

FLS PB M12 DIO 4/4 M12-2A


Order No.: 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.



Commercial data

GTIN (EAN)	 4 017918 899592
sales group	L011
Pack	1 pcs.
Customs tariff	85176200
Catalog page information	Page 353 (AX-2009)

Product notes

WEEE/RoHS-compliant since:
08/12/2008



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Product description

This device is used for digital signal acquisition and output.

Technical data

General data

Width	60 mm
Height	178 mm
Depth	49.3 mm
Drill hole spacing	168 mm
Weight	340 g
Mounting type	Wall mounting
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
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

Interface

Fieldbus system	PROFIBUS-DP
Name	PROFIBUS DP
Type of connection	2 M12 plug connectors, B-coded
Designation connection point	Copper cable

Transmission speed	9.64 kBaud to 12 Mbaud automatic detection
	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

Type of connection	M12 plug connectors, (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 potential routing

Voltage supply U_L	24 V DC
Power supply at U_L	max. 4 A
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
Type of connection	M12 male connector
Connection method	2, 3, 4-wire
Number of inputs	4
Protective circuit	Protection against polarity reversal

Filter time	3 ms
Input characteristic curve	IEC 61131-2 type 1
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
Type of connection	M12 male connector
Connection method	2, 3-wire
Number of outputs	4
Protective circuit	Short-circuit protection
Output voltage	24 V DC
Maximum output current per channel	2 A

Certificates / Approvals



Certification	CUL, GOST, UL
Certification Ex:	CUL-EX, UL-EX

Accessories

Item	Designation	Description
Cable/conductor		
1507298	SAC-2P- 2,0-910/M12FSB	Bus system cable, 2-position, PUR, halogen-free, Violet, RAL 4001, shielded, Free conductor end, on Socket, straight M12, B-coded, Cable length: 2 m
1507308	SAC-2P- 5,0-910/M12FSB	Bus system cable, 2-position, PUR, halogen-free, Violet, RAL 4001, shielded, Free conductor end, on Socket, straight M12, B-coded, Cable length: 5 m
1507311	SAC-2P-10,0-910/M12FSB	Bus system cable, 2-position, PUR, halogen-free, Violet, RAL 4001, shielded, Free conductor end, on Socket, straight M12, B-coded, Cable length: 10 m

1507324	SAC-2P-15,0-910/M12FSB	Bus system cable, 2-position, PUR, halogen-free, Violet, RAL 4001, shielded, Free conductor end, on Socket, straight M12, B-coded, Cable length: 15 m
1507340	SAC-2P-M12MSB/ 0,3-910/M12FSB	Bus system cable, 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
1507353	SAC-2P-M12MSB/ 0,5-910/M12FSB	Bus system cable, 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
1507366	SAC-2P-M12MSB/ 1,0-910/M12FSB	Bus system cable, 2-position, PUR, halogen-free, Violet, RAL 4001, shielded, Plug, straight M12, B-coded, on Socket, straight M12, B-coded, Cable length: 1 m
1507243	SAC-2P-M12MSB/ 2,0-910	Bus system cable, 2-position, PUR, halogen-free, Violet, RAL 4001, shielded, Plug, straight M12, B-coded, on Free conductor end, Cable length: 2 m
1507379	SAC-2P-M12MSB/ 2,0-910/M12FSB	Bus system cable, 2-position, PUR, halogen-free, Violet, RAL 4001, shielded, Plug, straight M12, B-coded, on Socket, straight M12, B-coded, Cable length: 2 m
1507256	SAC-2P-M12MSB/ 5,0-910	Bus system cable, 2-position, PUR, halogen-free, Violet, RAL 4001, shielded, Plug, straight M12, B-coded, on Free conductor end, Cable length: 5 m
1507382	SAC-2P-M12MSB/ 5,0-910/M12FSB	Bus system cable, 2-position, PUR, halogen-free, Violet, RAL 4001, shielded, Plug, straight M12, B-coded, on Socket, straight M12, B-coded, Cable length: 5 m
1507269	SAC-2P-M12MSB/10,0-910	Bus system cable, 2-position, PUR, halogen-free, Violet, RAL 4001, shielded, Plug, straight M12, B-coded, on Free conductor end, Cable length: 10 m
1507395	SAC-2P-M12MSB/10,0-910/M12FSB	Bus system cable, 2-position, PUR, halogen-free, Violet, RAL 4001, shielded, Plug, straight M12, B-coded, on Socket, straight M12, B-coded, Cable length: 10 m
1507272	SAC-2P-M12MSB/15,0-910	Bus system cable, 2-position, PUR, halogen-free, Violet, RAL 4001, shielded, Plug, straight M12, B-coded, on Free conductor end, Cable length: 15 m
1507405	SAC-2P-M12MSB/15,0-910/M12FSB	Bus system cable, 2-position, PUR, halogen-free, Violet, RAL 4001, shielded, Plug, straight M12, B-coded, on Socket, straight M12, B-coded, Cable length: 15 m
1509487	SAC-4P- 2,0-186/M12FS	Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Free conductor end, on Socket, straight M12, A-coded, Cable length: 2 m
1509490	SAC-4P- 5,0-186/M12FS	Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Free conductor end, on Socket, straight M12, A-coded, Cable length: 5 m
1509500	SAC-4P-10,0-186/M12FS	Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Free conductor end, on Socket, straight M12, A-coded, Cable length: 10 m
1509513	SAC-4P-15,0-186/M12FS	Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Free conductor end, on Socket, straight M12, A-coded, Cable length: 15 m

