

## Distributed I/O device - FLM AI 4 SF M12 - 2736453

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The local bus device has 4 analog inputs. Functions: 3 current and 4 voltage measuring ranges, 500 kbaud/2 Mbaud selection, PCP or process data communication, channel-specific diagnostics, short-circuit/overload protection, 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 017918 974244
GTIN	4017918974244
Weight per Piece (excluding packing)	280.000 g
Custom tariff number	85176200

### 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

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## Technical data

### Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	95 %
Permissible humidity (storage/transport)	95 %
Air pressure (operation)	80 Pa ... 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
Color	anthracite
Net weight	280 g

### Interfaces

Designation	Fieldline local bus
Connection method	M12 connector, B-coded
Transmission speed	500 kbps / 2 Mbps

### Power supply for module electronics

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 (including ripple)
Power supply at $U_L$	max. 4 A
Current consumption from $U_L$	max. 100 mA (At 2 Mbaud)
	typ. 70 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 power supply for sensors)
	max. 400 mA

### Analog inputs

Input name	Analog inputs
Number of inputs	max. 4 (differential inputs, voltage or current)
Connection method	M12 connector
Connection technology	2-, 4-conductor
Type of protection	Reverse polarity protection
Current input signal	0 mA ... 20 mA
	4 mA ... 20 mA
	-20 mA ... 20 mA
Voltage input signal	0 V ... 5 V
	-5 V ... 5 V

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## Technical data

### Analog inputs

	0 V ... 10 V
	-10 V ... 10 V

### Electrical isolation

Test section	To I/O 500 V AC
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### Standards and Regulations

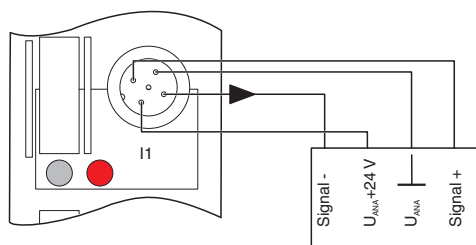
Mechanical tests	Shock in acc. with EN 60068-2-27/IEC 60068-2-27 Load 30g, half sine wave, positive and negative per direction
	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6 5g in each space direction
Connection in acc. with standard	CUL
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

### Environmental Product Compliance

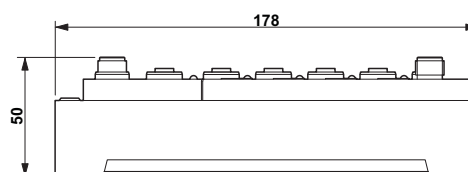
REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

## Drawings

Connection diagram



Dimensional drawing



## Classifications

eCI@ss

eCI@ss 10.0.1	27242601
eCI@ss 11.0	27242601
eCI@ss 4.0	27250300
eCI@ss 4.1	27250300
eCI@ss 5.0	27250300
eCI@ss 5.1	27250300
eCI@ss 6.0	27242600
eCI@ss 7.0	27242601

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## Classifications

### eCl@ss

eCl@ss 8.0	27242601
eCl@ss 9.0	27242601

### ETIM

ETIM 2.0	EC001431
ETIM 3.0	EC001596
ETIM 4.0	EC001596
ETIM 5.0	EC001596
ETIM 6.0	EC001596
ETIM 7.0	EC001596

### 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

## Approvals

### Approvals

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#### Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized

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#### Ex Approvals

UL Recognized / cUL Recognized / cULus Recognized

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### Approval details

UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
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cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
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## Distributed I/O device - FLM AI 4 SF M12 - 2736453

### Approvals

EAC		RU *- DE.A*30.B.01735
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cULus Recognized	
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### Accessories

#### Accessories

Circular connector (cable-side)

Data connector - SACC-M12MSB-5CON-PG9 SH AU - 1507764



Data connector, PROFIBUS, INTERBUS, 5-position, shielded, Plug straight M12, Coding: B, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg9, external cable diameter 6.5 mm ... 8.5 mm

