

Bus coupler - FLM BK ETH M12 DI 8 M12-2TX - 2736916

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The Ethernet bus coupler opens a local bus for up to 16 devices. Additional functions: 10 Mbps and 100 Mbps, auto negotiation, auto crossover, 8 digital inputs, channel-specific diagnostics, short-circuit and overload protection, M12 fast connection technology.

Product Description

The Fieldline Modular FLM BK ETH M12 DI8 M12 bus coupler with 8 digital inputs couples a Fieldline Modular local bus station to an Ethernet network and is also used for measuring digital signals. The bus coupler consists of two Ethernet connections that are designed as D-coded M12 sockets. Additional Ethernet devices can be connected due to the integrated, manageable 3-port switch to implement a line structure. The transmission speeds are 10 Mbps and 100 Mbps and are automatically selected by the device (autonegotiation). The interfaces can automatically interchange the receive and transmit cables (autocrossover). Following network protocols are supported by the FLM BK ETH M12 DI8 M12 bus coupler:– Modbus/TCP– Modbus/UDP– DDI (Device Driver Interface)The Ethernet bus coupler provides a powerful local bus as lower-level bus. The total length of the local bus is 20 m and it can connect up to 16 I/O units. Selectable transmission speeds in the range 500 kBaud to 2 Mbaud allow for flexible adaptation to the application and also permit savings on warehousing costs. The local bus connection is provided by 5-pos. B-coded M12 connectors. The four double-occupied sensor slots can be assigned through 5-pos. A-coded M12 connectors with sensors in 2, 3 or 4 conductor technology respectively. The sensor supply is short-circuit and overload-protected and thus guarantees a high plant availability. The diagnosis and status indicators for voltage supply, network and local bus operation with the corresponding monitoring functions reduce bus downtime and provide support if service becomes necessary. The high-performance SPEEDCON technology used allows connection times to be reduced by up to 90 %. The classic M12 connections can continued to be used with full compatibility.

Product Features

- Modbus TCP
- 8 inputs, 24 V DC
- M12 connection technology with SPEEDCON rapid interlock system

Ethernet

Key commercial data

package_quantity	1
GTIN	4046356094283

Technical data

Dimensions

Width	70 mm
Height	178 mm
Depth	50 mm
Drill hole spacing	178 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	IP65/67

General

Weight	280 g
Mounting type	Wall mounting
Protection class	III, IEC 61140, EN 61140, VDE 0140-1
Test section	To I/O 500 V DC

Interfaces

Fieldbus system	Ethernet
Name	Ethernet (Modbus TCP)
Connection method	M12 connectors, D-coded
Designation connection point	Copper cable
Transmission speed	10/100 MBit/s (autonegotiation)
Number of positions	4

Local bus gateway

Name	Local bus gateway
Connection method	M12 connector, B-coded
Transmission speed	500 kbaud/2 Mbaud, can be selected
Max. number of local bus devices	16
Max. length of local bus	20 m

Power supply for module electronics

Connection method	M12 connector
Name	U _L
Supply voltage	24 V DC
Supply voltage range	18 V DC ... 30 V DC IEC 61131-2 (including ripple)
Supply current	< 100 mA

Fieldline potentials

Voltage supply U_L	24 V DC
Power supply at U_L	max. 4 A
Current consumption from U_L	max. 118 mA (At 2 Mbaud)
Current consumption from U_L	typ. 118 mA (At 2 Mbaud)
Current consumption from U_L	max. 60 mA (At 500 kBaud)
Current consumption from U_L	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. 5 mA (plus power supply for sensors)
Current consumption from U_S	max. 600 mA

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Technical data

Digital inputs

Input name	Digital inputs
Connection method	M12 connector
Connection method	2, 3, 4-wire
Number of inputs	8 (EN 61131-2 type 1)
Protective circuit	Short-circuit protection, overload protection of the sensor supply 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

classifications

eCl@ss

eCl@ss 4.0	27250203
eCl@ss 4.1	27250203
eCl@ss 5.0	27250203
eCl@ss 5.1	27242608
eCl@ss 6.0	27242608
eCl@ss 7.0	27242608
eCl@ss 8.0	27242608

