

## Distributed I/O device - AXL E PB DI8 DO4 2A M12 6M - 2701507

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Axioline E, Digital I/O device, PROFIBUS DP, M12 fast connection technology, Digital inputs: 8, 24 V DC, connection method: 4-wire, Digital outputs: 4, 24 V DC, 2 A, connection method: 3-wire, Metal housing, degree of protection: IP65/IP67

### Product Description

The Axioline E device is designed for use within a PROFIBUS network.

It is used to acquire and output digital signals.

The device is designed for use in systems manufacturing.

It is suitable for use without a control cabinet under harsh industrial conditions.


The Axioline E device can be used on tool platforms, directly on welding robots or in conveying technology, for example.

### Your advantages

- ✓ Connection to PROFIBUS DP using M12connectors (B-coded)
- ✓ Baud rate of up to 12 Mbaud (automatic baud rate detection)
- ✓ Connection of digital sensors and actuators using M12connectors (A-coded)
- ✓ Diagnostic and status indicators
- ✓ Short-circuit and overload protection of the sensor supply
- ✓ IP65/IP67 degree of protection



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 763592
GTIN	4046356763592
Weight per Piece (excluding packing)	720.000 g
Custom tariff number	85176200
Country of origin	Germany

## Distributed I/O device - AXL E PB DI8 DO4 2A M12 6M - 2701507

### Technical data

#### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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#### Dimensions

Width	60 mm
Height	185 mm
Depth	38 mm
Note on dimensions	The height is 194.5 mm including the mounting plate. With fixing clips pulled out, the height is 212 mm. The depth is 38 mm including the mounting plate (30.5 mm without the mounting plate).
Drill hole spacing	198.5 mm

#### Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 %
Permissible humidity (storage/transport)	5 % ... 95 %
Air pressure (operation)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Degree of protection	IP65/IP67

#### General

Housing material	Zinc die-cast
Mounting type	Wall mounting or DIN rail mounting; both with mounting plate.
Net weight	726.3 g

#### Interfaces

Designation	PROFIBUS DP
No. of channels	2
Connection method	M12 fast connection technology
Note on the connection method	B-coded
Designation connection point	Copper cable
Transmission speed	9.6 kbps ... 12 Mbps (Automatic baud rate detection)
Transmission physics	PROFIBUS-DP-compliant copper cable
Address area assignment	1 ... 126, adjustable
Number of positions	5

#### System limits of the bus coupler

Designation	PROFIBUS DP
Equipment type	PROFIBUS slave

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### Technical data

#### System limits of the bus coupler

System-specific protocols	PROFIBUS protocols DP V1
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#### Supply

Designation	Module electronics and sensors ( $U_S$ )
Connection method	M12 connector (T-coded)
Number of positions	4
Supply voltage	24 V DC
Supply voltage range	18 V DC ... 31.2 V DC (including all tolerances, including ripple)
Current consumption	typ. 110 mA $\pm$ 15 % (at 24 V DC)
Designation	Actuators ( $U_A$ )
Connection method	M12 connector (T-coded)
Number of positions	4
Supply voltage	24 V DC
Supply voltage range	18 V DC ... 31.2 V DC (including all tolerances, including ripple)
Current consumption	typ. 30 mA $\pm$ 15 % (at 24 V DC)

#### Digital inputs

Input name	Digital inputs
Description of the input	EN 61131-2 types 1 and 3
Connection method	M12 connector, double occupancy
Connection technology	4-wire
Number of inputs	8
Type of protection	Overload protection, short-circuit protection of sensor supply
Input filter time	< 1000 $\mu$ s
Input voltage range "0" signal	0 V ... 5 V DC
Input voltage range "1" signal	11 V DC ... 30 V DC
Nominal input current at $U_{IN}$	typ. 3 mA

#### Digital outputs

Output name	Digital outputs
Connection method	M12 connector, (A-coded)
Connection technology	3-wire
Number of outputs	4
Type of protection	Overload protection, short-circuit protection of outputs
Output voltage	24 V DC
Nominal output voltage	24 V DC (from voltage $U_A$ )
Maximum output current per channel	2 A
Nominal load, inductive	48 VA (1.2 H, 48 $\Omega$ , with nominal voltage)
Nominal load, ohmic	48 W (48 $\Omega$ , with nominal voltage)

