


# FLM DIO 4/4 M12-2A

Order No.: 2736369



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The local bus device has digital inputs and outputs. Functions: 4 digital inputs, 3 ms filter time, 4 digital outputs of 2 A each, 500 kbaud/2 Mbaud selection, channel-specific diagnostics, short-circuit and overload protection, M12 fast connection technology.

Commercial data	
GTIN (EAN)	
sales group	L081
Pack	1 pcs.
Customs tariff	85176200
Catalog page information	Page 373 (AX-2009)

#### Product notes

WEEE/RoHS-compliant since: 12/08/2009



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Technical data	
<b>General data</b>	
Width	70 mm
Height	178 mm
Depth	50 mm

Drill hole spacing	168 mm
Weight	315 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	To I/O 500 V AC

#### Interface

Name	Local bus
Type of connection	M12 connector, B-coded
Designation connection point	Copper cable
Transmission speed	500 kBaud/ 2 MBaud, can be selected
Number of positions	5

#### Power supply for module electronics

Type of connection	M12 male connector
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 $U_L$	max. 50 mA (At 2 Mbaud)
	Typ. 45 mA (At 2 Mbaud)
	max. 50 mA (At 500 kBaud)
	Typ. 40 mA (At 500 kBaud)
Voltage supply $U_S$	24 V DC
Power supply at $U_S$	max. 4 A
Current consumption from $U_S$	Typ. 5 mA (plus power supply for sensors)
	max. 600 mA
Voltage supply $U_{A11}$	24 V DC

Power supply at $U_{A11}$	max. 4 A
Current consumption at $U_{A11}$	Typ. 3 mA
	max. 4 A
Voltage supply $U_{A12}$	24 V DC
Power supply at $U_{A12}$	max. 4 A
Current consumption at $U_{A12}$	Typ. 3 mA
	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, UL
Certification Ex:	CUL-EX, UL-EX

**Accessories**

Item	Designation	Description
<b>Cable/conductor</b>		
1518368	SAC-5P- 2,0-186/FS SCO	Sensor/Actuator cable, 5-position, PUR, Black-gray RAL 7021, Free conductor end, on Socket, straight M12-SPEEDCON, A-coded, Cable length: 2 m
1507117	SAC-5P- 2,0-900/M12FSB	Bus system cable, INTERBUS, 5-position, PUR, halogen-free, Green RAL 6017, shielded, Free conductor end, on Socket, straight M12, B-coded, Cable length: 2 m
1518371	SAC-5P- 5,0-186/FS SCO	Sensor/Actuator cable, 5-position, PUR, Black-gray RAL 7021, Free conductor end, on Socket, straight M12-SPEEDCON, A-coded, Cable length: 5 m
1507120	SAC-5P- 5,0-900/M12FSB	Bus system cable, INTERBUS, 5-position, PUR, halogen-free, Green RAL 6017, shielded, Free conductor end, on Socket, straight M12, B-coded, Cable length: 5 m
1518384	SAC-5P-10,0-186/FS SCO	Sensor/Actuator cable, 5-position, PUR, Black-gray RAL 7021, Free conductor end, on Socket, straight M12-SPEEDCON, A-coded, Cable length: 10 m
1507133	SAC-5P-10,0-900/M12FSB	Bus system cable, INTERBUS, 5-position, PUR, halogen-free, Green RAL 6017, shielded, Free conductor end, on Socket, straight M12, B-coded, Cable length: 10 m
1518397	SAC-5P-15,0-186/FS SCO	Sensor/Actuator cable, 5-position, PUR, Black-gray RAL 7021, Free conductor end, on Socket, straight M12-SPEEDCON, A-coded, Cable length: 15 m
1507146	SAC-5P-15,0-900/M12FSB	Bus system cable, INTERBUS, 5-position, PUR, halogen-free, Green RAL 6017, shielded, Free conductor end, on Socket, straight M12, B-coded, Cable length: 15 m
1507162	SAC-5P-M12MSB/ 0,3-900/ M12FSB	Bus system cable, INTERBUS, 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
1507175	SAC-5P-M12MSB/ 0,5-900/ M12FSB	Bus system cable, INTERBUS, 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
1507188	SAC-5P-M12MSB/ 1,0-900/ M12FSB	Bus system cable, INTERBUS, 5-position, PUR, halogen-free, Green RAL 6017, shielded, Plug, straight M12, B-coded, on Socket, straight M12, B-coded, Cable length: 1 m
1507065	SAC-5P-M12MSB/ 2,0-900	Bus system cable, INTERBUS, 5-position, PUR, halogen-free, Green RAL 6017, shielded, Plug, straight M12, B-coded, on Free conductor end, Cable length: 2 m
1507191	SAC-5P-M12MSB/ 2,0-900/ M12FSB	Bus system cable, INTERBUS, 5-position, PUR, halogen-free, Green RAL 6017, shielded, Plug, straight M12, B-coded, on Socket, straight M12, B-coded, Cable length: 2 m

