

Distributed I/O device - FLS PB M12 DIO 4/4 M12-2A - 2736107

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The stand-alone device for PROFIBUS has 4 digital inputs and 4 digital outputs each with a load capacity of 2 A. The M12 connection is established using fast connection technology. The 24 V DC supply is protected against short circuit and overload.

Product description

This device is used for digital signal acquisition and output.

Why buy this product

- Flexible power supply concept
- Diagnostic and status indicators
- SPEEDCON fast locking system
- Short-circuit and overload protection
- Consistent connection via M12 connectors
- Directly accessible address encoding switch



Key commercial data

Packing unit	1 pc
GTIN	4 017918 899592
Weight per Piece (excluding packing)	332.14 g
Custom tariff number	85389099
Country of origin	Germany

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	178 mm
Depth	49.3 mm
Drill hole spacing	168 mm

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Technical data

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (storage/transport)	95 %
Air pressure (operation)	80 kPa ... 106 kPa (up to 2000 m above sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Degree of protection	IP65/67

General

Weight	340 g
Mounting type	Wall mounting
Protection class	III, IEC 61140, EN 61140, VDE 0140-1
Test section	24 V supply (bus logics) / Bus connection 500 V AC 50 Hz 1 min
	24 V supply (bus logics) / FE 500 V AC 50 Hz 1 min
	24 V supply (bus logics) / Digital inputs (sensor supply / I/O) 500 V AC 50 Hz 1 min
	24 V supply (bus logics) / Digital outputs (actuator supply) 500 V AC 50 Hz 1 min
	Bus connection / FE 500 V AC 50 Hz 1 min
	Bus connection / Digital inputs (sensor supply) 500 V AC 50 Hz 1 min
	Bus connection / Digital outputs (actuator supply) 500 V AC 50 Hz 1 min
	FE / Digital outputs (actuator supply) 500 V AC 50 Hz 1 min
	FE / Digital inputs (sensor supply) 500 V AC 50 Hz 1 min
	Digital outputs (actuator supply) / Digital outputs (actuator supply) 500 V AC 50 Hz 1 min

Interfaces

Fieldbus system	PROFIBUS DP
Name	PROFIBUS DP
Connection method	2x M12 connectors, B-coded
Designation connection point	Copper cable
Transmission speed	9,6 kBit/s ... 12 MBit/s (Automatic baud rate detection)
Transmission physics	PROFIBUS-DP-compliant copper cable
Address area assignment	1 ... 99, can be set
Number of positions	5

Power supply for module electronics

Connection method	M12 connector, (A-coded)
Name	U _L
Supply voltage	24 V DC
Supply voltage range	18 V DC ... 30 V DC IEC 61131-2 (including ripple)

Fieldline potentials

Voltage supply U _L	24 V DC
Power supply at U _L	max. 4 A

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Technical data

Fieldline potentials

Current consumption from U_L	typ. 40 mA
	max. 100 mA
Voltage supply U_S	24 V DC
Power supply at U_S	max. 4 A
Current consumption from U_S	typ. 5 mA (plus sensor current)
	max. 700 mA
Voltage supply U_{A11}	24 V DC
Power supply at U_{A11}	max. 4 A
Current consumption at U_{A11}	typ. 6 mA (plus actuator current)
	max. 4 A
Voltage supply U_{A12}	24 V DC
Power supply at U_{A12}	max. 4 A
Current consumption at U_{A12}	typ. 6 mA (plus actuator current)
	max. 4 A

Digital inputs

Input name	Digital inputs
Connection method	M12 connector
	2, 3, 4-wire
Number of inputs	4 (EN 61131-2 type 1)
Protective circuit	Protection against polarity reversal
Filter time	3 ms
Input voltage	24 V DC
Input voltage range "0" signal	-30 V DC ... 5 V DC
Input voltage range "1" signal	13 V DC ... 30 V DC

Digital outputs

Output name	Digital outputs
Connection method	M12 connector
	2, 3-wire
Number of outputs	4
Protective circuit	Short-circuit protection
Output voltage	24 V DC
Maximum output current per channel	2 A

Classifications

eCl@ss

eCl@ss 4.0	27250302
eCl@ss 4.1	27250302
eCl@ss 5.0	27250302

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Classifications

eCl@ss

eCl@ss 5.1	27242604
eCl@ss 6.0	27242604
eCl@ss 7.0	27242604
eCl@ss 8.0	27242604

ETIM

ETIM 2.0	EC001430
ETIM 3.0	EC001599
ETIM 4.0	EC001599
ETIM 5.0	EC001599

UNSPSC

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

Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / GOST / PROFIBUS / cULus Recognized