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## Technical data

### Electrical isolation

Test section	24 V supply (communications power and sensor supply, digital inputs)/bus connection 500 V AC 50 Hz 1 min.
	24 V supply (communications power and sensor supply, digital inputs)/FE 500 V AC 50 Hz 1 min.
	Bus connection / FE 500 V AC 50 Hz 1 min.
	24 V supply (actuator supply, digital outputs)/24 V supply (communications power and sensor supply, digital inputs) 500 V AC 50 Hz 1 min.
	24 V supply (actuator supply, digital outputs)/bus connection 500 V AC 50 Hz 1 min.
	24 V supply (actuator supply, digital outputs)/FE 500 V AC 50 Hz 1 min.

### Standards and Regulations

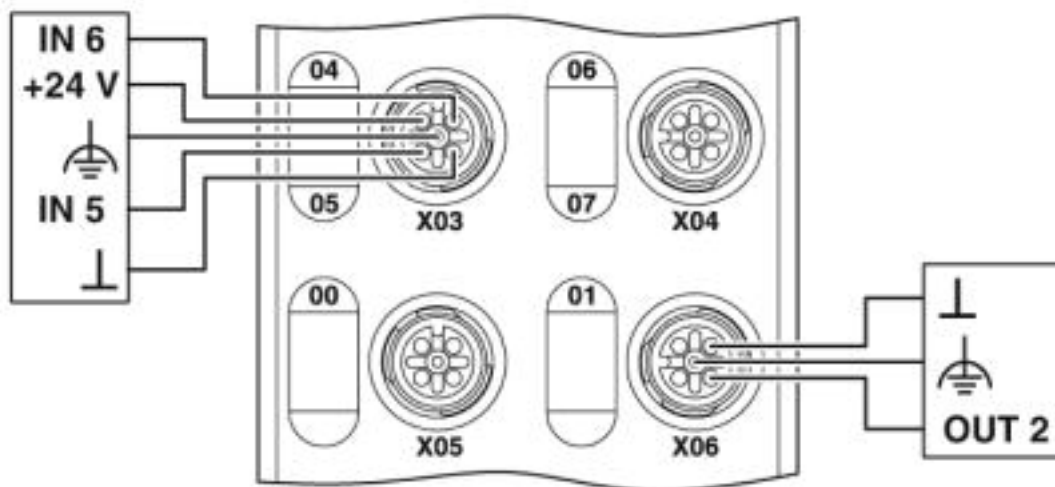
Mechanical tests	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6 5g
	Shock in acc. with EN 60068-2-27/IEC 60068-2-27 30g, 11 ms period, half-sine shock pulse
	Continuous shock according to EN 60068-2-27/IEC 60068-2-27 10g
Protection class	III, IEC 61140, EN 61140, VDE 0140-1

### Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 25;
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