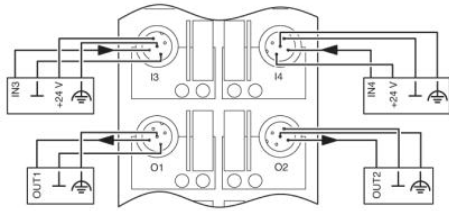
1507078	SAC-5P-M12MSB/ 5,0-900	Bus system cable, INTERBUS, 5-position, PUR, halogen-free, Green RAL 6017, shielded, Plug, straight M12, B-coded, on Free conductor end, Cable length: 5 m
1507201	SAC-5P-M12MSB/ 5,0-900/ M12FSB	Bus system cable, INTERBUS, 5-position, PUR, halogen-free, Green RAL 6017, shielded, Plug, straight M12, B-coded, on Socket, straight M12, B-coded, Cable length: 5 m
1507081	SAC-5P-M12MSB/10,0-900	Bus system cable, INTERBUS, 5-position, PUR, halogen-free, Green RAL 6017, shielded, Plug, straight M12, B-coded, on Free conductor end, Cable length: 10 m
1507214	SAC-5P-M12MSB/10,0-900/ M12FSB	Bus system cable, INTERBUS, 5-position, PUR, halogen-free, Green RAL 6017, shielded, Plug, straight M12, B-coded, on Socket, straight M12, B-coded, Cable length: 10 m
1507094	SAC-5P-M12MSB/15,0-900	Bus system cable, INTERBUS, 5-position, PUR, halogen-free, Green RAL 6017, shielded, Plug, straight M12, B-coded, on Free conductor end, Cable length: 15 m
1507227	SAC-5P-M12MSB/15,0-900/ M12FSB	Bus system cable, INTERBUS, 5-position, PUR, halogen-free, Green RAL 6017, shielded, Plug, straight M12, B-coded, on Socket, straight M12, B-coded, Cable length: 15 m
1518407	SAC-5P-MS/ 0,3-186/FS SCO	Sensor/Actuator cable, 5-position, PUR, Black-gray RAL 7021, Plug, straight M12-SPEEDCON, A-coded, on Socket, straight M12-SPEEDCON, A-coded, Cable length: 0.3 m
1518410	SAC-5P-MS/ 0,5-186/FS SCO	Sensor/Actuator cable, 5-position, PUR, Black-gray RAL 7021, Plug, straight M12-SPEEDCON, A-coded, on Socket, straight M12-SPEEDCON, A-coded, Cable length: 0.5 m
1518423	SAC-5P-MS/ 1,0-186/FS SCO	Sensor/Actuator cable, 5-position, PUR, Black-gray RAL 7021, Plug, straight M12-SPEEDCON, A-coded, on Socket, straight M12-SPEEDCON, A-coded, Cable length: 1 m
1518326	SAC-5P-MS/ 2,0-186 SCO	Sensor/Actuator cable, 5-position, PUR, Black-gray RAL 7021, Plug, straight M12-SPEEDCON, A-coded, on Free conductor end, Cable length: 2 m
1518436	SAC-5P-MS/ 2,0-186/FS SCO	Sensor/Actuator cable, 5-position, PUR, Black-gray RAL 7021, Plug, straight M12-SPEEDCON, A-coded, on Socket, straight M12-SPEEDCON, A-coded, Cable length: 2 m
1518339	SAC-5P-MS/ 5,0-186 SCO	Sensor/Actuator cable, 5-position, PUR, Black-gray RAL 7021, Plug, straight M12-SPEEDCON, A-coded, on Free conductor end, Cable length: 5 m
1518449	SAC-5P-MS/ 5,0-186/FS SCO	Sensor/Actuator cable, 5-position, PUR, Black-gray RAL 7021, Plug, straight M12-SPEEDCON, A-coded, on Socket, straight M12-SPEEDCON, A-coded, Cable length: 5 m
1518342	SAC-5P-MS/10,0-186 SCO	Sensor/Actuator cable, 5-position, PUR, Black-gray RAL 7021, Plug, straight M12-SPEEDCON, A-coded, on Free conductor end, Cable length: 10 m
1518452	SAC-5P-MS/10,0-186/FS SCO	Sensor/Actuator cable, 5-position, PUR, Black-gray RAL 7021, Plug, straight M12-SPEEDCON, A-coded, on Socket, straight M12-SPEEDCON, A-coded, Cable length: 10 m
1518355	SAC-5P-MS/15,0-186 SCO	Sensor/Actuator cable, 5-position, PUR, Black-gray RAL 7021, Plug, straight M12-SPEEDCON, A-coded, on Free conductor end, Cable length: 15 m

