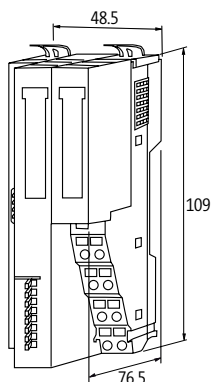
Cube20S



Cube20S



Order Data	Art-No.	Art-No.
CANopen	57104	
Modbus TCP		57108
Connections		
Fieldbus	CAN 1 Mbit/s; SUB-D9	Ethernet 10/100 Mbit/s; 1 × RJ45 (female)
Internal system connection	4 × Spring clamp plug-in terminals, max. 1.5 mm ² (max. 10 A)	
Sensor-system/actuator supply	4 × Spring clamp plug-in terminals, max. 1.5 mm ² (max. 10 A)	
Module supply		
Operating voltage	24 V DC (EN 61131-2)	
Current consumption	max. 95 mA	
CANopen		
Addressing	DIP switch	
Modbus		
Addressing	–	Webserver
Cube system		
Module capacity	max. 64	
I/O capacity	max. 128 Byte (Input), max. 128 Byte (Output)	max. 1024 Byte (Input), max. 1024 Byte (Output)
Output		
Output voltage (I/Os / Backplane)	24 V DC/5 V DC	
Output current (I/Os / Backplane)	10 A/3 A	
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module and channel	
Diagnostic via BUS	per module	
Monitoring - under voltage	no	
Monitoring - no voltage	yes	
Short circuit and overload	yes	
Actuator warning	no	
General data		
Protection	IP20	
Connection	Spring clamp plug-in terminals: max. 1.5 mm ² (max. 10 A)	
Mounting method	DIN-rail mountable (EN 60715)	
Temperature range	0...+60 °C (storage temperature -25...+70 °C)	
Dimension drawing		



Notes

CUBE20S

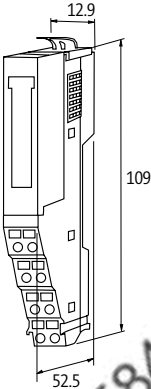
Power supplies

Cube20S
Potential distributor



Approvals:  US
Listed

Order Data	Art-No.	Art-No.	Art-No.
8 × 24 V DC	57120		
8 × 0 V DC		57121	
4×24 + 4×0 V DC			57122
Module supply			
Operating voltage	max. 30 V DC	max. 0 V DC	max. 30 V DC
Total current	max. 10 A		
General data			
Protection	IP20		
Connection	Spring clamp terminals: 0.08...2.5 mm ² (AWG 28...14)		
Mounting method	DIN-rail mountable (EN 60715)		
Temperature range	0...+60 °C (storage temperature -25...+70 °C)		
Dimension drawing			



Notes

CUBE20S

Power supplies

Cube20S

for external voltage supply

Cube20S

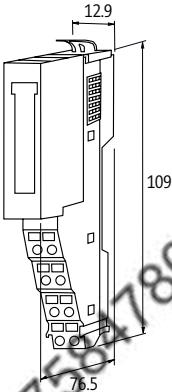
for external voltage supply and internal backplane

Approvals:





Order Data		Art-No.	Art-No.
Power module		57130	57131
Module supply			
Operating voltage	max. 28.8 V DC		
Total current	max. 10 A	max. 6 A	
Output			
Output current (I/Os /Backplane)	10/0 A	4 A/2 A	
Output voltage (I/Os /Backplane)	24 V AC	24 V DC/5 V DC	
General data			
Protection	IP20		
Connection	Spring clamp terminals: 0.08...2.5 mm² (AWG 28...14)		
Mounting method	DIN-rail mountable (EN 60715)		
Temperature range	0...+60 °C (storage temperature -25...+70 °C)		
Dimension drawing			



Notes

Cube20S

CUBE20S

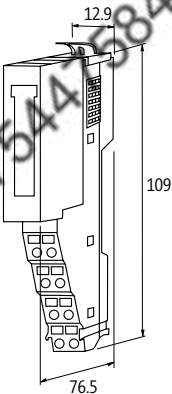
Digital inputs

Cube20S



Approvals: 

Order Data		Art-No.
DI2 - (E) NPN		57220
DI4 - (E)		57240
DI8 - (E)		57280
Internal communication		
Module supply	via system connection	
Current consumption	max. 55 mA	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 500 mA per module	
Type	PNP (EN 61131-2)	
Input filter	3 ms	
Galvanic isolation	500 V DC between inputs and internal communication	
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module and channel	
Diagnostic via BUS	per module	
Monitoring - under voltage	no	
Monitoring - no voltage	yes	
Short circuit and overload	yes	
General data		
Protection	IP20	
Connection	Spring clamp plug-in terminals: max. 1.5 mm ² (AWG 16)	
Mounting method	DIN-rail mountable (EN 60715)	
Temperature range	0...+60 °C (storage temperature -20...+70 °C)	
Dimension drawing		



Notes

CUBE20S

Safe inputs (Safety)

– active safety

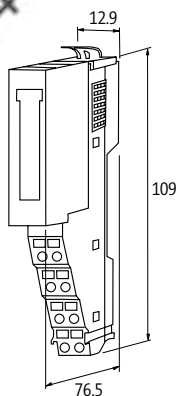


Approvals:  UL Listed

Cube20S FDI4/2



Order Data		Art-No.
FDI4/2 - (E)		57290
Internal communication		
Module supply	via system connection	
Current consumption	max. 95 mA	
Safety Indicators		
PL	up to e	
Category	up to 4	
PFH	0.25E-9	
DC	high	
SIL	up to 3	
SIL CL	up to 3	
Service life	20 years	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 500 mA per module	
Type	PNP (EN 61131-2)	
Input filter	3 ms	
Galvanic isolation	500 V DC between inputs and internal communication	
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module and channel	
Diagnostic via BUS	per module and channel	
Short circuit and overload	yes	
General data		
Protection	IP20	
Connection	Spring clamp plug-in terminals: max. 1.5 mm ² (AWG 16)	
Mounting method	DIN-rail mountable (EN 60715)	
Temperature range	0...+60 °C (storage temperature -20...+70 °C)	
Dimension drawing		



Notes

CUBE20S

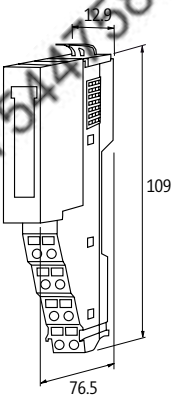
Digital outputs

Cube20S



Approvals:  UL US
Listed

Order Data		Art-No.
D02 - (E)		57320
D04 - (E)		57340
D08 - (E)		57380
Internal communication		
Module supply	via system connection	
Current consumption	max. 55 mA	
Output		
Actuator supply UA	24 V DC (EN 61131-2), max. 1 A	
Switching current per output	max. 0.5 A (short-circuit and overload protected)	
Galvanic isolation	500 V DC between outputs and internal communication	
Lamp load	5 W	
Output delay time	175 ns	
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module and channel	
Diagnostic via BUS	per module	
Monitoring - under voltage	yes	
Monitoring - no voltage	no	
Short circuit and overload	yes	
General data		
Protection	IP20	
Connection	Spring clamp plug-in terminals, max. 1.5 mm ² (AWG 16)	
Mounting method	DIN-rail mountable (EN 60715)	
Temperature range	0...+60 °C (storage temperature -25...+70 °C)	
Dimension drawing		



Notes

Digital outputs

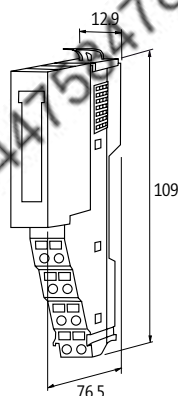
Cube20S - 2 A

Cube20S - 230 V AC (Relays)

Approvals:  **UL**
Listed



Order Data	Art-No.	Art-No.
DO2 - (E)	57325	57327
DO4 - (E)	57345	
Internal communication		
Module supply	via system connection	
Current consumption	max. 60 mA	max. 130 mA
Output		
Actuator supply UA	24 V DC (EN 61131-2), max. 4 A	max. 30 V DC/230 V AC
Switching current per output	max. 2 A (short-circuit and overload protected)	max. 3 A (short-circuit and overload protected)
Galvanic isolation	500 V DC between outputs and internal communication	
Lamp load	10 W	
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module and channel	
Diagnostic via BUS	per module	
Monitoring - under voltage	yes	
Monitoring - no voltage	no	
Short circuit and overload	yes	
General data		
Protection	IP20	
Connection	Spring clamp plug-in terminals: max. 1.5 mm² (AWG 16)	
Mounting method	DIN-rail mountable (EN 60715)	
Temperature range	0...+60 °C (storage temperature -25...+70 °C)	
Dimension drawing		



Notes	
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CUBE20S

Safe outputs (Safety)

– active safety

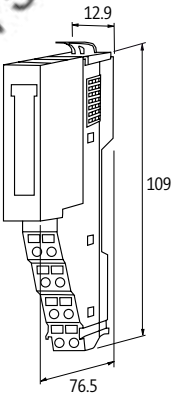


Approvals: US
Listed

Cube20S FDO4/2



Order Data		Art-No.
FDO4/2 - (E)		57390
Internal communication		
Module supply	via system connection	
Current consumption	max. 75 mA	
Safety Indicators		
PL	up to e	
Category	up to 4	
PFH	0.22E-9	
DC	high	
SIL	up to 3	
SIL CL	up to 3	
Service life	20 years	
Output		
Actuator supply UA	24 V DC (EN 61131-2), max. 2 A	
Switching current per output	max. 0.5 A (short-circuit and overload protected)	
Galvanic isolation	500 V DC between outputs and internal communication	
Lamp load	5 W	
Output delay time	175 µs	
Diagnostic		
Communication status	via LED	
Diagnostic via LED	per module and channel	
Diagnostic via BUS	per module and channel	
Short circuit and overload	yes	
General data		
Protection	IP20	
Connection	Spring clamp plug-in terminals: max. 1.5 mm ² (AWG 16)	
Mounting method	DIN-rail mountable (EN 60715)	
Temperature range	0...+60 °C (storage temperature -25...+70 °C)	
Dimension drawing		



Notes

Analog inputs

Cube20S

Voltage



Cube20S

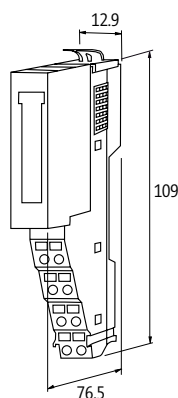
Current

Cube20S

Voltage

Approvals:  UL Listed

Order Data	Art-No.		Art-No.	Art-No.
AI2 - (E)	57231		57232	57233
AI4 - (E)	57261		57262	57263
Internal communication				
Module supply	via system connection			
Current consumption	max. 60 mA from system, max. 25 mA externally (UI)	max. 60 mA from system, max. 15 mA externally (UI)		max. 60 mA from system, max. 25 mA externally (UI)
Input				
Conversion time (analog)	240 µs (all channels)			
Resolution (analog)	15 Bit + sign			
Accuracy	max. ±0.2%	max. 0.3%		max. ±0.2%
Connection	Differential voltage input	Differential current input		Differential voltage input
Voltage inputs				
Input resistor	200 kOhm	–		200 kOhm
Input range	0...10 V	–		-10 V DC...+10 V DC
Current input signals				
Load	–	max. 60 Ohm, (EN 61131-2)		–
Input range	–	0...20 mA, 4...20 mA		–
Diagnostic				
Communication status	via LED			
Diagnostic via LED	per module and channel			
Diagnostic via BUS	per module			
Monitoring - under voltage	yes			
Monitoring - no voltage	no			
Short circuit and overload	yes			
Wire break upper/lower limit overload	per module via LED and BUS			
General data				
Protection	IP20			
Connection	Spring clamp plug-in terminals: max. 1.5 mm² (AWG 16)			
Mounting method	DIN-rail mountable (EN 60715)			
Temperature range	0...+60 °C (storage temperature -25...+70 °C)			
Dimension drawing				



Notes

CUBE20S

Analog inputs

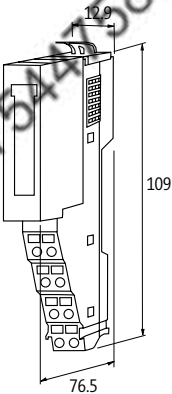
Cube20S (TH)
for thermo elements

Cube20S (RTD)
for resistors and temperature

Approvals:  Listed



Order Data		Art-No.	Art-No.
AI2 - (E)		57230	
AI4 - (E)			57265
Internal communication			
Module supply	via system connection		
Current consumption	max. 75 mA from the system, max. 30 mA externally (UI)	max. 75 mA	
Input			
Conversion time (analog)	max. 4.2...324.1 ms, 50 Hz (per channel)		
Type	B, C, E, J, K, L, N, R, S, T	Pt100, Pt1000, Ni100, Ni1000, R 0...3000 Ohm	
Resolution (analog)	15 Bit + sign		
Accuracy	max. ±0.3%, cold junction compensation	0.7...1.4%	
Connection	2-wire input; TH+x, TH-x	2-wire (4 input); 3-, 4-wire (2 input)	
Diagnostic			
Communication status	via LED		
Diagnostic via LED	per module and channel		
Diagnostic via BUS	per module		
Monitoring - under voltage	yes		
Monitoring - no voltage	no		
Short circuit and overload	yes		
Wire break upper/lower limit overload	per channel via LED and BUS		
General data			
Protection	IP20		
Connection	Spring clamp plug-in terminals: max. 1.5 mm² (AWG 16)		
Mounting method	DIN-rail mountable (EN 60715)		
Temperature range	0...+55 °C (storage temperature -20...+85 °C)	0...+60 °C (storage temperature -25...+70 °C)	
Dimension drawing			



Notes

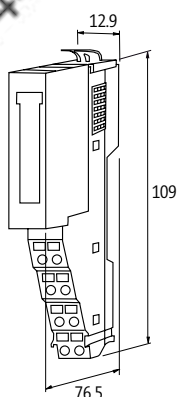
Analog outputs

Cube20S

Voltage


Approvals: 

Order Data	Art-No.	Art-No.	Art-No.	Art-No.
AO2 - (E)	57331		57333	
AO4 - (E)		57361		57363
Internal communication				
Module supply	via system connection			
Current consumption	max. 60 mA from system, max. 25 mA externally (UI), idle load			
Output				
Conversion time (analog)	200 μs (all channels)			
Resolution (analog)	15 Bit + sign			
Accuracy	max. 0.5%		max. 0.2%	
Galvanic isolation	500 V DC between inputs and internal communication			
Voltage output signals				
Load	5 kOhm			
Input range	0...10 V		-10 V DC...+10 V DC	
Diagnostic				
Communication status	via LED			
Diagnostic via LED	per module and channel			
Diagnostic via BUS	per module			
Monitoring - under voltage	yes			
Monitoring - no voltage	no			
Short circuit and overload	yes			
Actuator warning	per module via LED and BUS			
Wire break upper/lower limit overload	per module via LED and BUS			
General data				
Protection	IP20			
Connection	Spring clamp plug-in terminals: max. 1.5 mm ² (AWG 16)			
Mounting method	DIN-rail mountable (EN 60715)			
Temperature range	0...+60 °C (storage temperature -25...+70 °C)			
Dimension drawing				



Notes

CUBE20S

Connection accessories			Art-No.
	Bus cover		
	Black plastic		57190
	Shield bus carrier		
	Black plastic	Quantity: 10 pcs.	57191
	Bus connection plug 90°		
	SUB-D9 (male), screw terminals	PROFIBUS	55762
	SUB-D9 (female), screw terminals	CANopen	55760
	Bus connection plug 180°		
	SUB-D9 (male), IDC terminals, rigid cable	PROFIBUS	55584
	SUB-D9 (male), IDC terminals, flexible cable	PROFIBUS	55583
	Bus connection plug 90°		
	SUB-D9 (male), IDC terminals, rigid cable	PROFIBUS	55585
	SUB-D9 (male), IDC terminals, flexible cable	PROFIBUS	55587
	Bus connection plug 90°		
	SUB-D9 (male), IDC terminals, rigid cable, programming device conn.	PROFIBUS	55586
	SUB-D9 (male), IDC terminals, flexible cable, programming device conn.	PROFIBUS	55588
	Bus connection plug 90°		
	SUB-D9 (male); M12 × 1, B-coded	PROFIBUS	7000-99441-0000000



MVK METAL COMPACT I/O MODULES FOR DEMANDING REQUIREMENTS

- **Tough and reliable**
- **Safe (safety circuits according to EN 13849-1 up to PLe)**
- **PROFINET – versions compliant with AIDA**

MAXIMUM FLEXIBILITY

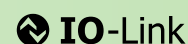
MVK Metal features a robust metal housing and is extremely resistant to vibration, media, and weld splatter.

- Double valves occupy only one M12 port
- PROFINET versions with Fast Start Up (< 500 ms)
- Models with multi-functional I/Os
- Fewer variations required, minimizes inventory costs
- Maximum flexibility for expansions

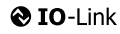
DON'T LOOK FOR ERRORS, FIND THEM

MVK Metal's diagnostic options offer detailed information about the type and location of the failure or the error.

- Only the affected port shuts down, not the whole module
- Detailed message sent to controls and device LED
- Minimizes downtime – failures are fixed faster



MVK Metal I/O Modules

 MVK-MP • Multifunctional I/Os • Digital I/Os • Safety outputs • Analog I/Os  Page 4.4.1	 MVK-MPNIO • Multifunctional I/Os • Digital I/Os • Push Pull • IO-Link • Safety inputs/outputs    Page 4.4.6
 MVK-ME • Multifunctional I/Os • IO-Link   Page 4.4.14	 MIRO BT • Bluetooth Master/Slave  Page 4.4.16

Expanded diagnostic

– 7/8"

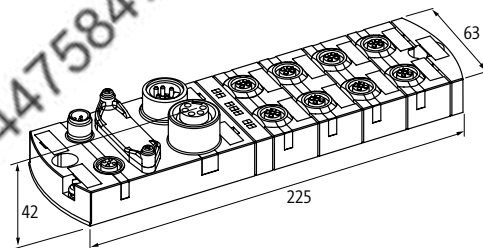


Approvals: UL Listed

MVK-MP



Order Data	Art-No.	Art-No.	Art-No.
DI8 (DI8)	55307		
DIO8 (DI8)		55308	
DIO8 (DIO8)			55309
Connections			
Fieldbus	PROFIBUS 12 Mbit/s; M12, B-coded		
Sensor-system/actuator supply	7/8", 5-pole, 2 × max. 9 A		
I/O ports	M12, 5-pole, A-coded		
PROFIBUS			
Addressing	Rotary switch 1...99		
Input			
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected		
Type	for 3-wire sensors or mechanical switches, PNP		
Output			
Actuator supply UA	–	24 V DC (EN 61131-2), max. 9 A	
Switching current per output	–	max. 1.6 A (short-circuit and overload protected)	
Lamp load	–	10 W	
Parameterization			
PIN 4	Input	Input/Output	
PIN 2	Input/Diagnostic	Input/Output/Diagnostic	
General data			
Protection	IP67		
Mounting method	2-hole screw mounting		
Temperature range	-25...+55 °C (storage temperature -25...+70 °C)		
Dimension drawing			



Notes

Expanded diagnostic

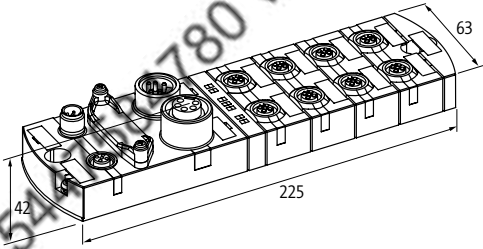
– 7/8"



MVK-MP



Order Data		Art-No.	Art-No.
DO8 (DO8)		55290	
DO4 (DO4) DI4 (DI4)			55274
Connections			
Fieldbus	PROFIBUS 12 Mbit/s; M12, B-coded		
Sensor-system/actuator supply	7/8", 5-pole, 2 × max. 9 A		
I/O ports	M12, 5-pole, A-coded		
PROFIBUS			
Addressing	Rotary switch 1...99		
Input			
Sensor supply US	–	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	
Type	–	for 3-wire sensors or mechanical switches, PNP	
Output			
Actuator supply UA	24 V DC (EN 61131-2), max. 9 A		
Switching current per output	max. 1.6 A (short-circuit and overload protected)		
Lamp load	10 W		
General data			
Protection	IP67		
Mounting method	2-hole screw mounting		
Temperature range	-25...+55 °C (storage temperature -25...+70 °C)		
Dimension drawing			



Notes

Expanded diagnostic

- passive safety
- Output groups up to PLd (EN ISO 13849-1) can be switched off via safety relays

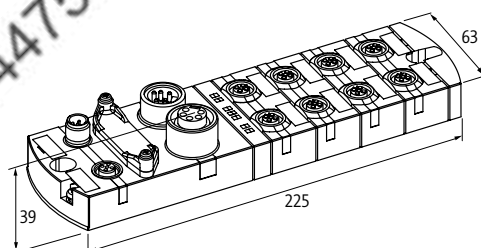
PROFIBUS

Approvals:  UL US
Listed

MVK-MP Safety



Order Data	Art-No.
K3 DO4 (DO4) DIO4 (DIO4)	55291
Connections	
Fieldbus	PROFIBUS 12 Mbit/s; M12, B-coded
I/O ports	M12, 5-pole, A-coded
Sensor-system/actuator supply	7/8", 5-pole, max. 9 A, safe circuits (1 + 2) via separate 7/8" supply (yellow), 2-pole disconnectable
PROFIBUS	
Addressing	Rotary switch 1...99
Input	
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected
Type	for 3-wire sensors or mechanical switches, PNP
Output	
Actuator supply UA	24 V DC (EN 61131-2), 3 circuits, (max. 9 A)
Switching current per output	max. 1.6 A (short-circuit and overload protected)
Lamp load	10 W
Safe output	
Switching current by safe output	max. 2 A short-circuit and overload protected, (EN13849-1) PLd
M12-(yellow) PIN 4	2 safety circuits (UA1/UA2) with 2 digital outputs each (EN13849-1) PLd
M12-(yellow) PIN 2	2 safety circuits (UA1/UA2) with 2 digital outputs each (EN13849-1) PLd
Parameterization	
PIN 4	4 × input/output
PIN 2	4 × Input/Output/Diagnostic
General data	
Protection	IP67
Mounting method	2-hole screw mounting
Temperature range	0...+55 °C (storage temperature -20...+70 °C)
Dimension drawing	



Notes

MVK METAL

Expanded diagnostic

– Analog outputs

– Current

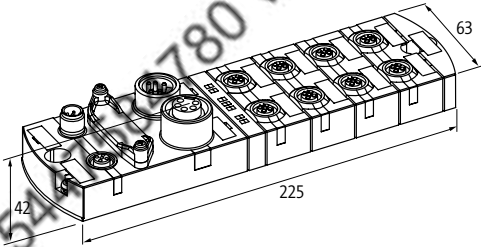


Approvals: Listed

MVK-MP



Order Data		Art-No.
AO4 (I) DIO4 (DIO4)		55292
Connections		
Fieldbus	PROFIBUS 12 Mbit/s; M12, B-coded	
Sensor-system/actuator supply	7/8", 5-pole, 2 × max. 9 A	
I/O ports	M12, 5-pole, A-coded	
PROFIBUS		
Addressing	Rotary switch 1...99	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	
Type	for 3-wire sensors or mechanical switches, PNP	
Output		
Actuator supply UA	24 V DC (EN 61131-2), max. 9 A	
Switching current per output	max. 1.6 A (short-circuit and overload protected)	
Lamp load	10 W	
Input range (analog)	0...20 mA, 4...20 mA (0...10 V via adapter Art.-No. 7000-42252-0000000)	
Conversion time (analog)	1 ms	
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	0...+55 °C (storage temperature -20...+70 °C)	
Dimension drawing		



Notes

Expanded diagnostic

– Analog inputs

– Voltage

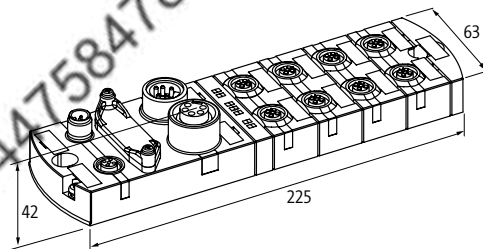


Approvals: UL Listed

MVK-MP



Order Data		Art-No.
AI4 (U) DIO4 (DIO4)		55293
Connections		
Fieldbus	PROFIBUS 12 Mbit/s; M12, B-coded	
Sensor-system/actuator supply	7/8", 5-pole, 2 × max. 9 A	
I/O ports	M12, 5-pole, A-coded	
PROFIBUS		
Addressing	Rotary switch 1...99	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	
Type	for 3-wire sensors or mechanical switches, PNP	
Resolution (analog)	16 Bit	
Input range (analog)	0...10 V, (0...20 mA and 4...20 mA via adapter Art.-No. 7000-42251-00000000)	
Input resistor (analog)	approx. 1 MOhm, differential input	
Conversion time (analog)	1 ms	
Output		
Actuator supply UA	24 V DC (EN 61131-2), max. 9 A	
Lamp load (8×M12 left)	max. 1.6 A (short-circuit and overload protected)	
Lamp load	10 W	
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	0...+55 °C (storage temperature -20...+70 °C)	
Dimension drawing		



Notes

Galvanic isolation K3

– POF Push Pull

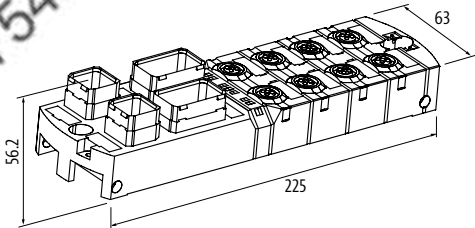


Approvals: Listed

MVK+ MPNIO POF



Order Data	Art-No.	Art-No.
D18 D18 IRT	55254	
D18 DO8 IRT		55255
Connections		
Fieldbus	Ethernet 10/100 Mbit/s; 2 × SCRJ45 POF-Push Pull	
Sensor-system/actuator supply	Power plug, Push Pull, max. 12 A	
I/O ports	M12, 5-pole, A-coded	
PROFINET		
FSU (Fast-Start-Up)	max. 500 ms	
Shared Device/Input	yes, for 2 controls	
Profinet Netload Class	III	
Specification	V2.2, Conformance Class C (IRT)	
MRP	yes	
Addressing	DCP	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	
Type	for 3-wire sensors or mechanical switches, PNP	
Output		
Actuator supply UA	–	24 V DC (EN 61131-2), max. 12 A
Switching current per output	–	max. 2 A (short-circuit and overload protected)
Lamp load	–	10 W
Parameterization		
PIN 4	Input	Input (port 4...7); Output (port 0...3)
PIN 2	Input	Input (port 4...7); Output (port 0...3)
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	0...+55 °C (storage temperature -20...+70 °C)	
Dimension drawing		



Notes

Galvanic isolation K3

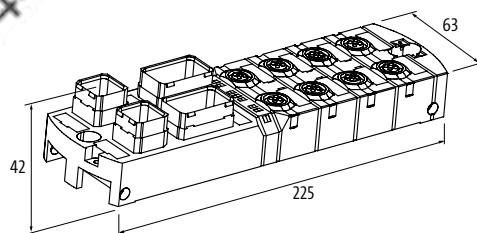
– Push Pull



MVK+ MPNIO



Order Data	Art-No.	Art-No.
DI8 DI8 IRT	55528	
DI8 DO8 IRT		55529
Connections		
Fieldbus	Ethernet 10/100 Mbit/s; Push Pull RJ45 Data connector	
Sensor-system/actuator supply	Power plug, Push Pull, max. 12 A	
I/O ports	M12, 5-pole, A-coded	
PROFINET		
FSU (Fast-Start-Up)	max. 500 ms	
Shared Device/Input	yes, for 2 controls	
Profinet Netload Class	III	
Specification	V2.2, Conformance Class C (IRT)	
MRP	yes	
Addressing	DCP	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	
Type	for 3-wire sensors or mechanical switches, PNP	
Output		
Actuator supply UA	–	24 V DC (EN 61131-2), max. 12 A
Switching current per output	–	max. 2 A (short-circuit and overload protected)
Lamp load	–	10 W
Parameterization		
PIN 4	Input	Input (port 4...7); Output (port 0...3)
PIN 2	Input	Input (port 4...7); Output (port 0...3)
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	0...+55 °C (storage temperature -20...+70 °C)	
Dimension drawing		



Notes

Galvanic isolation K3

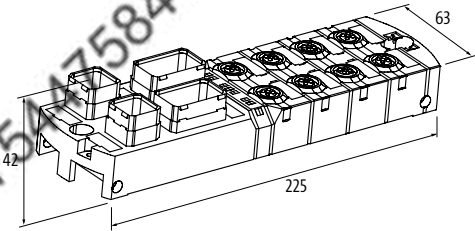
– Push Pull



MVK+ MPNIO



Order Data		Art-No.
DIO8 (DIO8)		55283
Connections		
Fieldbus	Ethernet 10/100 Mbit/s; Push Pull RJ45 Data connector	
Sensor-system/actuator supply	Power plug, Push Pull, max. 12 A	
I/O ports	M12, 5-pole, A-coded	
PROFINET		
Specification	V2.2, Conformance Class B	
MRP	yes	
Addressing	DCP	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	
Type	for 3-wire sensors or mechanical switches, PNP	
Output		
Actuator supply UA	24 V DC (EN 61131-2), max. 12 A	
Switching current per output	max. 1.6 A (short-circuit and overload protected)	
Lamp load	10 W	
Parameterization		
PIN 4	Input/Output	
PIN 2	Input/Output/Diagnostic	
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	0...+55 °C (storage temperature -20...+70 °C)	
Dimension drawing		



