IB IL 24 MUX MA-PAC - Field multiplexer

2861205

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CRA-READY



Inline field multiplexer, complete with accessories (connector and labeling field), transmission of very remote signals without configuration

Product description

A field multiplexer system is a simple system for transmitting signals between two remote stations. It has a modular structure and is designed to reduce conventional parallel cabling. A field multiplexer system consists of two identical field multiplexer stations. The field multiplexer exchanges data with the remote station via a remote bus cable. The field multiplexer is the central unit of a field multiplexer station. All the necessary Inline I/O terminals of a station are connected to the field multiplexer.

Your advantages

- Remote bus connections in copper technology (can be operated via fiber optics using an interface converter as an option)
- A field multiplexer station can be supplied with all of the required 24 V voltages
- Floating alarm output (“N/C” relay contact) for connecting alarm signals
- Up to 63 I/O terminals can be connected
- Up to 512 digital or 32 analog I/Os (or a mixture) can be connected
- Connection establishment and comparison of the I/O configuration of both stations

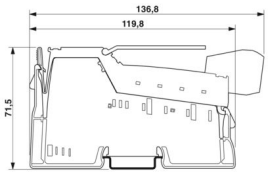
ELEKTROGERÄTE RÜCKNAHME

Commercial data

Item number	2861205
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR01
Product key	DRI11M
GTIN	4017918902506
Weight per piece (including packing)	258.5 g
Weight per piece (excluding packing)	212 g
Customs tariff number	85389091
Country of origin	DE

Technical data

Dimensions

Dimensional drawing	
Width	48.8 mm
Height	135 mm
Depth	71.5 mm

Notes

Note on application	Only for industrial use
Note on application	As things stand now, we are preparing the product so that, as of December 11, 2027, it will comply with the requirements of the EU Cyber Resilience Act (CRA) based on the information currently available regarding the CRA.

Mounting

Mounting type	DIN rail mounting

Material specifications

Color (Housing)	green (RAL 6021)

Interfaces

Remote bus

Connection method	Inline shield connector
Transmission physics	RS-485

Inline local bus

Connection method	Inline data jumper
Transmission speed	500 kbps

System properties

System limits

Number of local bus devices that can be connected	32 (without additional power terminal block, observe allowable total current consumption)
Number of devices with parameter channel	0
Number of supported branch terminals with remote bus branch	0

Programming data

Register length (master)	512 bit

Output data

Relay

Contact switching type	N/C contact
Contact connection type	floating contacts
Switching voltage	typ. 24 V DC
	max. 150 V
	max. 125 V AC
Switching current	max. 1 A
Switching power	max. 30 W
	max. 60 VA

Product properties

Product type	I/O component
Product family	Inline
Type	modular
Special properties	The product is being prepared for compliance with the Cyber Resilience Act (CRA)

Insulation characteristics

Overvoltage category	II (IEC 60664-1, EN 60664-1)
Pollution degree	2 (IEC 60664-1, EN 60664-1)

Electrical properties

Maximum power dissipation for nominal condition	3 W
Protective circuit	Surge protection (segment supply, main supply, field multiplexer supply); Input protective diodes (can be destroyed by permanent overload)Pulse loads up to 1500 W are short circuited by the input protective diode.
	Protection against polarity reversal (segment supply/main supply); Parallel diodes for protection against polarity reversal; in the event of an error the high current flowing through the diodes causes the fuse connected upstream to blow.
	Protection against polarity reversal (field multiplexer supply); Serial diode in the lead path of the power supply unit; in the event of an error only a low current flows. In the event of an error, no fuse trips within the external power supply unit.

Potentials: Field multiplexer supply U_{MUX}; the communications power U_L (7.5 V) and the analog supply U_{ANA} (24 V) are generated from supply U_{MUX}.

Supply voltage	24 V DC (via Inline connector)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current draw	max. 1.25 A (with max. number of connected I/O terminal blocks)
	typ. 60 mA (without connected Inline I/O terminals)

Potentials: Communications power (U_L)

Supply voltage	7.5 V DC ±5 %
Power supply	max. 2 A DC (observe derating)

Potentials: Supply of analog modules (U_{ANA})

Supply voltage	24 V DC (via Inline connector)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply	max. 0.5 A DC (observe derating)

Potentials: Main circuit supply (U_M)

Supply voltage	24 V DC (via voltage jumper)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply	max. 8 A DC (sum of U_M + U_S)

Potentials: Segment circuit supply (U_S)

Supply voltage	24 V DC (via voltage jumper)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply	max. 8 A DC (sum of U_M + U_S)

Electrical isolation/isolation of the voltage ranges

Test voltage: RS-485 interface / supply voltage	500 V AC
Test voltage: RS-485 interface / local bus	500 V AC

Connection data

Connection technology

Connection name	Inline connector

Inline connector

Connection method	Spring-cage connection
Conductor cross-section, rigid	0.08 mm² ... 1.5 mm²
Conductor cross-section, flexible	0.08 mm² ... 1.5 mm²
Conductor cross-section AWG	28 ... 16
Stripping length	8 mm

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C
Degree of protection	IP20
Air pressure (operation)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	10 % ... 95 % (non-condensing)

