

## Distributed I/O device - FLS CO M12 DI 16 M12 - 2736479

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The stand-alone device for CANopen® has 16 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 1.2 A.

### Product Features

- Flexible power supply concept
- Short-circuit and overload protection
- SPEEDCON fast locking system
- Diagnostic and status indicators
- Consistent connection via M12 connectors
- Directly accessible address encoding switch



### Key Commercial Data

|                                      |          |
|--------------------------------------|----------|
| Packing unit                         | 1 pc     |
| Weight per Piece (excluding packing) | 345.84 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 |
|-------------------------|---------------------------------------------------------------------------|

#### Environmental Product Compliance

|            |               |
|------------|---------------|
| REACH SVHC | DEHP 117-81-7 |
|------------|---------------|

#### Dimensions

|        |         |
|--------|---------|
| Width  | 60 mm   |
| Height | 161 mm  |
| Depth  | 44.5 mm |

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## Technical data

### Dimensions

|                    |        |
|--------------------|--------|
| Drill hole spacing | 151 mm |
|--------------------|--------|

### 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/IP67                                         |

### General

|               |               |
|---------------|---------------|
| Mounting type | Wall mounting |
| Net weight    | 310 g         |

### Interfaces

|                         |                                                                        |
|-------------------------|------------------------------------------------------------------------|
| Fieldbus system         | CANopen®                                                               |
| Designation             | CANopen®                                                               |
| Connection method       | 2 M12 connectors, A-coded                                              |
| Transmission speed      | 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 connector, (A-coded)               |
| Designation          | U <sub>L</sub>                         |
| Supply voltage       | 24 V DC                                |
| Supply voltage range | 18 V DC ... 30 V DC (including ripple) |

### Fieldline potentials

|                                         |                                 |
|-----------------------------------------|---------------------------------|
| Voltage supply U <sub>L</sub>           | 24 V DC                         |
| Power supply at U <sub>L</sub>          | max. 4 A                        |
| Current consumption from U <sub>L</sub> | typ. 65 mA                      |
|                                         | max. 100 mA                     |
| Voltage supply U <sub>S</sub>           | 24 V DC                         |
| Power supply at U <sub>S</sub>          | max. 4 A                        |
| Current consumption from U <sub>S</sub> | typ. 8 mA (plus sensor current) |
|                                         | max. 1.2 A                      |

### Digital inputs

# Distributed I/O device - FLS CO M12 DI 16 M12 - 2736479

## Technical data

### Digital inputs

|                                |                                 |
|--------------------------------|---------------------------------|
| Input name                     | Digital inputs                  |
| Connection method              | M12 connector, double occupancy |
|                                | 2, 3, 4-wire                    |
| Number of inputs               | 16                              |
| Protective circuit             | Reverse polarity protection     |
| Filter time                    | 1 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             |

### Standards and Regulations

|                                  |                                                                                       |
|----------------------------------|---------------------------------------------------------------------------------------|
| 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.                             |
| Connection in acc. with standard | CUL                                                                                   |
| Protection class                 | III, IEC 61140, EN 61140, VDE 0140-1                                                  |

## 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 |
| eCl@ss 9.0 | 27242604 |

### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC001430 |
| ETIM 3.0 | EC001599 |
| ETIM 4.0 | EC001599 |
| ETIM 5.0 | EC001599 |

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 6.01 | 43172015 |
|-------------|----------|

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## Classifications

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 7.0901 | 43201404 |
| UNSPSC 11     | 43172015 |
| UNSPSC 12.01  | 43201404 |
| UNSPSC 13.2   | 43201404 |

## Approvals

### Approvals

#### Approvals

UL Recognized / cUL Recognized / UL Recognized / cULus Recognized

#### Ex Approvals

UL Recognized / cUL Recognized / cULus Recognized

#### Approvals submitted

### Approval details

UL Recognized 

cUL Recognized 

UL Recognized

cULus Recognized 

## Accessories

### Accessories

Circular connector (cable-side)

## Distributed I/O device - FLS CO M12 DI 16 M12 - 2736479

### Accessories

Bus system connector - SACC-M12MS-5CON-PG 9 SH AU - 1508352



Bus system connector, male, straight, 5-pos., M12, shielded, gold-plated contacts, A-coded, screw connection, metal knurl, cable screw connection Pg9

Bus system connector - SACC-M12FS-5CON-PG 9 SH AU - 1508365



Bus system connector, female straight, 5-pos., M12, shielded, gold-plated contacts, A-coded, screw connection, metal knurl, cable screw connection Pg9

### Data cable preassembled

Bus system cable - SAC-5P-M12MS/ 2,0-920 - 1507421



Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, PUR halogen-free, violet RAL 4001, shielded, Plug straight M12, A-coded, on free cable end, Cable length: 2 m

Bus system cable - SAC-5P-M12MS/ 5,0-920 - 1507434



Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, PUR halogen-free, violet RAL 4001, shielded, Plug straight M12, A-coded, on free cable end, Cable length: 5 m