Notes

Galvanic isolation K3

– FSU (Fast-Start-Up)

– 7/8"

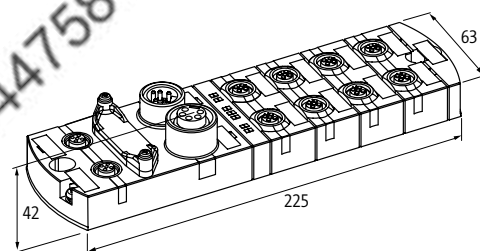


Approvals: UL US
Listed

MVK+ MPNIO



Order Data	Art-No.
DO8 (DI4 DI4)	55339
Connections	
Fieldbus	Ethernet 10/100 Mbit/s; M12, D-coded
Sensor-system/actuator supply	7/8", 5-pole, max. 9 A, protection against reverse polarization
I/O ports	M12, 5-pole, A-coded
PROFINET	
FSU (Fast-Start-Up)	max. 500 ms
Specification	V2.2, Conformance Class B
MRP	yes
Addressing	DCP
Input	
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected
Type	for 3-wire sensors or mechanical switches, PNP
Output	
Actuator supply UA	24 V DC (EN 61131-2), max. 9 A
Switching current per output	max. 2 A (short-circuit and overload protected)
Lamp load	10 W
Parameterization	
PIN 4	Input (port 4...7); Output (port 0...3)
PIN 2	Input (port 4...7); Output (port 0...3)
General data	
Protection	IP67
Mounting method	2-hole screw mounting
Temperature range	-25...+55 °C (storage temperature -25...+70 °C)
Dimension drawing	



Notes

MVK METAL

FSU (Fast-Start-Up)

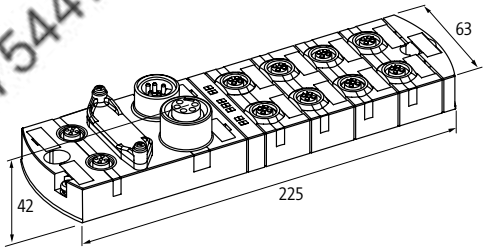
– 7/8"



MVK-MPNIO



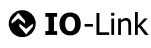
Order Data		Art-No.
DIO16 IRT		55530
Connections		
Fieldbus	Ethernet 10/100 Mbit/s; M12, D-coded	
Sensor-system/actuator supply	7/8", 5-pole, 2 × max. 9 A	
I/O ports	M12, 5-pole, A-coded	
PROFINET		
FSU (Fast-Start-Up)	max. 500 ms	
Shared Device/Input	yes, for 2 controls	
Profinet Netload Class	III	
Specification	V2.3, Conformance Class C (IRT)	
MRP	yes	
Addressing	DCP	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	
Type	for 3-wire sensors or mechanical switches, PNP	
Output		
Actuator supply UA	24 V DC (EN 61131-2), max. 9 A	
Switching current per output	max. 1.6 A (short-circuit and overload protected)	
Lamp load	10 W	
Parameterization		
PIN 4	Input/Output (port X0...X7)	
PIN 2	Input/Output (port X0...X7)	
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	-25...+60 °C (storage temperature -25...+70 °C)	
Dimension drawing		



Notes

FSU (Fast-Start-Up)

– 7/8"

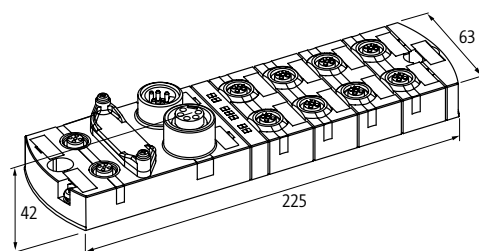
MVK-MPNIO IO-Link



MVK-MPNIO IO-Link



Order Data	Art-No.	Art-No.
DIO14 IOL2 IRT	55531	
DIO12 IOL4 IRT		55532
Connections		
Fieldbus	Ethernet 10/100 Mbit/s; M12, D-coded	
Sensor-system/actuator supply	7/8", 5-pole, 2 × max. 9 A	
I/O ports	M12, 5-pole, A-coded	
PROFINET		
FSU (Fast-Start-Up)	max. 500 ms	
Shared Device/Input	yes, for 2 controls	
Profinet Netload Class	III	
Specification	V2.3, Conformance Class C (IRT)	
MRP	yes	
Addressing	DCP	
IO-Link		
IO-Link	2 × Master	4 × Master
Operating modes	COM1; COM2; COM3 (automatic)	
Transfer parameters	32 Byte (via IO-Link Port)	
Port class	Class B (not galvanically separated)	Class A + B (not galvanically separated)
Specification	IO-Link Master V1.12	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	
Type	for 3-wire sensors or mechanical switches, PNP, IO-Link Devices	
Output		
Actuator supply UA	24 V DC (EN 61131-2), max. 9 A	
Switching current per output	max. 1.6 A (short circuit and overload protected)	
Lamp load	10 W	
Parameterization		
PIN 4	Input (port X0...X7); Output (port X0...X5); IO-Link Master (port X6, X7)	Input (port X0...X7); Output (port X0...X3); IO-Link Master (port X4...X7)
PIN 2	Input/Output (port X0...X7); U-Actuator IO-Link Class B (port X6, X7)	
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	-25...+60 °C (storage temperature -25...+70 °C)	
Dimension drawing		



Notes

MVK METAL

Active safety

- safe inputs/outputs up to cat.4/PLe (EN ISO 13849-1), up to SIL3 (IEC 61508), up to SILCL3 (IEC 62061)



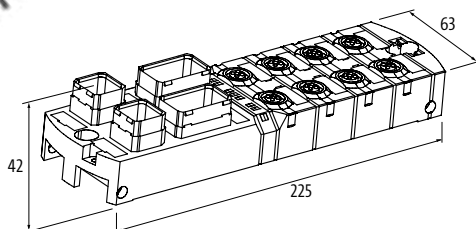
Approvals: UL US Listed

MVK-MPNIO Safety

Push Pull



Order Data	Art-No.	Art-No.
DI16/8 F	55562	
DI8/4 F DO4		55563
Safety Indicators		
PL	up to e	
Category	up to 4	
PFH	1.70E-9	1.653E-9
DC	98%	
SIL	up to 3	
SIL CL	up to 3	
Service life	20 years	
Connections		
Fieldbus	Ethernet 10/100 Mbit/s; Push Pull RJ45 Data connector	
Sensor-system/actuator supply	Power plug, Push Pull, max. 12 A	
I/O ports	M12, 5-pole, A-coded	
PROFINET		
Shared Device/Input	yes, for 2 controls	
Specification	V2.2, Conformance Class C (IRT)	
MRP	yes	
Addressing	DCP	
Safety input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (PIN 1+5), short-circuit and overload protected, or max. 700 mA for only one PIN	
Type	for electronic sensors or mechanical switches	
Safe output		
Actuator supply UA	–	24 V DC (EN 61131-2), max. 9 A
Switching current by safe output	–	max. 2 A (short-circuit and overload protected)
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	-20...+55 °C (storage temperature -40...+70 °C)	
Dimension drawing		



Notes

Active safety

- safe inputs/outputs up to cat.4/PLe (EN ISO 13849-1), up to SIL3 (IEC 61508), up to SILCL3 (IEC 62061)



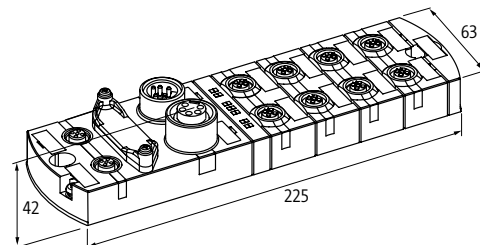
Approvals: UL US Listed

MVK-MPNIO Safety

7/8"



Order Data	Art-No.	Art-No.
DI16/8 F IRT	55556	
DI8/4 F DO4 IRT		55557
Safety Indicators		
PL	up to e	
Category	up to 4	
PFH	1.70E-9	1.653E-9
DC	98%	
SIL	up to 3	
SIL CL	up to 3	
Service life	20 years	
Connections		
Fieldbus	Ethernet 10/100 Mbit/s; M12, D-coded	
Sensor-system/actuator supply	7/8", 5-pole, 2 × max. 9 A	
I/O ports	M12, 5-pole, A-coded	
PROFINET		
Shared Device/Input	yes, for 2 controls	
Specification	V2.2, Conformance Class C (IRT)	
MRP	yes	
Addressing	DCP	
Safety input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (PIN 1+5), short-circuit and overload protected, or max. 700 mA for only one PIN	
Type	for electronic sensors or mechanical switches	
Safe output		
Actuator supply UA	–	24 V DC (EN 61131-2), max. 9 A
Switching current by safe output	–	max. 2 A (short-circuit and overload protected)
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	20...+55 °C (storage temperature -40...+70 °C)	
Dimension drawing		



Notes

MVK METAL

Expanded diagnostic

– 7/8"

EtherNet/IP™

Approvals:  

MVK-ME

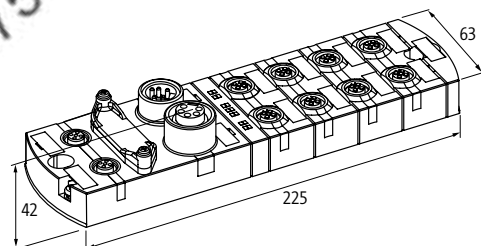
DIO8 (DIO8)
DLR (Device Level Ring)

MVK-ME

DIO16
DLR (Device Level Ring)



Order Data	Art-No.	Art-No.
DIO8 (DIO8)	55099	
DIO16		55542
Connections		
Fieldbus	Ethernet 10/100 Mbit/s; M12, D-coded	
Sensor-system/actuator supply	7/8", 5-pole, 2 × max. 9 A	7/8", 4-pole, 2 × max. 9 A
I/O ports	M12, 5-pole, A-coded	
EtherNet/IP		
Addressing	DHCP, BOOTP or IP address by rotary switch	DHCP, BOOTP or IP address by DIP switch
DLR (Device Level Ring)	yes	
QC (Quick Connect)	–	max. 360 ms
Multiple connections	–	yes
CIP Sync	–	yes
Composite Test Revision	–	CT14
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	
Type	for 3-wire sensors or mechanical switches, PNP	
Output		
Actuator supply UA	24 V DC (EN 61131-2), max. 9 A	
Switching current per output	max. 1.6 A (short-circuit and overload protected)	
Lamp load	10 W	
Parameterization		
PIN 4	Input/Output (port X0...X7)	
PIN 2	Input/Output (port X0...X7)	
General data		
Protection	IP67	
Mounting method	2 hole screw mounting, compatible with I/O modules of MVK model range	2-hole screw mounting
Temperature range	-25...+55 °C (storage temperature -25...+70 °C)	-25...+60 °C (storage temperature -40...+85 °C)
Dimension drawing		



Notes

Expanded diagnostic

– 7/8"

EtherNet/IP  IO-Link

MVK-ME IO-Link

DIO14 IOL2
DLR (Device Level Ring)

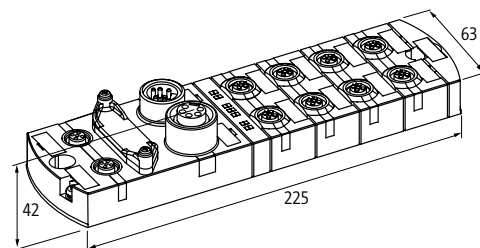
MVK-ME IO-Link

DIO12 IOL4
DLR (Device Level Ring)



Approvals:  

Order Data	Art-No.	Art-No.
DIO14 IOL2	55543	
DIO12 IOL4		55544
Connections		
Fieldbus	Ethernet 10/100 Mbit/s; M12, D-coded	
Sensor-system/actuator supply	7/8", 4-pole, 2 × max. 9 A	
I/O ports	M12, 5-pole, A-coded	
EtherNet/IP		
Addressing	DHCP, BOOTP or IP address by DIP switch	
QC (Quick Connect)	max. 360 ms	
Multiple connections	yes	
CIP Sync	yes	
Composite Test Revision	CT14	
DLR (Device Level Ring)	yes	
IO-Link		
IO-Link	2 × Master	4 × Master
Operating modes	COM1; COM2; COM3 (automatic)	
Transfer parameters	32 Byte (via IO-Link Port)	
Port class	Class B (not galvanically separated)	
Specification	IO-Link Master V1.12	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	
Type	for 3-wire sensors or mechanical switches, PNP, IO-Link Devices	
Output		
Actuator supply UA	24 V DC (EN 61131-2), max. 9 A	
Switching current per output	max. 1.6 A (short circuit and overload protected)	
Lamp load	10 W	
Parameterization		
PIN 4	Input/Output (port X0...X7); IO-Link Master (port X6, X7)	Input/Output (port X0...X7); IO-Link Master (port X4...X7)
PIN 2	Input/Output (port X0...X7); U-Actuator IO-Link Class B (port X6, X7)	Input/Output (port X0...X7); U-Actuator IO-Link Class B (port X4...X7)
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	-25...+55 °C (storage temperature -40...+85 °C)	
Dimension drawing		



Notes

MVK METAL

Accessories for MVK PROFINET

– Wireless transmission

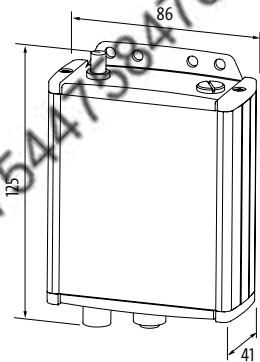


MIRO BT

Bluetooth Master/Slave
PROFINET



Order Data		Art-No.
Master/Slave		57018
Connections		
Fieldbus	Ethernet 10/100Mbit/s; M12, D-coded	
Supply	M12, 5-pole, A-coded	
Technical Data		
Operating voltage	24 V DC (EN 61131-2)	
Operating current	max. 150 mA	
Wireless technology		
Frequency	2.4 GHz Bluetooth	
Transmission power	100 mW	
No. of wireless slaves/devices	max. 4/max. 6	
Coverage indoor	100 m	
Coverage outdoor	300 m	
Antenna connection	SMA (50 Ohm)	
General data		
Standards	approved in: BE, DK, DE, EE, FI, FR (restricted), GR, GB, IE, IS, IT, CA, LV, LT, LU, MT, NL, NO (without Spitzbergen), AT, PL, PT, SE, CH, SK, SI, ES, CZ, HU, US, CY	
Housing	Metal black	
Protection	IP65	
Mounting method	screw fixing, M4	
Temperature range	-20...+60 °C (storage temperature -40...+75 °C)	
Dimension drawing		



Notes	
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Blind Plug/caps		Art-No.
	Screw plug M12 × 1 mm Metal, hex, 1 piece	996049
	Blind cap 7/8" Metal	55390
	Blind plug diagnostic M12 × 1 mm Bridge PIN 1 and PIN 2	7000-13481-0000000
	Addressing cap Metal	55317
Labeling accessories		Art-No.
	Label plates 20 × 8 mm (20 pieces per plate)	55318
Connection accessories		Art-No.
	Adapter Current /voltage converter Voltage/current converter	7000-42251-0000000 7000-42252-0000000
	MVK Push Pull Dust Protection Set	553260
	Ground strap 4 mm² 100 mm for screw (M4)	4000-71001-0410004
	Screw plug M23 Metal	55352
	Adapter plug M12/M12 for inputs	7030-42291-0000000

MVK METAL

Connection accessories			Art-No.
	T-coupler (Slim Line) Male straight - female/male straight M12 - M12, 4-pole for 8-pole units	AIDA conform Connection cable L = 200 mm	7030-42602-0000000
	T-coupler (Slim Line) Male straight - female/male straight M12 - M12, 2-pole	AIDA conform Connection cable L = 200 mm	7030-42612-0000000
	T-coupler (SlimLine) M12 - M12 5-pole		7000-41155-0000000
	Cable fixation 8xM12 Cable diameter (4...7 mm)		55554



SOLID67 COMPACT I/O-MODULES

- Shorter installation times and Using all slots
- Minimizing space requirements
- Simplifying storage

PROTOCOL CHANGE IN THE BLINK OF AN EYE

SOLID67 are the new compact I/O modules from Murrelektronik. They make installation in the field easier and are very attractive for applications with IO-Link sensors and actuators. They provide eight IO-Link slots directly adjacent to the process and can easily incorporate classic IOs into the system.

Full encapsulation and impressive vibration and shock values (15 and 50 G) prepare the modules for use in harsh industrial environments – within a temperature range of –20 to +70 °C. This opens a door to numerous applications. Comprehensive diagnostic options at the module, through the control unit, and through an integrated web server, make troubleshooting a simple exercise.



EtherNet/IP

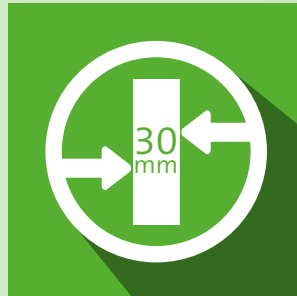
IO-Link



Shorter installation times



Using all slots



Minimizing space requirements



Simplifying storage

SOLID67 I/O-Modules



SOLID67 PN/E 60 mm
• Multi protocol



Page 4.5.1



SOLID67 PN/E 60 mm
• Multi protocol
• IOL8



IO-Link
Page 4.5.3



SOLID67 PN/E 30 mm
• Multi protocol
• IOL8



IO-Link
Page 4.5.4

Multi protocol



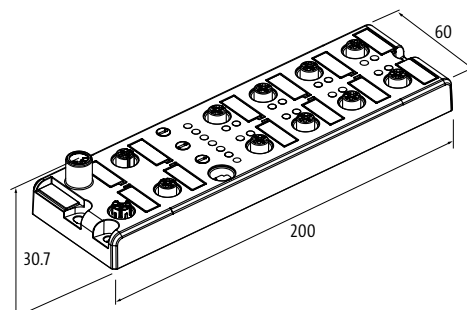
Approvals: UL US
Listed

SOLID67 PN/E

60 mm



Order Data	Art-No.	Art-No.
DI16	54500	
DI8 DO8		54501
Connections		
Fieldbus	Ethernet 10/100 Mbit/s; M12, D-coded	
Sensor-system/actuator supply	M12 Power, 5-pole, L-coded	
I/O ports	M12, 5-pole, A-coded	
PROFINET		
Addressing	DCP	
Shared Device/Input	–	
Profinet Netload Class	III	
Specification	V2.3, Conformance Class C (IRT)	
MRP	yes	
EtherNet/IP		
Addressing	DHCP, BOOTP or IP address by rotary switch	
QC (Quick Connect)	max. 500 ms	
DLR (Device Level Ring)	yes	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	
Type	for 3-wire sensors or mechanical switches, PNP	
Output		
Actuator supply UA	–	24 V DC (EN 61131-2), max. 9 A
Switching current per output	–	max. 2 A (short-circuit and overload protected)
Parameterization		
PIN 4	Input (port X1...X8)	Input (port X1...X4); Output (port X5...X8)
PIN 2	Input (port X1...X8)	Input (port X1...X4); Output (port X5...X8)
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	-20...+70 °C	
Dimension drawing		



Notes

SOLID67

Multi protocol

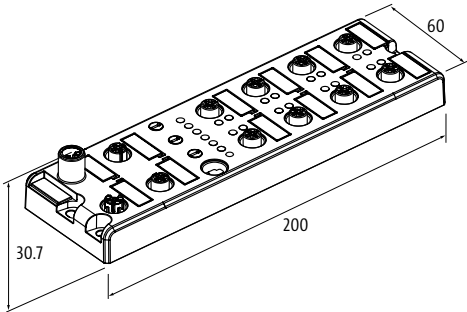


Approvals: Listed

SOLID67 PN/E
60 mm



Order Data	Art-No.	Art-No.
DIO16	54503	
D016		54502
Connections		
Fieldbus	Ethernet 10/100 Mbit/s; M12, D-coded	
Sensor-system/actuator supply	M12 Power, 5-pole, L-coded	
I/O ports	M12, 5-pole, A-coded	
PROFINET		
Addressing	DCP	
Shared Device/Input	–	
Profinet Netload Class	III	
Specification	V2.3, Conformance Class C (IRT)	
MRP	yes	
EtherNet/IP		
Addressing	DHCP, BOOTP or IP address by rotary switch	
QC (Quick Connect)	max. 500 ms	
DLR (Device Level Ring)	yes	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	–
Type	for 3-wire sensors or mechanical switches, PNP	–
Output		
Actuator supply UA	24 V DC (EN 61131-2), max. 9 A	
Switching current per output	max. 2 A (short-circuit and overload protected)	
Parameterization		
PIN 4	Input/Output (port X1...X8)	Output (port X1...X8)
PIN 2	Input/Output (port X1...X8)	Output (port X1...X8)
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	-20...+70 °C	
Dimension drawing		



Notes

SOLID67

Multi protocol

 **EtherNet/IP™**

 **IO-Link**

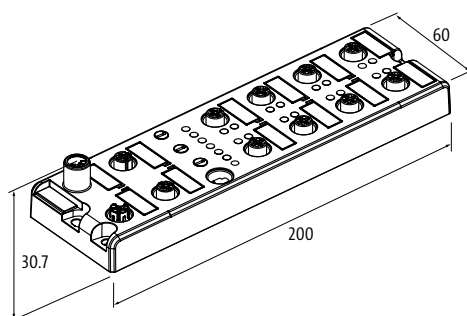
Approvals:  **UL**
Listed

SOLID67 PN/E

IOL8
60 mm



Order Data	Art-No.
IOL8	54504
Connections	
Fieldbus	Ethernet 10/100 Mbit/s; M12, D-coded
Sensor-system/actuator supply	M12 Power, 5-pole, L-coded
I/O ports	M12, 5-pole, A-coded
PROFINET	
Addressing	DCP
Shared Device/Input	yes, for 2 controls
Profinet Netload Class	II
Specification	V2.3, Conformance Class C (IRT)
MRP	yes
EtherNet/IP	
Addressing	DHCP, BOOTP or IP address by rotary switch
DLR (Device Level Ring)	yes
IO-Link	
IO-Link	8 × Master
Operating modes	COM1; COM2; COM3 (automatic)
Transfer parameters	32 Input byte and/or 32 Output byte (per IO-Link port)
Port class	4 × A (port X1...X4), 4 × B (port X5...X8, galvanically separated, max. 2 A per port)
Specification	IO-Link Master V1.1
Input	
Sensor supply US	24 V DC (EN 61131-2), max. 500 mA (M12 female), short-circuit and overload protected
Type	for 3-wire sensors or mechanical switches, PNP, IO-Link Devices
Output	
Actuator supply UA	24 V DC (EN 61131-2), max. 9 A
Switching current per output	max. 0.5 A (PIN 4, X1...X8); 2 A (PIN 2/5 Uaux, X5...X8), short-circuit and overload protected
Parameterization	
PIN 4	Input (port X1...X8); Output (port X1...X8); IO-Link Master (port X1...X8)
PIN 2	Input (port X1...X4); Output (port X5...X8)
General data	
Protection	IP67
Mounting method	2-hole screw mounting
Temperature range	-20...+70 °C
Dimension drawing	



Notes

SOLID67

Multi protocol

PROFINET EtherNet/IP

IO-Link

Approvals:  US Listed

SOLID67 PN/E

IOL8
30 mm

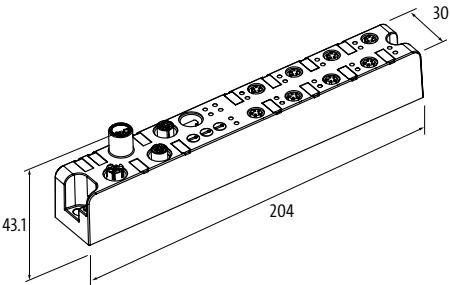
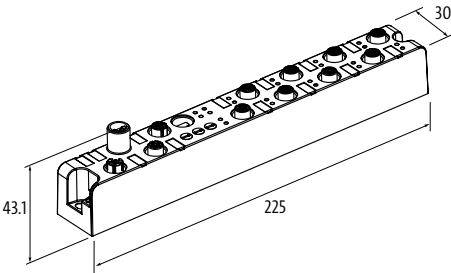


SOLID67 PN/E

IOL8
30 mm



Order Data	Art-No.		Art-No.
IOL8	54505		54506
Connections			
Fieldbus	Ethernet 10/100 Mbit/s; M12, D-coded		
Sensor-system/actuator supply	M12 Power, 5-pole, L-coded		
I/O ports	M12, 5-pole, A-coded	M8, 5-pole, B-coded	
PROFINET			
Addressing	DCP		
Shared Device/Input	yes, for 2 controls		
Profinet Netload Class	II		
Specification	V2.3, Conformance Class C (IRT)		
MRP	yes		
EtherNet/IP			
Addressing	DHCP, BOOTP or IP address by rotary switch		
DLR (Device Level Ring)	yes		
IO-Link			
IO-Link	8 × Master		
Operating modes	COM1; COM2; COM3 (automatic)		
Transfer parameters	32 Input byte and/or 32 Output byte (per IO-Link port)		
Port class	4 × A (port X1...X4), 4 × B (port X5...X8, galvanically separated, max. 4 A per module)		
Specification	IO-Link Master V1.1		
Input			
Sensor supply US	24 V DC (EN 61131-2), max. 500 mA (M12 female), short-circuit and overload protected		
Type	for 3-wire sensors or mechanical switches, PNP, IO-Link Devices		
Output			
Actuator supply UA	24 V DC (EN 61131-2), max. 9 A		
Switching current per output	max. 0.5 A (PIN 4, X1...X8), short-circuit and overload protected		
Parameterization			
PIN 4	Input (port X1...X8); Output (port X1...X8); IO-Link Master (port X1...X8)		
PIN 2	Input (port X1...X4)		
General data			
Protection	IP67		
Mounting method	2-hole screw mounting		
Temperature range	-20...+70 °C		
Dimension drawing			



Notes

Blind plug/caps			Art-No.
	Screw plug M12 × 1 mm (for female)		
	Plastic, hex without gasket	Quantity: 10 pcs.	58627
Labeling accessories			Art-No.
	Label plates		
	20 × 8 mm	(20 pieces per plate)	55318
	Label plate (KM 4)		
	5 × 10 mm		90931

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IMPACT67 COMPACT I/O MODULES FOR THE FIELD

- Application oriented
- Easy to Install
- Cost-effective

ECONOMIC DECENTRALIZATION

Impact67 is the perfect fieldbus solution for basic applications that need to be cost-effective. The modules in this series are available with different bus protocols, they feature pluggable connections, diagnostics and IP67 tested seals.

This makes Impact67 the perfect choice for an electrical engineer whose objective is to minimize costs while maintaining digital inputs and outputs under ordinary conditions.

