

Distributed I/O device - FLS IB M12 DIO 4/4 M12-2A - 2736026

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The stand-alone device for INTERBUS 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
- Short-circuit and overload protection
- SPEEDCON fast locking system
- Diagnostic and status indicators
- Consistent connection via M12 connectors



Key commercial data

Packing unit	1 pc
GTIN	 4 017918 899646
Weight per Piece (excluding packing)	330.74 g
Custom tariff number	85176200
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) / FE 500 V AC 50 Hz 1 s
	24 V supply (bus logics) / Digital inputs (sensor supply / I/O) 500 V AC 50 Hz 1 s
	24 V supply (bus logics) / Digital outputs (actuator supply) 500 V AC 50 Hz 1 s
	24 V supply (bus logics) / Incoming remote bus 500 V AC 50 Hz 1 s
	24 V supply (bus logics) / Outgoing remote bus 500 V AC 50 Hz 1 s
	Digital inputs (sensor supply / I/O) / FE 500 V AC 50 Hz 1 s
	Digital inputs (sensor supply) / Digital outputs (actuator supply) 500 V AC 50 Hz 1 s
	Digital inputs (sensor supply / I/O) / Incoming remote bus 500 V AC 50 Hz 1 s
	Digital inputs (sensor supply / I/O) / Outgoing remote bus 500 V AC 50 Hz 1 s
	Digital outputs (actuator supply) / FE 500 V AC 50 Hz 1 s
	Digital outputs (actuator supply) / Incoming remote bus 500 V AC 50 Hz 1 s
	Incoming remote bus / FE 500 V AC 50 Hz 1 s
	Incoming remote bus / Outgoing remote bus 500 V AC 50 Hz 1 s
	Outgoing remote bus / FE 500 V AC 50 Hz 1 s
	Outgoing remote bus / FE 500 V AC 50 Hz 1 s

Interfaces

Fieldbus system	INTERBUS
Name	INTERBUS remote bus
Connection method	2x M12 connectors, B-coded
Designation connection point	Copper cable
Transmission speed	500 kBit/s
Number of positions	5

Power supply for module electronics

Connection method	M12 connector, (A-coded)
Name	U _L

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Power supply for module electronics

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
Current consumption from U_L	typ. 60 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. 10 mA (plus sensor current)
	max. 500 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
Nominal input current at U_{IN}	5 mA

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
Nominal load, inductive	48 VA (1.2 H, 12 Ω)

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Digital outputs

Nominal load, lamp	48 W
Nominal load, ohmic	48 W

Classifications

eCl@ss

eCl@ss 4.0	27250302
eCl@ss 4.1	27250302
eCl@ss 5.0	27250302
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 / INTERBUS CLUB / cULus Recognized

Ex Approvals


UL Recognized / cUL Recognized / cULus Recognized

Approvals submitted

Distributed I/O device - FLS IB M12 DIO 4/4 M12-2A - 2736026

Approvals

Approval details

UL Recognized 

cUL Recognized 

GOST 

INTERBUS CLUB

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

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Accessories

Bus system cable - SAC-5P-M12MSB/ 2,0-900 - 1507065



Bus system cable, INTERBUS (500 kbps), 5-position, PUR halogen-free, Green RAL 6017, shielded, Plug straight M12, B-coded, on Free cable end, Cable length: 2 m

Bus system cable - SAC-5P-M12MSB/ 5,0-900 - 1507078



Bus system cable, INTERBUS (500 kbps), 5-position, PUR halogen-free, Green RAL 6017, shielded, Plug straight M12, B-coded, on Free cable end, Cable length: 5 m

Bus system cable - SAC-5P-M12MSB/10,0-900 - 1507081



Bus system cable, INTERBUS (500 kbps), 5-position, PUR halogen-free, Green RAL 6017, shielded, Plug straight M12, B-coded, on Free cable end, Cable length: 10 m

Bus system cable - SAC-5P-M12MSB/15,0-900 - 1507094



Bus system cable, INTERBUS (500 kbps), 5-position, PUR halogen-free, Green RAL 6017, shielded, Plug straight M12, B-coded, on Free cable end, Cable length: 15 m

Bus system cable - SAC-5P- 2,0-900/M12FSB - 1507117



Bus system cable, INTERBUS (500 kbps), 5-position, PUR halogen-free, Green RAL 6017, shielded, Free cable end, on Socket straight M12, B-coded, Cable length: 2 m

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Accessories

Bus system cable - SAC-5P- 5,0-900/M12FSB - 1507120



Bus system cable, INTERBUS (500 kbps), 5-position, PUR halogen-free, Green RAL 6017, shielded, Free cable end, on Socket straight M12, B-coded, Cable length: 5 m

Bus system cable - SAC-5P-10,0-900/M12FSB - 1507133



Bus system cable, INTERBUS (500 kbps), 5-position, PUR halogen-free, Green RAL 6017, shielded, Free cable end, on Socket straight M12, B-coded, Cable length: 10 m

Bus system cable - SAC-5P-15,0-900/M12FSB - 1507146



Bus system cable, INTERBUS (500 kbps), 5-position, PUR halogen-free, Green RAL 6017, shielded, Free cable end, on Socket straight M12, B-coded, Cable length: 15 m