Ex Approvals

UL Recognized / cUL Recognized / cULus Recognized

Approvals submitted

Approval details

UL Recognized

cUL Recognized

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Approvals

GOST

PROFIBUS

cULus Recognized

Accessories

Accessories

Circular connector (cable-side)

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



Bus system plug-in plug, male straight, 5-pos., M12, shielded, gold-plated contacts, B-coded, screw connection, metal knurl, cable screw connection Pg9

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



Bus system connector, female, straight, 5-pos., M12, shielded, gold-plated contacts, B-coded, screw connection, metal knurl, cable screw connection Pg9

Data cable preassembled

Bus system cable - SAC-2P-M12MSB/ 2,0-910 - 1507243



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, Violet, RAL 4001, shielded, Plug straight M12, B-coded, on Free cable end, Cable length: 2 m

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Accessories

Bus system cable - SAC-2P-M12MSB/ 5,0-910 - 1507256



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, Violet, RAL 4001, shielded, Plug straight M12, B-coded, on Free cable end, Cable length: 5 m

Bus system cable - SAC-2P-M12MSB/10,0-910 - 1507269



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, Violet, RAL 4001, shielded, Plug straight M12, B-coded, on Free cable end, Cable length: 10 m

Bus system cable - SAC-2P-M12MSB/15,0-910 - 1507272



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, Violet, RAL 4001, shielded, Plug straight M12, B-coded, on Free cable end, Cable length: 15 m

Bus system cable - SAC-2P- 2,0-910/M12FSB - 1507298



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, Violet, RAL 4001, shielded, Free cable end, on Socket straight M12, B-coded, Cable length: 2 m

Bus system cable - SAC-2P- 5,0-910/M12FSB - 1507308



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, Violet, RAL 4001, shielded, Free cable end, on Socket straight M12, B-coded, Cable length: 5 m

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Accessories

Bus system cable - SAC-2P-10,0-910/M12FSB - 1507311



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, Violet, RAL 4001, shielded, Free cable end, on Socket straight M12, B-coded, Cable length: 10 m

Bus system cable - SAC-2P-15,0-910/M12FSB - 1507324



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, Violet, RAL 4001, shielded, Free cable end, on Socket straight M12, B-coded, Cable length: 15 m

Bus system cable - SAC-2P-M12MSB/ 0,3-910/M12FSB - 1507340



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, Violet, RAL 4001, shielded, Plug straight M12, B-coded, on Socket straight M12, B-coded, Cable length: 0.3 m

Bus system cable - SAC-2P-M12MSB/ 0,5-910/M12FSB - 1507353



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, Violet, RAL 4001, shielded, Plug straight M12, B-coded, on Socket straight M12, B-coded, Cable length: 0.5 m

Bus system cable - SAC-2P-M12MSB/ 1,0-910/M12FSB - 1507366



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, Violet, RAL 4001, shielded, Plug straight M12, B-coded, on Socket straight M12, B-coded, Cable length: 1 m

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Accessories

Bus system cable - SAC-2P-M12MSB/ 2,0-910/M12FSB - 1507379



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, Violet, RAL 4001, shielded, Plug straight M12, B-coded, on Socket straight M12, B-coded, Cable length: 2 m

Bus system cable - SAC-2P-M12MSB/ 5,0-910/M12FSB - 1507382



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, Violet, RAL 4001, shielded, Plug straight M12, B-coded, on Socket straight M12, B-coded, Cable length: 5 m

Bus system cable - SAC-2P-M12MSB/10,0-910/M12FSB - 1507395



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, Violet, RAL 4001, shielded, Plug straight M12, B-coded, on Socket straight M12, B-coded, Cable length: 10 m

Bus system cable - SAC-2P-M12MSB/15,0-910/M12FSB - 1507405



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, Violet, RAL 4001, shielded, Plug straight M12, B-coded, on Socket straight M12, B-coded, Cable length: 15 m

Distributor with cable

Sensor/Actuator cable - SAC-4P-M12Y/2X0,3-PUR/M12FS VP - 1510722



Sensor/Actuator cable, 4-position, PUR halogen-free, Black-gray RAL 7021, Plug straight M12, A-coded, on Socket straight M12, A-coded and Socket straight M12, A-coded, Cable length: 0.3 m, Parallel distributor

Protective cap

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Accessories

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-4P-M12MS/ 2,0-186 - 1509445



Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Plug straight M12, A-coded, on Free cable end, Cable length: 2 m

Sensor/Actuator cable - SAC-4P-M12MS/ 5,0-186 - 1509458



Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Plug straight M12, A-coded, on Free cable end, Cable length: 5 m