FOCUSED ON ESSENTIALS

- Single channel diagnostic via LED – don't look for errors, find them
- Group diagnostics via the bus – easy remote diagnostics
- Port-related shut off – only the affected port is shut off



EtherNet/IP

EtherCAT

CANopen

DeviceNet

IO-Link

Impact67 I/O Modules

 Impact67-P • Digital I/Os  Page 4.6.1	 Impact67-PN • Multifunctional I/Os • Digital I/Os • IO-Link  IO-Link Page 4.6.2
 Impact67-E • Multifunctional I/Os • Digital I/Os • IO-Link  IO-Link Page 4.6.5	 Impact67-EC • Digital I/Os  Page 4.6.8
 Impact67-C • Digital I/Os  Page 4.6.9	 Impact67-DN • Digital I/Os  Page 4.6.10

IMPACT67

Basic diagnostic



Approvals:

Impact67-P

DI16

Impact67-P

DI8/DO8 - 2 A

Impact67-P

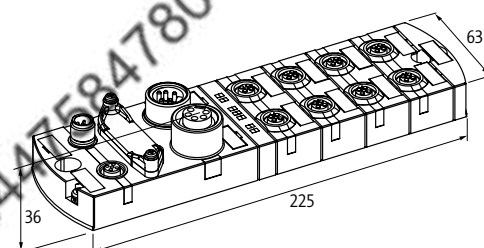
DO8 - 2 A

Impact67-P

DO16 - 0.5 A



Order Data	Art-No.	Art-No.	Art-No.
DI16	55345		
DI8/DO8 - 2 A		55346	
DO8 - 2 A			55347
DO16 - 0.5 A			55348
Connections			
Fieldbus	PROFIBUS 12 Mbit/s; M12, B-coded		
Sensor-system/actuator supply	7/8", 5-pole, 2 × max. 9 A		
I/O ports	M12, 5-pole, A-coded		
PROFIBUS			
Addressing	Rotary switch 3...99		
Input			
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected		–
Type	for 3-wire sensors or mechanical switches, PNP		–
Output			
Switching current per output	–	max. 2 A (short-circuit and overload protected)	max. 0.5 A (short-circuit and overload protected)
General data			
Protection	IP67		
Mounting method	2 hole screw mounting, compatible with I/O modules of MVK model range		
Temperature range	0...+55 °C (storage temperature -25...+70 °C)		
Dimension drawing			



Notes	
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IMPACT67

Basic diagnostic



Approvals:

Impact67-PN

DI16

Impact67-PN

DI8/DO8 - 2 A

Impact67-PN

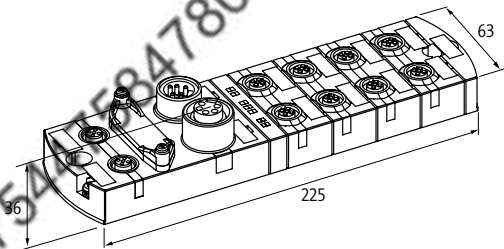
DO8 - 2 A

Impact67-PN

DO16 - 0.5 A



Order Data	Art-No.	Art-No.	Art-No.
DI16	55091		
DI8/DO8 - 2 A		55092	
DO8 - 2 A			55093
DO16 - 0.5 A			55094
Connections			
Fieldbus	Ethernet 10/100 Mbit/s; M12, D-coded		
Sensor-system/actuator supply	7/8", 5-pole, 2 × max. 9 A		
I/O ports	M12, 5-pole, A-coded		
PROFINET			
Addressing	DCP		
Input			
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected		
Type	for 3-wire sensors or mechanical switches, PNP		
Output			
Switching current per output	–	max. 2 A (short-circuit and overload protected)	max. 0.5 A (short-circuit and overload protected)
General data			
Protection	IP67		
Mounting method	2 hole screw mounting, compatible with I/O modules of MVK model range		
Temperature range	-25...+55 °C (storage temperature -25...+70 °C)		
Dimension drawing			



Notes

Expanded diagnostic

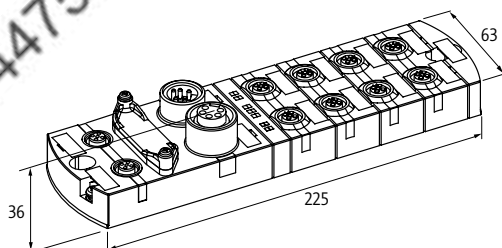


Impact67-PN

DIO16 IRT



Order Data		Art-No.
DIO16 IRT		55130
Connections		
Fieldbus	Ethernet 10/100 Mbit/s; M12, D-coded	
Sensor-system/actuator supply	7/8", 5-pole, 2 × max. 9 A	
I/O ports	M12, 5-pole, A-coded	
PROFINET		
FSU (Fast-Start-Up)	max. 500 ms	
Shared Device/Input	yes, for 2 controls	
Profinet Netload Class	III	
Specification	V2.3, Conformance Class C (IRT)	
Addressing	DCP	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	
Type	for 3-wire sensors or mechanical switches, PNP	
Output		
Actuator supply UA	24 V DC (EN 61131-2), max. 9 A	
Switching current per output	max. 1.6 A (short-circuit and overload protected)	
Lamp load	10 W	
Parameterization		
PIN 4	Input/Output (port X0...X7)	
PIN 2	Input/Output (port X0...X7)	
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	-25...+55 °C (storage temperature -25...+70 °C)	
Dimension drawing		



Notes

IMPACT67

Expanded diagnostic



Impact67-PN IO-Link

DIO14 IOL2 IRT

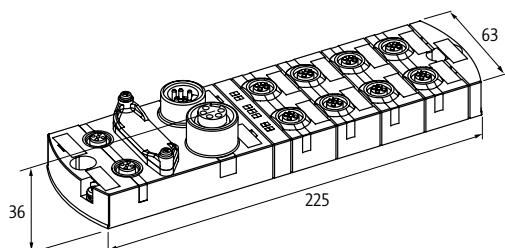


Impact67-PN IO-Link

DIO12 IOL4 IRT



Order Data	Art-No.	Art-No.
DIO14 IOL2 IRT	55131	
DIO12 IOL4 IRT		55132
Connections		
Fieldbus	Ethernet 10/100 Mbit/s; M12, D-coded	
Sensor-system/actuator supply	7/8", 5-pole, 2 × max. 9 A	
I/O ports	M12, 5-pole, A-coded	
PROFINET		
FSU (Fast-Start-Up)	max. 500 ms	
Shared Device/Input	yes, for 2 controls	
Profinet Netload Class	III	
Specification	V2.3, Conformance Class C (IRT)	
Addressing	DCP	
IO-Link		
IO-Link	2 × Master	4 × Master
Operating modes	COM1; COM2; COM3 (automatic)	
Transfer parameters	32 Byte (via IO-Link Port)	
Port class	Class B (not galvanically separated)	Class A + B (not galvanically separated)
Specification	IO-Link Master V1.12	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	
Type	for 3-wire sensors or mechanical switches, PNP, IO-Link Devices	
Output		
Actuator supply UA	24 V DC (EN 61131-2), max. 9 A	
Switching current per output	max. 1.6 A (short-circuit and overload protected)	
Lamp load	10 W	
Parameterization		
PIN 4	Input (port X0...X7); Output (port X0...X4, X6); IO-Link Master (port X5, X7)	Input (port X0...X7); Output (port X0, X2, X4, X6); IO-Link Master (port X1, X3, X5, X7)
PIN 2	Input/Output (port X0...X7); U-Actuator IO-Link Class B (port X5, X7)	
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	2 hole screw mounting, compatible with I/O modules of MVK model range
Temperature range	-25...+55 °C (storage temperature -25...+70 °C)	
Dimension drawing		



Notes

IMPACT67

Basic diagnostic

EtherNet/IP

Impact67-E

DI16

Impact67-E

DI8/DO8 - 2 A

Impact67-E

DO8 - 2 A

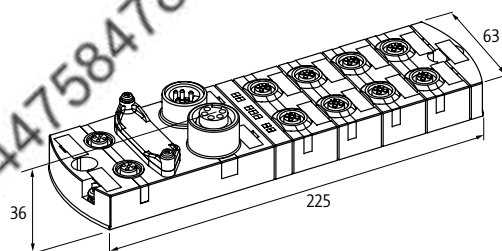
Impact67-E

DO16 - 0.5 A



Approvals:  

Order Data	Art-No.	Art-No.	Art-No.	Art-No.
DI16	55085			
DI8/DO8 - 2 A		55086		
DO8 - 2 A			55087	
DO16 - 0.5 A				55088
Connections				
Fieldbus	Ethernet 10/100 Mbit/s; M12, D-coded			
Sensor-system/actuator supply	7/8", 5-pole, 2 × max. 9 A			
I/O ports	M12, 5-pole, A-coded			
EtherNet/IP				
Addressing	DHCP, BOOTP or IP address by rotary switch			
Input				
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected		–	
Type	for 3-wire sensors or mechanical switches, PNP		–	
Output				
Switching current per output	–	max. 2 A (short-circuit and overload protected)		max. 0.5 A (short-circuit and overload protected)
General data				
Protection	IP67			
Mounting method	2 hole screw mounting, compatible with I/O modules of MVK model range			
Temperature range	-25...+55 °C (storage temperature -25...+70 °C)		0...+55 °C (storage temperature -25...+70 °C)	
Dimension drawing				



Notes

IMPACT67

Expanded diagnostic

EtherNet/IP

Approvals:  

Impact67-E

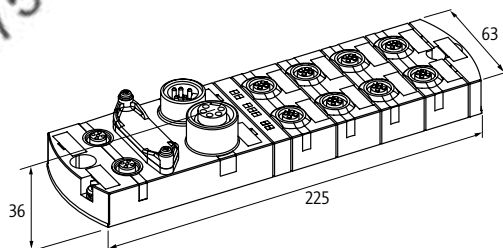
DIO8 (DIO8)
DLR (Device Level Ring)



Impact67-E

DIO16
DLR (Device Level Ring)

Order Data	Art-No.	Art-No.
DIO8 (DIO8)	55089	
DIO16		55142
Connections		
Fieldbus	Ethernet 10/100 Mbit/s; M12, D-coded	
Sensor-system/actuator supply	7/8", 5-pole, 2 × max. 9 A	7/8", 4-pole, 2 × max. 9 A
I/O ports	M12, 5-pole, A-coded	
EtherNet/IP		
Addressing	DHCP, BOOTP or IP address by rotary switch	DHCP, BOOTP or IP address by DIP switch
DLR (Device Level Ring)	yes	
QC (Quick Connect)	–	max. 360 ms
Multiple connections	–	yes
CIP Sync	–	yes
Composite Test Revision	–	CT14
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	
Type	for 3-wire sensors or mechanical switches, PNP	
Output		
Actuator supply UA	24 V DC (EN 61131-2), max. 9 A	
Switching current per output	max. 1.6 A (short-circuit and overload protected)	
Lamp load	10 W	
Parameterization		
PIN 4	Input/Output (port X0...X7)	
PIN 2	Input/Output (port X0...X7)	
General data		
Protection	IP67	
Mounting method	2 hole screw mounting, compatible with I/O modules of MVK model range	2-hole screw mounting
Temperature range	-25...+55 °C (storage temperature -25...+70 °C)	-25...+55 °C (storage temperature -40...+85 °C)
Dimension drawing		



Notes

Expanded diagnostic

EtherNet/IP  IO-Link

Impact67-E IO-Link

DIO14 IOL2
DLR (Device Level Ring)

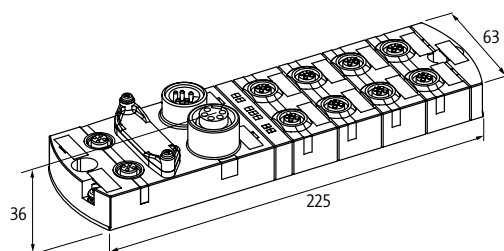
Impact67-E IO-Link

DIO12 IOL4
DLR (Device Level Ring)



Approvals:  

Order Data	Art-No.	Art-No.
DIO14 IOL2	55143	
DIO12 IOL4		55144
Connections		
Fieldbus	Ethernet 10/100 Mbit/s; M12, D-coded	
Sensor-system/actuator supply	7/8", 4-pole, 2 × max. 9 A	
I/O ports	M12, 5-pole, A-coded	
EtherNet/IP		
Addressing	DHCP, BOOTP or IP address by DIP switch	
QC (Quick Connect)	max. 360 ms	
Multiple connections	yes	
CIP Sync	yes	
Composite Test Revision	CT14	
DLR (Device Level Ring)	yes	
IO-Link		
IO-Link	2 × Master	4 × Master
Operating modes	COM1; COM2; COM3 (automatic)	
Transfer parameters	32 Byte (via IO-Link Port)	
Port class	Class B (not galvanically separated)	
Specification	IO-Link Master V1.12	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	
Type	for 3-wire sensors or mechanical switches, PNP, IO-Link Devices	
Output		
Actuator supply UA	24 V DC (EN 61131-2), max. 9 A	
Switching current per output	max. 1.6 A (short circuit and overload protected)	
Lamp load	10 W	
Parameterization		
PIN 4	Input/Output (port X0...X7); IO-Link Master (port X6, X7)	Input/Output (port X0...X7); IO-Link Master (port X4...X7)
PIN 2	Input/Output (port X0...X7); U-Actuator IO-Link Class B (port X6, X7)	Input/Output (port X0...X7); U-Actuator IO-Link Class B (port X4...X7)
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	-25...+55 °C (storage temperature -40...+85 °C)	
Dimension drawing		



Notes

IMPACT67

Basic diagnostic

EtherCAT

Approvals:  

Impact67-EC
DI16

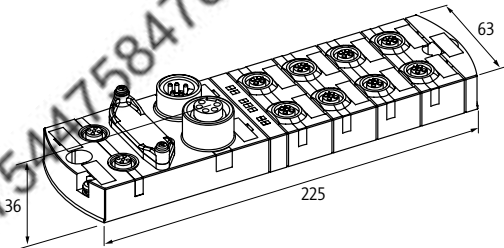
Impact67-EC
DI8/DO8 - 2 A

Impact67-EC
DO8 - 2 A

Impact67-EC
DO16 - 0.5 A



Order Data	Art-No.	Art-No.	Art-No.
DI16	55081		
DI8/DO8 - 2 A		55082	
DO8 - 2 A			55083
DO16 - 0.5 A			55084
Connections			
Fieldbus	Ethernet 10/100 Mbit/s; M12, D-coded		
Sensor-system/actuator supply	7/8", 5-pole, 2 × max. 9 A		
I/O ports	M12, 5-pole, A-coded		
EtherCAT			
Addressing	automatic or Device ID by rotary switch		
Input			
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected		
Type	for 3-wire sensors or mechanical switches, PNP –		
Output			
Switching current per output	–	max. 2 A (short-circuit and overload protected)	max. 0.5 A (short-circuit and overload protected)
General data			
Protection	IP67		
Mounting method	2 hole screw mounting, compatible with I/O modules of MVK model range		
Temperature range	-25...+55 °C (storage temperature -25...+70 °C)		0...+55 °C (storage temperature -25...+70 °C)
Dimension drawing			



Notes

IMPACT67

Basic diagnostic

CANopen

Impact67-C

DI16

Impact67-C

DI8/DO8 - 2 A

Impact67-C

DO8 - 2 A

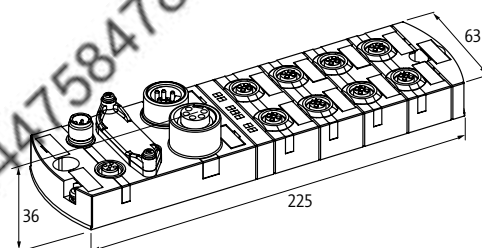
Impact67-C

DO16 - 0.5 A



Approvals:  

Order Data	Art-No.	Art-No.	Art-No.
DI16	55075		
DI8/DO8 - 2 A		55076	
DO8 - 2 A			55077
DO16 - 0.5 A			55078
Connections			
Fieldbus	CAN 1 Mbit/s; M12, A-coded		
Sensor-system/actuator supply	7/8", 5-pole, 2 × max. 9 A		
I/O ports	M12, 5-pole, A-coded		
CANopen			
Addressing	Rotary switch 1...99		
Input			
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected	–	
Type	for 3-wire sensors or mechanical switches, PNP	–	
Output			
Switching current per output	–	max. 2 A (short-circuit and overload protected)	max. 0.5 A (short-circuit and overload protected)
General data			
Protection	IP67		
Mounting method	2 hole screw mounting, compatible with I/O modules of MVK model range		
Temperature range	-25...+70 °C (storage temperature -25...+70 °C)		
Dimension drawing			



Notes	
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IMPACT67

Basic diagnostic
DeviceNet

Approvals:  

Impact67-DN
DI16

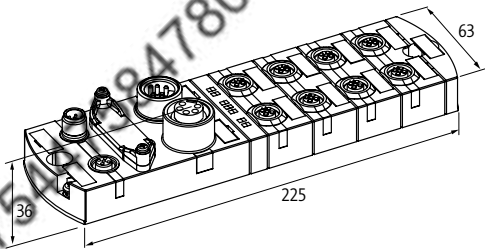
Impact67-DN
DI8/DO8 - 2 A

Impact67-DN
DO8 - 2 A

Impact67-DN
DO16 - 0.5 A



Order Data	Art-No.	Art-No.	Art-No.	Art-No.
DI16	55071			
DI8/DO8 - 2 A		55072		
DO8 - 2 A			55073	
DO16 - 0.5 A				55074
Connections				
Fieldbus	DN 125 kbit/s; 250 kbit/s; 500 kbit/s; M12, A-coded			
Sensor-system/actuator supply	7/8", 5-pole, 2 × max. 9 A			
I/O ports	M12, 5-pole, A-coded			
DeviceNet				
Addressing	Rotary switch 0...63			
Input				
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA (M12 female), short-circuit and overload protected			
Type	for 3-wire sensors or mechanical switches, PNP –			
Output				
Switching current per output	–	max. 2 A (short-circuit and overload protected)		max. 0.5 A (short-circuit and overload protected)
General data				
Protection	IP67			
Mounting method	2 hole screw mounting, compatible with I/O modules of MVK model range			
Temperature range	-25...+70 °C (storage temperature -25...+70 °C)			
Dimension drawing				



Notes

Accessories			Art-No.
	Label plates 20 × 8 mm	(20 pieces per plate)	55318
	Screw plug M12 × 1 mm (for female) Plastic, hex without gasket	Quantity: 10 pcs.	58627
	Screw plug 7/8" (for male) Plastic		55385

Минск +375447584780 viber zakaz@igbt.by www.fotorele.net



IO-LINK DEVICES

INTELLIGENT NETWORKING

- Flexible
- Easy handling
- Economical

IO-LINK ANALOG CONVERTER

The IO-Link analog converter from Murrelektronik can be used to connect regular analog sensors and actuators easily to the IO-Link master.



IO-LINK COUPLER

The IO-Link inductive couplers from Murrelektronik are designed for a non-contact transmission of energy and bi-directional IO-Link communication through an air gap. This prevents mechanical wear and is ideally suited to replace intensively stressed plug-in or looped connections.

IO-LINK HUB

The IO-Link hubs from Murrelektronik can be used to connect several digital sensors and actuators easily to the IO-Link master ports via a standard sensor cable.

IO-LINK DEVICES



IO-Link/Analog Converters

- Analog inputs
- Analog outputs

Page 4.7.1



IO-Link Coupler

- Primary
- Secondary

Page 4.7.7



IO-Link Hubs

- Metal version
- Plastic version

Page 4.7.8

IO-LINK DEVICES

Analog inputs

– Plug & Play

– IO-Link V1.1

🔗 IO-Link

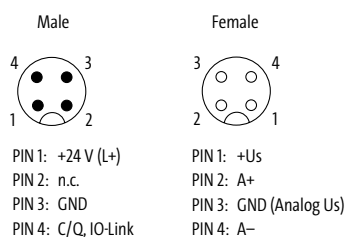
Approvals:  UL Listed

IO-Link/Analog Converter

Current



Contact layout



Order Data

INPUT: 0...20 mA

Art-No.

5000-00501-1100000

INPUT: 4...20 mA

5000-00501-1110000

Connections

IO-Link

M12 (male) 5-pole, A-coded

Analog input

M12 (female) 5-pole, A-coded, shielded

Module Supply

Operating voltage

24 V DC (18...30 V DC)

IO-Link

Specification

IO-Link V1.1

Operating modes

COM2 (38.4 kBit/s)

Port class

A

Cycle time

min. 2.3 ms

Data width

16 Bit / 2 Byte

Input

Sensor supply US

24 V DC (EN 61312), max. 200 mA

Resolution (analog)

15 Bit + sign

Accuracy

0.10% (25 °C)

Conversion time (analog)

max. 5 ms

Parameterization

Diagnostics

lower limit, upper limit, over heated, supply over voltage, supply under voltage, defective device, sensor supply over current, overrun

General data

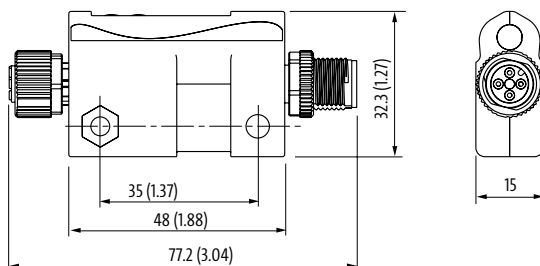
Protection

IP65/IP67

Temperature range

-30...+70 °C (storage temperature -40...+85 °C)

Dimension drawing



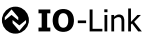
Notes

IO-LINK DEVICES

Analog inputs

– Plug & Play

– IO-Link V1.1



Approvals: UL US
Listed

IO-Link/Analog Converter

Voltage



Contact layout	Male PIN 1: +24 V (L+) PIN 2: n.c. PIN 3: GND PIN 4: C/Q, IO-Link Female PIN 1: +Us PIN 2: A+ PIN 3: GND (Analog Us) PIN 4: A-	
Order Data		Art-No.
INPUT: 0...10 V		5000-00501-1200000
INPUT: -10...+10 V		5000-00501-1210000
Connections		
IO-Link	M12 (male) 5-pole, A-coded	
Analog input	M12 (female) 5-pole, A-coded, shielded	
Module Supply		
Operating voltage	24 V DC (18...30 V DC)	
IO-Link		
Specification	IO-Link V1.1	
Operating modes	COM2 (38.4 kBit/s)	
Port class	A	
Cycle time	min. 2.3 ms	
Data width	16 Bit / 2 Byte	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 200 mA	
Resolution (analog)	15 Bit + sign	
Accuracy	0.10% (25° C)	
Conversion time (analog)	max. 5 ms	
Parameterization		
Diagnostics	lower limit, upper limit, over heated, supply over voltage, supply under voltage, defective device, sensor supply over current, overrun	
General data		
Protection	IP65/IP67	
Temperature range	-30...+70 °C (storage temperature -40...+85 °C)	
Dimension drawing		
Notes		

IO-LINK DEVICES

Analog inputs

– Multifunctional

– IO-Link V1.1

🔗 IO-Link

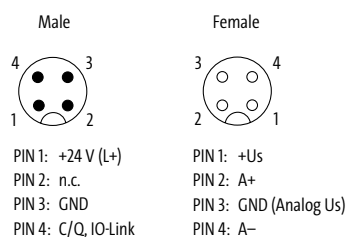
Approvals:  UL US
Listed

IO-Link/Analog Converter

Current/Voltage



Contact layout



Order Data

INPUT: 0...20 mA, 4...20 mA, 0...10 V, -10...+10 V

Art-No.

5000-00501-1300001

Connections

IO-Link M12 (male) 5-pole, A-coded
Analog input M12 (female) 5-pole, A-coded, shielded

Module Supply

Operating voltage 24 V DC (18...30 V DC)

IO-Link

Specification IO-Link V1.1
Operating modes COM2 (38.4 kBit/s)
Port class A
Cycle time min. 2.3 ms
Data width 16 Bit / 2 Byte

Input

Sensor supply US 24 V DC (EN 61312), max. 200 mA
Resolution (analog) 15 Bit + sign
Accuracy 0.10% (25 °C)
Conversion time (analog) max. 5 ms

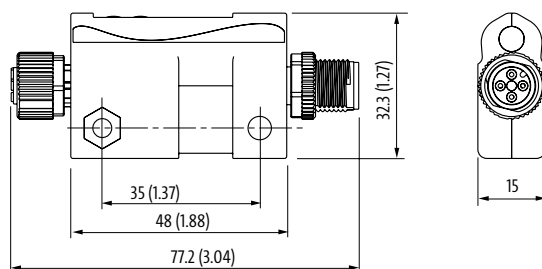
Parameterization

Diagnostics 2 Byte

General data

Protection IP65/IP67
Temperature range -30...+70 °C (storage temperature -40...+85 °C)

Dimension drawing



Notes

IO-LINK DEVICES

Analog outputs

– Plug & Play

– IO-Link V1.1

 IO-Link

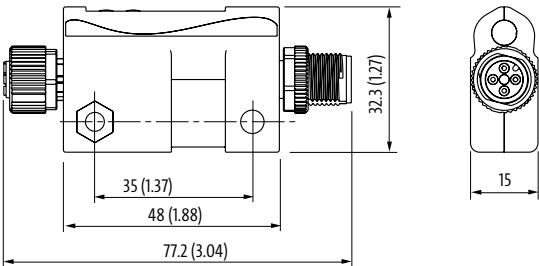
Approvals:  Listed

IO-Link/Analog Converter

Current



Contact layout	
Male  PIN 1: +24 V (L+) PIN 2: n.c. PIN 3: GND PIN 4: C/Q, IO-Link Female  PIN 1: +Us PIN 2: n.c. PIN 3: GND (Analog Us) PIN 4: AOUT (U/I)	
Order Data	
OUTPUT: 0...20 mA	Art-No. 5000-00501-2100000
OUTPUT: 4...20 mA	5000-00501-2110000
Connections	
IO-Link	M12 (male) 5-pole, A-coded
Analog output	M12 (female) 5-pole, A-coded, shielded
Module Supply	
Operating voltage	24 V DC (18...30 V DC)
IO-Link	
Specification	IO-Link V1.1
Operating modes	COM2 (38.4 kBit/s)
Port class	A
Cycle time	min. 2.3 ms
Data width	16 Bit / 2 Byte
Output	
Actuator supply UA	24 V DC (EN 61131-2), max. 200 mA
Resolution (analog)	15 Bit + sign
Type	2-, 3-, 4-wire technology
Accuracy	0.10% (25 °C)
Conversion time (analog)	max. 5 ms
Over voltage protection	30 V DC
Parameterization	
Diagnostics	lower limit, upper limit, over heated, supply over voltage, supply under voltage, defective device, sensor cable break, sensor supply over current, overrun
General data	
Protection	IP65/IP67
Temperature range	-30...+70 °C (storage temperature -40...+85 °C)
Dimension drawing	



Notes

IO-LINK DEVICES

Analog outputs

– Plug & Play

– IO-Link V1.1

🔗 IO-Link

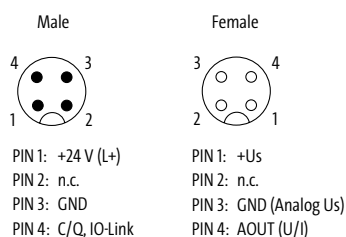
Approvals:  Listed

IO-Link/Analog Converter

Voltage



Contact layout



Order Data

OUTPUT: 0...10 V

Art-No.

5000-00501-2200000

OUTPUT: -10...+10 V

5000-00501-2210000

Connections

IO-Link M12 (male) 5-pole, A-coded

Analog output M12 (female) 5-pole, A-coded, shielded

Module Supply

Operating voltage 24 V DC (18...30 V DC)

IO-Link

Specification IO-Link V1.1

Operating modes COM2 (38.4 kBit/s)

Port class A

Cycle time min. 2.3 ms

Data width 16 Bit / 2 Byte

Output

Actuator supply UA 24 V DC (EN 61312), max. 200 mA

Resolution (analog) 15 Bit + sign

Type 2-, 3-, 4-wire technology

Accuracy 0.10% (25° C)

Conversion time (analog) max. 5 ms

Over voltage protection 30 V DC

Parameterization

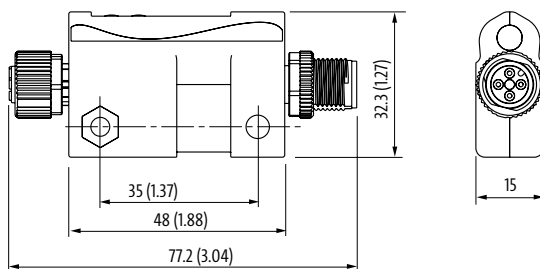
Diagnostics lower limit, upper limit, over heated, supply over voltage, supply under voltage, defective device, sensor cable break, sensor supply over current, overrun

General data

Protection IP65/IP67

Temperature range -30...+70 °C (storage temperature -40...+85 °C)

Dimension drawing



Notes

IO-LINK DEVICES

Analog outputs

– Multifunctional

– IO-Link V1.1

IO-Link

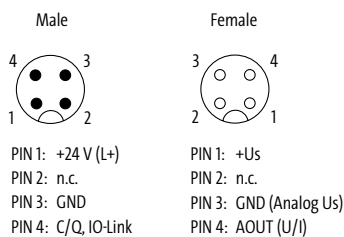
Approvals:  Listed

IO-Link/Analog Converter

Current/Voltage



Contact layout



Order Data

OUTPUT: 0...20 mA, 4...20 mA, 0...10 V, -10...+10 V

Art-No.

5000-00501-2300001

Connections

IO-Link M12 (male) 5-pole, A-coded
Analog output M12 (female) 5-pole, A-coded, shielded

Module Supply

Operating voltage 24 V DC (18...30 V DC)

IO-Link

Specification IO-Link V1.1
Operating modes COM2 (38.4 kBit/s)
Port class A
Cycle time min. 2.3 ms
Data width 16 Bit / 2 Byte

Output

Actuator supply UA 24 V DC (EN 61131-2), max. 200 mA
Resolution (analog) 15 Bit + sign
Type 2-, 3-, 4-wire technology
Accuracy 0.10% (25 °C)
Conversion time (analog) max. 5 ms
Over voltage protection 30 V DC

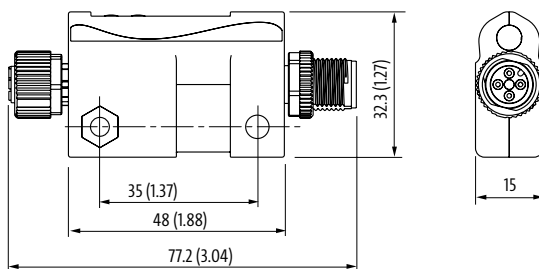
Parameterization

Diagnostics lower limit, upper limit, over heated, supply over voltage, supply under voltage, defective device, sensor cable break, sensor supply over current, overrun

General data

Protection IP65/IP67
Temperature range -30...+70 °C (storage temperature -40...+85 °C)

Dimension drawing



Notes

IO-LINK DEVICES

IO-Link V1.1



IO-Link Coupler (prim.)

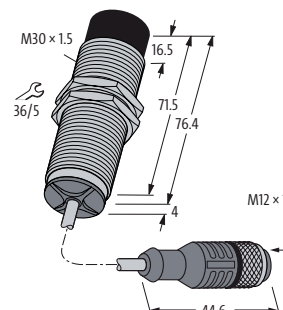
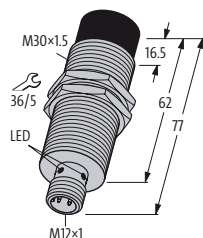


IO-Link Coupler (sec.)