Data connector - SACC-M12FSB-5CON-PG9 SH AU - 1507777



Data connector, PROFIBUS, INTERBUS, 5-position, shielded, Socket straight M12, Coding: B, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg9, external cable diameter 6.5 mm ... 8.5 mm

Connector - SACC-M12MSB-5SC SH - 1513570



Connector, 5-position, shielded, Plug straight M12, Coding: B, Spring-cage connection, knurl material: Nickel-plated brass, external cable diameter 4 mm ... 8 mm

Connector - SACC-M12FSB-5SC SH - 1513596



Connector, 5-position, shielded, Socket straight M12, Coding: B, Spring-cage connection, knurl material: Nickel-plated brass, external cable diameter 4 mm ... 8 mm

## Distributed I/O device - FLM AI 4 SF M12 - 2736453

### Accessories

Connector - SACC-M12MRB-5SC SH - 1513583



Connector, 5-position, shielded, Plug angled M12, Coding: B, Spring-cage connection, knurl material: Nickel-plated brass, external cable diameter 4 mm ... 8 mm

Connector - SACC-M12FRB-5SC SH - 1513606



Connector, 5-position, shielded, Socket angled M12, Coding: B, Spring-cage connection, knurl material: Nickel-plated brass, external cable diameter 4 mm ... 8 mm

Connector - SACC-M12MS-5SC M - 1508187



Connector, 5-position, Plug straight M12, Coding: A, Spring-cage connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

Connector - SACC-M12FS-5SC M - 1508200



Connector, 5-position, Socket straight M12, Coding: A, Spring-cage connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

### Data cable preassembled

Bus system cable - SAC-5P-M12MSB/ 2,0-900 - 1507065



Bus system cable, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, Plug straight M12, coding: B, on free cable end, cable length: 2 m

## Distributed I/O device - FLM AI 4 SF M12 - 2736453

### Accessories

Bus system cable - SAC-5P-M12MSB/ 5,0-900 - 1507078



Bus system cable, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, Plug straight M12, coding: B, on free cable end, cable length: 5 m

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Bus system cable - SAC-5P-M12MSB/10,0-900 - 1507081



Bus system cable, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, Plug straight M12, coding: B, on free cable end, cable length: 10 m

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Bus system cable - SAC-5P-M12MSB/15,0-900 - 1507094



Bus system cable, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, Plug straight M12, coding: B, on free cable end, cable length: 15 m

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Bus system cable - SAC-5P- 2,0-900/M12FSB - 1507117



Bus system cable, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, free cable end, on Socket straight M12, coding: B, cable length: 2 m

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Bus system cable - SAC-5P- 5,0-900/M12FSB - 1507120



Bus system cable, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, free cable end, on Socket straight M12, coding: B, cable length: 5 m

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## Distributed I/O device - FLM AI 4 SF M12 - 2736453

### Accessories

Bus system cable - SAC-5P-10,0-900/M12FSB - 1507133



Bus system cable, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, free cable end, on Socket straight M12, coding: B, cable length: 10 m

Bus system cable - SAC-5P-15,0-900/M12FSB - 1507146



Bus system cable, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, free cable end, on Socket straight M12, coding: B, cable length: 15 m

Bus system cable - SAC-5P-M12MSB/ 0,3-900/M12FSB - 1507162



Bus system cable, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, Plug straight M12, coding: B, on Socket straight M12, coding: B, cable length: 0.3 m

Bus system cable - SAC-5P-M12MSB/ 0,5-900/M12FSB - 1507175



Bus system cable, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, Plug straight M12, coding: B, on Socket straight M12, coding: B, cable length: 0.5 m

Bus system cable - SAC-5P-M12MSB/ 1,0-900/M12FSB - 1507188



Bus system cable, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, Plug straight M12, coding: B, on Socket straight M12, coding: B, cable length: 1 m



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### Accessories

Bus system cable - SAC-5P-M12MSB/ 2,0-900/M12FSB - 1507191



Bus system cable, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, Plug straight M12, coding: B, on Socket straight M12, coding: B, cable length: 2 m