ETIM

ETIM 2.0	EC001434
ETIM 3.0	EC001604
ETIM 4.0	EC001604
ETIM 5.0	EC001604

UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015
UNSPSC 12.01	43201404
UNSPSC 13.2	43201404

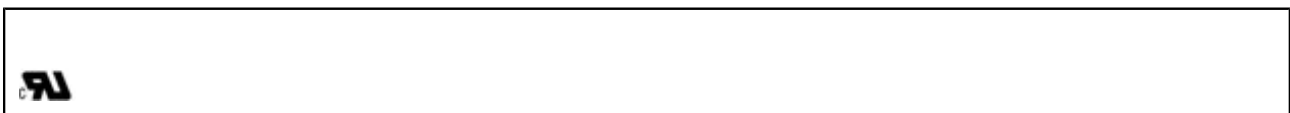
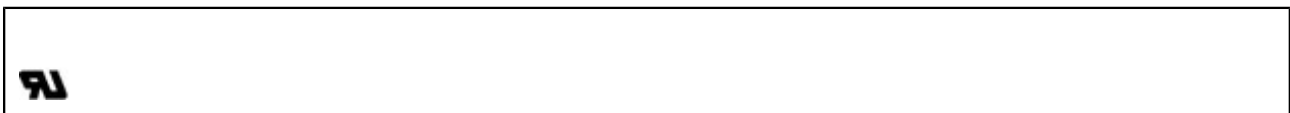
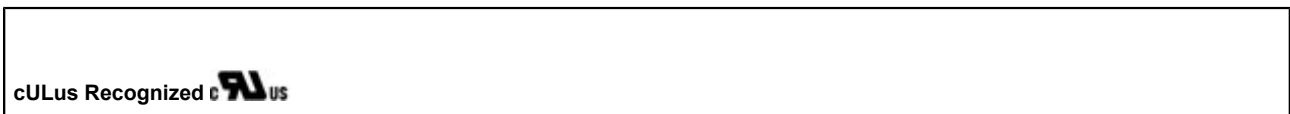
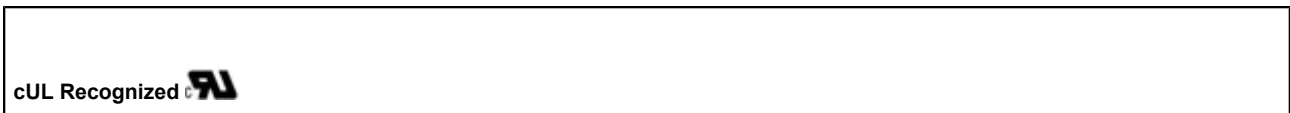
approvals

UL Recognized / cUL Recognized / cULus Recognized / UL Recognized / cUL Recognized / cULus Recognized /

Approval details

Bus coupler - FLM BK ETH M12 DI 8 M12-2TX - 2736916

approvals



accessories

Terminal marking

ZBF 12:UNBEDRUCKT - 0809735



Data cable preassembled

SAC-4P-M12MSD/ 2,0-930 - 1524006



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accessories

SAC-4P-M12MSD/ 5,0-930 - 1524019



SAC-4P-M12MSD/10,0-930 - 1524022



SAC-4P-M12MSD/15,0-930 - 1524035



SAC-4P-M12MSD/ 0,3-930/M12MSD - 1523065



SAC-4P-M12MSD/ 0,5-930/M12MSD - 1523078



SAC-4P-M12MSD/ 1,0-930/M12MSD - 1523081



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accessories

SAC-4P-M12MSD/ 2,0-930/M12MSD - 1521533



SAC-4P-M12MSD/ 5,0-930/M12MSD - 1524051



SAC-4P-M12MSD/10,0-930/M12MSD - 1524064



SAC-4P-M12MSD/15,0-930/M12MSD - 1524077



Sensor/actuator cable

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



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accessories

SAC-5P-MS/ 5,0-186 SCO - 1518339



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



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



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



SAC-5P- 5,0-186/FS SCO - 1518371



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



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accessories

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



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



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



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



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



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accessories

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



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



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



Circular connector (cable-side)