Sensor/Actuator cable - SAC-4P-M12MS/10,0-186 - 1509461



Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Plug straight M12, A-coded, on Free cable end, Cable length: 10 m

Sensor/Actuator cable - SAC-4P-M12MS/15,0-186 - 1509474



Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Plug straight M12, A-coded, on Free cable end, Cable length: 15 m

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Accessories

Sensor/Actuator cable - SAC-4P- 2,0-186/M12FS - 1509487



Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Free cable end, on Socket straight M12, A-coded, Cable length: 2 m

Sensor/Actuator cable - SAC-4P- 5,0-186/M12FS - 1509490



Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Free cable end, on Socket straight M12, A-coded, Cable length: 5 m

Sensor/Actuator cable - SAC-4P-10,0-186/M12FS - 1509500



Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Free cable end, on Socket straight M12, A-coded, Cable length: 10 m

Sensor/Actuator cable - SAC-4P-15,0-186/M12FS - 1509513



Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Free cable end, on Socket straight M12, A-coded, Cable length: 15 m

Sensor/Actuator cable - SAC-4P-M12MS/ 0,3-186/M12FS - 1509526



Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 0.3 m

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Accessories

Sensor/Actuator cable - SAC-4P-M12MS/ 0,5-186/M12FS - 1509539



Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 0.5 m

Sensor/Actuator cable - SAC-4P-M12MS/ 1,0-186/M12FS - 1509542



Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 1 m

Sensor/Actuator cable - SAC-4P-M12MS/ 2,0-186/M12FS - 1509555



Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 2 m

Sensor/Actuator cable - SAC-4P-M12MS/ 5,0-186/M12FS - 1509568



Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 5 m

Sensor/Actuator cable - SAC-4P-M12MS/10,0-186/M12FS - 1509571



Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 10 m

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Accessories

Sensor/Actuator cable - SAC-4P-M12MS/15,0-186/M12FS - 1509584



Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 15 m

T-distributor

Bus system T-connector - SAC-M12T/2XM12 PB DP - 1507780



Bus system T-plug, PROFIBUS, M12 B-coded male plug to M12 B-coded male plug and M12 B-coded female plug, shielded

Terminal marking

Zack Marker strip, flat - ZBF 12:UNBEDRUCKT - 0809735



Zack Marker strip, flat, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into flat marker groove, For terminal block width: 12 mm, Lettering field: 5.15 x 12.15 mm

Terminal resistor

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

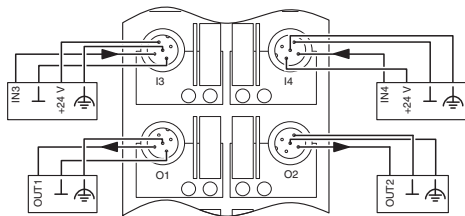


Terminating resistor PROFIBUS M12

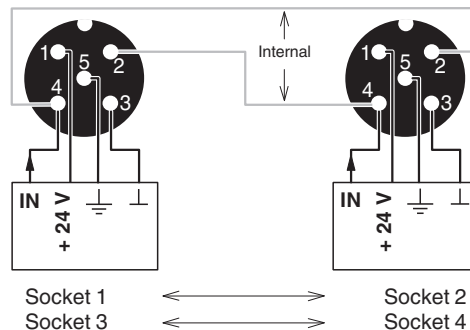
Drawings

Distributed I/O device - FLS PB M12 DIO 4/4 M12-2A - 2736107

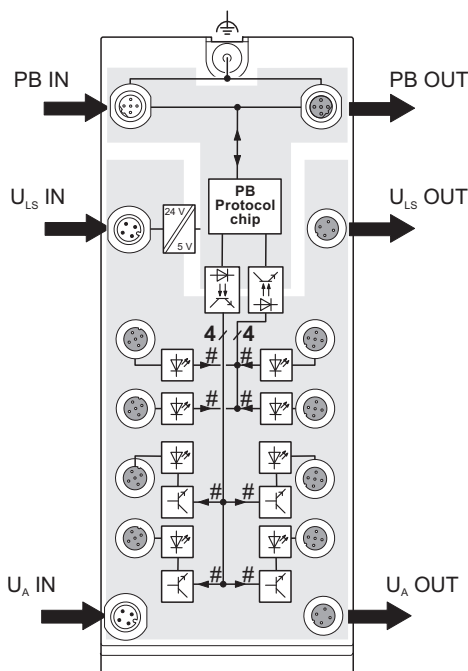
Connection diagram



Connection diagram



Block diagram



Dimensioned drawing

