

## Distributed I/O device - FLM DIO 16/16 M12/8-DIAG - 2736738

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The local bus device has digital inputs and outputs. Functions: 16 digital inputs, 3 ms filter time, 16 digital outputs of 500 mA each, 500 kbaud/2 Mbaud selection, diagnostics strategy, short-circuit/overload protection, 8-pos. M12 fast connection technology.

### Your advantages

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

### Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 042642
GTIN	4046356042642

### Technical data

#### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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#### Dimensions

Width	70 mm
Height	178 mm
Depth	50 mm
Drill hole spacing	168 mm

#### Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (storage/transport)	95 %

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## Technical data

### Ambient conditions

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	400 g

### Interfaces

Designation	Fieldline local bus
Connection method	M12 connector, B-coded
Designation connection point	Copper cable
Transmission speed	500 kbps / 2 Mbps
Number of positions	5

### Power supply for module electronics

Connection method	M12 connector
Designation	$U_L$
Supply voltage	24 V DC
Supply voltage range	18 V DC ... 30 V DC (including ripple)

### Fieldline potentials

Voltage supply $U_L$	24 V DC
Power supply at $U_L$	max. 4 A
Current consumption from $U_L$	max. 100 mA (At 2 Mbaud)
	typ. 80 mA (At 2 Mbaud)
	max. 75 mA (At 500 kBaud)
	typ. 60 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. 20 mA (plus power supply for sensors)
	max. 1.2 A
	max. 1.2 A
Voltage supply $U_{A11}$	24 V DC
Power supply at $U_{A11}$	max. 4 A
Current consumption at $U_{A11}$	typ. 15 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. 15 mA
	max. 4 A

### Digital inputs

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## Technical data

### Digital inputs

Input name	Digital inputs
Description of the input	IEC 61131-2 type 1
Connection method	M12 connector, 8-pos.
Connection technology	2, 3-wire
Number of inputs	16
Protective circuit	Short-circuit protection, overload protection of the sensor supply Reverse polarity protection
Nominal input voltage $U_{IN}$	24 V DC
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
Delay at signal change from 0 to 1	3 ms
Delay at signal change from 1 to 0	3 ms

### Digital outputs

Output name	Digital outputs
Connection method	M12 connector, 8-pos.
Connection technology	2-wire
Number of outputs	16
Protective circuit	Short-circuit protection, overload protection of the sensor supply Polarity protection diode
Maximum output current per channel	500 mA

### Electrical isolation

Test section	To I/O 500 V DC 1 min.
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### Standards and Regulations

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
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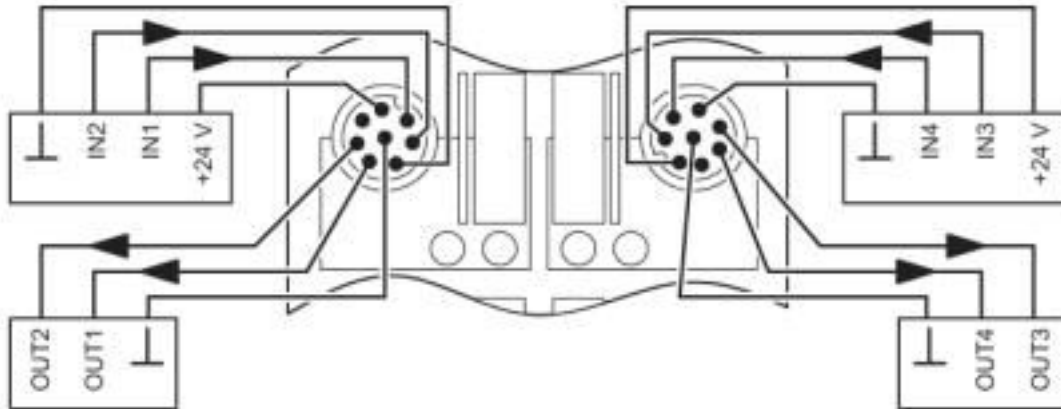
### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