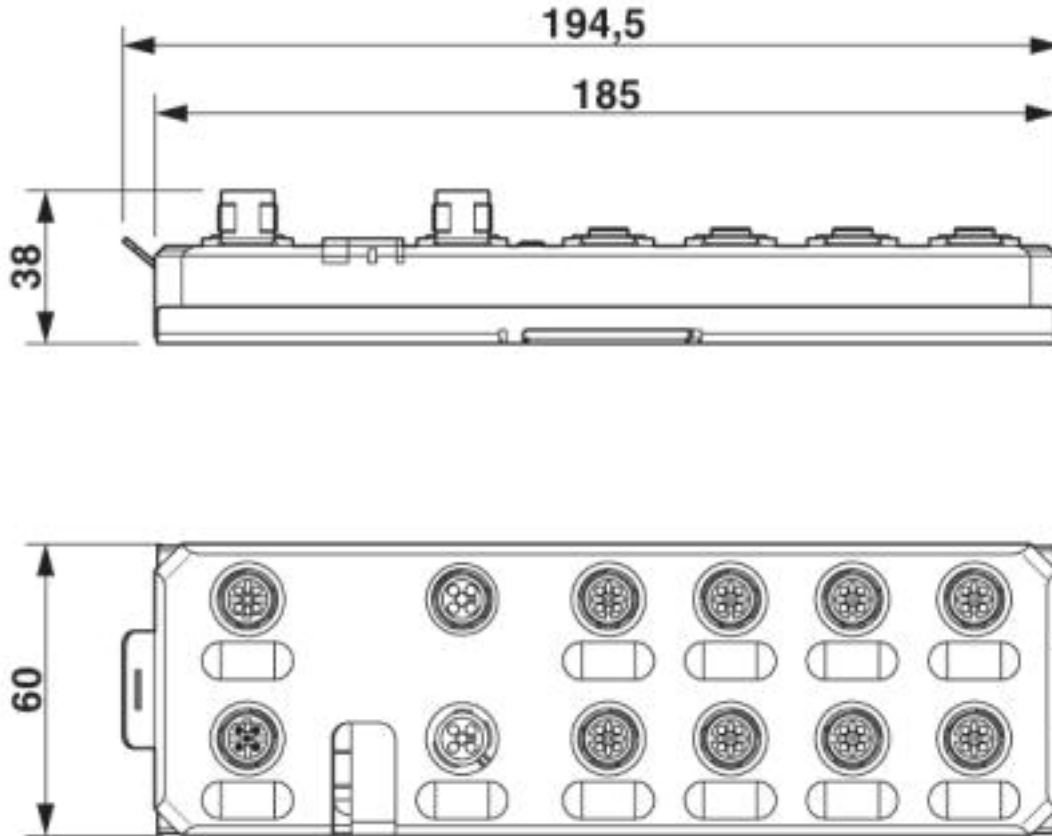
## Drawings

Connection diagram



## Distributed I/O device - AXL E PB DI8 DO4 2A M12 6M - 2701507

Dimensional drawing



### Classifications

eCl@ss

eCl@ss 4.0	27240400
eCl@ss 4.1	27240400
eCl@ss 5.0	27242200
eCl@ss 5.1	27242600
eCl@ss 6.0	27242600
eCl@ss 7.0	27242604
eCl@ss 8.0	27242604
eCl@ss 9.0	27242604

ETIM

ETIM 2.0	EC001433
ETIM 3.0	EC001599
ETIM 4.0	EC001599

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## Classifications

### ETIM

ETIM 5.0	EC001599
ETIM 6.0	EC001599
ETIM 7.0	EC001599

### UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	39121311
UNSPSC 12.01	39121311
UNSPSC 13.2	32151602

## Approvals

### Approvals


#### Approvals


UL Listed / cUL Listed / PROFIBUS / cULus Listed

#### Ex Approvals


UL Listed / cUL Listed / cULus Listed

### Approval details

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
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cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
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PROFIBUS	Z01811
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cULus Listed	
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## Distributed I/O device - AXL E PB DI8 DO4 2A M12 6M - 2701507

### Accessories

Accessories

Assembly element

Mounting plate - AXL E MP 60 - 2701761



Mounting plate for Axioline E metal devices

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Circular connector (cable-side)

Connector - SACC-M12FSB-5PL SH - 1424664



Connector, Universal, 5-position, shielded, Socket straight M12, B-coded, Push-in connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

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Bus system connector - SACC-M12FSB-5CON-PG9 SH AU - 1507777



Bus system connector, PROFIBUS, INTERBUS, 5-position, shielded, Socket straight M12, B-coded, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg9, external cable diameter 6.5 mm ... 8.5 mm

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Bus system connector - SACC-M12MSB-5CON-PG9 SH AU - 1507764



Bus system connector, PROFIBUS, INTERBUS, 5-position, shielded, Plug straight M12, B-coded, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg9, external cable diameter 6.5 mm ... 8.5 mm

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Data cable preassembled

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### Accessories

#### Bus system cable - SAC-2P-MSB SCO/910/... - 1538050



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, violet RAL 4001, shielded, Plug straight M12 SPEEDCON, B-coded, on free cable end, cable length: Free input (0.2 ... 40.0 m)

