IB IL MBUS-PAC - Communication module

2701927

https://www.phoenixcontact.com/us/products/2701927

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CRA-READY



Inline, Communication module, M-Bus master; for the connection of M-Bus devices; Transmission speed: 300 Baud ... 19200 Baud; transmission speed in the local bus: 500 kbps; degree of protection: IP20; Scope of supply: including Inline connectors and marking fields; The product is being prepared for compliance with the Cyber Resilience Act (CRA).

Product description

The terminal is designed for use within an Inline station. It enables communication with standard M-Bus meters in accordance with EN 13757. The M-Bus master terminal is intended exclusively for use within the Emalytics solution. Emalytics is the Phoenix Contact solution for building management and automation.

Your advantages

- M-Bus connection for up to 30 devices
- Transmission speed can be set from 300 baud to 19,200 baud
- Parameterization and data exchange via process data

ELEKTROGERÄTE RÜCKNAHME

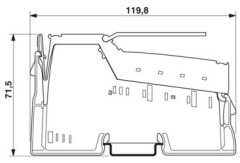
Commercial data

Item number	2701927
Packing unit	1 pc
Minimum order quantity	1 pc

Sales key	DR18
Product key	DRHABA
GTIN	4046356902106
Weight per piece (including packing)	165 g
Weight per piece (excluding packing)	125 g
Customs tariff number	85389099
Country of origin	DE

Technical data

Dimensions

Dimensional drawing	
Width	24.4 mm
Height	119.8 mm
Depth	71.5 mm
Note on dimensions	Housing dimensions

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

Inline local bus

Number of interfaces	2
Connection method	Inline data jumper
Transmission speed	500 kbps

M-Bus

Connection method	Inline connector
Transmission speed	300 Baud ... 19200 Baud (configurable)
Transmission physics	Copper

System properties

Programming data

Length code (hex)	10
ID code (dec.)	191
Length code (dec)	16

Process data channel	256 bit
Input address area	32 Byte
Output address area	32 Byte
Parameter channel (PCP)	0 Byte
Register length (bus)	256 bit

Product properties

Product type	I/O component
Product family	Inline
Type	modular
Installation location	Control cabinet
Scope of supply	including Inline connectors and marking fields
Operating mode	Process data mode with 16 words
Special properties	The product is being prepared for compliance with the Cyber Resilience Act (CRA)
	for the connection of M-Bus devices

Insulation characteristics

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

Electrical properties

Power dissipation	max. 1.6 W

Potentials: Communications power (U_L)

Supply voltage	7.5 V DC (via voltage jumper)
Current draw	max. 90 mA
	typ. 65 mA
Power consumption	max. 675 mW
	typ. 488 mW

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)
Current draw	max. 160 mA
	typ. 56 mA (for 10 unit loads; see example calculation)
	typ. 26 mA (without connected unit loads)

Electrical isolation/isolation of the voltage ranges

Test voltage: M-Bus / 7.5 V supply (bus logic)	500 V AC, 50 Hz, 1 min
Test voltage: M-Bus / 24 V supply U_M	500 V AC, 50 Hz, 1 min
Test voltage: M-Bus/functional ground	500 V AC, 50 Hz, 1 min
Test voltage: 7.5 V supply (bus logic)/functional ground	500 V AC, 50 Hz, 1 min
Test voltage: 24 V supply (U_M)/functional ground	500 V AC, 50 Hz, 1 min

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

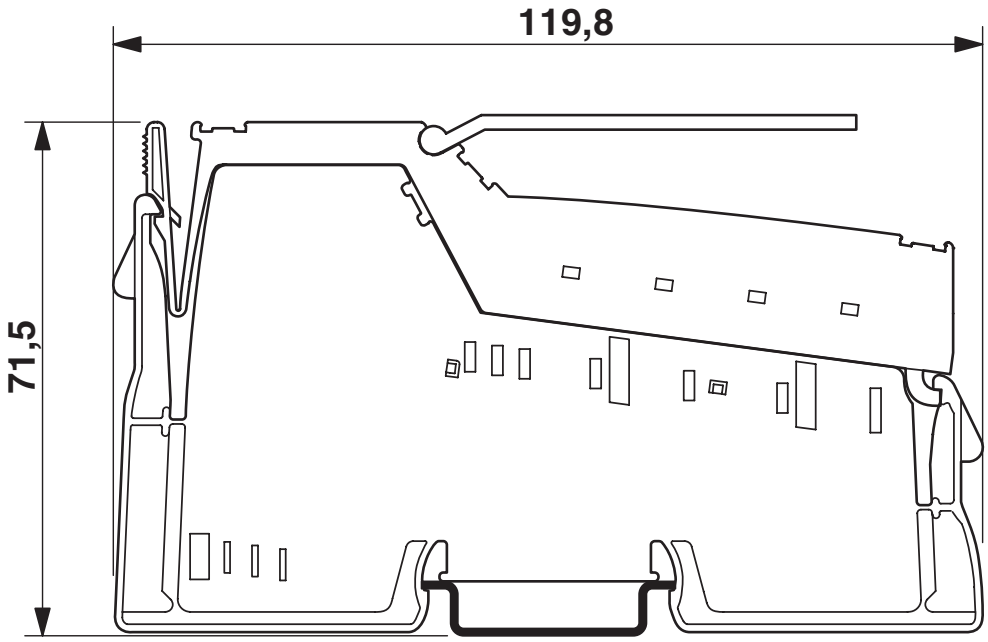
Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	5g
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	25g