Connection cable L = 300 mm



Order Data	Art-No.	Art-No.
Primary	59450	
Secondary		59451
Accessories		Art-No.
M30 holder		59452
Connections		
IO-Link	M12 (male) 4-pole, A-coded	M12 (female) 4-pole, A-coded
Technical Data		
Nominal distance	0...7 mm (prim./sec.)	
Standby power (coupled)	4 W	
Standby power (uncoupled)	1 W	
Short circuit protection	yes	
Invers-polarity protection	yes	
Start-/coupling time	–	10 ms
Rotation	1 250 rpm	
Standby time	–	160 ms
Supply (prim.)		
Operating voltage	24 V DC ±10%	–
Operating current	750 mA	–
Output (sec.)		
Operating voltage	–	24 V DC ±10%
Output current	–	500 mA
Highest current	–	2.4 A (0.1 ms); 10 A (0.02 ms)
IO-Link		
Specification	IO-Link V1.1	
Operating modes	COM2 (38.4 kBit/s)	
Port class	A	
General data		
Protection	IP67/IP68	
Temperature range	20...+55 °C	
Dimension drawing		



Notes

IO-LINK DEVICES

Expanded diagnostic

– IO-Link V1.1

– Single channel diagnostic

 IO-Link

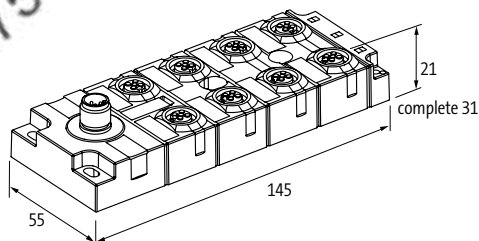
IO-Link Hub

Galvanic isolation

IO-Link Hub



Order Data	Art-No.	Art-No.
DI8 DO8 IOL - K3	55518	
DI16 IOL		55519
Internal communication		
Current consumption	max. 35 mA	
LED display	US: sensor supply (green: OK); IOL: (green: OK); UA: actuator supply (green: OK)	US: sensor supply (green: OK); IOL: (green: OK)
IO-Link		
IO-Link	Device	
Operating modes	COM2 (38.4 kBaud)	
Transfer parameters	1 Byte (Inputs), 1 Byte (Outputs), 2 Byte (Diagnostic)	2 Byte (Inputs), 1 Byte (Diagnostic)
Port class	B	A
Specification	IO-Link V1.1	
Cycle time	2.3 ms	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 100 mA (M12 female), short-circuit and overload protected	
Type	PNP (EN 61131-2) Type 3	
Input filter	1 ms	
Input delay time	max. 8 ms (incl. IO-Link cycle time)	
Output		
Actuator supply UA	24 V DC (EN 61131-2), max. 4 A	–
Switching current per output	max. 0.4 A (short-circuit and overload protected)	–
Parameterization		
PIN 2	Input (port 0...3); Output (port 4...7)	Input
PIN 4	Input (port 0...3); Output (port 4...7)	Input
General data		
Protection	IP67	
Mounting method	4 hole screw mounting	
Temperature range	-25...+70 °C (storage temperature -40...+70 °C)	
Dimension drawing		



Notes

IO-LINK DEVICES

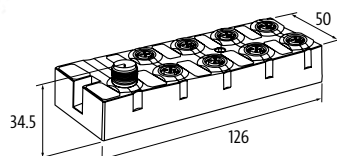
IO-Link V1.1



IO-Link Hub



Order Data	Art-No.	Art-No.
DI8 DO8 IOL	59402	
DI16 IOL		59401
Internal communication		
Current consumption	max. 35 mA	
LED display	US-IOL: sensor supply-IOL (green: OK); UA: actuator supply (green: OK)	US: sensor supply (green: OK); IOL: (green: OK)
IO-Link		
IO-Link	Device	
Operating modes	COM2 (38.4 kBaud)	
Transfer parameters	1 Byte (Inputs), 1 Byte (Outputs), 2 Byte (Diagnostic)	2 Byte (Inputs), 1 Byte (Diagnostic)
Port class	B	A
Specification	IO-Link V1.1	
Cycle time	2.3 ms	
Input		
Sensor supply US	24 V DC (EN 61131-2), max. 100 mA (M12 female), short-circuit and overload protected	
Type	PNP (EN 61131-2) Type 3	
Input filter	1 ms	
Input delay time	max. 8 ms (incl. IO-Link cycle time)	
Output		
Actuator supply UA	24 V DC (EN 61131-2), max. 4 A	–
Switching current per output	max. 0.4 A (short-circuit and overload protected)	–
Parameterization		
PIN 2	Input (port 0...3); Output (port 4...7)	Input
PIN 4	Input (port 0...3); Output (port 4...7)	Input
General data		
Protection	IP67	
Mounting method	2-hole screw mounting	
Temperature range	-25...+70 °C (storage temperature -40...+70 °C)	
Dimension drawing		



Notes

IO-LINK DEVICES

Accessories			Art-No.
	Label plates 20 × 8 mm	(20 pieces per plate)	55318
	Screw plug M12 × 1 mm (for female) Plastic, hex without gasket	Quantity: 10 pcs.	58627
	M30 holder		59452
	Holding plate for T-couplers M12 (SlimLine)	without mounting set	7000-99061-0000000
	Holding plate for T-couplers M12 (SlimLine)	with mounting set	7000-99062-0000000
	T-coupler (Slim Line) IO-Link IO-Link supply power		7000-42771-0000000



MASI FOR THE CONTROL CABINET

- High signal density in a minimum amount of space
- Pluggable insulation displacement or spring clamp connections
- Sensor power supply from AS-Interface or 24 V DC

MASI – THE CLEVER AS-INTERFACE SYSTEM FROM MURRELEKTRONIK

The modules are designed in a way that the wiring method with single strands is optimally supported in order to offer the user the best possible benefit during installation, commissioning and maintenance.

The design according to the latest AS-Interface specification 3.0 and the AS-Interface certificate with worldwide validity guarantee the user interoperability and a high investment security. Furthermore, safety shutdowns according to EN 13849-1 up to PL d can be realized using a special K3 module.



➤ MASI

I/O modules, accessories and accompanying information material regarding MASI can be found in the **online shop**:

➤ shop.murrelektronik.com

Gateway



Gateway Singlemaster



Page 4.8.1



Gateway Doublemaster



Page 4.8.1

MASI00/MASI20



MASI00

- Digital inputs/outputs
- Degree of protection IP00

Page 4.8.2



MASI20

- Digital inputs/outputs
- Passively safe outputs
- Degree of protection IP20

Page 4.8.3

Power Supply Units



Primary switched power supply

- Single-phase, three-phase

Page 4.8.4

PROFIBUS DP		Art-No.
	Gateway-Singlemaster AS-Interface/PROFIBUS DP No. of slaves ASI-Power 24 Serial interface/diagnostic AS-Interface data decoupling integrated	Protection IP20 max. 62 Specification 3.0 - Protection AS-i side, 4 A
		56471
PROFINET		Art-No.
	Gateway-Singlemaster AS-Interface/PROFINET No. of slaves ASI-Power 24 Serial interface/diagnostic AS-Interface data decoupling integrated	Protection IP20 max. 62 Specification 3.0 RJ45/Fieldbus Protection AS-i side, 4 A
		56470
EtherNet/IP		Art-No.
	Gateway-Singlemaster AS-Interface/EtherNet/IP No. of slaves ASI-Power 24 Serial interface/diagnostic AS-Interface data decoupling integrated	Protection IP20 max. 62 Specification 3.0 RJ45/Fieldbus Protection AS-i side, 4 A
		56469
CC-Link		Art-No.
	Gateway-Singlemaster AS-Interface/CC-Link No. of slaves ASI-Power 24 Serial interface/diagnostic AS-Interface data decoupling integrated	Protection IP20 max. 62 Specification 3.0 - Protection AS-i side, 4 A
		56473
EtherCAT		Art-No.
	Gateway-Doublemaster AS-Interface/EtherCAT No. of slaves AS-Interface data decoupling integrated Serial interface/diagnostic	Protection IP20 max. 2 × 62 Specification 3.0 RJ45/Ethernet Protection AS-i side, 4 A
		56458

MA SI CONTROL CABINET

MASI00			Art-No.
	Digital inputs/outputs DI4/DO4 - 0.2 A Sensor supply US Switching current per output Profile (IO/ID/ID2 code) Address range Standard-Slave	Protection IP00 max. 200 mA (AS-Interface) max. 30 mA S-7.F.F 1...31 via plug terminals Specification 3.0	55700
	DI4/DO4 - 0.2 A (AB) Sensor supply US Switching current per output Profile (IO/ID/ID2 code) Address range AB-Slave	Protection IP00 max. 200 mA (AS-Interface) max. 30 mA S-7.A.7 1...62 (1...31 A or B) via plug-in terminal Specification 3.0	55701
	Digital inputs/outputs DI4/DO4 - 0.2 A Sensor supply US Switching current per output Connection cable for pin cable lug Profile (IO/ID/ID2 code) Address range Standard-Slave	Protection IP00 max. 200 mA (AS-Interface) max. 30 mA 250 mm S-7.F.F 1...31 via plug terminals Specification 3.0	556625
	DI4/DO4 - 0.2 A (AB) Sensor supply US Switching current per output Connection cable for pin cable lug Profile (IO/ID/ID2 code) Address range AB-Slave	Protection IP00 max. 200 mA (AS-Interface) max. 30 mA 250 mm S-7.A.7 1...62 (1...31 A or B) via plug-in terminal Specification 3.0	556639
	Connection cable MASI00 with open ended wires	1 000 mm	556510
	Connection cable MASI00 with cable fork	150 mm	556511

MASI20			Art-No.
	Digital inputs/outputs DI4 - 0.2 A DO4 - 0.5 A (AB) K3 Sensor supply US Switching current per output Profile (IO/ID/ID2 code) Address range AB-Slave passive safe outputs	Protection IP20 from AS-Interface or 24 V DC (EN 61131-2) max. 0.5 A S-7.A.7 1...62 (1...31 A or B) Specification 3.0 can be switched off via safety relays	56440
	Digital inputs/outputs DI4 - 0.15 A DO4 - 2 A K3 Sensor supply US Switching current per output Profile (IO/ID/ID2 code) Address range Standard-Slave passive safe outputs	Protection IP20 from AS-Interface or 24 V DC (EN 61131-2) max. 2 A S-7.0.E 1...31 Specification 3.0 can be switched off via safety relays	56475
	DI4 - 0.15 A DO4 - 2 A (AB) K3 Sensor supply US Switching current per output Profile (IO/ID/ID2 code) Address range AB-Slave passive safe outputs	Protection IP20 from AS-Interface or 24 V DC (EN 61131-2) max. 2 A S-7.A.7 1...62 (1...31 A or B) Specification 3.0 can be switched off via safety relays	56476
	Digital inputs/relay outputs DI4 - 0.15 A DO4R - 2 A Sensor supply US Switching current per output Relay outputs Profile (IO/ID/ID2 code) Address range Standard-Slave	Protection IP20 from AS-Interface or 24 V DC (EN 61131-2) 2 A - S-7.0.E 1...31 Specification 3.0	56477
	DI4 - 0.15 A DO4R - 2 A (AB) Sensor supply US Switching current per output Relay outputs Profile (IO/ID/ID2 code) Address range AB-Slave	Protection IP20 from AS-Interface or 24 V DC (EN 61131-2) 2 A - S-7.A.7 1...62 (1...31 A or B) Specification 3.0	56478

MA SI CONTROL CABINET

Power Supply Units		Art-No.	
	Switch mode power supplies Single-phase, primary switched Input voltage Output voltage Efficiency Output current	Protection IP20 95...265 V AC 30.5 V DC (SELV), $\pm 2\%$ 83% (110 V AC); 85% (240 V AC) max. 4.0 A (+40 °C); 3.4 A (+55 °C)	85381
	Switch mode power supplies Single-phase, primary switched Input voltage Output voltage with EFD (earth fault detection) Efficiency Output current	Protection IP20 95...265 V AC 30.5 V DC (SELV), $\pm 2\%$ - 83% (110 V AC); 85% (240 V AC) max. 4.0 A (+40 °C); 3.4 A (+55 °C)	85382
	Switch mode power supplies 3-phase, primary switched Input voltage Output voltage Efficiency Output current	Protection IP20 3×324...572 V AC/2×340...572 V AC/450...745 V DC 30.5 V DC (SELV), $\pm 1\%$; 30...32 V adjustable 92.5% (3 × 400 V AC); 91.8% (3 × 480 V AC) 4.8 A (45 °C); 4.0 A (60 °C); 2.9 A (70 °C)	85383



MASI FOR FIELD INSTALLATION

- Flexible use
- Quick installation
- Efficient technology

APPLICATION VARIETY – FOR EFFICIENT AND DECENTRALIZED INSTALLATION

MASI, the AS-Interface product series by Murrelektronik, is the simple solution for cost-efficient integration of I/O signals from machine tools or storage and logistics systems to superordinate control systems. MASI allows the user to build highly flexible I/O systems without being tied to rigid topologies.

Who wants to wire control cabinets or set up complex bus solutions when this can be also done in a more simple, flexible, efficient, and robust way? The MASI I/O system allows you to install all the components at the place where they are needed. This allows a clearly arranged wiring and reduces the installation effort to a minimum.



➤ MASI

I/O modules, accessories and accompanying information material regarding MASI can be found in the **online shop**:

➤ shop.murrelektronik.com

MASI65



Valve plug (form A)

- M12
- Degree of protection IP67

Page 4.9.1

MASI67



I/O modules

- Digital inputs
- Digital inputs/outputs
- Degree of protection IP67

Page 4.9.1

MASI68



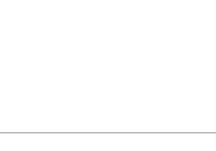
I/O modules

- Digital inputs
- Digital inputs/outputs
- Analog outputs
- Analog inputs
- Degree of protection IP67

Page 4.9.3

MASI65			Art-No.
	Digital inputs/outputs DO1 - 2A, DO1 - 2 A, DI2 Sensor supply US Switching current per output Valve Plug (Form A), M12, M12 Profile (IO/ID/ID2 code) Address range Standard-Slave	Protection IP67 max. 200 mA (AS-Interface) max. 2 A - S-3.FE 1...31 Specification 2.1	55680
	Digital outputs DO1 - 2A, DO1 - 2 A Switching current per output Standard-Slave Valve Plug (Form A), M12 Profile (IO/ID/ID2 code) Address range	Protection IP67 max. 2 A Specification 2.1 - S-3.FE 1...31	55681
	DO1 - 2A Switching current per output Standard-Slave Valve plug (form A) Profile (IO/ID/ID2 code) Address range	Protection IP67 max. 2 A Specification 2.1 - S-3.FE 1...31	55682
	Digital inputs/outputs DO1 - 2A, DO1 - 2 A, DI2 Sensor supply US Switching current per output Ventilstecker (Form BI), M12, M12 Profile (IO/ID/ID2 code) Address range Standard-Slave	Protection IP67 max. 200 mA (AS-Interface) max. 2 A - S-3.FE 1...31 Specification 2.1	556613
	Digital outputs DO1 - 2A Switching current per output Standard-Slave Valve plug (form BI) Profile (IO/ID/ID2 code) Address range	Protection IP67 max. 2 A Specification 2.1 - S-3.FE 1...31	556614
MASI67			Art-No.
	Digital inputs DI4 - 0.2 A (AB) 4xM8 Sensor supply US AB-Slave Profile (IO/ID/ID2 code) Address range	Protection IP67 max. 170 mA (AS-Interface) Specification 3.0 S-0.A.0 1...62 (1...31 A or B)	56405

MA SI FIELD INSTALLATION

MASI67			Art-No.
	Digital inputs DI8 - 0.24 A (AB) 8×M8 Sensor supply US AB-Slave Profile (IO/ID/ID2 code) Address range	Protection IP67 max. 180 mA (AS-Interface) Specification 3.0 2 × S-0.A.0 1...62 (2 × 1...31 A or B)	56406
	Digital inputs/outputs DI4 - 0.2 A DO4 - 0.5 A 8×M8 Sensor supply US Standard-Slave Profile (IO/ID/ID2 code) Address range	Protection IP67 max. 180 mA (AS-Interface) Specification 3.0 S-7.0.E 1...31	56408
	Digital inputs DI4 - 0.2 A (AB) 4×M12 Sensor supply US AB-Slave Configuration Profile (IO/ID/ID2 code) Address range	Protection IP67 max. 170 mA (AS-Interface) Specification 3.0 PIN 2 = 4 S-0.A.0 1...62 (1...31 A or B)	56400
	DI4 - 0.2 A (AB) 4×M12 Sensor supply US AB-Slave Configuration Profile (IO/ID/ID2 code) Address range	Protection IP67 max. 170 mA (AS-Interface) Specification 3.0 Y-wiring S-0.A.2 1...62 (1...31 A or B)	56413
	DI8 - 0.24 A (AB) 4×M12 Sensor supply US AB-Slave Configuration Profile (IO/ID/ID2 code) Address range	Protection IP67 max. 180 mA (AS-Interface) Specification 3.0 PIN 2 + 4 2 × S-0.A.2 1...62 (2 × 1...31 A or B)	56401
	Digital inputs/outputs DI4 - 1.6 A DO4 - 2 A 4×M12 Sensor supply US Switching current per output Configuration Profile (IO/ID/ID2 code) Address range Standard-Slave	Protection IP67 max. 1.6 A external max. 2 A PIN 2 + 4 S-7.FE 1...31 Specification 3.0	56404
	DI4 - 0.2 A DO4 - 1.6 A (C) 4×M12 (AB) K3 Sensor supply US Switching current per output Configuration Profile (IO/ID/ID2 code) Address range AB-Slave passive safe outputs	Protection IP67 max. 200 mA (AS-Interface) max. 1.6 A PIN 2 + 4 S-7.A.7 1...62 (1...31 A or B) Specification 3.0 can be switched off via safety relays	56414

MASI67			Art-No.
	Digital inputs/outputs DI8 - 0.34 A DO8 - 1.6 A (AB) 8×M12 (K3) Sensor supply US Switching current per output Configuration Profile (IO/ID/ID2 code) Address range AB-Slave passive safe outputs	Protection IP67 max. 340 mA (AS-Interface) max. 1.6 A PIN 2 + 4 2 × S-7.A.7 1...62 (2 × 1...31 A or B) Specification 3.0 can be switched off via safety relays	56415
	Digital outputs DO8 - 1.6 A (AB) 8×M12 (K3) Safety Switching current per output passive safe outputs Configuration Profile (IO/ID/ID2 code) Address range AB-Slave	Protection IP67 max. 1.6 A can be switched off via safety relays Y-wiring S-7.A.7 1...62 (1...31 A or B) Specification 3.0	56445
MASI68			Art-No.
	Digital inputs DI4 - 0.18 A (C) 4×M8 (AB) Sensor supply US AB-Slave Compact module Profile (IO/ID/ID2 code) Address range	Protection IP68 max. 180 mA (AS-Interface) Specification 3.0 - S-0.A.2 1...62 (1...31 A or B)	56434
	DI4 - 0.18 A (C) 4×M8 Sensor supply US Standard-Slave Compact module Profile (IO/ID/ID2 code) Address range	Protection IP68 max. 180 mA (AS-Interface) Specification 3.0 - S-0.0.0 1...31	56435
	Digital inputs/outputs DI2 - 0.1 A DO2 - 0.5 A (C) 4×M8 (AB) Sensor supply US Switching current per output Compact module Profile (IO/ID/ID2 code) Address range AB-Slave	Protection IP68 max. 100 mA (AS-Interface) max. 0.5 A - S-7.A.E 1...62 (1...31 A or B) Specification 3.0	56446

MA SI FIELD INSTALLATION

MASI68			Art-No.
	Digital inputs DI8 - 0.2 A (C) 8×M8 (AB) Sensor supply US AB-Slave Compact module Profile (IO/ID/ID2 code) Address range	Protection IP68 max. 200 mA (AS-Interface) Specification 3.0 - 2 × S-0.A.0 1...62 (2 × 1...31 A or B)	56420
	DI8 - 0.2 A (C) 8×M8 (AB) Sensor supply US AB-Slave Compact module Profile (IO/ID/ID2 code) Address range	Protection IP68 max. 200 mA (AS-Interface) Specification 3.0 Slave 1: 1 A; Slave2: 2 A 2 × S-0.A.0 1...62 (1...31 A or B)	564201
	Digital inputs/outputs DI4 - 0.19 A DO3 - 0.5 A (C) 7×M8 (AB) Sensor supply US Switching current per output Compact module Profile (IO/ID/ID2 code) Address range AB-Slave	Protection IP68 max. 190 mA (AS-Interface) max. 0.5 A - S-7.A.0 1...62 (1...31 A or B) Specification 2.1	56418
	DI4 - 0.19 A DO4 - 0.5 A (C) 8×M8 Sensor supply US Switching current per output Compact module Profile (IO/ID/ID2 code) Address range Standard-Slave	Protection IP68 max. 190 mA (AS-Interface) max. 0.5 A - S-7.0.0 1...31 Specification 3.0	56419
	DI4 - 0.2 A DO4 - 0.5 A (C) 8×M8 (AB) Sensor supply US Switching current per output Compact module Profile (IO/ID/ID2 code) Address range AB-Slave	Protection IP68 max. 190 mA (AS-Interface) max. 0.5 A - S-7.A.7 1...62 (1...31 A or B) Specification 3.0	56462
	Digital inputs DI8 - 0.19 A (E) 8×M8 (AB) Sensor supply US AB-Slave Expansion module Profile (IO/ID/ID2 code) Address range	Protection IP68 max. 190 mA (AS-Interface) Specification 3.0 - 2 × S-0.A.E 1...62 (1...31 A or B)	56436

MASI68			Art-No.
	Digital inputs DI4 - 0.19 A (C) 4×M12 (AB) (Y) Sensor supply US AB-Slave Compact module Profile (IO/ID/ID2 code) Address range	Protection IP68 max. 190 mA (AS-Interface) Specification 3.0 Y-wiring S-0.A.2 1...62 (1...31 A or B)	56421
	DI8 - 0.19 A (C) 4×M12 (AB) Sensor supply US AB-Slave Compact module Profile (IO/ID/ID2 code) Address range	Protection IP68 max. 190 mA (AS-Interface) Specification 3.0 PIN 2 + 4 2 × S-0.A.2 1...62 (2 × 1...31 A or B)	56424
	Digital inputs DI4 - 0.2 A (E) 4×M12 (AB) (Y) Sensor supply US AB-Slave Expansion module Profile (IO/ID/ID2 code) Address range	Protection IP68 max. 200 mA (AS-Interface) Specification 3.0 Y-wiring S-0.A.2 1...62 (1...31 A or B)	56425
	DI4 - 0.19 A (E) 4×M12 (AB) (Y) AUX Sensor supply US AB-Slave Expansion module Profile (IO/ID/ID2 code) Address range	Protection IP68 max. 190 mA (AUX Power) Specification 3.0 Y-wiring S-0.A.2 1...62 (1...31 A or B)	56443
	DI8 - 0.19 A (E) 4×M12 (AB) Sensor supply US AB-Slave Expansion module Profile (IO/ID/ID2 code) Address range	Protection IP68 max. 190 mA (AS-Interface) Specification 3.0 PIN 2 + 4 2 × S-0.A.2 1...62 (2 × 1...31 A or B)	56426
	DI8 - 0.19 A (E) 4×M12 (AB) AUX Sensor supply US AB-Slave Expansion module Profile (IO/ID/ID2 code) Address range	Protection IP68 max. 190 mA (AUX Power) Specification 3.0 PIN 2 + 4 2 × S-0.A.2 1...62 (2 × 1...31 A or B)	56444
	Digital inputs/outputs DI4 - 0.19 A DO4 - 1 A (E) 4×M12 (AB) Sensor supply US Switching current per output Expansion module Profile (IO/ID/ID2 code) Address range AB-Slave	Protection IP68 max. 190 mA (AS-Interface) max. 1 A PIN 2 + 4 S-7.A.7 1...62 (1...31 A or B) Specification 3.0	56439

MA SI FIELD INSTALLATION

MASI68			Art-No.
	Digital outputs DO8 - 0.5 A (AB) 4×M12 (K3) Switching current per output passive safe outputs Expansion module Profile (IO/ID/ID2 code) Address range AB-Slave	Protection IP68 max. 0.5 A can be switched off via safety relays PIN 2 + 4 S-7.A.7 1...62 (1...31 A or B) Specification 3.0	56447
	Digital inputs/outputs DI4 - 0.19 A DO4 - 2 A (C) 8×M12 (Y) Sensor supply US Switching current per output Compact module Profile (IO/ID/ID2 code) Address range Standard-Slave	Protection IP68 max. 190 mA (AS-Interface) max. 2 A Y-wiring S-7.FE 1...31 Specification 3.0	56422
	DI4 - 0.19 A DO4 - 2 A (C) 8×M12 Sensor supply US Switching current per output Compact module Profile (IO/ID/ID2 code) Address range Standard-Slave	Protection IP68 max. 190 mA (AS-Interface) max. 2 A PIN 4 S-7.O.7 1...31 Specification 3.0	56438
	DI4 - 0.2 A DO4 - 1.6 A (C) 8×M12 (AB) (Y) (K3) Sensor supply US Switching current per output Compact module Profile (IO/ID/ID2 code) Address range AB-Slave passive safe outputs	Protection IP68 max. 200 mA (AS-Interface) max. 1.6 A Y-wiring S-7.A.7 1...62 (1...31 A or B) Specification 3.0 can be switched off via safety relays	56423
	Digital inputs/outputs DI4 - 0.2 A DO4 - 2 A (E) 8×M12 (Y) Sensor supply US Switching current per output Expansion module Profile (IO/ID/ID2 code) Address range Standard-Slave	Protection IP68 max. 200 mA (AS-Interface) max. 2 A Y-wiring S-7.FE 1...31 Specification 3.0	56427
	Digital inputs/outputs DI4 - 0.2 A DO4 - 1.6 A (E) 8×M12 (AB) (Y) (K3) Sensor supply US Switching current per output Expansion module Profile (IO/ID/ID2 code) Address range AB-Slave passive safe outputs	Protection IP68 max. 200 mA (AS-Interface) max. 1.6 A Y-wiring S-7.A.7 1...62 (1...31 A or B) Specification 3.0 can be switched off via safety relays	56428

MASI68			Art-No.
	Analog inputs AI4 - (E) RTD Measuring current Standard-Slave Expansion module Profile (IO/ID/ID2 code) Address range	Protection IP68 Pt100 - 1.25 mA Specification 3.0 - S-7.3.E 1...31	56442
	Analog outputs AO2 - (E) 2xM12 (UI) Output current Output voltage Expansion module Profile (IO/ID/ID2 code) Address range Standard-Slave	Protection IP68 -22...22 mA -10...+10 V - S-7.3.5 1...31 Specification 3.0	56474

MA SI INSTALLATION TECHNOLOGY

- Versatile
- Leak-proof for industrial use
- Simplest installation

AS-INTERFACE SYSTEM

In connection with the installation technology, the AS-Interface system from Murrelektronik provides consistent solutions from the operating panel through the control cabinet to the field - from IP00 to IP68.

Due to the application-oriented optimization of the modules, a safe installation and extension of the system can be realized very easily.