#### Bus system cable - SAC-2P-FSB SCO/910/... - 1538076



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, violet RAL 4001, shielded, free cable end, on Socket straight M12 SPEEDCON, B-coded, cable length: Free input (0.2 ... 40.0 m)

#### Bus system cable - SAC-2P-MSB-FSB SCO/910/... - 1538092



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, violet RAL 4001, shielded, Plug straight M12 SPEEDCON, B-coded, on Socket straight M12 SPEEDCON, B-coded, cable length: Free input (0.2 ... 40.0 m)

#### Bus system cable - SAC-2P-MSB-FRB SCO/910/... - 1433252



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, violet RAL 4001, shielded, Plug straight M12 SPEEDCON, B-coded, on Socket angled M12 SPEEDCON, B-coded, cable length: Free input (0.2 ... 40.0 m)

### Device marking

#### Snap-in markers - UCT-EM (7X10) - 0830765



Snap-in markers, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snapped into marker carrier, lettering field size: 7 x 10 mm, Number of individual labels: 30

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### Accessories

#### Power cable

Power cable - SAC-4P- 1,5-PUR/M12FRT SH - 1424116



Power cable, 4-position, PUR halogen-free, black RAL 9005, shielded (Advanced Shielding Technology), free cable end, on Socket angled M12, T-coded, cable length: 1.5 m, For direct current up to 12 A/63 V

Power cable - SAC-4P-M12MST/ 1,0-PUR - 1408812



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, T-coded, on free cable end, cable length: 1 m, For direct current up to 12 A/63 V

Power cable - SAC-4P-M12MST/ 2,0-PUR - 1408813



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, T-coded, on free cable end, cable length: 2 m, For direct current up to 12 A/63 V

Power cable - SAC-4P-M12MST/ 5,0-PUR - 1408814



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, T-coded, on free cable end, cable length: 5 m, For direct current up to 12 A/63 V

Power cable - SAC-4P-M12MST/10,0-PUR - 1408815



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, T-coded, on free cable end, cable length: 10 m, For direct current up to 12 A/63 V

## Distributed I/O device - AXL E PB DI8 DO4 2A M12 6M - 2701507

### Accessories

Power cable - SAC-4P-M12MRT/ 1,0-PUR - 1408816



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug angled M12, T-coded, on free cable end, cable length: 1 m, For direct current up to 12 A/63 V

Power cable - SAC-4P-M12MRT/ 2,0-PUR - 1408819



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug angled M12, T-coded, on free cable end, cable length: 2 m, For direct current up to 12 A/63 V

Power cable - SAC-4P-M12MRT/ 5,0-PUR - 1408820



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug angled M12, T-coded, on free cable end, cable length: 5 m, For direct current up to 12 A/63 V

Power cable - SAC-4P-M12MRT/10,0-PUR - 1408822



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug angled M12, T-coded, on free cable end, cable length: 10 m, For direct current up to 12 A/63 V

Power cable - SAC-4P- 1,0-PUR/M12FST - 1408823



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Socket straight M12, T-coded, cable length: 1 m, For direct current up to 12 A/63 V

## Distributed I/O device - AXL E PB DI8 DO4 2A M12 6M - 2701507

### Accessories

Power cable - SAC-4P- 2,0-PUR/M12FST - 1408824



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Socket straight M12, T-coded, cable length: 2 m, For direct current up to 12 A/63 V

Power cable - SAC-4P- 5,0-PUR/M12FST - 1408825



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Socket straight M12, T-coded, cable length: 5 m, For direct current up to 12 A/63 V

Power cable - SAC-4P-10,0-PUR/M12FST - 1408826



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Socket straight M12, T-coded, cable length: 10 m, For direct current up to 12 A/63 V

Power cable - SAC-4P- 1,0-PUR/M12FRT - 1408827



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Socket angled M12, T-coded, cable length: 1 m, For direct current up to 12 A/63 V

Power cable - SAC-4P- 2,0-PUR/M12FRT - 1408828



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Socket angled M12, on free cable end, cable length: 2 m, For direct current up to 12 A/63 V