Bus system cable - SAC-5P-M12MSB/ 0,3-900/M12FSB - 1507162



Bus system cable, INTERBUS (500 kbps), 5-position, PUR halogen-free, Green RAL 6017, shielded, Plug straight M12, B-coded, on Socket straight M12, B-coded, Cable length: 0.3 m

Bus system cable - SAC-5P-M12MSB/ 0,5-900/M12FSB - 1507175



Bus system cable, INTERBUS (500 kbps), 5-position, PUR halogen-free, Green RAL 6017, shielded, Plug straight M12, B-coded, on Socket straight M12, B-coded, Cable length: 0.5 m

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Accessories

Bus system cable - SAC-5P-M12MSB/ 1,0-900/M12FSB - 1507188



Bus system cable, INTERBUS (500 kbps), 5-position, PUR halogen-free, Green RAL 6017, shielded, Plug straight M12, B-coded, on Socket straight M12, B-coded, Cable length: 1 m

Bus system cable - SAC-5P-M12MSB/ 2,0-900/M12FSB - 1507191



Bus system cable, INTERBUS (500 kbps), 5-position, PUR halogen-free, Green RAL 6017, shielded, Plug straight M12, B-coded, on Socket straight M12, B-coded, Cable length: 2 m

Bus system cable - SAC-5P-M12MSB/ 5,0-900/M12FSB - 1507201



Bus system cable, INTERBUS (500 kbps), 5-position, PUR halogen-free, Green RAL 6017, shielded, Plug straight M12, B-coded, on Socket straight M12, B-coded, Cable length: 5 m

Bus system cable - SAC-5P-M12MSB/10,0-900/M12FSB - 1507214



Bus system cable, INTERBUS (500 kbps), 5-position, PUR halogen-free, Green RAL 6017, shielded, Plug straight M12, B-coded, on Socket straight M12, B-coded, Cable length: 10 m

Bus system cable - SAC-5P-M12MSB/15,0-900/M12FSB - 1507227



Bus system cable, INTERBUS (500 kbps), 5-position, PUR halogen-free, Green RAL 6017, shielded, Plug straight M12, B-coded, on Socket straight M12, B-coded, Cable length: 15 m

Device marking

Distributed I/O device - FLS IB M12 DIO 4/4 M12-2A - 2736026

Accessories

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



Zack marker strip, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into tall marker groove, For terminal block width: 18 mm, Lettering field: 18 x 5 mm

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

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

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Accessories

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

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

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Accessories

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

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

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Accessories

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

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

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

User manual - FLS FLM SYS INST UM - 2698834

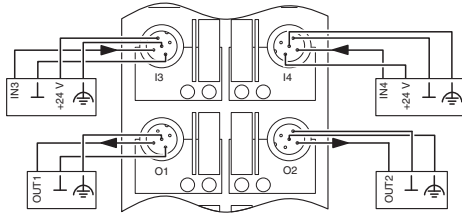


User Manual, German, for installing Fieldline devices

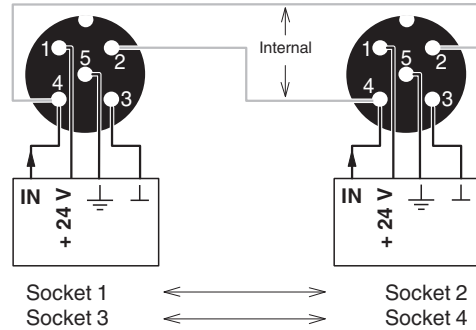
Drawings

Distributed I/O device - FLS IB M12 DIO 4/4 M12-2A - 2736026

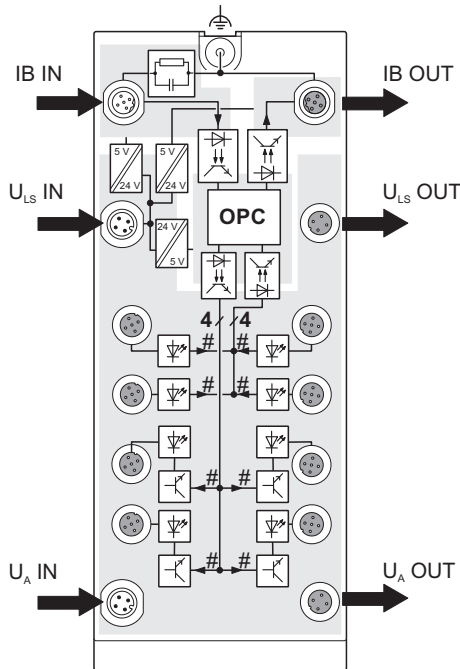
Connection diagram



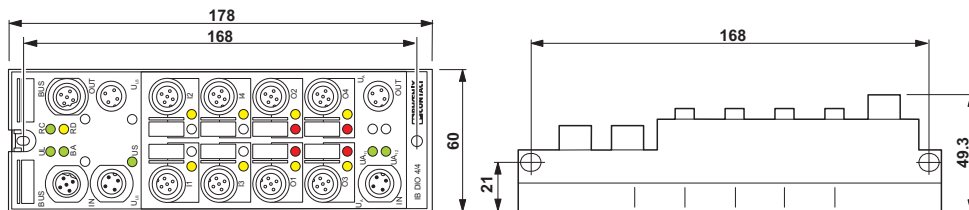
Connection diagram



Block diagram



Dimensioned drawing



Dimensions of the module