1509526	SAC-4P-M12MS/ 0,3-186/ M12FS	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
1509539	SAC-4P-M12MS/ 0,5-186/ M12FS	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
1509542	SAC-4P-M12MS/ 1,0-186/ M12FS	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
1509445	SAC-4P-M12MS/ 2,0-186	Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Plug, straight M12, A-coded, on Free conductor end, Cable length: 2 m
1509555	SAC-4P-M12MS/ 2,0-186/ M12FS	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
1509458	SAC-4P-M12MS/ 5,0-186	Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Plug, straight M12, A-coded, on Free conductor end, Cable length: 5 m
1509568	SAC-4P-M12MS/ 5,0-186/ M12FS	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
1509461	SAC-4P-M12MS/10,0-186	Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Plug, straight M12, A-coded, on Free conductor end, Cable length: 10 m
1509571	SAC-4P-M12MS/10,0-186/ M12FS	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
1509474	SAC-4P-M12MS/15,0-186	Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Plug, straight M12, A-coded, on Free conductor end, Cable length: 15 m
1509584	SAC-4P-M12MS/15,0-186/ M12FS	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
Marking		
0809735	ZBF 12:UNBEDRUCKT	Zack strip, flat, unprinted, 5-section, divisible, for labeling by the customer
Plug/Adapter		
1510722	SAC-4P-M12Y/2X0,3-PUR/ M12FS VP	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
1507803	SAC-5P-M12MS PB TR	Terminating resistor PROFIBUS M12
1507780	SAC-M12T/2XM12 PB DP	Bus system T-connector, 5-pos., PROFIBUS, M12 plug, B-coded, to M12 plug, B-coded, and M12 socket, B-coded

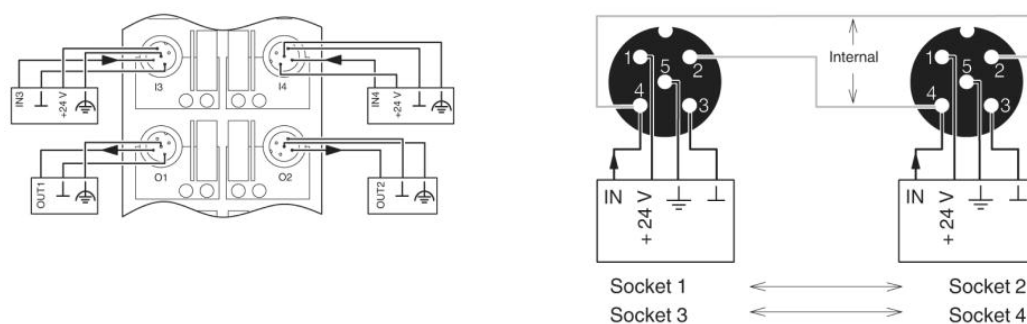
1507777	SACC-M12FSB-5CON-PG9 SH AU	Bus system plug connector, female, straight, 5-pos., M12, shielded, gold-plated contacts, B-coded, screw connection, metal knurl, cable screw connection Pg9
1507764	SACC-M12MSB-5CON-PG9 SH AU	Bus system plug connector, male straight, 5-pos., M12, shielded, gold-plated contacts, B-coded, screw connection, metal knurl, cable screw connection Pg9

Protection and sealing elements

1680539	PROT-M12	An M12 screw plug for the unoccupied M12 sockets of the sensor/ actuator cable, boxes and flush-type connectors
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Diagrams/Drawings

Connection diagram



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