# IB IL MBUS-PAC - Communication module

2701927

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

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.

Inline, M-Bus master, interface M-Bus, for the connection of M-Bus devices, transmission speed in the local bus: 500 kbps, degree of protection: IP20, including Inline connectors and marking fields

## 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.
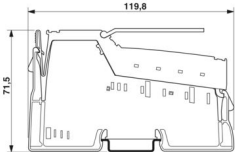
## Your advantages

- 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

## 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

| Note on application | Only for industrial use |
|---|---|

### 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

Module

| ID code (dec.) | 191 |
|---|---|
| ID code (hex) | BF |
| Length code (hex) | 10 |
| Length code (dec) | 16 |
| Process data channel | 256 bit |
| Input address area | 32 Byte |
| Output address area | 32 Byte |
| Register length | 256 bit |

### Product properties

| Product type | I/O component |
|---|---|

2701927

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

| 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 | 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 |
|---|---|

Conductor connection

| 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 |

### 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

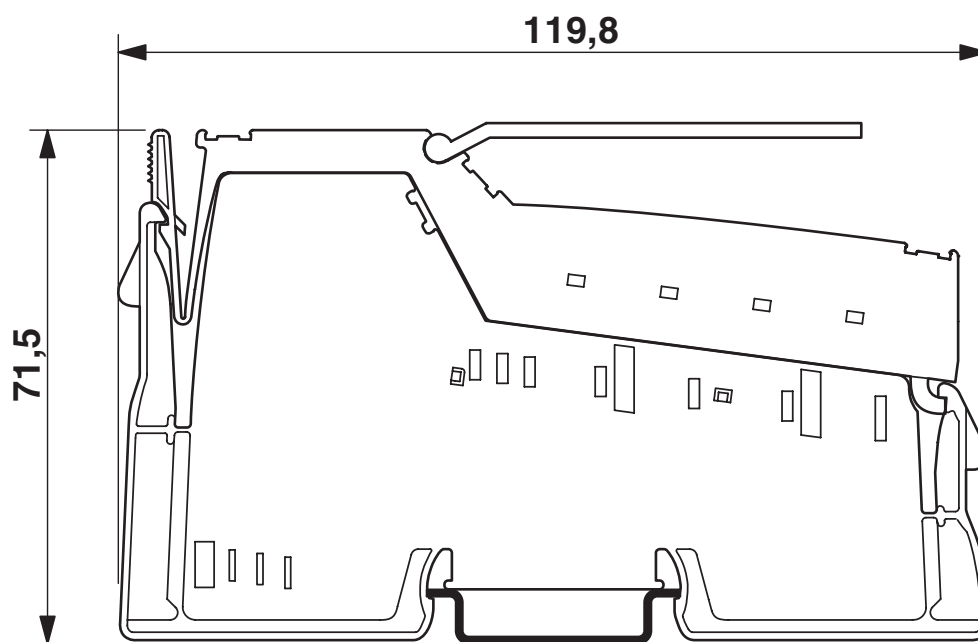| | |
|---|---|
| Ambient temperature (operation) | -25 °C ... 55 °C |
| Degree of protection | IP20 |
| Air pressure (operation) | 70 kPa ... 106 kPa (up to 3000 m above sea level) |
| Air pressure (storage/transport) | 70 kPa ... 106 kPa (up to 3000 m above sea level) |
| Ambient temperature (storage/transport)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

## Standards and regulations

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

## Mounting

| | |
|---|---|
| Mounting type | DIN rail mounting |

# IB IL MBUS-PAC - Communication module

2701927

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

## Drawings

### Dimensional drawing

119,8

71,5

### Connection diagram

M+

M-
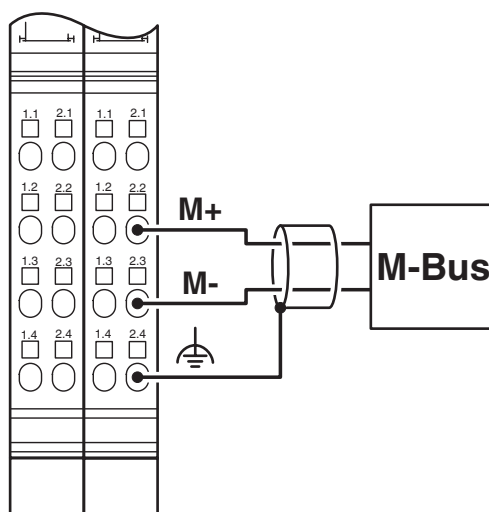
M-Bus

Connection of the M-Bus

# IB IL MBUS-PAC - Communication module

2701927

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

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27242608 |
| ECLASS-15.0 | 27242608 |

### ETIM

| | |
|---|---|
| ETIM 9.0 | 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 |