Bus system cable - SAC-5P-M12MSB/ 5,0-900/M12FSB - 1507201



Bus system cable, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, Plug straight M12, coding: B, on Socket straight M12, coding: B, cable length: 5 m

Bus system cable - SAC-5P-M12MSB/10,0-900/M12FSB - 1507214



Bus system cable, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, Plug straight M12, coding: B, on Socket straight M12, coding: B, cable length: 10 m

Bus system cable - SAC-5P-M12MSB/15,0-900/M12FSB - 1507227



Bus system cable, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, Plug straight M12, coding: B, on Socket straight M12, coding: B, cable length: 15 m

### Device parameterization

Software - AX+ BASIC - 2985068



Software CD for FDT container for integrating device DTMs (free download)

### Programming

## Distributed I/O device - FLM AI 4 SF M12 - 2736453

### Accessories

Software - AX DTM LIB - 2988065



DTM library

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### Sensor/actuator cable

Sensor/actuator cable - SAC-5P-MS/ 2,0-186 SCO - 1518326



Sensor/actuator cable, 5-position, PUR, black-gray RAL 7021, Plug straight M12 SPEEDCON, coding: A, on free cable end, cable length: 2 m

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Sensor/actuator cable - SAC-5P-MS/ 5,0-186 SCO - 1518339



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

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Sensor/actuator cable - SAC-5P-MS/10,0-186 SCO - 1518342



Sensor/actuator cable, 5-position, PUR, black-gray RAL 7021, Plug straight M12 SPEEDCON, coding: A, on free cable end, cable length: 10 m

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Sensor/actuator cable - SAC-5P-MS/15,0-186 SCO - 1518355



Sensor/actuator cable, 5-position, PUR, black-gray RAL 7021, Plug straight M12 SPEEDCON, coding: A, on free cable end, cable length: 15 m

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## Distributed I/O device - FLM AI 4 SF M12 - 2736453

### Accessories

Sensor/actuator cable - SAC-5P- 2,0-186/FS SCO - 1518368



Sensor/actuator cable, 5-position, PUR, black-gray RAL 7021, free cable end, on Socket straight M12 SPEEDCON, coding: A, cable length: 2 m

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Sensor/actuator cable - SAC-5P- 5,0-186/FS SCO - 1518371



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

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Sensor/actuator cable - SAC-5P-10,0-186/FS SCO - 1518384



Sensor/actuator cable, 5-position, PUR, black-gray RAL 7021, free cable end, on Socket straight M12 SPEEDCON, coding: A, cable length: 10 m

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Sensor/actuator cable - SAC-5P-15,0-186/FS SCO - 1518397



Sensor/actuator cable, 5-position, PUR, black-gray RAL 7021, free cable end, on Socket straight M12 SPEEDCON, coding: A, cable length: 15 m

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Sensor/actuator cable - SAC-5P-MS/ 0,3-186/FS SCO - 1518407



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: 0.3 m

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## Distributed I/O device - FLM AI 4 SF M12 - 2736453

### Accessories

Sensor/actuator cable - SAC-5P-MS/ 0,5-186/FS SCO - 1518410



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: 0.5 m

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Sensor/actuator cable - SAC-5P-MS/ 1,0-186/FS SCO - 1518423



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: 1 m

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Sensor/actuator cable - SAC-5P-MS/ 2,0-186/FS SCO - 1518436



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: 2 m

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Sensor/actuator cable - SAC-5P-MS/ 5,0-186/FS SCO - 1518449



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: 5 m

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Sensor/actuator cable - SAC-5P-MS/10,0-186/FS SCO - 1518452



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: 10 m

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## Distributed I/O device - FLM AI 4 SF M12 - 2736453

### Accessories

Sensor/actuator cable - SAC-5P-MS/15,0-186/FS SCO - 1518465



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: 15 m

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

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

### Terminal marking

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