- **Easy** – Connection using the cable penetration technology, plug-in connectors or M12
- **Consistent** – products adapted to the fields of application from IP00 to IP68
- **Up-to-date** – latest technology according to the AS-interface specification 3.0



➤ MASI

I/O modules, accessories and accompanying information material regarding MASI can be found in the **online shop**:

➤ shop.murrelektronik.com

MA SI20/67/68



- Distributor
- Converter
- Adapter

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System/Torque wrenches



- Programming device
- Z-plug
- T-coupler
- Mounting plates

Page 4.10.3



- Torque wrench M8
- Torque wrench M12
- Torque wrench 7/8"

Page 4.10.3

Cables



- Profile cables
- Coding elements
- Adapter, terminals

Page 4.10.4



- Round plug connector
- T-coupler
- DIN-rail adapter
- Connecting cables

Page 4.10.6

MASI20			Art-No.
	Bus or Power distributor 2 AS-Interface + 3 power ports potentially separated	5 plug terminals included	55575
	3 AS-Interface + 2 power ports potentially separated	5 plug terminals included	55606
	Bus or Power distributor 1 × 3 AS-Interface + 2 × 1 power ports 5 ports, universal potentially separated	5 plug terminals included	55605
	1 × 5 AS-Interface/power ports 5 ports, universal not potentially separated	5 plug terminals included	55611
	Bus or Power distributor 1 × 3 AS-Interface + 2 × 1 power ports 5 ports, universal potentially separated	without plug terminals	55607
	Plug terminal for bus or power distributor	AS-Interface profile cable	55604
MASI67			Art-No.
	MASI67 connection 2 × on 2 × profile cable Total current: max. 8 A		55033
	1 × on 3 × profile cable Total current: max. 8 A		55034
	MASI67 converter 2 × profile cable to 7/8" (female) Total current: max. 8 A	5-pole	55035
	MASI67 converter 2 × profile cable to 7/8" (male) Total current: max. 8 A	5-pole	55036
	MASI67 converter 2 × profile cable to M12 (female) Total current: max. 4 A	M12, 4-pole, A-coded	55037

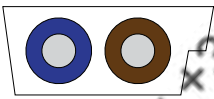
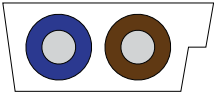
MA SI INSTALLATION TECHNOLOGY

MASI67			Art-No.
	MASI67 converter 2 × profile cable to M12 (male) Total current: max. 4 A	M12, 4-pole, A-coded	55038
	AS-Interface distributor from profile to profile cable Operating current: max. 3 A		55749
	AS-Interface breakout from profile cable to M12 Operating current: max. 2 A	M12, 2-pole, A-coded	55741
MASI67/68			Art-No.
	MASI67 passive distribution box 2 × profile cable to 4 × M12 (female) Current (M12): max. 4 A Total current: max. 8 A Ext. supply: 1 × aux power	M12, 4-pole, A-coded	56412
	2 × profile cable to 4 × M12 (female) Current (M12): max. 4 A Total current: max. 2 × 8 A Ext. supply: 2 × separately aux power	M12, 4-pole, A-coded	56416
MASI68			Art-No.
	MASI68 passive distribution box 1×7/8 AUX + 1×M12 AS-Interface to 3×M12 (female) Current (M12): max. 4 A Total current: max. 2 × 8 A	M12, 4-pole, A-coded 2 separate circuits	56454
	T-coupler (SlimLine) M12 - M12 Male straight - female straight Parallel circuit	5-pole	7000-41151-0000000
	T-coupler M12 – M12 Male straight - female straight Parallel circuit	5-pole	7000-41141-0000000
	Holding plate for T-couplers M12 (SlimLine) for T-couplers M12 (SlimLine)	without mounting set with mounting set	7000-99061-0000000 7000-99062-0000000

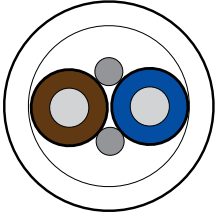
System			Art-No.
	Programming device AS-Interface programming device	AS-Interface addressing cable	55696
	Addressing cable Spare cable	for AS-Interface programming device	55727
	MASI Z-Plug Passive bus terminator		55779
	T-coupler (SlimLine) M12 - M12 Male straight - female straight Distribution function (NO)	5-pole - 4-pole	7000-41131-0000000
	T-coupler M12 - M12 Male straight - female straight Distribution function (NO)	5-pole - 4-pole	7000-41121-0000000
	Holding plate for T-couplers M12 (SlimLine) for T-couplers M12 (SlimLine)	without mounting set with mounting set	7000-99061-0000000 7000-99062-0000000
Torque wrench			Art-No.
	Torque wrench set M12 (0.6 Nm, SW13)	M12 data connenctor molded (standard)	7000-99102-0000000
	Torque wrench M12 (0.6 Nm, SW13) M12 (0.6 Nm, SW14)	M12 data connenctor molded (standard) M12 data connenctor moulded (Xtreme)	7000-99109-0000000 7000-99108-0000000
	Torque wrench M12 (0.6 Nm, SW17)	M12 field-wireable (IDC terminal)	7000-99094-0000000
	Torque wrench M12 (0.6 Nm, SW18)	M12 field-wireable via (screw terminals)	7000-99103-0000000
	Torque wrench set M8 (0.4 Nm, SW9)	M8 data connectors	7000-99101-0000000

MA SI INSTALLATION TECHNOLOGY

Torque wrench			Art-No.
	Torque wrench M8 (0.4 Nm, SW9)	M8 data connectors	7000-99091-0000000
	Torque wrench set 7/8" (1.5 Nm, SW22)	7/8" data connenctor moulded (IDC terminal)	7000-99104-0000000
	Torque wrench 7/8" (1.5 Nm, SW22)	7/8" data connenctor moulded (IDC terminal)	7000-99096-0000000
	7/8" (1.5 Nm, SW24)	7700-XXXXX - 7/8" data connenctor moulded (screw terminals)	7000-99097-0000000
For profile cable			Art-No.
	Coding element - short for MASI67 AS-i	Quantity: 2 pcs.	55059
	Coding element - long for MASI67 AUX	Quantity: 2 pcs.	55060
	Mounting bracket for AS-Interface profile cable	Quantity: 50 pcs.	55742
	Adapter from profile cable to M16		56453
	Plug terminal for bus or power distributor	AS-Interface profile cable	55604
	AS-Interface distributor from profile to profile cable Operating current: max. 3 A		55749
	AS-Interface breakout from profile cable to M12 Operating current: max. 2 A	M12, 2-pole, A-coded	55741

For profile cable			Art-No.
	Middle gasket for profile cable	Quantity: 2 pcs.	55062
	End gasket for Profile cable left/right	Quantity: 2 pieces right + 2 pieces left	55061
	End gasket for profile cable right	Quantity: 100 pcs.	56432
	End gasket for Profile cable left	Quantity: 100 pcs.	56433
	End gasket for Profile cable left/right	Quantity: 5 pcs. right + 5 pcs. left	55746
	Bulk cable Profile cable yellow, 2 × 1.5 mm² PUR (UL/CSA), C-tracks	1 m	55743
	Bulk cable Profile cable yellow, 2 × 1.5 mm² PUR (UL/CSA), C-tracks Profile cable yellow, 2 × 2.5 mm² PUR (UL/CSA), C-tracks	Cable ring: 100 m Other versions on request.	7000-C9901-1660000
	Bulk cable Profile cable black, 2 × 1.5 mm² PUR (UL/CSA), C-tracks	1 m	55744
	Bulk cable Profile cable black, 2 × 1.5 mm² PUR (UL/CSA), C-tracks Profile cable black, 2 × 2.5 mm² PUR (UL/CSA), C-tracks	Cable ring: 100 m Other versions on request.	7000-C9901-7840000
		Cable ring: 100 m Other versions on request.	7000-C9901-7790000

MA SI INSTALLATION TECHNOLOGY

Round cable MASI68			Art-No.
	T-coupler M12 – M12		
	Female straight - male/male straight A-coded, 4-pole	MA SI68 additional actuator power supply	7060-42701-0000000
	Female straight - male/male straight Distribution function (NO) MA SI68 additional actuator power supply MVK Metall Safety	4-pole	7060-42703-0000000
	DIN-rail adapter for extension modules	30 mm	56963
	DIN-rail adapter for extension modules	50 mm	56962
	Cable drum (100 m) 2 × 1.5 mm ² , gray Suitable for C-tracks	AS-Interface, MASI68	7000-C0201-5880000
Round plug connectors MASI68			Art-No.
	Connection cable Male straight - female straight 2 × 1.5 mm ² , gray PUR (UL/CSA) 1.0 m	M12 - M12 2-pole Suitable for C-tracks Other versions on request.	7060-40005-5880100
	Male straight - female straight 4 × 0.75 mm ² , gray PUR (UL/CSA) 1.0 m	M12 - M12 4-pole Suitable for C-tracks Other versions on request.	7060-40021-8620100
	Connection cable Male 90° - female 90° 2 × 1.5 mm ² , gray PUR (UL/CSA) 1.0 m	M12 - M12 2-pole Suitable for C-tracks Other versions on request.	7060-40245-5880100
	Male 90° - female 90° 4 × 0.75 mm ² , gray PUR (UL/CSA) 1.0 m	M12 - M12 4-pole Suitable for C-tracks Other versions on request.	7060-40261-8620100

Round plug connectors MASI68		Art-No.	
	Connection cable		
	Male straight - female straight 2 × 1.0 mm ² , gray PUR (UL/CSA) 1.0 m	M12 - M12 2-pole, shielded Suitable for C-tracks Other versions on request.	7060-40485-5420100
	With open ended wires		
	Female straight 4 × 0.75 mm ² , gray PUR (UL/CSA) 1.0 m	M12 4-pole Suitable for C-tracks Other versions on request.	7060-40505-4940100
Labeling accessories		Art-No.	
	Label plates		
	20 × 8 mm	(20 pieces per plate)	55318
Blind plug/caps		Art-No.	
	Screw plug M12 × 1 mm		
	Plastic, hex with gasket	Quantity: 4 pcs.	55468
	Plastic, hex with gasket	Quantity: 100 pcs.	56455
	Plastic, hex without gasket	Quantity: 4 pcs.	56952
	Plastic, hex without gasket	Quantity: 10 pcs.	58627
	Screw plug M8 × 1 mm (for female)		
	Plastic, hex without gasket	Quantity: 10 pcs.	3858627



M8 DISTRIBUTION SYSTEMS EXACT8

- Saves space
- Versatile
- Application oriented

EXACT8 – THE NEW GENERATION OF MURRELEKTRONIK'S M8 DISTRIBUTION BOXES

- Small dimensions (30 mm width)
- PUR/PVC cable for flexible and fixed assembly
- High-quality, halogen-free PUR cable suitable for C-tracks, UL/CSA approved
- Standard or side mounting for limited space
- Quick and easy replacement of connection cables

For Sensors and Actuators – Molded Homerun Cables or Connection Caps

 Exact8 • 4-, 6-, 8-, 10-way • PUR or PUR/PVC homerun cable Page 4.11.1	 Exact8 basic modules • 4-, 6-, 8-, 10-way Page 4.11.5
 Exact8 connection caps • Pre-wired • PUR or PUR/PVC homerun cable Page 4.11.8	 Exact8 set • 4-, 6-, 8-, 10-way • Field-wireable Page 4.11.11

For Sensors – with M12 Connection

 Exact8 • 4-, 6-, 8-, 10-way • With 8- or 12-pole M12 connection Page 4.11.12

For sensors and actuators

- with molded homerun cable
- Inline face or side mounting

Approvals: c  US
Listed

Exact8

4-way



Exact8

6-way



Exact8

8-way



Exact8

10-way



1	Form	84010	86010	88010	80010
	Type	PNP, 3-pole	PNP, 3-pole	PNP, 3-pole	PNP, 3-pole
	Contact layout	M8-Females 3-pole 4 (N/O) 3 (-)1 (+) bl (-) br (+) wh gn 3 4 1 3 4 1 for 1 signal per port 12			
	Cable Type				
		gray	gray	gray	gray
	PUR/PVC	337 – 4 × 0.34 + 2 × 0.75 mm²	350 – 6 × 0.34 + 2 × 0.75 mm²	357 – 8 × 0.34 + 2 × 0.75 mm²	385 – 10 × 0.34 + 2 × 0.75 mm²
	PUR (UL/CSA), robots/C-tracks	334 – 4 × 0.34 + 2 × 0.75 mm²	356 – 6 × 0.34 + 2 × 0.75 mm²	359 – 8 × 0.34 + 2 × 0.75 mm²	384 – 10 × 0.34 + 2 × 0.75 mm²
3	Cable Length				
	3.0 m	0300			
	5.0 m	0500			
	10.0 m	1000			
	15.0 m	1500			
Technical Data					
	Operating voltage	24 V DC			
	Total current	max. 8 A			
	Protection	IP65/IP67			
	Temperature range	-20...+80 °C, depending on cable quality			
Contact Layout					
	LED display	LED (green): Power / LED (yellow): (S1)			
	PIN 1	(+)			
	PIN 3	(-)			
	PIN 4	(NO)/(S1)			
Article No.					
The composition of your article number is explained on page 3.1.i					
		8000	–	–	–
		1	Form	2	Cable Type
		3	Cable Length		

Notes

M8 DISTRIBUTION SYSTEMS

For sensors and actuators

– with molded homerun cable

– Inline face or side mounting

Approvals:  US
Listed

Exact8

4-way



Exact8

6-way



Exact8

8-way



Exact8

10-way



1 Form

84011

86011

88011

80011

Type

NPN, 3-pole

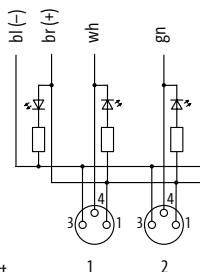
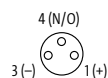
NPN, 3-pole

NPN, 3-pole

NPN, 3-pole

Contact layout

M8-Females 3-pole



for 1 signal per port

2 Cable Type

Jacket Color – No./diameter of wires

	gray	gray	gray	gray
PUR/PVC	337 – 4 × 0.34 + 2 × 0.75 mm ²	350 – 6 × 0.34 + 2 × 0.75 mm ²	357 – 8 × 0.34 + 2 × 0.75 mm ²	385 – 10 × 0.34 + 2 × 0.75 mm ²
PUR (UL/CSA), robots/C-tracks	334 – 4 × 0.34 + 2 × 0.75 mm ²	356 – 6 × 0.34 + 2 × 0.75 mm ²	359 – 8 × 0.34 + 2 × 0.75 mm ²	384 – 10 × 0.34 + 2 × 0.75 mm ²

3 Cable Length

5.0 m	0500
10.0 m	1000

Technical Data

Operating voltage	24 V DC
Total current	max. 8 A
Protection	IP65/IP67
Temperature range	-20...+80 °C, depending on cable quality

Contact Layout

LED display	LED (green): Power / LED (yellow): (S1)
PIN 1	(+)
PIN 3	(-)
PIN 4	(NO)/(S1)

Article No.

The composition of your article number is explained on page 3.1.i

8 0 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

M8 DISTRIBUTION SYSTEMS

For sensors and actuators

– with molded homerun cable

– Inline face or side mounting

Approvals:  Listed

Exact8

4-way



Exact8

6-way



Exact8

8-way



Exact8

10-way



1	Form	84110	86110	88110	80110
	Type	PNP, 4-pole	PNP, 4-pole	PNP, 4-pole	PNP, 4-pole
	Contact layout	M8-Females 4-pole 4 (S1) 3 (-) 2 (S2) 1 (+) bl (-) br (+) wh gr/pk gn rd/bl for 2 signals per port 12 12			
2	Cable Type	Jacket Color – No./diameter of wires			
		gray	gray	gray	gray
	PUR/PVC	358 – 8 × 0.34 + 2 × 0.75 mm ²	386 – 12 × 0.34 + 2 × 0.75 mm ²	395 – 16 × 0.34 + 2 × 0.75 mm ²	412 – 20 × 0.34 + 2 × 0.75 mm ²
	PUR (UL/CSA), robots/C-tracks	360 – 8 × 0.34 + 2 × 0.75 mm ²	389 – 12 × 0.34 + 2 × 0.75 mm ²	396 – 16 × 0.34 + 2 × 0.75 mm ²	411 – 20 × 0.34 + 2 × 0.75 mm ²
3	Cable Length				
	3.0 m	0300			
	5.0 m	0500			
	10.0 m	1000			
	15.0 m	1500			
	Technical Data				
	Operating voltage	24 V DC			
	Total current	max. 8 A			
	Protection	IP65/IP67			
	Temperature range	-20...+80 °C, depending on cable quality			
	Contact Layout				
	LED display	LED (green): Power / LED (yellow): (S1) / LED (white): Signal (S2)			
	PIN 1	(+)			
	PIN 2	(NC)/(S2)			
	PIN 3	(-)			
	PIN 4	(NO)/(S1)			
	Article No.				
	The composition of your article number is explained on page 3.1.i	8000 - -			
		1	Form	2	Cable Type
		3	Cable Length		
	Notes				

M8 DISTRIBUTION SYSTEMS

For sensors and actuators

– with molded homerun cable

– Inline face or side mounting

Approvals:  US
Listed

Exact8

4-way



Exact8

6-way



Exact8

8-way



Exact8

10-way



1 Form

84111

86111

88111

80111

Type

NPN, 4-pole

NPN, 4-pole

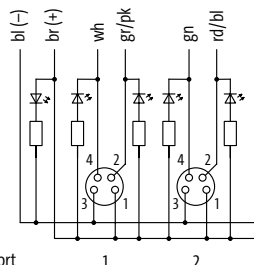
NPN, 4-pole

NPN, 4-pole

Contact layout

M8-Females 4-pole

4 (S1) 2 (S2)
3 (-) 1 (+)



for 2 signals per port

2 Cable Type

Jacket Color – No./diameter of wires

gray

gray

gray

gray

PUR/PVC

358 – 8 × 0.34 + 2 × 0.75 mm²

386 – 12 × 0.34 + 2 × 0.75 mm²

395 – 16 × 0.34 + 2 × 0.75 mm²

412 – 20 × 0.34 + 2 × 0.75 mm²

PUR (UL/CSA), robots/C-tracks

360 – 8 × 0.34 + 2 × 0.75 mm²

389 – 12 × 0.34 + 2 × 0.75 mm²

396 – 16 × 0.34 + 2 × 0.75 mm²

411 – 20 × 0.34 + 2 × 0.75 mm²

3 Cable Length

5.0 m

0500

10.0 m

1000

Technical Data

Operating voltage

24 V DC

Total current

max. 8 A

Protection

IP65/IP67

Temperature range

-20...+80 °C, depending on cable quality

Contact Layout

LED display

LED (green): Power / LED (yellow): (S1) / LED (white): Signal (S2)

PIN 1

(+)

PIN 2

(NC)/(S2)

PIN 3

(-)

PIN 4

(NO)/(S1)

Article No.

The composition of your article number is explained on page 3.1.i

8 0 0 0

-

-

1 Form

2 Cable Type

3 Cable Length

Notes

M8 DISTRIBUTION SYSTEMS

For sensors and actuators

– Base modules

– Inline face or side mounting

Approvals: Listed

Exact8

4-way



Exact8

6-way



Exact8

8-way



Exact8

10-way



1 Form

84000

86000

88000

80000

Type

PNP, 3-pole

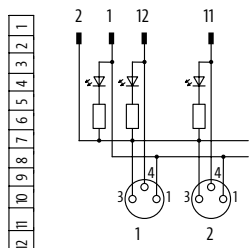
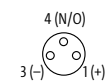
PNP, 3-pole

PNP, 3-pole

PNP, 3-pole

Contact layout

M8-Females 3-pole



for 1 signal per port

Technical Data

Operating voltage	24 V DC
Operating current per contact	max. 2 A
Total current	max. 8 A
Protection	IP65/IP67
Temperature range	-20...+70 °C, depending on cable quality

Contact Layout

LED display	LED (green): Power / LED (yellow): (S1)
PIN 1	(+)
PIN 3	(-)
PIN 4	(NO)/(S1)

Article No.

The composition of your article number is explained on page 3.1.i

8 0 0 0

1 Form

0 0 0

0 0 0 0

Notes

M8 DISTRIBUTION SYSTEMS

For sensors and actuators

– Base modules

– Inline face or side mounting

Approvals:  US
Listed

Exact8

4-way



Exact8

6-way



Exact8

8-way



Exact8

10-way

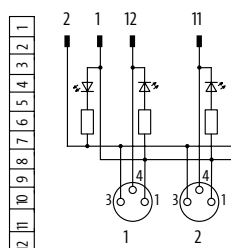
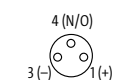


1 Form

Type **84001** **86001** **88001** **80001**

Contact layout **NPN, 3-pole** **NPN, 3-pole** **NPN, 3-pole** **NPN, 3-pole**

M8-Females 3-pole



for 1 signal per port

Technical Data

Operating voltage	24 V DC
Operating current per contact	max. 2 A
Total current	max. 8 A
Protection	IP65/IP67
Temperature range	-20...+70 °C, depending on cable quality

Contact Layout

LED display	LED (green): Power / LED (yellow): (S1)
PIN 1	(+)
PIN 3	(-)
PIN 4	(NO)/(S1)

Article No.

The composition of your article number is explained on page 3.1.i

8 0 0 0

-

-

0 0 0

0 0 0 0

1 Form

Notes

M8 DISTRIBUTION SYSTEMS

For sensors and actuators

– Base modules

– Inline face or side mounting

Approvals:  **UL** US
Listed

Exact8

4-way



Exact8

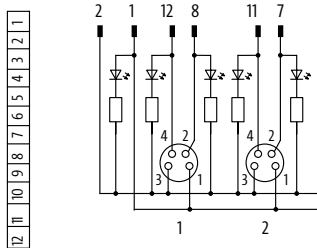
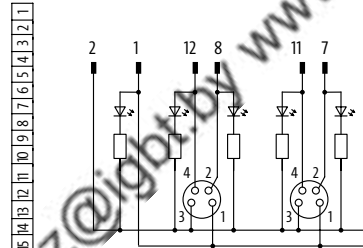
6-way



Exact8

8-way



1	Form	84100	86100	88100
Type	PNP, 4-pole	PNP, 4-pole	PNP, 4-pole	
Contact layout	M8 Females 4-pole 4 (S1) 2 (S2) 3 (-) 1 (+)  for 2 signals per port	M8-Females 4-pole 4 (S1) 2 (S2) 3 (-) 1 (+)  for 2 signals per port		
Technical Data				
Operating voltage	24V DC			
Operating current per contact	max. 2 A			
Total current	max. 8 A			
Protection	IP65/IP67			
Temperature range	-20...+70 °C, depending on cable quality			
Contact Layout				
LED display	LED (green): Power / LED (yellow): (S1) / LED (white): Signal (S2)			
PIN 1	(+)			
PIN 2	(NC)/(S2)			
PIN 3	(-)			
PIN 4	(NO)/(S1)			
Article No.				
The composition of your article number is explained on page 3.1.i	8000 - - 000 0000			
1		Form		

Notes

M8 DISTRIBUTION SYSTEMS

For sensors and actuators

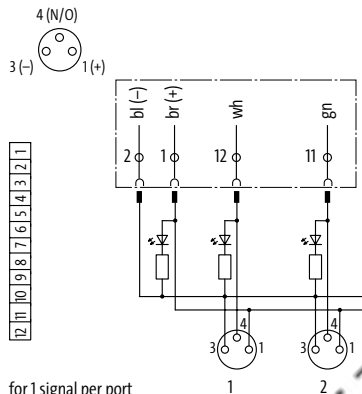
– Connection cap with homerun cable

Approvals:  US
Listed

Exact8

Connection cap short



1	Form	84049	86049	88049	80049
	Type	for 4-way distribution box, 3-pole Spring clamp plug-in terminals	for 6-way distribution box, 3-pole Spring clamp plug-in terminals	for 8-way distribution box, 3-pole Spring clamp plug-in terminals	for 10-way distribution box, 3-pole Spring clamp plug-in terminals
	Contact layout	M8-Females 3-pole  for 1 signal per port			
2	Cable Type	Jacket Color – No./diameter of wires			
		gray	gray	gray	gray
	PUR/PVC	337 – 4 × 0.34 + 2 × 0.75 mm ²	350 – 6 × 0.34 + 2 × 0.75 mm ²	357 – 8 × 0.34 + 2 × 0.75 mm ²	385 – 10 × 0.34 + 2 × 0.75 mm ²
	PUR (UL/CSA), robots/C-tracks	334 – 4 × 0.34 + 2 × 0.75 mm ²	356 – 6 × 0.34 + 2 × 0.75 mm ²	359 – 8 × 0.34 + 2 × 0.75 mm ²	384 – 10 × 0.34 + 2 × 0.75 mm ²
3	Cable Length				
	3.0 m	0300			
	5.0 m	0500			
	10.0 m	1000			
	15.0 m	1500			
	Technical Data				
	Total current	max. 8 A			
	Temperature range	-20...+80 °C, depending on cable quality			
	Article No.				
	The composition of your article number is explained on page 3.1.i	8 0 0 0 – – – – – – – – – –			
		1	Form	2	Cable Type
		3	Cable Length		
	Notes				

M8 DISTRIBUTION SYSTEMS

For sensors and actuators

– Connection cap with homerun cable

Approvals:  **UL** Listed

Exact8

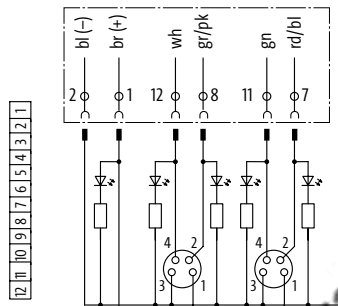
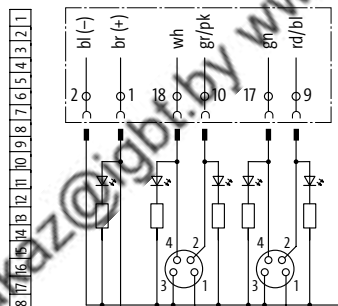
Connection cap short



Exact8

Connection cap long



1 Form		84149	86149	88149
Type		for 4-way distribution box, 4-pole	for 6-way distribution box, 4-pole	for 8-way distribution box, 4-pole
		Spring clamp plug-in terminals	Spring clamp plug-in terminals	Spring clamp plug-in terminals
Contact layout		M8-Females 4-pole 4 (S1) 2 (S2) 3 (-) 1 (+)  for 2 signals per port 1 2	M8-Females 4-pole 4 (S1) 2 (S2) 3 (-) 1 (+)  for 2 signals per port 1 2	
2 Cable Type		Jacket Color – No./diameter of wires		
		gray	gray	gray
PUR/PVC		358 – 8 × 0.34 + 2 × 0.75 mm ²	386 – 12 × 0.34 + 2 × 0.75 mm ²	395 – 16 × 0.34 + 2 × 0.75 mm ²
PUR (UL/CSA), robots/C-tracks		360 – 8 × 0.34 + 2 × 0.75 mm ²	389 – 12 × 0.34 + 2 × 0.75 mm ²	396 – 16 × 0.34 + 2 × 0.75 mm ²
3 Cable Length				
	3.0 m	0300		
	5.0 m	0500		
	10.0 m	1000		
	15.0 m	1500		
Technical Data				
Total current		max. 8 A		
Temperature range		-20...+80 °C, depending on cable quality		
Article No.				
The composition of your article number is explained on page 3.1.i		8 0 0 0 – – – – –		
		1 Form	2 Cable Type	3 Cable Length
Notes				

M8 DISTRIBUTION SYSTEMS

For sensors and actuators

– Connection cap without homerun cable

– Field-wireable

Exact8

Connection cap short



Exact8

Connection cap long



1 Form

84949

80949

Type

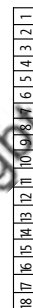
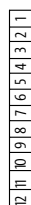
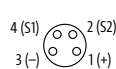
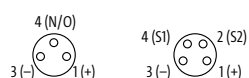
for 4-way distribution box, 3/4-pole, for 4...10-way, 3-pole

6-, and 8-way distribution box, 4-pole

Contact layout

3-pole M8-Females 4-pole

M8-Females 4-pole



Technical Data

Total current	max. 8 A
Housing	Plastic, flame retardant
Temperature range	-20...+80 °C

Article No.

The composition of your article number is explained on page 3.1.i

8 0 0 0

-

-

0 0 0

0 0 0 0

1 Form

Notes

M8 DISTRIBUTION SYSTEMS

For sensors and actuators

– Sets (basic module and cap)

– Inline face or side mounting

Approvals:  **UL** US
Listed

Exact8

4-way



Exact8

6-way



Exact8

8-way



Exact8

10-way



1	Form	84040	86040	88040	80040
	Type	3-pole	3-pole	3-pole	3-pole
	Contact layout	M8-Females 3-pole 4 (N/O) 3 (-) 1 (+) bl (-) br (+) wh gn 2 1 12 11 12 11 10 9 8 7 6 5 4 3 2 1 3 4 1 3 4 1 for 1 signal per port 1 2			
2	Cable Type	Jacket Color – No./diameter of wires			
		gray	gray	gray	gray
	PUR (UL/CSA), robots/C-tracks	334 – 4 × 0.34 + 2 × 0.75 mm²	356 – 6 × 0.34 + 2 × 0.75 mm²	359 – 8 × 0.34 + 2 × 0.75 mm²	384 – 10 × 0.34 + 2 × 0.75 mm²
3	Cable Length				
	3.0 m	0300			
	5.0 m	0500			
	10.0 m	1000			
	15.0 m	1500			
	Technical Data				
	Operating voltage	24 V DC			
	Total current	max. 8 A			
	Protection	IP67 inserted and tightened (EN 60529)			
	Temperature range	-20...+80 °C, depending on cable quality			
	Contact Layout				
	LED display	LED (green): Power / LED (yellow): (S1)			
	PIN 1	(+)			
	PIN 3	(-)			
	PIN 4	(NO)/(S1)			
	Article No.				
	The composition of your article number is explained on page 3.1.i	8 0 0 0 - -			
		1	Form	2	Cable Type
		3	Cable Length		

Notes

M8 DISTRIBUTION SYSTEMS

- For sensors
- M12 plug connection
 - 8-pole
 - Inline face or side mounting

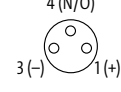
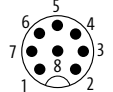
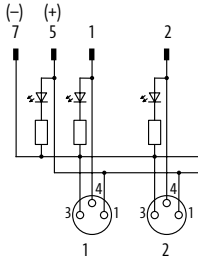
Approvals:  **UL** US
Listed

Exact8
4-way



Exact8
6-way



1	Form	84070	86070
Type	3-pole	3-pole	
Contact layout	M8-Females 3-pole 4 (N/O)  M12-Plug 8-pole   for 1 signal per port		
Technical Data			
Operating voltage	24 V DC		
Operating current per contact	max. 2 A		
Protection	IP65/IP67		
Housing	Plastic, flame retardant		
Temperature range	-20...+70 °C, depending on cable quality		
Contact Layout			
LED display	LED (green): Power / LED (yellow): (S1)		
PIN 1	(+)		
PIN 3	(-)		
PIN 4	(NO)/(S1)		
Article No.			
The composition of your article number is explained on page 3.1.i			
8 0 0 0 - - 0 0 0 0 0 0 0			
1 Form			
Notes			

M8 DISTRIBUTION SYSTEMS

For sensors

- M12 plug connection
- 12-pole
- Inline face or side mounting

Approvals:

Exact8

4-way



Exact8

6-way



Exact8

8-way



Exact8

10-way



1 Form

84060

86060

88060

80060

Type

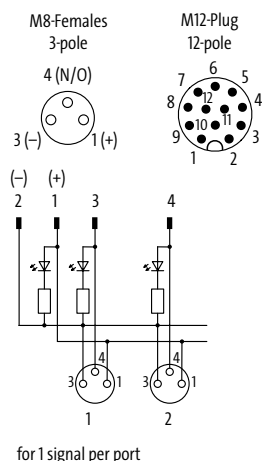
3-pole

3-pole

3-pole

3-pole

Contact layout



Technical Data

Operating voltage	24 V DC
Operating current per contact	max. 1.5 A
Protection	IP67 inserted and tightened (EN 60529)
Housing	Plastic, flame retardant
Temperature range	-20...+70 °C, depending on cable quality

Contact Layout

LED display	LED (green): Power / LED (yellow): (S1)
PIN 1	(+)
PIN 3	(-)
PIN 4	(NO)/(S1)

Article No.