SACC-M12MSD-4CON-PG 7-SH - 1521258



SACC-M12MSD-4CON-PG 9-SH - 1521261



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accessories

SACC-M12MS-5SC M - 1508187



SACC-M12FS-5SC M - 1508200



Device marking

ZBN 18:UNBEDRUCKT - 2809128



Configuration and diagnostics

CONFIG+ OEM - 2700779



CONFIG+ DEMO - 2868046



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accessories

CONFIG+ - 2868059



CONFIG+ CPY - 2868062



Device parameterization

AX+ BASIC - 2985068



AX DTM LIB - 2988065



accessories

VS-M12MSD-RJ45-931/ 0,5 - 1657562



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accessories

VS-M12MSD-RJ45-931/ 1,0 - 1657575



VS-M12MSD-RJ45-931/ 2,0 - 1657588



VS-M12MSD-RJ45-931/ 5,0 - 1657591



PROT-M12-M - 2736194



ZBF 12:SO/CMS - 0810038



IPASSIGN - 2701094

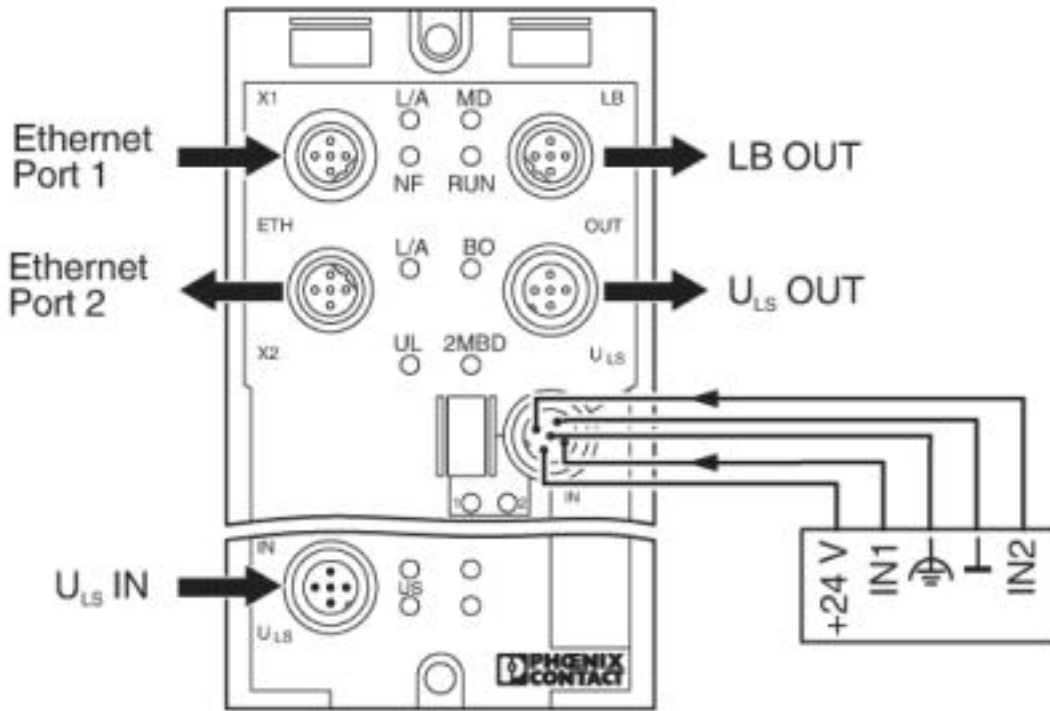


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accessories

Drawings

Connection diagram



Dimensioned drawing

