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# FLS CO M12 DI 8 M12


Order No.: 2736097



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2736097>

The stand-alone device for CANopen® has 8 digital inputs. The M12 connection is established using fast connection technology. The 24 V DC supply is protected against short circuit and overload. The nominal current of the device is 600 mA.

CANopen

Commercial data	
GTIN (EAN)	 4 017918 904562
sales group	L031
Pack	1 pcs.
Customs tariff	85176200
Catalog page information	Page 356 (AX-2009)

### Product notes

WEEE/RoHS-compliant since:  
12/07/2009



<http://www.download.phoenixcontact.com>  
Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation. The General Terms and Conditions of Use apply to Internet downloads.

### Product description

This device is used for digital signal acquisition.

## Technical data

### General data

Width	60 mm
Height	161 mm
Depth	44.5 mm
Drill hole spacing	151 mm
Weight	310 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) / FE
	24 V supply (bus logics) / Digital inputs (sensor supply / I/O) 500 V AC 50 Hz 1 min
	FE / Digital inputs (sensor supply) 500 V AC 50 Hz 1 min

### Interface

Fieldbus system	CANopen
Name	CANopen
Type of connection	2 M12 plug connectors, A-coded
Transmission speed	Maximum 1 Mbaud automatic detection
	10, 20, 50, 125, 250, 500, 1000 kBit/s (Automatic baud rate detection)
Transmission physics	Copper cable with optional power supply in acc. with CAN standard
Address area assignment	1 ... 126, adjustable
Number of positions	5

### Power supply for module electronics

Type of connection	M12 plug connectors, (A-coded)
Name	U <sub>L</sub>
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. 65 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

### Digital inputs

Input name	Digital inputs
Type of connection	M12 male connector
Connection method	2, 3, 4-wire
Number of inputs	8
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

### Certificates / Approvals



Certification CUL, GOST, UL

Certification Ex: CUL-EX, UL-EX

**Accessories**

Item	Designation	Description
<b>Cable/conductor</b>		
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
1507476	SAC-5P- 2,0-920/M12FS	Bus system cable, 5-position, PUR, halogen-free, Violet, RAL 4001, shielded, Free conductor end, on Socket, straight M12, A-coded, Cable length: 2 m
1507489	SAC-5P- 5,0-920/M12FS	Bus system cable, 5-position, PUR, halogen-free, Violet, RAL 4001, shielded, Free conductor end, on Socket, straight M12, A-coded, Cable length: 5 m
1507492	SAC-5P-10,0-920/M12FS	Bus system cable, 5-position, PUR, halogen-free, Violet, RAL 4001, shielded, Free conductor end, on Socket, straight M12, A-coded, Cable length: 10 m
1507502	SAC-5P-15,0-920/M12FS	Bus system cable, 5-position, PUR, halogen-free, Violet, RAL 4001, shielded, Free conductor end, on Socket, straight M12, A-coded, Cable length: 15 m
1507528	SAC-5P-M12MS/ 0,3-920/ M12FS	Bus system cable, 5-position, PUR, halogen-free, Violet, RAL 4001, shielded, Plug, straight M12, A-coded, on Socket, straight M12, A-coded, Cable length: 0.3 m
1507531	SAC-5P-M12MS/ 0,5-920/ M12FS	Bus system cable, 5-position, PUR, halogen-free, Violet, RAL 4001, shielded, Plug, straight M12, A-coded, on Socket, straight M12, A-coded, Cable length: 0.5 m
1507544	SAC-5P-M12MS/ 1,0-920/ M12FS	Bus system cable, 5-position, PUR, halogen-free, Violet, RAL 4001, shielded, Plug, straight M12, A-coded, on Socket, straight M12, A-coded, Cable length: 1 m
1507421	SAC-5P-M12MS/ 2,0-920	Bus system cable, 5-position, PUR, halogen-free, Violet, RAL 4001, shielded, Plug, straight M12, A-coded, on Free conductor end, Cable length: 2 m
1507557	SAC-5P-M12MS/ 2,0-920/ M12FS	Bus system cable, 5-position, PUR, halogen-free, Violet, RAL 4001, shielded, Plug, straight M12, A-coded, on Socket, straight M12, A-coded, Cable length: 2 m
1507434	SAC-5P-M12MS/ 5,0-920	Bus system cable, 5-position, PUR, halogen-free, Violet, RAL 4001, shielded, Plug, straight M12, A-coded, on Free conductor end, Cable length: 5 m
1507560	SAC-5P-M12MS/ 5,0-920/ M12FS	Bus system cable, 5-position, PUR, halogen-free, Violet, RAL 4001, shielded, Plug, straight M12, A-coded, on Socket, straight M12, A-coded, Cable length: 5 m
1507447	SAC-5P-M12MS/10,0-920	Bus system cable, 5-position, PUR, halogen-free, Violet, RAL 4001, shielded, Plug, straight M12, A-coded, on Free conductor end, Cable length: 10 m
1507573	SAC-5P-M12MS/10,0-920/ M12FS	Bus system cable, 5-position, PUR, halogen-free, Violet, RAL 4001, shielded, Plug, straight M12, A-coded, on Socket, straight M12, A-coded, Cable length: 10 m
1507450	SAC-5P-M12MS/15,0-920	Bus system cable, 5-position, PUR, halogen-free, Violet, RAL 4001, shielded, Plug, straight M12, A-coded, on Free conductor end, Cable length: 15 m
1507586	SAC-5P-M12MS/15,0-920/ M12FS	Bus system cable, 5-position, PUR, halogen-free, Violet, RAL 4001, shielded, 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
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**Plug/Adapter**

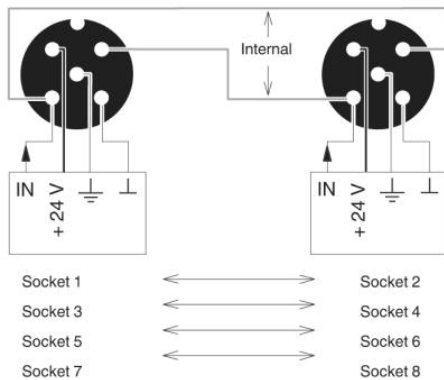
1510722	SAC-4P-M12Y/2X0,3-PUR/M12FS VP	Sensor/Actuator cable, 4-position, PUR, halogen-free, Black-gray RAL 7021, Plug, straight M12, A-coded, on Socket, straight M12, A-coded and Socket, straight M12, A-coded, Cable length: 0.3 m
1507816	SAC-5P-M12MS CAN TR	Terminating resistor CANopen/DeviceNet™ M12
1507793	SAC-M12T/2XM12 CAN	Bus system T-connector, 5-pos., DeviceNet™/CANopen, M12 socket to M12 socket and M12 plug
1508365	SACC-M12FS-5CON-PG 9 SH AU	Bus system plug connector, female straight, 5-pos., M12, shielded, gold-plated contacts, A-coded, screw connection, metal knurl, cable screw connection Pg9
1508352	SACC-M12MS-5CON-PG 9 SH AU	Bus system plug connector, male, straight, 5-pos., M12, shielded, gold-plated contacts, A-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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