Mechanical test

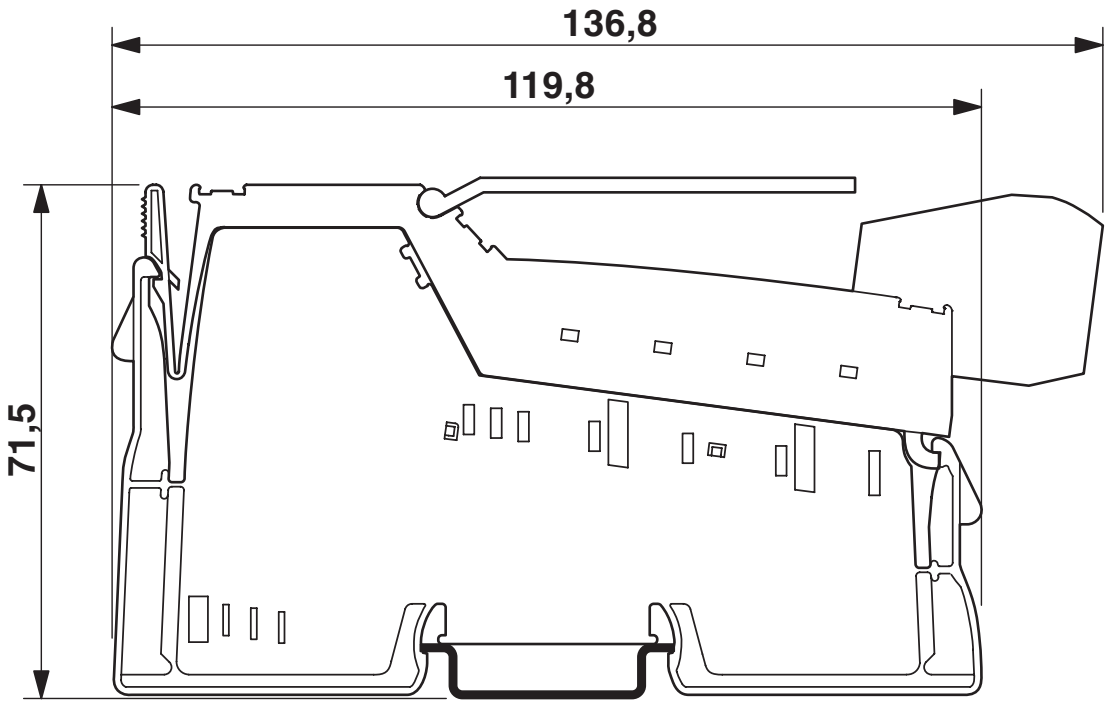
Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	2g
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	15g

Standards and regulations

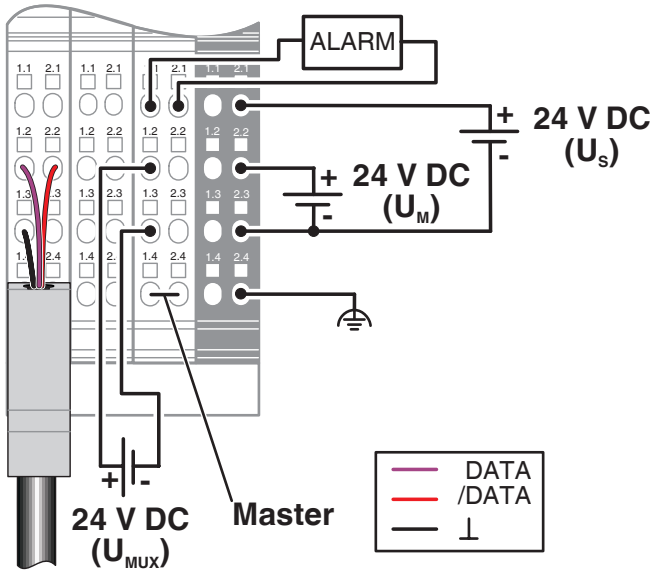
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

Drawings

Dimensional drawing

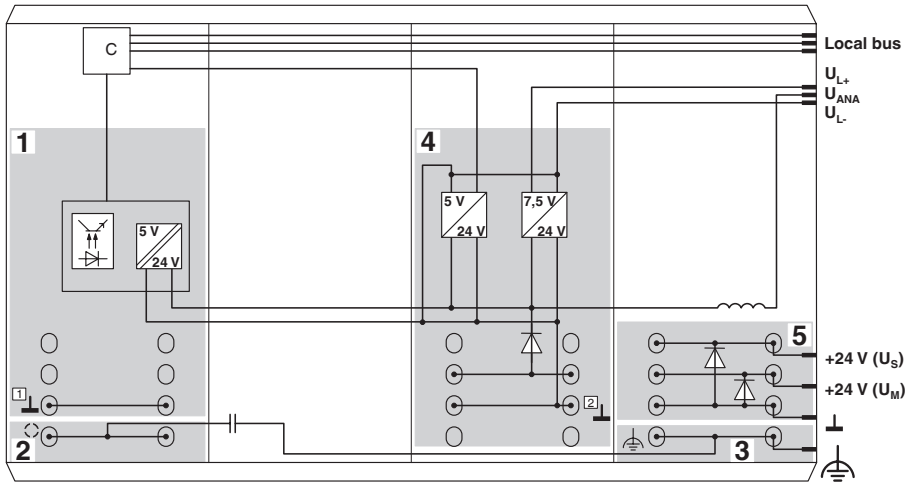


Connection diagram



Connection example

Block diagram



Internal wiring of the terminal points

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2861205

cULus Recognized
Approval ID: E140324

cULus Listed
Approval ID: E199827

Classifications

ECLASS

ECLASS-13.0	27242608
ECLASS-15.0	27242608

ETIM

ETIM 10.0	EC001604

UNSPSC

UNSPSC 21.0	32151600

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	d3fdeb6a-6ef6-4be6-8499-fe25d611eb53

EF3.1 Climate Change

CO2e kg	5.28 kg CO2e

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