Standards and regulations

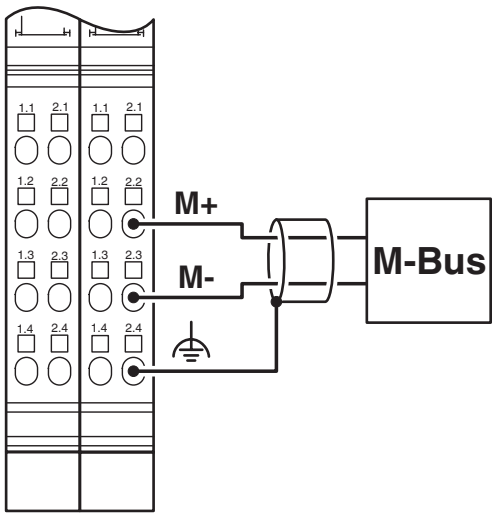
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

Drawings

Dimensional drawing

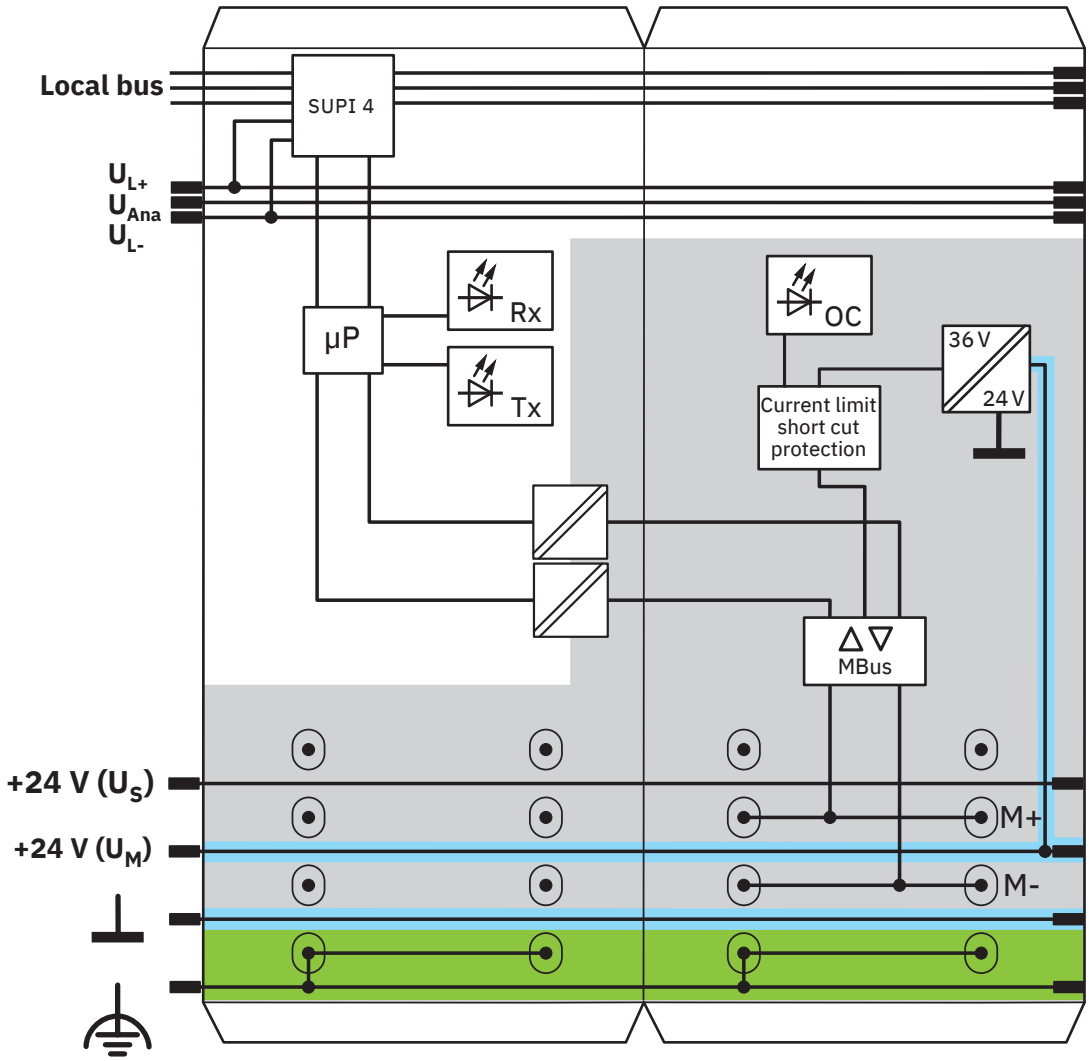


Connection diagram



Connection of the M-Bus

Block diagram



Internal wiring of the terminal points

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	130b69a7-7409-4f77-9342-08e845d711aa

EF3.1 Climate Change

CO2e kg	12.103 kg CO2e

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