The composition of your article number is explained on page 3.1.i

8 0 0 0

1 Form

0 0 0

0 0 0 0

Notes

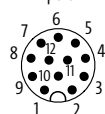
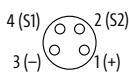
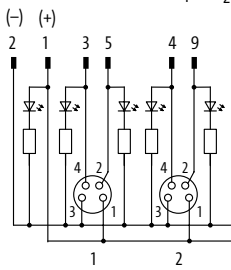
M8 DISTRIBUTION SYSTEMS

- For sensors
- M12 plug connection
 - 12-pole
 - Inline face or side mounting

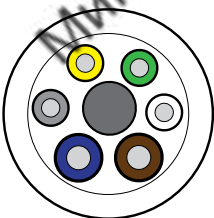
Approvals:  US
Listed

Exact8
4-way

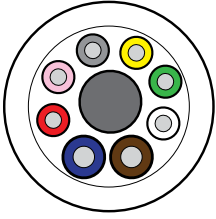
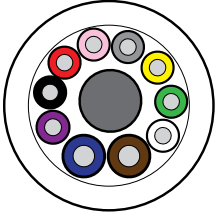
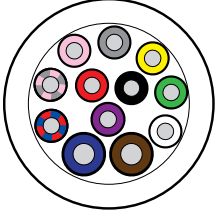
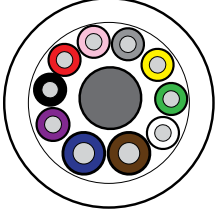
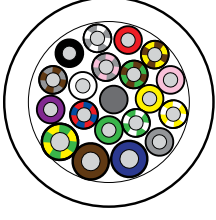
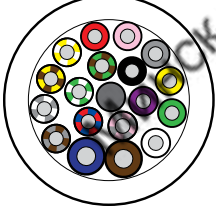
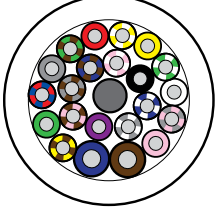


1	Form	84160					
Type	4-pole						
Contact layout	M8-Females 4-pole M12-Plug 12-pole   for 2 signals per port						
Technical Data							
Operating voltage		24 V DC					
Operating current per contact		max. 1.5 A					
Protection		IP67 inserted and tightened (EN 60529)					
Housing		Plastic, flame retardant					
Temperature range		-20...+70 °C, depending on cable quality					
Contact Layout							
LED display		LED (green): Power / LED (yellow): (S1) / LED (white): Signal (S2)					
PIN 1		(+)					
PIN 2		(NC)/(S2)					
PIN 3		(-)					
PIN 4		(NO)/(S1)					
Article No.							
The composition of your article number is explained on page 3.1.i		8 0 0 0	-	8 4 1 6 0	-	0 0 0	0 0 0 0
		1 Form					
Notes							

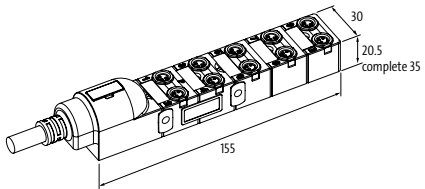
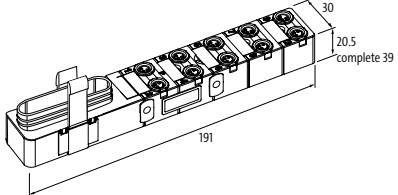
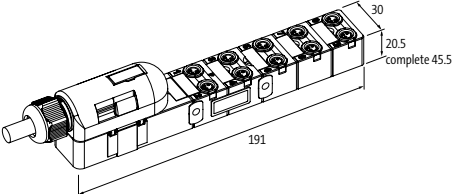
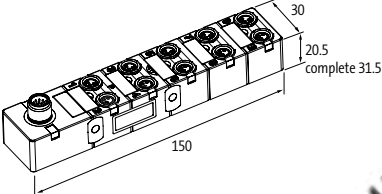
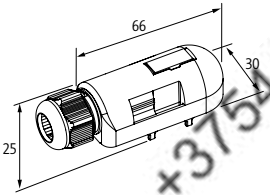
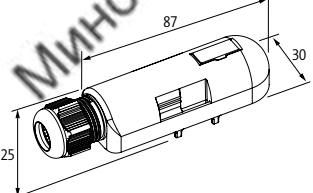
M8 DISTRIBUTION SYSTEMS

Plug accessories			Art-No.
	Torque wrench set M8 (0.4 Nm, SW9)	M8 data connectors	7000-99101-0000000
	Screw plug M8 x 1 mm (for female) Plastic, hex without gasket	Quantity: 10 pcs.	3858627
	Adapter M8/M12 3-pole 4-pole	M8 Distribution Systems M8 Distribution Systems	7000-88521-0000000 7000-88531-0000000
	Label plates KES 20 x 8 (white)	(10 pieces/2 plates)	996067
	T-coupler (Nano) Distribution function (NO)	M8 distribution systems, 4-pole	7000-88602-0000000
	Screw plug M12 x 1 mm (for male) Plastic	Quantity: 4 pcs.	56951
Homerun cable accessories			Art-No.
	Connection cap short Spring clamp terminals, 12-pole	4-way distribution box, 3/4-pole, 4...10-way, 3-pole Cable diameter (7.4...13 mm)	8000-84949-0000000
	Connection cap long Spring clamp terminals, 18-pole	6-, and 8-way distribution box, 4-pole Cable diameter (7.4...13 mm)	8000-80949-0000000
	Cable rings (50 m), 3-pole, PUR/PVC 4x0.34 + 2x0.75 mm ² 4x0.34 + 2x0.75 mm ²	4-way distribution boxes M8 4-way distribution boxes M8	8000-00000-3375000 8000-00000-3345000

M8 DISTRIBUTION SYSTEMS

Homerun cable accessories			Art-No.
	Cable rings (50 m), 3-pole, PUR/PVC 6×0.34 + 2×0.75 mm ²	6-way distribution boxes M8	8000-00000-3505000
	6×0.34 + 2×0.75 mm ²	6-way distribution boxes M8	8000-00000-3565000
	Cable rings (50 m), 3-pole, PUR/PVC 8×0.34 + 2×0.75 mm ²	8-way distribution boxes M8	8000-00000-3575000
	8×0.34 + 2×0.75 mm ²	8-way distribution boxes M8	8000-00000-3595000
	Cable rings (50 m), 3-pole, PUR/PVC 10×0.34 + 2×0.75 mm ²	10-way distribution boxes M8	8000-00000-3855000
	10×0.34 + 2×0.75 mm ²	10-way distribution boxes M8	8000-00000-3845000
	Cable rings (50 m), 4-pole, PUR/PVC 8×0.34 + 2×0.75 mm ²	4-way distribution boxes M8	8000-00000-3585000
	8×0.34 + 2×0.75 mm ²	4-way distribution boxes M8	8000-00000-3605000
	Cable rings (50 m), 4-pole, PUR/PVC 12×0.34 + 2×0.75 mm ²	6-way distribution boxes M8	8000-00000-3865000
	12×0.34 + 2×0.75 mm ²	6-way distribution boxes M8	8000-00000-3895000
	Cable rings (50 m), 4-pole, PUR/PVC 16×0.34 + 2×0.75 mm ²	8-way distribution boxes M8	8000-00000-3955000
	16×0.34 + 2×0.75 mm ²	8-way distribution boxes M8	8000-00000-3965000
	Cable rings (50 m), 4-pole, PUR (UL/CSA), halogen free 20×0.34 + 2×0.75 mm ²	10-way distribution boxes M8	8000-00000-4115000
	20×0.34 + 2×0.75 mm ²	10-way distribution boxes M8	8000-00000-4125000

M8 Distribution Systems Technical Data

	Description Exact8 Molded homerun cable	4-way 96 mm	6-way 109 mm	8-way 132 mm	10-way 155 mm
	Description Exact8 Basic module 3-pole Basic module 4-pole	4-way 132 mm 132 mm	6-way 145 mm 166 mm	8-way 168 mm 189 mm	10-way 191 mm –
	Description Exact8 Sets 3-pole Sets 4-pole	4-way 132 mm 132 mm	6-way 145 mm 166 mm	8-way 168 mm 189 mm	10-way 191 mm –
	Description Exact8 M12 plug connection	4-way 91.5 mm	6-way 104 mm	8-way 127 mm	10-way 150 mm
	Description Exact8 Short connection cap				
	Description Exact8 Long connection cap				



M12 DISTRIBUTION SYSTEMS METAL

- Rugged
- Resistant to media
- Sealed

POTTED FORMS FOR HARSH ENVIRONMENTS

- Metal housing withstands mechanical and thermal stress, with molded cable or maintenance-friendly M23 plug connection
- High quality PUR cable: suitable for C-tracks, halogen-free, wider wire cross sections for higher current capacity
- Shielded models for sensitive digital or analog signals for an EMC compatible installation
- Universal configuration - contacts designed 1:1
- Fully potted

With molded homerun cable or M23 plug connection



MVP12 Metal

- 4-, 8-way
- With LED for PNP or NPN signals
- Without LED for analog signals and voltages up to 125 VAC/DC
- With PUR homerun cable or M23 connection

Page 4.12.1



MVP12 Metal UNIVERSAL

- 4-way
- M12 Pin 1, 2, 3, and 4 freely configurable

Page 4.12.8

M12 DISTRIBUTION SYSTEMS (METAL)

For sensors and actuators

– with molded homerun cable

– unshielded

Approvals:

MVP12 Metal

4-way
for PNP signals 24 V DC



MVP12 Metal

8-way
for PNP signals 24 V DC



1 Form		54510	58510
Type		PNP, 5-pole	PNP, 5-pole
Contact layout			
2 Cable Type		Jacket Color – No./diameter of wires	
PUR (UL/CSA), robots/C-tracks		gray	gray
		448 – 8 × 0.5 + 3 × 1.0 mm ²	452 – 16 × 0.5 + 3 × 1.0 mm ²
3 Cable Length			
3.0 m		0300	
5.0 m		0500	
10.0 m		1000	
15.0 m		1500	
Technical Data			
Operating voltage		24 V DC	
Total current		max. 7.5 A	
Protection		IP65, IP67, IP68	
Temperature range		-20...+90 °C, depending on cable quality	
Contact Layout			
LED display		LED (green): Power / LED (yellow): (S1/S2)	
PIN 1		(+)	
PIN 2		(NC)/(S2)	
PIN 3		(-)	
PIN 4		(NO)/(S1)	
PIN 5		(Earth)	
Article No.			
The composition of your article number is explained on page 3.1.i		8 0 0 0	
		1 Form	2 Cable Type
			3 Cable Length
Notes			

M12 DISTRIBUTION SYSTEMS (METAL)

For sensors and actuators

– with molded homerun cable

– unshielded

Approvals:  US Listed

MVP12 Metal

8-way
with potential separation



MVP12 Metal

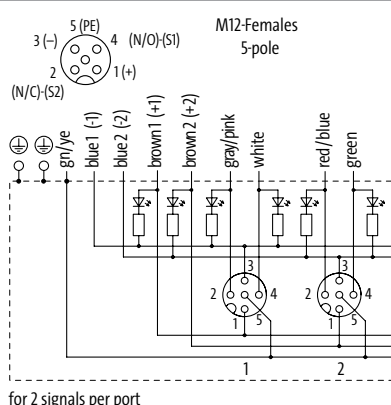
4-way
without LED



1 Form

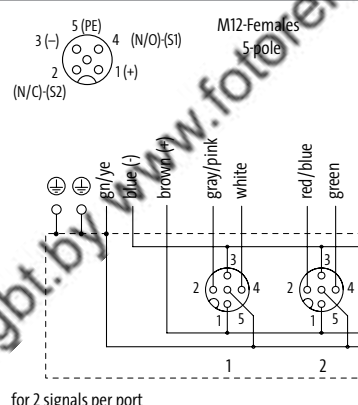
58 610

PNP, 5-pole



54 512

without LED, 5-pole (for analog signals)



2 Cable Type

Jacket Color – No./diameter of wires

gray

403 – 16 × 0.34 + 5 × 0.75 mm²

gray

448 – 8 × 0.5 + 3 × 1.0 mm²

3 Cable Length

3.0 m	0300
5.0 m	0500
10.0 m	1000
15.0 m	1500

Technical Data

Operating voltage	24 V DC
Total current	max. 7.5 A
Protection	IP65, IP67, IP68
Temperature range	-20...+90 °C, depending on cable quality

max. 125 V AC/DC

Contact Layout

LED display	LED (green): Power / LED (yellow): (S1/S2)
PIN 1	(+)
PIN 2	(NC)/(S2)
PIN 3	(-)
PIN 4	(NO)/(S1)
PIN 5	(Earth)

–

Article No.

The composition of your article number is explained on page 3.1.i

8 0 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

M12 DISTRIBUTION SYSTEMS (METAL)

For sensors and actuators

– with molded homerun cable

– unshielded

Approvals:

MVP12 Metal

8-way
without LED



MVP12 Metal

8-way
for NPN signals 24 V DC



1 Form		58512	58511
Type		without LED, 5-pole (for analog signals)	NPN, 5-pole
Contact layout		for 2 signals per port	for 2 signals per port
2 Cable Type		Jacket Color – No./diameter of wires	
PUR (UL/CSA), robots/C-tracks		gray 452 – 16 × 0.5 + 3 × 1.0 mm ²	gray 452 – 16 × 0.5 + 3 × 1.0 mm ²
3 Cable Length			
3.0 m		0300	
5.0 m		0500	
10.0 m		1000	
15.0 m		1500	
Technical Data			
Operating voltage		max. 125 V AC/DC	24 V DC
Total current		max. 7.5 A	
Protection		IP65, IP67, IP68	
Temperature range		-20...+90 °C, depending on cable quality	
Contact Layout			
LED display		–	LED (green): Power / LED (yellow): (S1/S2)
PIN 1		(+)	
PIN 2		(NC)/(S2)	
PIN 3		(-)	
PIN 4		(NO)/(S1)	
PIN 5		(Earth)	
Article No.			
The composition of your article number is explained on page 3.1.i		8 0 0 0 – – – – –	– – – – –
		1 Form	2 Cable Type 3 Cable Length
Notes			

M12 DISTRIBUTION SYSTEMS (METAL)

For sensors and actuators

- with molded homerun cable
- shielded

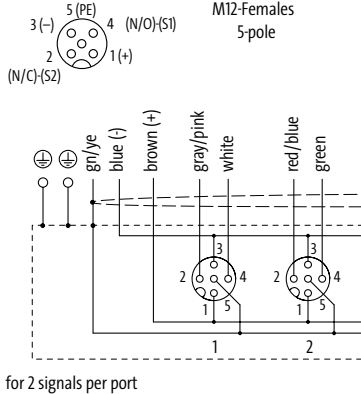
Approvals:  US Listed

MVP12 Metal
4-way



MVP12 Metal
8-way



1	Form	54515		58515	
	Type	without LED, 5-pole (for analog signals)		without LED, 5-pole (for analog signals)	
	Contact layout	 for 2 signals per port			
2	Cable Type	Jacket Color – No./diameter of wires			
		gray	gray		
	PUR (UL/CSA), robots/C-tracks	373 – 8 × 0.34 + 3 × 0.75 mm ²	401 – 16 × 0.34 + 3 × 0.75 mm ²		
3	Cable Length				
	3.0 m	0300			
	5.0 m	0500			
	10.0 m	1000			
	15.0 m	1500			
	Technical Data				
	Operating voltage	max. 125 V AC/DC			
	Total current	max. 7.5 A			
	Protection	IP65, IP67, IP68			
	Temperature range	-20...+90 °C, depending on cable quality			
	Contact Layout				
	PIN 1	(+)			
	PIN 2	(NC)/(S2)			
	PIN 3	(-)			
	PIN 4	(NO)/(S1)			
	PIN 5	(Earth)			
	Shield	via M12 thread			
	Article No.				
	The composition of your article number is explained on page 3.1.i	8000 - -			
		1	Form	2	Cable Type
		3	Cable Length		
	Notes				

M12 DISTRIBUTION SYSTEMS (METAL)

For sensors and actuators

- with molded homerun cable
- shielded

Approvals:

MVP12 Metal

4-way
for PNP signals 24 V DC



MVP12 Metal

8-way
for PNP signals 24 V DC



1 Form		54513	58513
Type		PNP, 5-pole	PNP, 5-pole
Contact layout		for 2 signals per port	
2 Cable Type		Jacket Color – No./diameter of wires	
		gray	gray
PUR (UL/CSA), robots/C-tracks		373 – 8 × 0.34 + 3 × 0.75 mm ²	401 – 16 × 0.34 + 3 × 0.75 mm ²
3 Cable Length			
3.0 m		0300	
5.0 m		0500	
10.0 m		1000	
15.0 m		1500	
Technical Data			
Operating voltage		24 V DC	
Total current		max. 7.5 A	
Protection		IP65, IP67, IP68	
Temperature range		-20...+90 °C, depending on cable quality	
Contact Layout			
LED display		LED (green): Power / LED (yellow): (S1/S2)	
PIN 1		(+) / (S1)	
PIN 2		(NC)/(S2)	
PIN 3		(-) / (S2)	
PIN 4		(NO)/(S1)	
PIN 5		(Earth)	
Shield		via M12 thread	
Article No.			
The composition of your article number is explained on page 3.1.i		8 0 0 0 – — — — — – — — — — – — — — —	
		1 Form	2 Cable Type
		3 Cable Length	
Notes			

M12 DISTRIBUTION SYSTEMS (METAL)

For sensors and actuators

– M23 plug connection, 19-pole

– for unshielded or shielded use

Approvals:  US Listed

MVP12 Metal

4-way
for PNP signals 24 V DC



MVP12 Metal

8-way
for PNP signals 24 V DC



1 Form

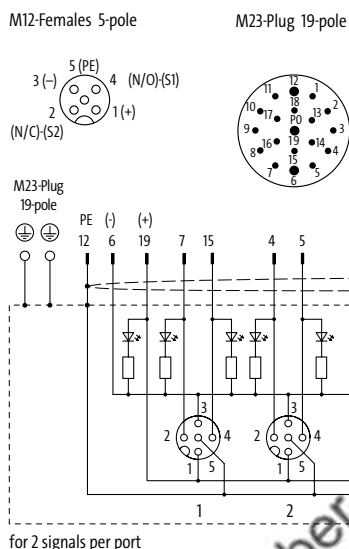
54520

58520

Type
Contact layout

PNP, 5-pole

PNP, 5-pole



Technical Data

Operating voltage	24 V DC
Operating current per contact	max. 4 A
Total current	max. 7.5 A
Protection	IP65, IP67, IP68
Housing	Zinc die casting, matte nickel plated
Temperature range	-25...+90 °C

Contact Layout

LED display	LED (green): Power / LED (yellow): (S1/S2)
PIN 1	(+)
PIN 2	(NC)/(S2)
PIN 3	(-)
PIN 4	(NO)/(S1)
PIN 5	(Earth)
Shield	via M12 outer thread and M23 outer thread

Article No.

The composition of your article number is explained on page 3.1.i

8 0 0 0

-

0 0 0

0 0 0 0

1 Form

Notes

M12 DISTRIBUTION SYSTEMS (METAL)

For sensors and actuators

- M23 plug connection, 19-pole
- for unshielded or shielded use

Approvals: 

MVP12 Metal

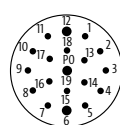
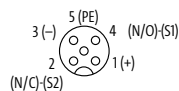
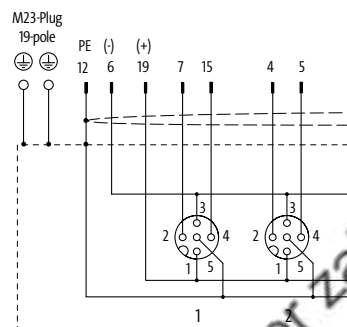
4-way



MVP12 Metal

8-way



1	Form	54522	58522
Type	without LED, 5-pole (for analog signals)		without LED, 5-pole (for analog signals)
Contact layout	M12-Females 5-pole M23-Plug 19-pole   for 2 signals per port		
Technical Data			
Operating voltage	max. 125 V AC/DC		
Operating current per contact	max. 4 A		
Total current	max. 7.5 A		
Protection	IP65, IP67, IP68		
Housing	Zinc die casting, matte nickel plated		
Temperature range	-25...+80 °C		
Contact Layout			
PIN 1	(+)		
PIN 2	(NC)/(S2)		
PIN 3	(-)		
PIN 4	(NO)/(S1)		
PIN 5	(Earth)		
Shield	via M12 outer thread and M23 outer thread		
Article No.			
The composition of your article number is explained on page 3.1.i	8000 - - 000 0000		
	1 Form		
Notes			

M12 DISTRIBUTION SYSTEMS (METAL)

For harsh environments

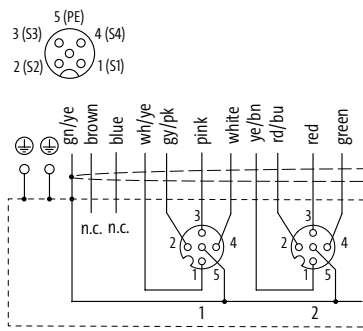
– for unshielded or shielded use

MVP12 Metal UNIVERSAL

with molded homerun cable

4-way



1	Form	54712					
	Type	without LED, 5-pole (for analog signals)					
	Contact layout	M12-Females 5-pole  for 4 signals per port free arrangeable, PE bridged					
2	Cable Type	Jacket Color – No./diameter of wires					
		gray					
	PUR (UL/CSA), robots/Ctracks	401 – 16 × 0.34 + 3 × 0.75 mm²					
3	Cable Length						
	3.0 m	0300					
	5.0 m	0500					
	10.0 m	1000					
	15.0 m	1500					
	Technical Data						
	Operating voltage	max. 42 V AC/DC					
	Total current	max. 10 A					
	Protection	IP65, IP67, IP68					
	Temperature range	-20...+90 °C, depending on cable quality					
	Contact Layout						
	PIN 1	(S1)					
	PIN 2	(S2)					
	PIN 3	(S3)					
	PIN 4	(S4)					
	PIN 5	(Earth)					
	Shield	via M12 thread					
	Article No.						
	The composition of your article number is explained on page 3.1.i	8000 - 54712 -					
		1	Form	2	Cable Type	3	Cable Length
	Notes						

M12 DISTRIBUTION SYSTEMS (METAL)

For harsh environments
– for unshielded or shielded use

Approvals:  UL Listed

MVP12 Metal UNIVERSAL
M23 plug connection, 19-pole
4-way

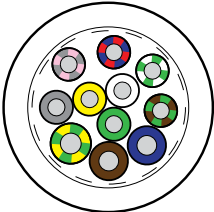


1 Form		54722	
Type		without LED, 5-pole (for analog signals)	
Contact layout		M12-Females 5-pole 5 (PE) 3 (S3) 2 (S2) 4 (S4) 1 (S1) M23-Plug 19-pole 12 6 19 7 17 15 13 2 5 n.c. n.c. 3 2 4 1 5 3 2 4 1 5 for 4 signals per port	
Technical Data			
Operating voltage		max. 125 V AC/DC	
Operating current per contact		max. 4 A	
Total current		max. 7.5 A	
Protection		IP65, IP67, IP68	
Housing		Zinc die casting, matte nickel plated	
Locking of ports		Screw thread M12 × 1 mm	
Temperature range		-25...+90 °C	
Contact Layout			
PIN 1		(S1)	
PIN 2		(S2)	
PIN 3		(S3)	
PIN 4		(S4)	
PIN 5		(S5)/(Earth)	
Article No.			
The composition of your article number is explained on page 3.1.i		8000 – 54722 – 000 0000	
		1 Form	
Notes			

M12 DISTRIBUTION SYSTEMS (METAL)

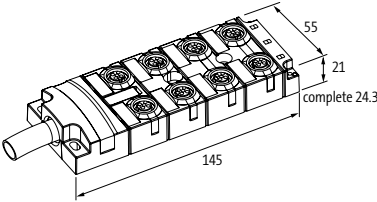
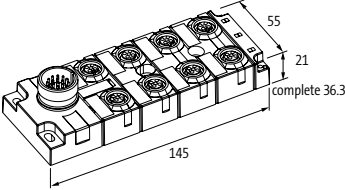
Mounting accessories			Art-No.
	Torque wrench set M12 (0.6 Nm, SW13)	M12 data connenctor molded (standard)	7000-99102-0000000
	Torque wrench M12 (0.6 Nm, SW13)	M12 data connenctor molded (standard)	7000-99109-0000000
	Torque wrench M12 (0.6 Nm, SW14)	M12 data connenctor moulded (Xtreme)	7000-99108-0000000
	Torque wrench M12 (0.6 Nm, SW17)	M12 field-wireable (IDC terminal)	7000-99094-0000000
	Torque wrench M12 (0.6 Nm, SW18)	M12 field-wireable via (screw terminals)	7000-99103-0000000
	DIN-rail adapter with fixing screws, plastic		27905
	Earth connection set		996064
	V2A-base plate	MVP12 Metal, 4-way	996065
		MVP12 Metal, 8-way	996066
	Ground strap 4 mm² 100 mm for hole (M3)		4000-71001-0410003
	End fitting set M3	Ground straps	4000-71003-0101403
Plug accessories			Art-No.
	Torque wrench set M12 (0.6 Nm, SW13)	M12 data connenctor molded (standard)	7000-99102-0000000
	Screw plug M12 × 1 mm Metal, hex, 1 piece		996049

M12 DISTRIBUTION SYSTEMS (METAL)

Plug accessories			Art-No.
	Label plates		
	KES 20 × 8 (white)	(10 pieces/2 plates)	996067
	Adapter M8/M12		
	3-pole	M12 Distribution Systems	7000-42201-0000000
	4-pole	M12 Distribution Systems	7000-42211-0000000
Homerun cable accessories			Art-No.
	Screw plug M23		
	Metal		55352
	Cable rings (50 m), 5-pole, PUR (UL/CSA), halogen free		
	8×0.5 + 3×1.0 mm ²	4-way distribution boxes M12	8000-00000-4485000
	16×0.5 + 3×1.0 mm ²	8-way distribution boxes M12	8000-00000-4525000
	16×0.34 + 5×0.75 mm ²	8-way distribution boxes M12, potentially separated	8000-00000-4035000
	Cable rings (50 m), 5-pole, PUR (UL/CSA), halogen free		
	8×0.34 + 3×0.75 mm ²	4-way distribution boxes M12, shielded	8000-00000-3735000
	16×0.34 + 3×0.75 mm ²	8-way distribution boxes M12, shielded	8000-00000-4015000

M12 DISTRIBUTION SYSTEMS (METAL)

M12 Distribution Systems Technical Data

	Description	4-way	8-way
	MVP Metal and MVP Metal UNIVERSAL Molded homerun cable	95 mm	145 mm
	Description	4-way	8-way
	MVP Metal and MVP Metal UNIVERSAL M23 plug connection	95 mm	145 mm

M12 DISTRIBUTION SYSTEMS PLASTIC

- Fully potted, sealed
- Highly resistant
- Application oriented

PLUGGABLE CONNECTIONS FROM THE PROCESS TO THE CONTROL

- Quick installation with pre-wired and tested cables
- Easy to separate during transportation and simple when redesigning your system, rapid replacement of damaged cables
- Double assignment of M12 ports saves space
- Safety models for inputs and outputs according to EN ISO 13849-2
- Universal configuration – contacts designed 1:1

Pluggable or pre-wired homerun cable

 Exact12 • 4-, 8-way • With LED for PNP or NPN signals • Without LED for voltages up to 125 V AC/DC • Analog signals • ATEX Page 4.13.1	 Exact12 • 4-, 8-way • With pluggable 8- or 12-pole M12 connection • With pluggable 12- or 19-pole M23 connection Page 4.13.27
 Exact12 basic modules • 4-, 8-way • With LED for PNP or NPN signals • Without LED for voltages up to 125 V AC/DC • Analog signals Page 4.13.8	 Exact12/MVP12 connection caps • Field-wireable with screw or spring clamp terminals • With pre-wired homerun cable and screw plug terminals Page 4.13.14
 Exact12 set • 4-, 8-way • With pluggable cap and screw plug terminals or spring clamp terminals Page 4.13.17	 Exact12 with connection on the back • 8-way • With pluggable connection on the back • Potential separation optional Page 4.13.25
 Exact12 UNIVERSAL • 4-way • M12 pin 1, 2, 3, and 4 freely configurable Page 4.13.30	 Exact12 – safety distribution system • 8-way • Potential separation optional Page 4.13.31

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– with molded homerun cable

Exact12

4-way
for PNP signals 24 V DC



Exact12

8-way
for PNP signals 24 V DC



Approvals: US Listed

1 Form		84410	88410
Type		PNP, 4-pole	PNP, 4-pole
Contact layout		M12-Females 4-pole 3 (-) 4 (N/O)-(S1) 5 (PE) 1 (+) for 1 signal per port	M12-Females 4-pole 3 (-) 4 (N/O)-(S1) 5 (PE) 1 (+) for 1 signal per port
2 Cable Type		Jacket Color – No./diameter of wires	
		gray	gray
PUR/PVC		333 – 4 × 0.34 + 3 × 0.75 mm ²	
PUR/PVC (UL/CSA), C-tracks			362 – 8 × 0.34 + 3 × 0.75 mm ²
PUR (UL/CSA), robots/C-tracks			447 – 8 × 0.5 + 3 × 1.0 mm ²
3 Cable Length			
3.0 m		0300	
5.0 m		0500	
10.0 m		1000	
15.0 m		1500	
Technical Data			
Operating voltage		24 V DC	
Total current		max. 8 A	
Protection		IP65/IP67	
Temperature range		-20...+70 °C, depending on cable quality	
Contact Layout			
LED display		LED (green): Power / LED (yellow): (S1)	
PIN 1		(+)	
PIN 3		(-)	
PIN 4		(NO)/(S1)	
PIN 5		(Earth)	
Article No.			
The composition of your article number is explained on page 3.1.i		8000 – –	
		1 Form	2 Cable Type
		3 Cable Length	
Notes		Further cable lengths on request.	