Bus system cable - SAC-5P-M12MS/10,0-920 - 1507447



Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, PUR halogen-free, violet RAL 4001, shielded, Plug straight M12, A-coded, on free cable end, Cable length: 10 m

## Distributed I/O device - FLS CO M12 DI 16 M12 - 2736479

### Accessories

Bus system cable - SAC-5P-M12MS/15,0-920 - 1507450



Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, PUR halogen-free, violet RAL 4001, shielded, Plug straight M12, A-coded, on free cable end, Cable length: 15 m

Bus system cable - SAC-5P- 2,0-920/M12FS - 1507476



Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, PUR halogen-free, violet RAL 4001, shielded, free cable end, on Socket straight M12, A-coded, Cable length: 2 m

Bus system cable - SAC-5P- 5,0-920/M12FS - 1507489



Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, PUR halogen-free, violet RAL 4001, shielded, free cable end, on Socket straight M12, A-coded, Cable length: 5 m

Bus system cable - SAC-5P-10,0-920/M12FS - 1507492



Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, PUR halogen-free, violet RAL 4001, shielded, free cable end, on Socket straight M12, A-coded, Cable length: 10 m

Bus system cable - SAC-5P-15,0-920/M12FS - 1507502



Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, PUR halogen-free, violet RAL 4001, shielded, free cable end, on Socket straight M12, A-coded, Cable length: 15 m

## Distributed I/O device - FLS CO M12 DI 16 M12 - 2736479

### Accessories

Bus system cable - SAC-5P-M12MS/ 0,3-920/M12FS - 1507528



Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 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

Bus system cable - SAC-5P-M12MS/ 0,5-920/M12FS - 1507531



Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 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

Bus system cable - SAC-5P-M12MS/ 1,0-920/M12FS - 1507544



Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, PUR halogen-free, violet RAL 4001, shielded, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 1 m

Bus system cable - SAC-5P-M12MS/ 2,0-920/M12FS - 1507557



Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, PUR halogen-free, violet RAL 4001, shielded, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 2 m

Bus system cable - SAC-5P-M12MS/ 5,0-920/M12FS - 1507560



Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, PUR halogen-free, violet RAL 4001, shielded, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 5 m

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### Accessories

Bus system cable - SAC-5P-M12MS/10,0-920/M12FS - 1507573



Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, PUR halogen-free, violet RAL 4001, shielded, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 10 m

Bus system cable - SAC-5P-M12MS/15,0-920/M12FS - 1507586



Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, PUR halogen-free, violet RAL 4001, shielded, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 15 m

### 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

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### Accessories

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

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

## Distributed I/O device - FLS CO M12 DI 16 M12 - 2736479

### Accessories

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

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

## Distributed I/O device - FLS CO M12 DI 16 M12 - 2736479

### Accessories

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

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

### T-distributor

## Distributed I/O device - FLS CO M12 DI 16 M12 - 2736479

### Accessories

Bus system T-connector - SAC-M12T/2XM12 CAN - 1507793



Bus system T-connector, 5-pos., DeviceNet™/CANopen, M12 socket to M12 socket and M12 plug

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### 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

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### Terminal resistor

Termination resistor - SAC-5P-M12MS CAN TR - 1507816



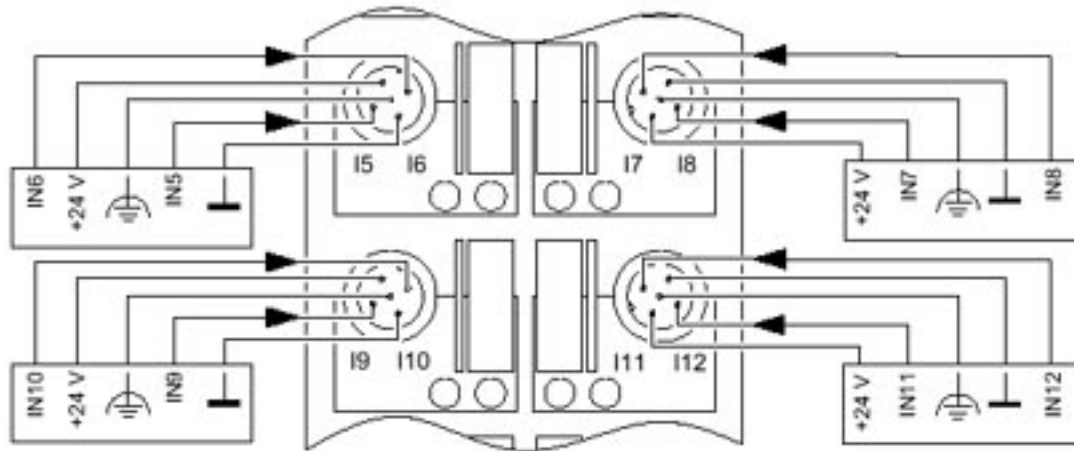
Terminating resistor CANopen®/DeviceNet™ M12

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### Drawings

## Distributed I/O device - FLS CO M12 DI 16 M12 - 2736479

Connection diagram



Dimensional drawing