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### Accessories

Power cable - SAC-4P- 5,0-PUR/M12FRT - 1408829



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Socket angled M12, on free cable end, cable length: 5 m, For direct current up to 12 A/63 V

Power cable - SAC-4P-10,0-PUR/M12FRT - 1408830



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Socket angled M12, on free cable end, cable length: 10 m, For direct current up to 12 A/63 V

Power cable - SAC-4P-M12MST/ 0,3-PUR/M12FST - 1408806



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, T-coded, on Socket straight M12, T-coded, cable length: 0.3 m, For direct current up to 12 A/63 V

Power cable - SAC-4P-M12MST/ 0,6-PUR/M12FST - 1408807



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, T-coded, on Socket straight M12, T-coded, cable length: 0.6 m, For direct current up to 12 A/63 V

Power cable - SAC-4P-M12MST/ 1,0-PUR/M12FST - 1408808



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, T-coded, on Socket straight M12, T-coded, cable length: 1 m, For direct current up to 12 A/63 V

## Distributed I/O device - AXL E PB DI8 DO4 2A M12 6M - 2701507

### Accessories

Power cable - SAC-4P-M12MST/ 2,0-PUR/M12FST - 1408809



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, T-coded, on Socket straight M12, T-coded, cable length: 2 m, For direct current up to 12 A/63 V

Power cable - SAC-4P-M12MST/ 5,0-PUR/M12FST - 1408810



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, T-coded, on Socket straight M12, T-coded, cable length: 5 m, For direct current up to 12 A/63 V

Power cable - SAC-4P-M12MST/10,0-PUR/M12FST - 1408811



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, T-coded, on Socket straight M12, T-coded, cable length: 10 m, For direct current up to 12 A/63 V

### Protective cap

Screw plug - PROT-M12 - 1680539



An M12 screw plug for the unoccupied M12 sockets of the sensor/actuator cable, boxes and flush-type connectors

### Sensor/actuator cable

Sensor/actuator cable - SAC-3P-M12MS/.../... - 1696662



Sensor/actuator cable, 3-position, Variable cable type, Plug straight M12, A-coded, on free cable end, cable length: Free input (0.2 ... 40.0 m)

## Distributed I/O device - AXL E PB DI8 DO4 2A M12 6M - 2701507

### Accessories

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Sensor/actuator cable - SAC-3P-M12MR/.../... - 1696675



Sensor/actuator cable, 3-position, Variable cable type, Plug angled M12, A-coded, on free cable end, cable length: Free input (0.2 ... 40.0 m)

Sensor/actuator cable - SAC-3P-M12MS-M12FS/.../... - 1696756



Sensor/actuator cable, 3-position, Variable cable type, Plug straight M12, A-coded, on Socket straight M12, A-coded, cable length: Free input (0.2 ... 40.0 m)

Sensor/actuator cable - SAC-3P-M12MR-M12FS/.../... - 1513428



Sensor/actuator cable, 3-position, Variable cable type, Plug angled M12, A-coded, on Socket straight M12, A-coded, cable length: Free input (0.2 ... 40.0 m)

Sensor/actuator cable - SAC-3P-M12MR-M12FR/.../... - 1513318



Sensor/actuator cable, 3-position, Variable cable type, Plug angled M12, A-coded, on Socket angled M12, A-coded, cable length: Free input (0.2 ... 40.0 m)

Sensor/actuator cable - SAC-4P-MS SCO/.../... - 1523560



Sensor/actuator cable, 4-position, Variable cable type, Plug straight M12 SPEEDCON, A-coded, on free cable end, cable length: Free input (0.2 ... 40.0 m)

## Distributed I/O device - AXL E PB DI8 DO4 2A M12 6M - 2701507

### Accessories

Sensor/actuator cable - SAC-4P-MR SCO/.../... - 1523573



Sensor/actuator cable, 4-position, Variable cable type, Plug angled M12 SPEEDCON, A-coded, on free cable end, cable length: Free input (0.2 ... 40.0 m)