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– with molded homerun cable

Approvals:  **UL** **US**
Listed

Exact12

4-way
for NPN signals 24 V DC



Exact12

8-way
for NPN signals 24 V DC



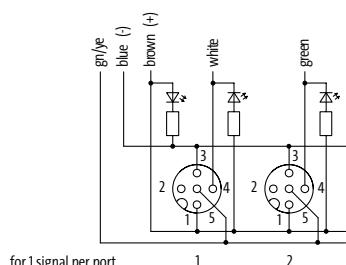
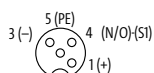
1 Form

Type
Contact layout

84411

NPN, 4-pole

M12-Females 4-pole

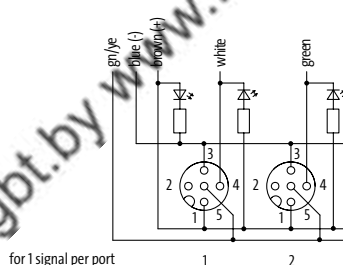
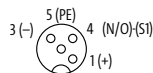


for 1 signal per port

88411

NPN, 4-pole

M12-Females 4-pole



for 1 signal per port

2 Cable Type

Jacket Color – No./diameter of wires

gray

333 – 4 × 0.34 + 3 × 0.75 mm²

PUR/PVC

PUR/PVC (UL/CSA), C-tracks

PUR (UL/CSA), robots/C-tracks

gray

362 – 8 × 0.34 + 3 × 0.75 mm²

447 – 8 × 0.5 + 3 × 1.0 mm²

3 Cable Length

5.0 m

0500

10.0 m

1000

Technical Data

Operating voltage

24 V DC

Total current

max. 8 A

max. 10 A

Protection

IP65/IP67

Temperature range

-20...+70 °C, depending on cable quality

Contact Layout

LED display

LED (green): Power / LED (yellow): (S1)

PIN 1

(+)

PIN 3

(-)

PIN 4

(NO)/(S1)

PIN 5

(Earth)

Article No.

The composition of your article number is explained on page 3.1.i

8 0 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Further cable lengths on request.

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– with molded homerun cable

Approvals:

Exact12

4-way
without LED



Exact12

8-way
without LED



1 Form		84412	88412
Type		without LED, 4-pole	without LED, 4-pole
Contact layout		M12-Females 4-pole for 1 signal per port	M12-Females 4-pole for 1 signal per port
2 Cable Type		Jacket Color – No./diameter of wires	
		gray	gray
PUR/PVC		333 – 4 × 0.34 + 3 × 0.75 mm ²	
PUR/PVC (UL/CSA), C-tracks			362 – 8 × 0.34 + 3 × 0.75 mm ²
PUR (UL/CSA), robots/C-tracks			447 – 8 × 0.5 + 3 × 1.0 mm ²
3 Cable Length			
5.0 m		0500	
10.0 m		1000	
Technical Data			
Operating voltage		125 V AC/DC	
Total current		max. 8 A	
Protection		IP65/IP67	
Temperature range		-20...+70 °C, depending on cable quality	
Contact Layout			
PIN 1		(+)	
PIN 3		(-)	
PIN 4		(NO)/(S1)	
PIN 5		(Earth)	
Article No.			
The composition of your article number is explained on page 3.1.i		8 0 0 0	
		1 Form	2 Cable Type
		3 Cable Length	
Notes		Further cable lengths on request.	

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– with molded homerun cable

Approvals:  US
Listed

Exact12

4-way
for PNP signals 24 V DC



Exact12

8-way
for PNP signals 24 V DC



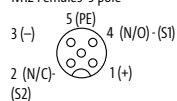
1 Form

84510

PNP, 5-pole

Type
Contact layout

M12-Females 5-pole



for 2 signals per port

2 Cable Type

Jacket Color – No./diameter of wires

gray

PUR/PVC

363 – 8 × 0.34 + 3 × 0.75 mm²

PUR (UL/CSA), robots/Ctracks

448 – 8 × 0.5 + 3 × 1.0 mm²

PUR/PVC (UL/CSA), Ctracks

452 – 16 × 0.5 + 3 × 1.0 mm²

398 – 16 × 0.34 + 3 × 0.75 mm²

3 Cable Length

3.0 m

0300

5.0 m

0500

10.0 m

1000

15.0 m

1500

Technical Data

Operating voltage

24 V DC

Total current

max. 8 A

Protection

IP65/IP67

Temperature range

-20...+70 °C, depending on cable quality

Contact Layout

LED display

LED (green): Power / LED (yellow): (S1) / LED (white): Signal (S2)

PIN 1

(+)

PIN 2

(NC)/(S2)

PIN 3

(-)

PIN 4

(NO)/(S1)

PIN 5

(Earth)

Article No.

The composition of your article number is explained on page 3.1.i

8 0 0 0

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1 Form

2 Cable Type

3 Cable Length

Notes

Further cable lengths on request.

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– with molded homerun cable

Approvals:

Exact12

4-way
for PNP signals 24 V DC
ATEX Zone 2 and 22



Exact12

8-way
for PNP signals 24 V DC
ATEX Zone 2 and 22



1 Form		84510	88510
Type		PNP, 5-pole	PNP, 5-pole
Contact layout		M12-Females 5-pole for 2 signals per port	M12-Females 5-pole for 2 signals per port
2 Cable Type		Jacket Color – No./diameter of wires	
PUR (UL/CSA), robots/C-tracks		gray 448 – 8 × 0.5 + 3 × 1.0 mm ²	gray 452 – 16 × 0.5 + 3 × 1.0 mm ²
3 Cable Length			
3.0 m		0300	
5.0 m		0500	
10.0 m		1000	
15.0 m		1500	
Technical Data			
Operating voltage		24 V DC	
Total current		max. 8 A	
Protection		IP65/IP67	
Temperature range		-20...+70 °C, depending on cable quality	
Contact Layout			
LED display		LED (green): Power / LED (yellow): (S1) / LED (white): Signal (S2)	
PIN 1		(+) (NC)/(S2)	
PIN 2		(-)	
PIN 3		(NO)/(S1)	
PIN 4		(Earth)	
Article No.			
The composition of your article number is explained on page 3.1.i		8099 1 Form 2 Cable Type 3 Cable Length	
Notes		Further cable lengths on request.	

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– with molded homerun cable

Approvals:  US
Listed

Exact12

4-way
for NPN signals 24 V DC



Exact12

8-way
for NPN signals 24 V DC



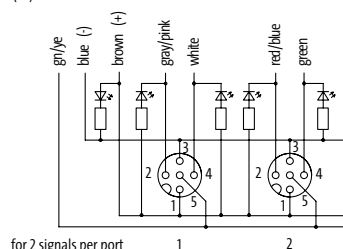
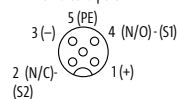
1 Form

84511

NPN, 5-pole

Type
Contact layout

M12-Females 5-pole

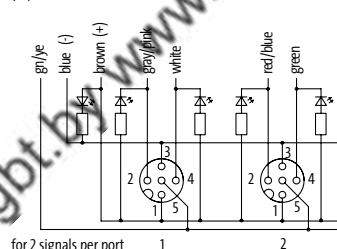
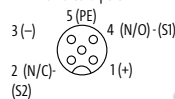


for 2 signals per port

88511

NPN, 5-pole

M12-Females 5-pole



for 2 signals per port

2 Cable Type

Jacket Color – No./diameter of wires

gray

gray

PUR/PVC

363 – 8 × 0.34 + 3 × 0.75 mm²

PUR (UL/CSA), robots/C-tracks

448 – 8 × 0.5 + 3 × 1.0 mm²

452 – 16 × 0.5 + 3 × 1.0 mm²

PUR/PVC (UL/CSA), C-tracks

398 – 16 × 0.34 + 3 × 0.75 mm²

3 Cable Length

5.0 m

0500

10.0 m

1000

Technical Data

Operating voltage

24 V DC

Total current

max. 8 A

Protection

IP65/IP67

Temperature range

-20...+70 °C, depending on cable quality

Contact Layout

LED display

LED (green): Power / LED (yellow): (S1) / LED (white): Signal (S2)

PIN 1

(+)

PIN 2

(NC)/(S2)

PIN 3

(-)

PIN 4

(NO)/(S1)

PIN 5

(Earth)

Article No.

The composition of your article number is explained on page 3.1.i

8 0 0 0

1 Form

2 Cable Type

3 Cable Length

Notes

Further cable lengths on request.

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– with molded homerun cable

Approvals: US Listed

Exact12

4-way
without LED



Exact12

8-way
without LED

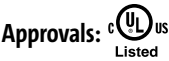


1 Form		84512	88512
Type		without LED, 5-pole	without LED, 5-pole
Contact layout		M12-Females 5-pole for 2 signals per port	M12-Females 5-pole for 2 signals per port
2 Cable Type		Jacket Color – No./diameter of wires	
		gray	gray
PUR/PVC		363 – 8 × 0.34 + 3 × 0.75 mm ²	
PUR (UL/CSA), robots/C-tracks		448 – 8 × 0.5 + 3 × 1.0 mm ²	452 – 16 × 0.5 + 3 × 1.0 mm ²
PUR/PVC (UL/CSA), C-tracks			398 – 16 × 0.34 + 3 × 0.75 mm ²
3 Cable Length			
5.0 m		0500	
10.0 m		1000	
Technical Data			
Operating voltage		125 V AC/DC	
Total current		max. 8 A	
Protection		IP65/IP67	
Temperature range		-20...+70 °C, depending on cable quality	
Contact Layout			
PIN 1		(+)	
PIN 2		(NC)/(S2)	
PIN 3		(-)	
PIN 4		(NO)/(S1)	
PIN 5		(Earth)	
Article No.			
The composition of your article number is explained on page 3.1.i		8 0 0 0 – – – – –	– – – – –
		1 Form	2 Cable Type 3 Cable Length
Notes		Further cable lengths on request.	

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– Base modules



Exact12

4-way
for PNP signals 24 V DC



Exact12

8-way
for PNP signals 24 V DC



1	Form	84400	88400
Type	PNP, 4-pole	PNP, 4-pole	
Contact layout	M12-Females 4-pole 5 (PE) 3 (-) 4 (N/O)-(S1) 1 (+) -1 +1 1 3 PE 4 2 +2 -2 for 1 signal per port 1 2	M12-Females 4-pole 5 (PE) 3 (-) 4 (N/O)-(S1) 1 (+) -1 +1 1 3 PE 4 2 +2 -2 for 1 signal per port 1 2	
Technical Data			
Operating voltage		24 V DC	
Operating current per contact		max. 4 A	
Total current		max. 8 A	
Protection		IP65/IP67	
Housing		Plastic, flame retardant	
Temperature range		-20...+70 °C	
Contact Layout			
LED display		LED (green): Power / LED (yellow): (S1)	
PIN 1		(+)	
PIN 3		(-)	
PIN 4		(NO)/(S1)	
PIN 5		(Earth)	
Article No.			
The composition of your article number is explained on page 3.1.i		8 0 0 0 - - 0 0 0 0 0 0 0	
		1 Form	
Notes			

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– Base modules

Approvals: 

Exact12

4-way
for NPN signals 24 V DC



Exact12

8-way
for NPN signals 24 V DC



1	Form	84401	88401
Type		NPN, 4-pole	
Contact layout		M12-Females 4-pole 5 (PE) 3 (-) 4 (N/O)-(S1) 1 (+) -1 +1 1 3 PE 4 2 +2 -2 PE -1 -2 +1 +2 1 2 3 2 4 1 5 3 2 4 1 5 for 1 signal per port 1 2	M12-Females 4-pole -1 +1 1 3 PE 4 2 +2 -2 5 7 15 8 6 5 (PE) 3 (-) 4 (N/O)-(S1) 1 (+) PE -1 -2 +1 +2 1 2 3 2 4 1 5 3 2 4 1 5 for 1 signal per port 1 2
Technical Data			
Operating voltage		24 V DC	
Operating current per contact		max. 4 A	
Total current		max. 8 A	
Protection		IP65/IP67	
Housing		Plastic, flame retardant	
Temperature range		-20...+70 °C	
Contact Layout			
LED display		LED (green): Power / LED (yellow): (S1)	
PIN 1		(+)	
PIN 3		(-)	
PIN 4		(NO))/(S1)	
PIN 5		(Earth)	
Article No.			
The composition of your article number is explained on page 3.1.i		8 0 0 0 - - 0 0 0 0 0 0 0	
		1	Form
Notes			

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– Base modules

Approvals:  US Listed

Exact12

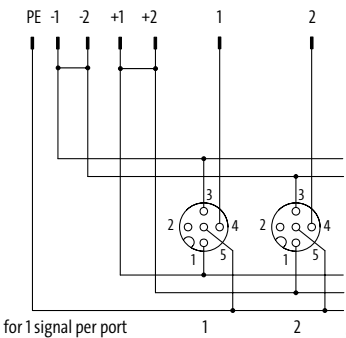
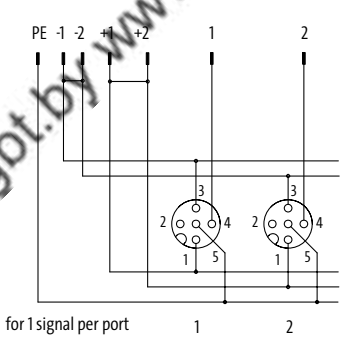
4-way
without LED



Exact12

8-way
without LED



1	Form	84402	88402
	Type	without LED, 4-pole	without LED, 4-pole
	Contact layout	M12 Females 4-pole 5 (PE) 4 (N/O)/(S1) 3 (-) 1 (+) 1 3 PE 4 2 +2 2  for 1 signal per port 1 2	M12-Females 4-pole 1 3 PE 4 2 +2 2 5 (PE) 4 (N/O)/(S1) 3 (-) 1 (+) 5 7 15 8 6  for 1 signal per port 1 2
Technical Data			
Operating voltage		125 V AC/DC	
Operating current per contact		max. 4 A	
Total current		max. 8 A	
Protection		IP65/IP67	
Housing		Plastic, flame retardant	
Temperature range		-20...+70 °C	
Contact Layout			
PIN 1		(+)	
PIN 3		(-)	
PIN 4		(NO)/(S1)	
PIN 5		(Earth)	
Article No.			
The composition of your article number is explained on page 3.1.i		8 0 0 0	0 0 0
		1	Form
Notes			

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– Base modules

Approvals: 

Exact12

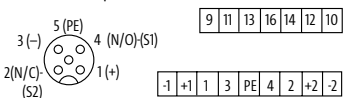
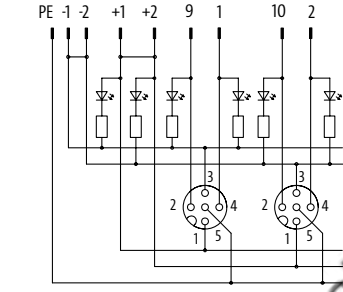
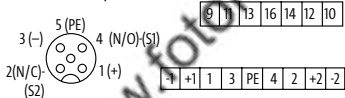
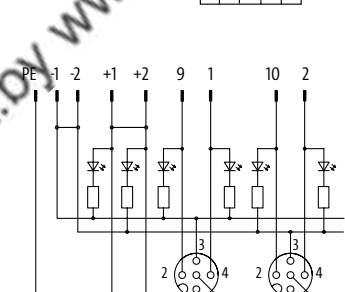
4-way
for PNP signals 24 V DC



Exact12

8-way
for PNP signals 24 V DC

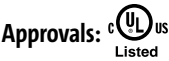


1 Form		84500	88500
Type		PNP, 5-pole	PNP, 5-pole
Contact layout		M12-Females 5-pole   for 2 signals per port	M12-Females 5-pole   for 2 signals per port
Technical Data			
Operating voltage		24 V DC	
Operating current per contact		max. 4 A	
Total current		max. 8 A	
Protection		IP65/IP67	
Housing		Plastic, flame retardant	
Temperature range		-20...+70 °C	
Contact Layout			
LED display		LED (green): Power / LED (yellow): (S1) / LED (white): Signal (S2)	
PIN 1		(+)	
PIN 2		(NC)/(S2)	
PIN 3		(-)	
PIN 4		(NO)/(S1)	
PIN 5		(Earth)	
Article No.			
The composition of your article number is explained on page 3.1.i		8000 - 000 0000	
		1 Form	
Notes			

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– Base modules



Exact12

4-way
for NPN signals 24 V DC



Exact12

8-way
for NPN signals 24 V DC



1	Form	84501	88501
Type	NPN, 5-pole	NPN, 5-pole	NPN, 5-pole
Contact layout	M12-Females 5-pole 3 (-) 5 (PE) 4 (N/O) - (S1) 1 (+) 2 (N/C) (S2) 9 11 13 16 14 12 10 -1 +1 1 3 PE 4 2 +2 -2 PE -1 -2 +1 +2 9 1 10 2 for 2 signals per port 1 2	M12-Females 5-pole 3 (-) 5 (PE) 4 (N/O) (S1) 1 (+) 2 (N/C) (S2) 9 11 13 16 14 12 10 -1 +1 1 3 PE 4 2 +2 -2 5 7 15 8 6 PE -1 -2 +1 +2 9 1 10 2 for 2 signals per port 1 2	
Technical Data			
Operating voltage	24 V DC		
Operating current per contact	max. 4 A		
Total current	max. 8 A		
Protection	IP65/IP67		
Housing	Plastic, flame retardant		
Temperature range	-20...+70 °C		
Contact Layout			
LED display	LED (green): Power / LED (yellow): (S1) / LED (white): Signal (S2)		
PIN 1	(+)		
PIN 2	(NC)/(S2)		
PIN 3	(-)		
PIN 4	(NO)/(S1)		
PIN 5	(Earth)		
Article No.			
The composition of your article number is explained on page 3.1.i	8000 - - 000 0000		
	1 Form		
Notes			

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– Base modules

Approvals:

Exact12

4-way
without LED



Exact12

8-way
without LED

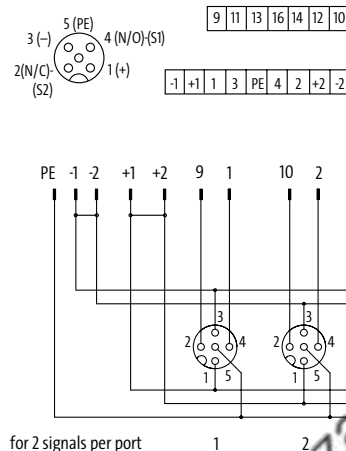


1 Form

84502

without LED, 5-pole

M12-Females 5-pole

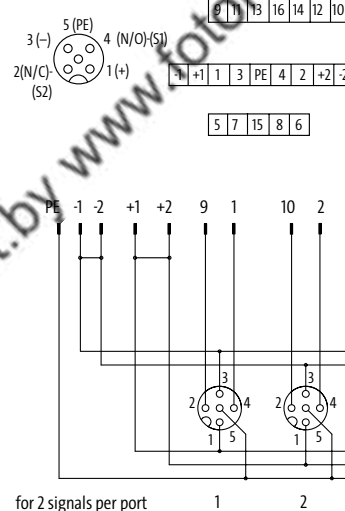


for 2 signals per port

88502

without LED, 5-pole

M12-Females 5-pole



for 2 signals per port

Technical Data

Operating voltage 125 V AC/DC

Operating current per contact max. 4 A

Total current max. 8 A

Protection IP65/IP67

Housing Plastic, flame retardant

Temperature range -20...+70 °C

Contact Layout

PIN 1 (+)

PIN 2 (NC)/(S2)

PIN 3 (-)

PIN 4 (NO)/(S1)

PIN 5 (Earth)

Article No.

The composition of your article number is explained on page 3.1.i

8 0 0 0

1 Form

0 0 0

0 0 0 0

Notes

M12 DISTRIBUTION SYSTEMS (PLASTIC)

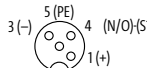
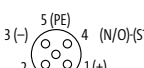
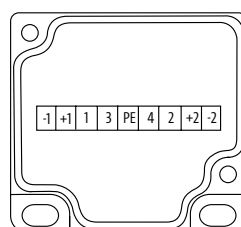
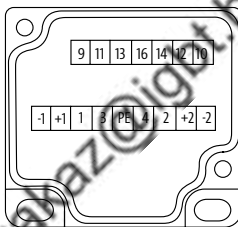
For sensors and actuators

– Connection cap with homerun cable

Exact12

for 4-way distribution boxes



1	Form	8 4 4 5 9		8 4 5 5 9		8 4 6 5 9	
	Type	4-pole Screw plug-in terminals		5-pole Screw plug-in terminals		5-pole Screw plug-in terminals with potential separation	
	Contact layout	M12-Females 4-pole 		M12-Females 5-pole 			
		 for 1 signal per port		 for 2 signals per port			
2	Cable Type	Jacket Color – No./diameter of wires					
		gray 333 – 4 × 0.34 + 3 × 0.75 mm ²		gray 363 – 8 × 0.34 + 3 × 0.75 mm ² 448 – 8 × 0.5 + 3 × 1.0 mm ²		gray 374 – 8 × 0.34 + 5 × 0.75 mm ²	
3	Cable Length						
		3.0 m 5.0 m 10.0 m 15.0 m 20.0 m 25.0 m 30.0 m		0300 0500 1000 1500 2000 2500 3000			
Technical Data							
Total current		max. 8 A					
Temperature range		-20...+80 °C, depending on cable quality					
Article No.							
The composition of your article number is explained on page 3.1.i		8 0 0 0		-		-	
		1 Form		2 Cable Type		3 Cable Length	
Notes							

M12 DISTRIBUTION SYSTEMS (PLASTIC)

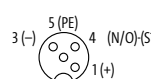
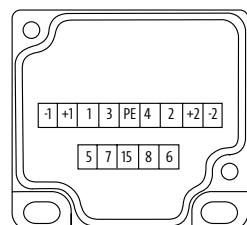
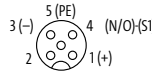
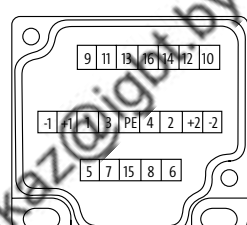
For sensors and actuators

– Connection cap with homerun cable

Exact12

for 8-way distribution boxes



1	Form	88459	88559	88659
	Type	4-pole	5-pole	5-pole
		Screw plug-in terminals	Screw plug-in terminals	Screw plug-in terminals with potential separation
	Contact layout	M12 Females 4-pole   for 1 signal per port	M12-Females 5-pole   for 2 signals per port	
2	Cable Type	Jacket Color – No./diameter of wires		
		gray	gray	gray
	PUR/PVC			404 – 16 × 0.34 + 5 × 0.75 mm ²
	PUR/PVC (UL/CSA), C-tracks	362 – 8 × 0.34 + 3 × 0.75 mm ²	398 – 16 × 0.34 + 3 × 0.75 mm ²	
	PUR (UL/CSA), C-tracks	447 – 8 × 0.5 + 3 × 1.0 mm ²	452 – 16 × 0.5 + 3 × 1.0 mm ²	
3	Cable Length			
	3.0 m	0300		
	5.0 m	0500		
	10.0 m	1000		
	15.0 m	1500		
	20.0 m	2000		
	25.0 m	2500		
	30.0 m	3000		
	Technical Data			
	Total current	max. 8 A		
	Temperature range	-20...+80 °C, depending on cable quality		
	Article No.			
	The composition of your article number is explained on page 3.1.i	8 0 0 0 - - - - -	- - - - -	- - - - -
		1 Form	2 Cable Type	3 Cable Length
Notes				

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

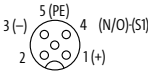
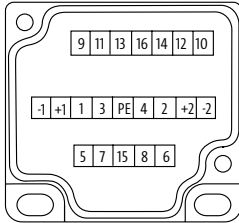
– Connection cap without homerun cable

– Field-wireable

Exact12

for 4-, and 8-way distribution boxes



1	Form	88549	88559
	Type	5-pole	5-pole
		Spring clamp plug-in terminals	Screw plug-in terminals
	Contact layout	M12-Females 5-pole   for 2 signals per port	
	Technical Data		
	Total current	max. 2 × 8 A	
	Connection	Spring clamp plug-in terminals: max. 1.5 mm² (AWG 16)	Screw plug-in terminals: max. 1.5 mm² (AWG 16)
	Housing	Plastic, flame retardant	
	Temperature range	-20...+80 °C, depending on cable quality	
	Article No.		
	The composition of your article number is explained on page 3.1.i	8 0 0 0 - - 0 0 0 0 0 0 0	
		1 Form	
	Notes		

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– Sets (basic module and cap)

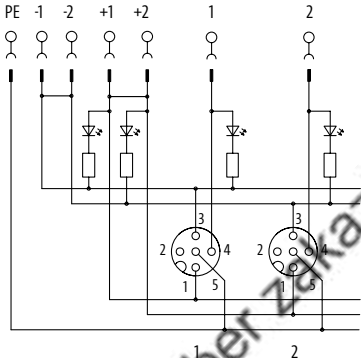
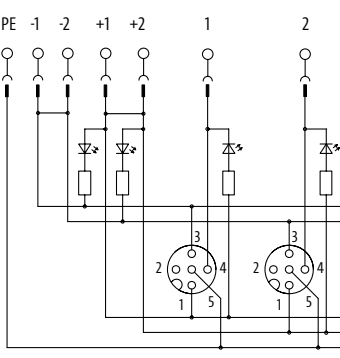
– Field-wireable

Approvals:  Listed

Exact12

4-way



1	Form	84440	84450	84451
Type		PNP, 4-pole	PNP, 4-pole	NPN, 4-pole
		Spring clamp plug-in terminals	Screw plug-in terminals	Screw plug-in terminals
Contact layout		M12-Females 4-pole 3 (-) 5 (PE) 4 (N/O)(S1) 1 (+) -1 +1 1 3 PE 4 2 +2 -2  for 1 signal per port		M12-Females 4-pole 3 (-) 5 (PE) 4 (N/O)(S1) 1 (+) -1 +1 1 3 PE 4 2 +2 -2  for 1 signal per port
Technical Data				
Operating voltage		24 V DC		
Operating current per contact		max. 4 A		
Total current		max. 8 A		
Connection		Spring clamp plug-in terminals: max. 1.5 mm² (AWG 16)	Screw plug-in terminals: max. 1.5 mm² (AWG 16)	
Protection		IP65/IP67		
Housing		Plastic, flame retardant		
Temperature range		-20...+70 °C		
Contact Layout				
LED display		LED (green): Power / LED (yellow): (S1)		
PIN 1		(+) (S1)		
PIN 3		(-)		
PIN 4		(NO)/(S1)		
PIN 5		(Earth)		
Article No.				
The composition of your article number is explained on page 3.1.i		8000 - - 000 0000		
		1 Form		
Notes				

M12 DISTRIBUTION SYSTEMS (PLASTIC)

- For sensors and actuators
- Sets (basic module and cap)
 - Field-wireable

Exact12
4-way



1	Form	8 4 4 5 2			
Type		without LED, 4-pole			
Screw plug-in terminals					
Contact layout		M12-Females 4-pole 3 (-) 5 (PE) 4 (N/O)-(S1) 1 (+) -1 +1 1 3 PE 4 2 +2 -2 PE -1 -2 +1 +2 1 2 3 2 4 1 5 3 2 4 1 5 for 1 signal per port 1 2			
Technical Data					
Operating voltage		125 V AC/DC			
Operating current per contact		max. 4 A			
Total current		max. 8 A			
Connection		Screw plug-in terminals: max. 1.5 mm² (AWG 16)			
Protection		IP65/IP67			
Housing		Plastic, flame retardant			
Temperature range		-20...+70 °C			
Contact Layout					
PIN 1		(+)			
PIN 3		(-)			
PIN 4		(NO)/(S1)			
PIN 5		(Earth)			
Article No.					
The composition of your article number is explained on page 3.1.i		8 0 0 0 - 8 4 4 5 2 - 0 0 0 0 0 0 0			
		1 Form			
Notes					

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– Sets (basic module and cap)

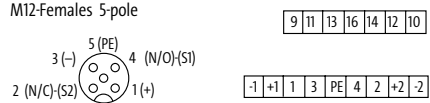
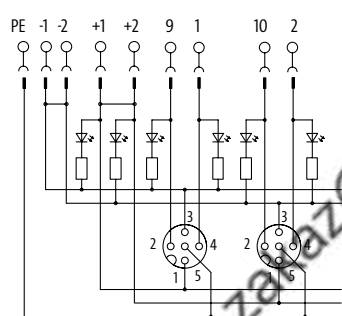
– Field-wireable

Approvals:  US
Listed

Exact12

4-way



1 Form		8 4 5 4 0	8 4 5 5 0
Type		PNP, 5-pole Spring clamp plug-in terminals	PNP, 5-pole Screw plug-in terminals
Contact layout		M12-Females 5-pole   for 2 signals per port	
Technical Data			
Operating voltage		24 V DC	
Operating current per contact		max. 4 A	
Total current		max. 8 A	
Connection		Spring clamp plug-in terminals: max. 1.5 mm ² (AWG 16)	Screw plug-in terminals: max. 1.5 mm ² (AWG 16)
Protection		IP65/IP67	
Housing		Plastic, flame retardant	
Temperature range		-20...+70 °C	
Contact Layout			
LED display		LED (green): Power / LED (yellow): (S1) / LED (white): Signal (S2)	
PIN 1		(+) / (S1)	
PIN 2		(NC)/(S2)	
PIN 3		(-)	
PIN 4		(NO)/(S1)	
PIN 5		(Earth)	
Article No.			
The composition of your article number is explained on page 3.1.i		8 0 0 0 - - - - - 0 0 0 0 0 0 0 0	
		1 Form	
Notes			

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– Sets (basic module and cap)

– Field-wireable

Exact12

4-way



1	Form	84551	84552
Approvals	cULus		
Type	NPN, 5-pole	without LED, 5-pole	
	Screw plug-in terminals	Screw plug-in terminals	
Contact layout	M12-Females 5-pole 9111316141210 3(-) 5(PE) 4(N/O)(S1) 2(N/C)(S2) 1(+) -1+113PE42+2-2 PE-1-2+1+291102 </		

Notes

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– Sets (basic module and cap)

