

FLS CO M12 DIO 4/4 M12-2A


Order No.: 2736071

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The stand-alone device for CANopen® 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.

CANopen

Commercial data

GTIN (EAN)	 4 017918 904548
sales group	L031
Pack	1 pcs.
Customs tariff	85176200
Catalog page information	Page 251 (AX-2011)

Product notes

WEEE/RoHS-compliant since:
06/02/2008

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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) / FE
	24 V supply (bus logics) / Digital inputs (sensor supply) 500 V AC 50 Hz 1 min
	24 V supply (bus logics) / Digital outputs (actuator supply) 500 V AC 50 Hz 1 min
	FE / Digital inputs (sensor supply) 500 V AC 50 Hz 1 min
	FE / Digital outputs (actuator supply) 500 V AC 50 Hz 1 min
	Digital inputs (sensor supply) / Digital outputs (actuator supply) 500 V AC 50 Hz 1 min

Interface

Fieldbus system	CANopen
Name	CANopen
Connection method	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

Connection method	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. 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 male connector 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
Connection method	M12 male 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

Certificates / Approvals



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

Accessories

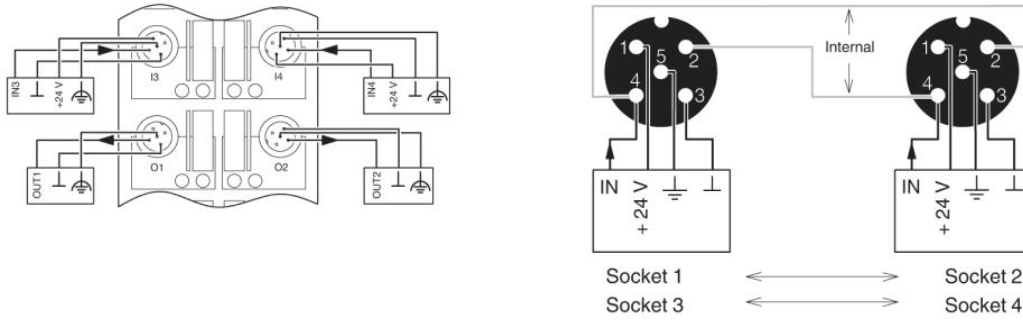
Item	Designation	Description
Cable/conductor		
1509487	SAC-4P- 2,0-186/M12FS	Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, Free conductor end, on Socket, straight M12, A-coded, Cable length: 2 m
1509490	SAC-4P- 5,0-186/M12FS	Sensor/Actuator cable, 4-position, PUR, Black-gray RAL 7021, 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, straightLink: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, straightLink: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, straightLink: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, straightLink: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, straightLink: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, straightLink: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, straightLink: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, straightLink: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, straightLink: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, straightLink: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, straightLink: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, straightLink: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, straightLink: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, straightLink: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, straightLink: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, straightLink: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, straightLink: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, straightLink: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, straightLink: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, straightLink: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, straightLink: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, straightLink: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, straightLink: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

Diagrams/Drawings

Connection diagram



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