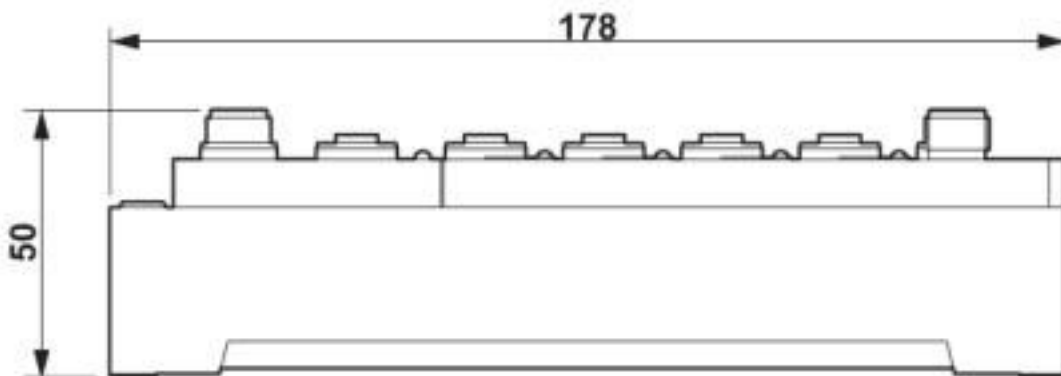
## Drawings

# Distributed I/O device - FLM DIO 16/16 M12/8-DIAG - 2736738

Connection diagram



Dimensional drawing



## Classifications

### eCl@ss

eCl@ss 10.0.1	27242604
eCl@ss 4.0	27250300
eCl@ss 4.1	27250300
eCl@ss 5.0	27250300
eCl@ss 5.1	27242600
eCl@ss 6.0	27242600
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

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## Classifications

### ETIM

ETIM 6.0	EC001599
ETIM 7.0	EC001599

### UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015
UNSPSC 12.01	43201404
UNSPSC 13.2	32151602
UNSPSC 18.0	32151602
UNSPSC 19.0	32151602
UNSPSC 20.0	32151602
UNSPSC 21.0	32151602

## Accessories

### Accessories

#### Assembly element

Mounting plate - FLM MP 5 - 2736660



Fieldline Modular mounting plate for 5 Fieldline Modular devices

Mounting plate - FLM MP 7 - 2736673



Fieldline Modular mounting plate for 7 Fieldline Modular devices

### Circular connector (cable-side)

Connector - SACC-M12MS-8CON-PG9-M - 1513334



Connector, Universal, 8-position, Plug straight M12, Coding: A, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg9, external cable diameter 6 mm ... 8 mm

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### Accessories

Connector - SACC-M12MS-8CON-PG 9-SH - 1511857



Connector, Universal, 8-position, shielded, Plug straight M12, Coding: A, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg9, external cable diameter 6 mm ... 8 mm

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### Sensor/actuator cable

Sensor/actuator cable - SAC-5P-MS/ 0,13-186/FS SCO - 1518481



Sensor/actuator cable, 5-position, PUR, black-gray RAL 7021, Plug straight M12 SPEEDCON, coding: A, on Socket straight M12 SPEEDCON, coding: A, cable length: 0.13 m

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Sensor/actuator cable - SAC-5P-MSB/0,13-PUR/FSB SCO SH - 1518478



Sensor/actuator cable, 5-position, PUR halogen-free, black-gray RAL 7021, shielded, Plug straight M12 SPEEDCON, coding: B, on Socket straight M12 SPEEDCON, coding: B, cable length: 0.13 m

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Sensor/actuator cable - SAC-8P-FS SCO/.../... - 1523667



Sensor/actuator cable, 8-position, Variable cable type, free cable end, on Socket straight M12 SPEEDCON, coding: A, cable length: Free input (0.2 ... 40.0 m)

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Sensor/actuator cable - SAC-8P-MS SCO/.../... - 1523641



Sensor/actuator cable, 8-position, Variable cable type, Plug straight M12 SPEEDCON, coding: A, on free cable end, cable length: Free input (0.2 ... 40.0 m)

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### Accessories

Sensor/actuator cable - SAC-8P-MR SCO/.../... - 1523654



Sensor/actuator cable, 8-position, Variable cable type, Plug angled M12 SPEEDCON, coding: A, on free cable end, cable length: Free input (0.2 ... 40.0 m)

Sensor/actuator cable - SAC-8P-MS-FS SCO/.../... - 1523683



Sensor/actuator cable, 8-position, Variable cable type, Plug straight M12 SPEEDCON, coding: A, on Socket straight M12 SPEEDCON, coding: A, cable length: Free input (0.2 ... 40.0 m)

Sensor/actuator cable - SAC-8P-MR-FS SCO/.../... - 1552191



Sensor/actuator cable, 8-position, Variable cable type, Plug angled M12 SPEEDCON, coding: A, on Socket straight M12 SPEEDCON, coding: A, cable length: Free input (0.2 ... 40.0 m)

Sensor/actuator cable - SAC-8P-MS-FR SCO/.../... - 1523696



Sensor/actuator cable, 8-position, Variable cable type, Plug straight M12 SPEEDCON, coding: A, on Socket angled M12 SPEEDCON, coding: A, cable length: Free input (0.2 ... 40.0 m)

Sensor/actuator cable - SAC-8P-MR-FR SCO/.../... - 1552201



Sensor/actuator cable, 8-position, Variable cable type, Plug angled M12 SPEEDCON, coding: A, on Socket angled M12 SPEEDCON, coding: A, cable length: Free input (0.2 ... 40.0 m)

### Terminal marking

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### Accessories

Zack Marker strip, flat - ZBF 12:UNBEDRUCKT - 0809735



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 12 mm, lettering field size: 5.15 x 12.15 mm, Number of individual labels: 5

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