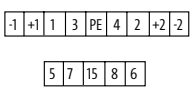
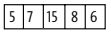
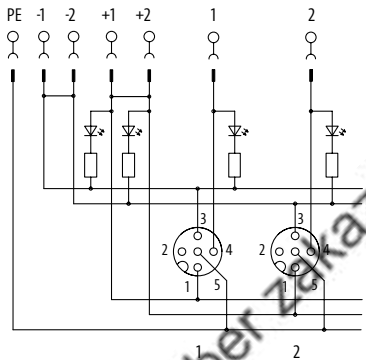
– Field-wireable

Approvals:  **UL** US
Listed

Exact12

8-way



1 Form		88440	88450
Type		PNP, 4-pole Spring clamp plug-in terminals	PNP, 4-pole Screw plug-in terminals
Contact layout		M12-Females 4-pole         for 1 signal per port	
Technical Data			
Operating voltage		24 V DC	
Operating current per contact		max. 4 A	
Total current		max. 8 A	
Connection		Spring clamp plug-in terminals: max. 1.5 mm ² (AWG 16)	Screw plug-in terminals: max. 1.5 mm ² (AWG 16)
Protection		IP65/IP67	
Housing		Plastic, flame retardant	
Temperature range		-20...+70 °C	
Contact Layout			
LED display		LED (green): Power / LED (yellow): (S1)	
PIN 1		(+)	
PIN 3		(-)	
PIN 4		(NO)/(S1)	
PIN 5		(Earth)	
Article No.			
The composition of your article number is explained on page 3.1.i		8 0 0 0	0 0 0 0
		1 Form	
Notes			

M12 DISTRIBUTION SYSTEMS (PLASTIC)

- For sensors and actuators
- Sets (basic module and cap)
 - Field-wireable

Exact12
8-way



1	Form	88451	88452
	Approvals	cULus	
	Type	NPN, 4-pole	without LED, 4-pole
		Screw plug-in terminals	Screw plug-in terminals
	Contact layout	M12-Females 4-pole 3 (-) 5 (PE) 4 (N/O)-(S1) 1 (+) 1 2 3 4 5 6 7 8 for 1 signal per port	M12-Females 4-pole 3 (-) 5 (PE) 4 (N/O)-(S1) 1 (+) 1 2 3 4 5 6 7 8 for 1 signal per port
	Technical Data		
	Operating voltage	24 V DC	125 V AC/DC
	Operating current per contact	max. 4 A	
	Total current	max. 8 A	
	Connection	Screw plug-in terminals: max. 1.5 mm ² (AWG 16)	
	Protection	IP65/IP67	
	Housing	Plastic, flame retardant	
	Temperature range	-20...+70 °C	
	Contact Layout		
	LED display	LED (green): Power / LED (yellow): (S1)	–
	PIN 1	(+)	
	PIN 3	(-)	
	PIN 4	(NO)/(S1)	
	PIN 5	(Earth)	
	Article No.		
	The composition of your article number is explained on page 3.1.i	8 0 0 0 - - - - - 0 0 0 0 0 0 0	
		1 Form	
	Notes		

M12 DISTRIBUTION SYSTEMS (PLASTIC)

- For sensors and actuators
- Sets (basic module and cap)
 - Field-wireable

Approvals:  UL US Listed

Exact12
8-way



1	Form	8 8 5 4 0		8 8 5 5 0	
	Type	PNP, 5-pole Spring clamp plug-in terminals		PNP, 5-pole Screw plug-in terminals	
	Contact layout	M12-Females 5-pole 9111316141210 3(-)5(PE)4(N/O)-(S1)1(+)2(N/C)-(S2) -1+113PE42+2-2 571586 PE-1-2+1+291102			

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– Sets (basic module and cap)

– Field-wireable

Exact12

8-way



1 Form	88551	88552
Approvals	cULus	
Type	NPN, 5-pole	without LED, 5-pole
Contact layout	Screw plug-in terminals M12 Females 5-pole for 2 signals per port	Screw plug-in terminals M12 Females 5-pole for 2 signals per port
Technical Data		
Operating voltage	24 V DC	125 V AC/DC
Operating current per contact	max. 4 A	
Total current	max. 8 A	
Connection	Screw plug-in terminals: max. 1.5 mm ² (AWG 16)	
Protection	IP65/IP67	
Housing	Plastic, flame retardant	
Temperature range	-20...+70 °C	
Contact Layout		
LED display	LED (green): Power / LED (yellow): (S1) / LED (white): Signal (S2)	–
PIN 1	(+)	
PIN 2	(N/C)/(S2)	
PIN 3	(-)	
PIN 4	(N/O)/(S1)	
PIN 5	(Earth)	
Article No.		
The composition of your article number is explained on page 3.1.i	8 0 0 0 - - - - - - 0 0 0 0 0 0 0 0	
	1 Form	

Notes

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– Rear connection

Approvals:  **UL**
Listed

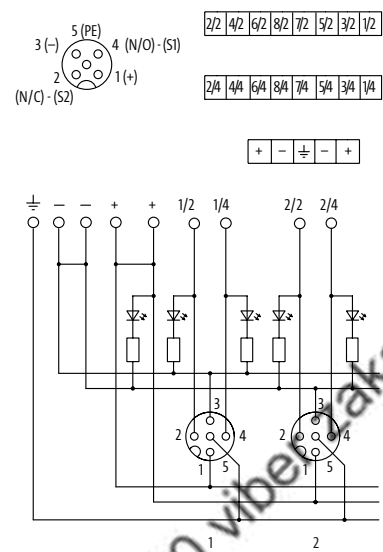
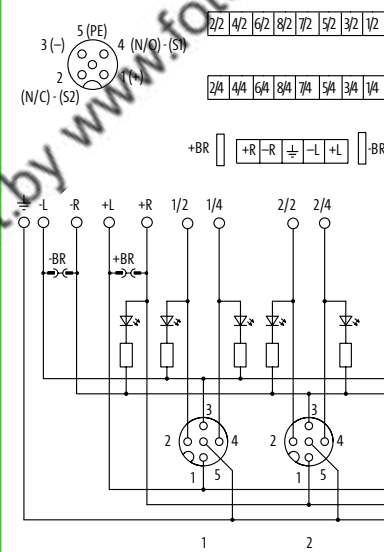
Exact12



Exact12

with potential separation



1 Form		88580	88680
Type		PNP, 5-pole Spring clamp terminals	PNP, 5-pole Spring clamp terminals
Contact layout		M12-Females 5-pole Bottom view  for 2 signals per port	M12-Females 5-pole Bottom view  for 2 signals per port
Technical Data			
Operating voltage		24 V DC	
Operating current per contact		max. 4 A	
Total current		max. 2 × 8 A	
Protection		IP65/IP67	
Housing		Plastic, flame retardant	
Temperature range		-20...+70 °C	
Contact Layout			
LED display		LED (green): Power / LED (yellow): (S1) / LED (white): Signal (S2)	
PIN 1		(+) / (NC)	
PIN 2		(NC)/(S2)	
PIN 3		(-)	
PIN 4		(NO)/(S1)	
PIN 5		(Earth)	
Article No.			
The composition of your article number is explained on page 3.1.i		8000 - - - - - 000 0000	
		1 Form	
Notes			

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

Approvals: 
UL US
Listed

Exact12

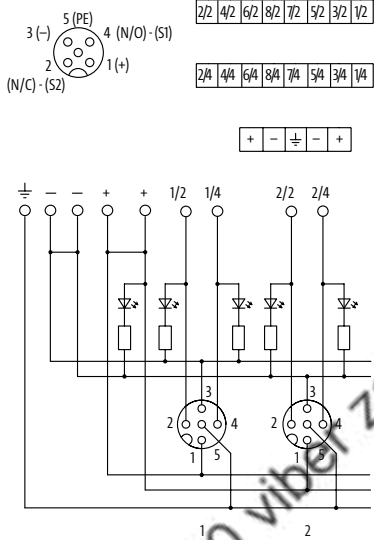
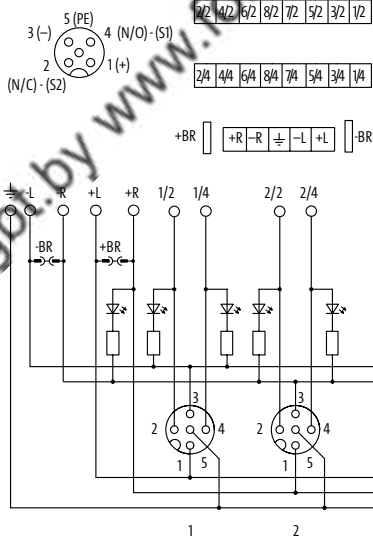
Pluggable rear connection



Exact12

Pluggable rear connection
with potential separation



1 Form		88590	88690
Type		PNP, 5-pole Spring clamp plug-in terminals	PNP, 5-pole Spring clamp plug-in terminals
Contact layout		M12-Females 5-pole Bottom view  for 2 signals per port	M12-Females 5-pole Bottom view  for 2 signals per port
Technical Data			
Operating voltage		24 V DC	
Operating current per contact		max. 4 A	
Total current		max. 2 × 8 A	
Protection		IP65/IP67	
Housing		Plastic, flame retardant	
Temperature range		-20...+70 °C	
Contact Layout			
LED display		LED (green): Power / LED (yellow): (S1) / LED (white): Signal (S2)	
PIN 1		(+)	
PIN 2		(NC)/(S2)	
PIN 3		(-)	
PIN 4		(NO)/(S1)	
PIN 5		(Earth)	
Article No.			
The composition of your article number is explained on page 3.1.i		8000 - 000 0000	
		1 Form	
Notes			

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– M12 plug connection

Approvals: UL Listed

Exact12

4-way



Exact12

8-way



Exact12

4-way



1 Form

84470

88460

84560

Type

5-, 4-pole

5-, 4-pole

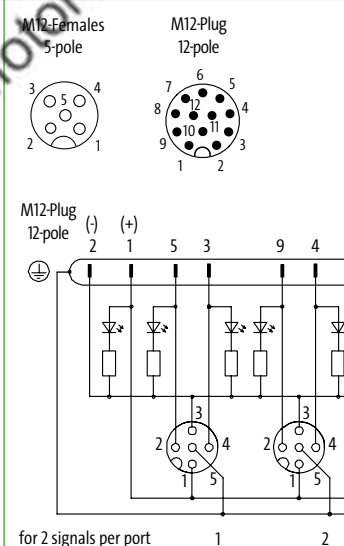
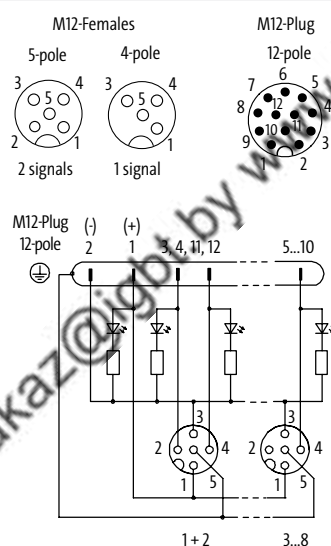
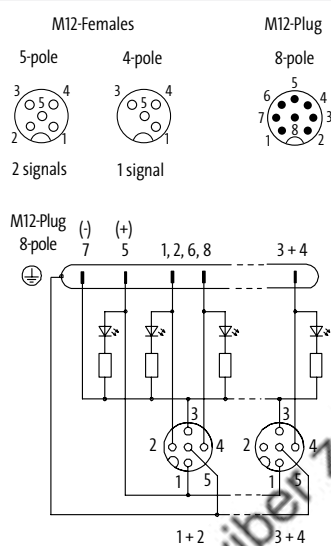
5-pole

Contact layout

M12 plug connection, 8-pole

M12 plug connection, 12-pole

M12 plug connection, 12-pole



Technical Data

Operating voltage	24 V DC
Operating current per contact	max. 2 A
Total current	max. 2 A
Protection	IP65/IP67
Housing	Plastic, flame retardant
Temperature range	-20...+70 °C

Contact Layout

LED display	LED (green): Power / LED (yellow): (S1) / LED (white): Signal (S2)
PIN 1	(+)
PIN 2	(NC)/(S2)
PIN 3	(-)
PIN 4	(NO)/(S1)
PIN 5	(Earth)

Article No.

The composition of your article number is explained on page 3.1.i

8 0 0 0

1 Form

0 0 0

0 0 0 0

Notes

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– M23 plug connection



Exact12

4-way



Exact12

8-way



1 Form		8 4 5 3 0	8 8 4 3 0
Type		5-pole	4-pole
		M23 plug connection, 12-pole	M23 plug connection, 12-pole
Contact layout		M12-Females 5-pole M23-Plug 12-pole for 2 signals per port 1 2	M12-Females 4-pole M23-Plug 12-pole for 1 signal per port 1 2
Technical Data			
Operating voltage		24 V DC	
Operating current per contact		max. 4 A	
Total current		max. 8 A	
Protection		IP65/IP67	
Housing		Plastic, flame retardant	
Temperature range		-20...+75 °C	
Contact Layout			
LED display		LED (green): Power / LED (yellow): (S1) / LED (white): Signal (S2)	LED (green): Power / LED (yellow): (S1)
PIN 1		(+)	
PIN 2		(NC)/(S2)	–
PIN 3		(-)	
PIN 4		(NO)/(S1)	
PIN 5		(Earth)	
Article No.			
The composition of your article number is explained on page 3.1.i		8 0 0 0 – – – – – 0 0 0 0 0 0 0 0	
		1 Form	
Notes			

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

– M23 plug connection

Approvals:  UL Listed

Exact12

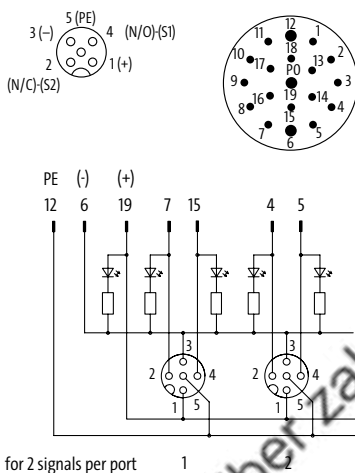
4-way



Exact12

8-way



1 Form		84520		88520	
Type		5-pole		5-pole	
		M23 plug connection, 19-pole		M23 plug connection, 19-pole	
Contact layout		M12-Females 5-pole M23-Plug 19-pole  for 2 signals per port 1 2			
Technical Data					
Operating voltage		24 V DC			
Operating current per contact		max. 4 A			
Total current		max. 8 A			
Protection		IP65/IP67			
Housing		Plastic, flame retardant			
Temperature range		-20...+80 °C			
Contact Layout					
LED display		LED (green): Power / LED (yellow): (S1) / LED (white): Signal (S2)			
PIN 1		(+)			
PIN 2		(NC)/(S2)			
PIN 3		(-)			
PIN 4		(NO)/(S1)			
PIN 5		(Earth)			
Article No.					
The composition of your article number is explained on page 3.1.i		8000 - - 000 0000			
		1 Form			
Notes					

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For general applications

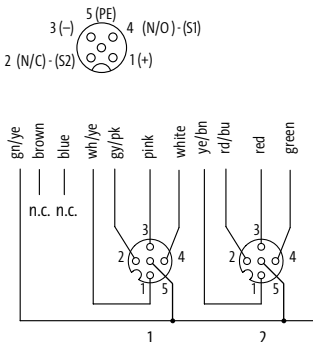
- with molded homerun cable

Approvals:  **UL US
Listed**

Exact12 UNIVERSAL

4-way



1	Form	84712					
	Type	without LED, 5-pole (for analog signals)					
	Contact layout	M12-Females 5-pole  free arrangeable, contact 1:1 on terminals for 4 signals per port, PIN5 bridged on terminals					
2	Cable Type	Jacket Color – No./diameter of wires					
		gray					
	PUR/PVC (UL/CSA), C-tracks	398 – 16 × 0.34 + 3 × 0.75 mm ²					
3	Cable Length						
	3.0 m	0300					
	5.0 m	0500					
	10.0 m	1000					
	15.0 m	1500					
	Technical Data						
	Operating voltage	42 V AC/DC					
	Total current	max. 10 A					
	Protection	IP65/IP67					
	Temperature range	-20...+70 °C, depending on cable quality					
	Contact Layout						
	PIN 1	(S1)					
	PIN 2	(S2)					
	PIN 3	(S3)					
	PIN 4	(S4)					
	PIN 5	(Earth)					
	Article No.						
	The composition of your article number is explained on page 3.1.i	8000 - 84712 -					
		1	Form	2	Cable Type	3	Cable Length
	Notes						

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For safety wiring

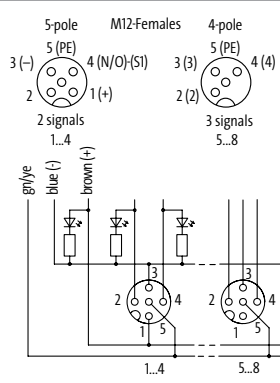
- with molded homerun cable
- Homerun cable with spring clamp terminals
- EN ISO 13849-2

Approvals:  **UL** US Listed

Exact12 Safety

8-way
for PNP signals 24 V DC



1 Form	98710
Type	PNP, 5-pole, 4/3-pole
Contact layout	
2 Cable Type	Jacket Color – No./diameter of wires
	gray
PUR/PVC (UL/CSA)	407 – 20 × 0.34 + 3 × 0.75 mm ²
3 Cable Length	
3.0 m	0300
5.0 m	0500
10.0 m	1000
15.0 m	1500
Technical Data	
Operating voltage	24 V DC
Total current	max. 8 A
Protection	IP65/IP67
Temperature range	-20...+60 °C, depending on cable quality
Contact Layout	
LED display	LED (green): Power / LED (yellow): (S1) / LED (white): Signal (S2) port 1...4
PIN 1	(+) port 1...4
PIN 2	(NC)/(S2) port 1...4; (S1) port 5...8
PIN 3	(-) port 1...4; (S2) port 5...8
PIN 4	(NO)/(S1) port 1...4; (S3) port 5...8
PIN 5	(Earth)
Article No.	
The composition of your article number is explained on page 3.1.i	8000 – 98710 – – – – – – – –
	1 Form 2 Cable Type 3 Cable Length
Notes	

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For safety wiring

– Basic module

– EN ISO 13849-2

Approvals: cULUS Listed

Exact12 Safety

8-way
for PNP signals 24 V DC



1	Form	98700															
Type		PNP, 5-pole, 4/3-pole															
Contact layout		5-pole M12-Females 4-pole 3 (-) 5 (PE) 4 (N/O)-(S1) 1 (+) 2 (N/C)-(S2) 3 (S2) 5 (PE) 4 (S3) 2 (S1) 2 signals 1...4 3 signals 5...8 15 21 20 19 29 22 24 5 14 13 6 4 2 18 17 16 8 7 9 1 11 3 10 11 9 10 1 2 13 14 15 3 2 4 1 5 3 2 4 1 5 1...4 5...8															
Technical Data																	
Operating voltage		24 V DC															
Operating current per contact		max. 4 A															
Total current		max. 8 A															
Protection		IP65/IP67															
Housing		Plastic, flame retardant															
Locking of ports		Screw thread M12 × 1 mm															
Temperature range		-20...+60 °C															
Contact Layout																	
LED display		LED (green): Power / LED (yellow): (S1) / LED (white): Signal (S2) port 1...4															
PIN 1		(+) port 1...4															
PIN 2		(NC)/(S2) port 1...4; (S1) port 5...8															
PIN 3		(-) port 1...4; (S2) port 5...8															
PIN 4		(NO)/(S1) port 1...4; (S3) port 5...8															
PIN 5		(Earth)															
Article No.																	
The composition of your article number is explained on page 3.1.i		8 0 0 0 - 9 8 7 0 0 - 0 0 0 0 0 0 0															
		1 Form															
Notes																	

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For safety wiring

- Connection cap
- Homerun cable with spring clamp terminals

– EN ISO 13849-2

Approvals:  US
Listed

Exact12 Safety

for 8-way distribution boxes



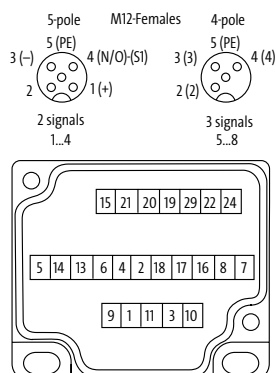
1 Form

98749

Type

5-, 4-pole

Contact layout



2 Cable Type

Jacket Color – No./diameter of wires

gray

PUR (UL/CSA), robots/C-tracks

408 – 20 × 0.34 + 3 × 0.75 mm²

3 Cable Length

3.0 m	0300
5.0 m	0500
10.0 m	1000
15.0 m	1500
20.0 m	2000

Technical Data

Total current	max. 8 A
Temperature range	-20...+80 °C, depending on cable quality

Article No.

The composition of your article number is explained on page 3.1.i

8 0 0 0

–

9 8 7 4 9

–

– – –

– – – –

1 Form

2 Cable Type

3 Cable Length

Notes

M12 DISTRIBUTION SYSTEMS (PLASTIC)

For sensors and actuators

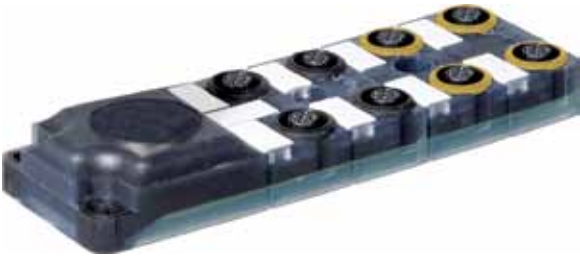
– Rear connection

– EN ISO 13849-2

Approvals:  US Listed

Exact12 Safety

Rear connection
with potential separation

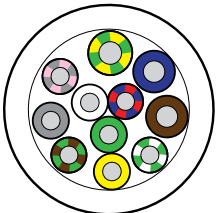


1 Form		98790	
Type		PNP, 5-pole, 4/3-pole	
Contact layout		Spring clamp terminals	
		5-pole M12-Females 4-pole 5 (PE) 3 (-) 4 (N/O)-(S1) 1 (+) 2 (N/C)-(S2) 2 signals 1...4 5 (PE) 3 (S2) 4 (S3) 2 (S1) 3 signals 5...8 Bottom view 9 12 13 17 18 19 23 24 25 11 10 7 16 14 15 22 20 21 +BR +R -R 8 6 ± -L +L -BR ± -L -R -BR +L +R +BR 6 7 8 9 14 15 16 2 3 4 1 5 2 3 4 1 5 2 3 4 1 5 1, 3 2, 4 5...8	
Technical Data			
Operating voltage		24 V DC	
Operating current per contact		max. 4 A	
Total current		max. 8 A	
Protection		IP65/IP67	
Housing		Plastic, flame retardant	
Locking of ports		Screw thread M12 × 1 mm	
Temperature range		-20...+60 °C	
Contact Layout			
LED display		LED (green): Power / LED (yellow): (S1) / LED (white): Signal (S2) port 1...4	
PIN 1		(+) port 1...4	
PIN 2		(NC)/(S2) port 1...4; (S1) port 5...8	
PIN 3		(-) port 1...4; (S2) port 5...8	
PIN 4		(NO)/(S1) port 1...4; (S3) port 5...8	
PIN 5		(Earth)	
Article No.			
The composition of your article number is explained on page 3.1.i		8 0 0 0 - 9 8 7 9 0 - 0 0 0 0 0 0 0	
		1 Form	
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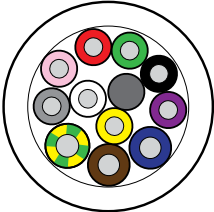
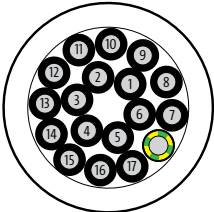
M12 DISTRIBUTION SYSTEMS (PLASTIC)

Mounting accessories			Art-No.
	Torque wrench set M12 (0.6 Nm, SW13)	M12 data connenctor molded (standard)	7000-99102-0000000
	Torque wrench M12 (0.6 Nm, SW13)	M12 data connenctor molded (standard)	7000-99109-0000000
	Torque wrench M12 (0.6 Nm, SW14)	M12 data connenctor moulded (Xtreme)	7000-99108-0000000
	Torque wrench M12 (0.6 Nm, SW17)	M12 field-wireable (IDC terminal)	7000-99094-0000000
	Torque wrench M12 (0.6 Nm, SW18)	M12 field-wireable via (screw terminals)	7000-99103-0000000
	DIN-rail adapter with fixing screws, plastic		27905
	V2A guard Exact12 ATEX, 4-way	for 8099-84510-448xxxx	996082
	V2A guard Exact12 ATEX, 8-way	for 8099-88510-452xxxx	996083
Plug accessories			Art-No.
	Transfer module for 1 × 11- and 1 × 12-pole spring clamp terminals		596154
	Service adapter with LED and SUB-D25	for transfer module Art-No. 596154	596153

M12 DISTRIBUTION SYSTEMS (PLASTIC)

Plug accessories			Art-No.
	Screw plug M12 × 1 mm Metal, hex, 1 piece		996049
	Screw plug M12 × 1 mm (for female) Plastic, hex without gasket	Quantity: 10 pcs.	58627
	Label plates KES 20 × 8 (white)	(10 pieces/2 plates)	996067
	Label plates KES 17 × 9 (Type M) (12 pieces/2 plates)		996050
	Adapter M8/M12 3-pole	M12 Distribution Systems	7000-42201-0000000
	Adapter M8/M12 4-pole	M12 Distribution Systems	7000-42211-0000000
Homerun cable accessories			Art-No.
	Coding element for 6 codings		996054
	Screw plug M23 Metal		55352
	Screw plug M12 × 1 mm (for male) Plastic	Quantity: 4 pcs.	56951
	Cable rings (50 m), 5-pole, PUR/PVC 8×0.34 + 3×0.75 mm ²	4-way distribution boxes M12	8000-00000-3635000
	12×0.34 + 3×0.75 mm ²	6-way distribution boxes M12	8000-00000-3885000
	16×0.34 + 3×0.75 mm ²	8-way distribution boxes M12	8000-00000-3985000

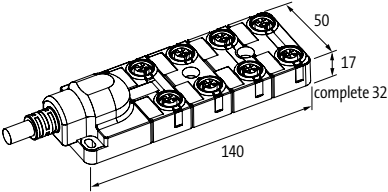
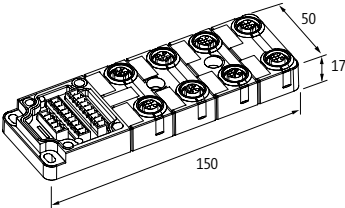
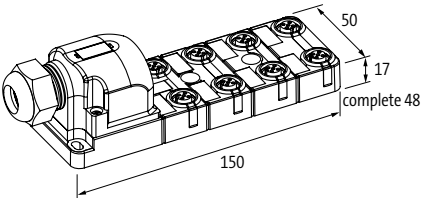
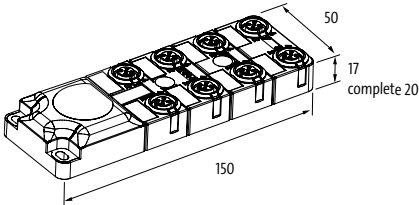
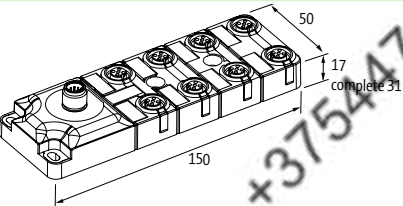
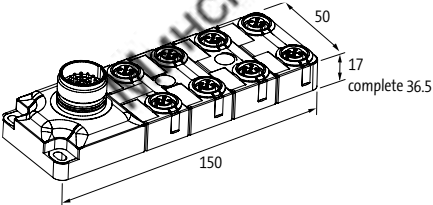
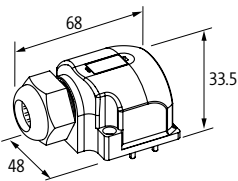
M12 DISTRIBUTION SYSTEMS (PLASTIC)

Homerun cable accessories			Art-No.
	Cable rings (50 m), 4-pole, PUR (UL/CSA), halogen free		
	8×0.5 + 3×1.0 mm ²	8-way distribution boxes M12	8000-00000-4475000
	8×0.5 + 3×1.0 mm ²	4-way distribution boxes M12	8000-00000-4485000
	16×0.5 + 3×1.0 mm ²	8-way distribution boxes M12	8000-00000-4525000
	16×0.34 + 5×0.75 mm ²	8-way distribution boxes M12, potentially separated	8000-00000-4035000
	Cable rings (50 m), PUR/PVC		
	18 × 0.75 mm ²	4-way distribution box M12, UNIVERSAL	8000-00000-5335000
	4×0.34 + 3×0.75 mm ²	4-way distribution boxes M12	8000-00000-3335000
	8×0.34 + 3×0.75 mm ²	8-way distribution boxes M12	8000-00000-3625000
	8×0.34 + 5×0.75 mm ²	4-way distribution boxes M12, potentially separated	8000-00000-3745000
	16×0.34 + 5×0.75 mm ²	8-way distribution boxes M12, potentially separated	8000-00000-4045000

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M12 DISTRIBUTION SYSTEMS (PLASTIC)

M12 Distribution Systems Technical Data

	Description Exact12 Molded homerun cable	4-way 90 mm	8-way 140 mm
	Description Exact12 Basic module	4-way 100 mm	8-way 150 mm
	Description Exact12 and MSDS8 Sets: basic module and cap Field-wireable	4-way 100 mm	8-way 150 mm
	Description Exact12 Rear connection	4-way 100 mm	8-way 150 mm
	Description Exact12 M12 plug connection	4-way 100 mm	8-way 150 mm
	Description Exact12 M23 plug connection	4-way 100 mm	8-way 150 mm
	Description Exact12 Caps		

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