Sensor/actuator cable - SAC-4P-MS-FS SCO/.../... - 1523586



Sensor/actuator cable, 4-position, Variable cable type, Plug straight M12 SPEEDCON, A-coded, on Socket straight M12 SPEEDCON, A-coded, cable length: Free input (0.2 ... 40.0 m)

Sensor/actuator cable - SAC-4P-M12MR-M12FS/.../... - 1697030



Sensor/actuator cable, 4-position, Variable cable type, Plug angled M12, A-coded, on Socket straight M12, A-coded, cable length: Free input (0.2 ... 40.0 m)

Sensor/actuator cable - SAC-4P-M12MR-M12FR/.../... - 1697043



Sensor/actuator cable, 4-position, Variable cable type, Plug angled M12, A-coded, on Socket angled M12, A-coded, cable length: Free input (0.2 ... 40.0 m)

Sensor/actuator cable - SAC-5P-MS SCO/.../... - 1523609



Sensor/actuator cable, 5-position, Variable cable type, Plug straight M12 SPEEDCON, A-coded, on free cable end, cable length: Free input (0.2 ... 40.0 m)

## Distributed I/O device - AXL E PB DI8 DO4 2A M12 6M - 2701507

### Accessories

Sensor/actuator cable - SAC-5P-M12MR/.../... - 1697108



Sensor/actuator cable, 5-position, Variable cable type, Plug angled M12, A-coded, on free cable end, cable length: Free input (0.2 ... 40.0 m)

Sensor/actuator cable - SAC-5P-MS-FS SCO/.../... - 1523625



Sensor/actuator cable, 5-position, Variable cable type, Plug straight M12 SPEEDCON, A-coded, on Socket straight M12 SPEEDCON, A-coded, cable length: Free input (0.2 ... 40.0 m)

Sensor/actuator cable - SAC-5P-M12MR-M12FS/.../... - 1508734



Sensor/actuator cable, 5-position, Variable cable type, Plug angled M12, A-coded, on Socket straight M12, A-coded, cable length: Free input (0.2 ... 40.0 m)

Sensor/actuator cable - SAC-5P-M12MR-M12FR/.../... - 1529506



Sensor/actuator cable, 5-position, Variable cable type, Plug angled M12, A-coded, on Socket angled M12, A-coded, cable length: Free input (0.2 ... 40.0 m)

### T-distributor

T distributor - SAC-M12T/2XM12 PBDP - 1458884



T distributor, PROFIBUS DP (12 Mbps), 4-position, shielded, Plug straight M12, B-coded, on Plug straight M12, B-coded and Socket straight M12, B-coded

## Distributed I/O device - AXL E PB DI8 DO4 2A M12 6M - 2701507

### Accessories

#### Terminal resistor

Termination resistor - SAC-5P-M12MS PB TR - 1507803



Terminating resistor PROFIBUS M12

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#### Y-distributor

Y distributor - SAC-3P-Y/2XM 8FS SCO - 1523984



Y distributor, 4-position, Plug straight M12 SPEEDCON, A-coded, on Socket straight M8, A-coded and Socket straight M8, A-coded

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Y distributor - SAC-3P-Y/2XFS PE SCO - 1523971



Y distributor, 4-position, Plug straight M12 SPEEDCON, A-coded, on Socket straight M12 SPEEDCON, A-coded and Socket straight M12 SPEEDCON, A-coded

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Y distributor - SAC-3P-Y/2XFS B PE SCO - 1523968



Y distributor, 4-position, Plug straight M12 SPEEDCON, A-coded, on Socket straight M12 SPEEDCON, A-coded, PIN 2+4 bridged and Socket straight M12 SPEEDCON, A-coded, PIN 2+4 bridged, Thread M12 socket not rotatable

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Y distributor - SAC-5P-Y/2XFS VP SCO - 1546068



Y distributor, 5-position, Plug straight M12 SPEEDCON, A-coded, on Socket straight M12 SPEEDCON, A-coded and Socket straight M12 SPEEDCON, A-coded, Parallel distributor, Thread M12 socket not rotatable

## Distributed I/O device - AXL E PB DI8 DO4 2A M12 6M - 2701507

### Accessories

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