1518465	SAC-5P-MS/15,0-186/FS SCO	Sensor/Actuator cable, 5-position, PUR, Black-gray RAL 7021, Plug, straight M12-SPEEDCON, A-coded, on Socket, straight M12-SPEEDCON, A-coded, Cable length: 15 m
<b>Marking</b>		
0809735	ZBF 12:UNBEDRUCKT	Zack strip, flat, unprinted, 5-section, divisible, for labeling by the customer
<b>Plug/Adapter</b>		
1518481	SAC-5P-MS/ 0,13-186/FS SCO	Sensor/Actuator cable, 5-position, PUR, Black-gray RAL 7021, Plug, straight M12-SPEEDCON, A-coded, on Socket, straight M12-SPEEDCON, A-coded, Cable length: 0.13 m
1518478	SAC-5P-MSB/0,13-PUR/FSB SCO SH	Sensor/Actuator cable, 5-position, PUR, halogen-free, Black-gray RAL 7021, shielded, Plug, straight M12-SPEEDCON, B-coded, on Socket, straight M12-SPEEDCON, B-coded, Cable length: 0.13 m
1513606	SACC-M12FRB-5SC SH	Sensor/actuator connector, female, angled, 5-pos., M12, shielded, B-coded, spring-cage connection, metal knurl, cable cross section max. 8 mm
1508200	SACC-M12FS-5SC M	Sensor/actuator connector, female, straight, 5-pos., M12, A-coded, spring-cage connection, metal knurl, cable cross section max. 8 mm
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
1513596	SACC-M12FSB-5SC SH	Sensor/actuator connector, female, straight, 5-pos., M12, shielded, B-coded, spring-cage connection, metal knurl, cable cross section max. 8 mm
1513583	SACC-M12MRB-5SC SH	Sensor/actuator connector, male, angled, 5-pos., M12, shielded, B-coded, spring-cage connection, metal knurl, cable cross section max. 8 mm
1508187	SACC-M12MS-5SC M	Sensor/actuator connector, male, straight, 5-pos., M12, A-coded, spring-cage connection, metal knurl, cable cross section max. 8 mm
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
1513570	SACC-M12MSB-5SC SH	Sensor/actuator connector, male, straight, 5-pos., M12, shielded, B-coded, spring-cage connection, metal knurl, cable cross section max. 8 mm

## Diagrams/Drawings

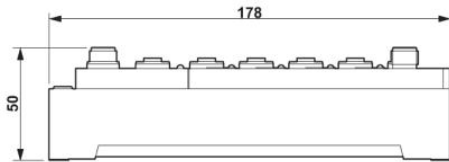
### Connection diagram

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### Dimensioned drawing

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**Address**

PHOENIX CONTACT Deutschland GmbH  
Flachmarktstr. 8  
32825 Blomberg, Germany  
Phone +49 5235 3 12000  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.de>



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### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

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