

# IBS IL 24 BK-LK-2MBD-PAC - Bus coupler



2862068

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Inline, Bus coupler, INTERBUS, F-SMA connector, transmission speed in the local bus: 2 Mbps, degree of protection: IP20, including Inline connector and labeling field

## Product description

Inline terminals with "2 MBD" added to their item designation work with a transmission speed of 2 Mbps. These terminal blocks are discontinued or no longer in the range. If you require this transmission speed, please ask your local Phoenix Contact representative. If you can work with a transmission speed of 500 kbps, select as a replacement the corresponding variant that does not have "2MBD" added to its item designation. Please note that a uniform transmission speed must always be used within one inline station. The bus coupler connects an Inline station to the INTERBUS remote bus. It provides the supply voltages for the connected analog modules.

## Your advantages

- Remote bus connections using fiber optic technology
- Optical path diagnostics

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2862068       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | DR01          |
| Product key                          | DRI111        |
| GTIN                                 | 4017918974695 |
| Weight per piece (including packing) | 293.6 g       |
| Weight per piece (excluding packing) | 220 g         |
| Customs tariff number                | 85389091      |
| Country of origin                    | DE            |

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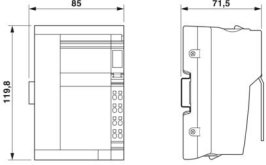


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## Technical data

### Dimensions

|                     |  |
|---------------------|--|
| Dimensional drawing |  |
| Width               | 85 mm  |
| Height              | 119.8 mm   |
| Depth               | 71.5 mm  |

### Notes

#### Note on application

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

### Material specifications

|                 |                  |
|-----------------|------------------|
| Color (Housing) | green (RAL 6021) |
|-----------------|------------------|

### Interfaces

#### INTERBUS

|                      |                 |
|----------------------|-----------------|
| Number of interfaces | 2               |
| Connection method    | F-SMA connector |
| Transmission speed   | 2 Mbps          |
| Transmission physics | FO              |

#### Inline local bus

|                      |                    |
|----------------------|--------------------|
| Number of interfaces | 1                  |
| Connection method    | Inline data jumper |
| Transmission speed   | 2 Mbps             |

### System properties

#### System limits

|   |         |
|---|---------|
| Number of local bus devices that can be connected           | 63      |
| Number of devices with parameter channel                    | 62      |
| Number of supported branch terminals with remote bus branch | max. 15 |

#### Programming data

|                      |       |
|----------------------|-------|
| Length code (hex)    | 00    |
| ID code (dec.)       | 04    |
| Length code (dec)    | 00    |
| Process data channel | 0 bit |

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|                          |          |
|--------------------------|----------|
| Input address area       | 0 Byte   |
| Output address area      | 0 Byte   |
| Parameter channel (PCP)  | 0 Byte   |
| Register length (bus)    | 0 bit    |
| Register length (master) | 8192 bit |

## Product properties

|                 |   |
|-----------------|---|
| Product type    | I/O component                                 |
| Product family  | Inline  |
| Type            | modular                                       |
| Scope of supply | including Inline connector and labeling field |

## 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                              | Reverse polarity protection |

Potentials: Bus coupler supply  $U_{BK}$ ; Communications power  $U_L$  (7.5 V) and the analog supply  $U_{ANA}$  (24 V) are generated from the bus coupler supply.

|                      |  |
|----------------------|--|
| 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)    |

## Potentials: Communications power ( $U_L$ )

|                |                                |
|----------------|--------------------------------|
| Supply voltage | 7.5 V DC $\pm 5\%$             |
| Power supply   | max. 2 A DC (observe derating) |

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

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

## Electrical isolation/isolation of the voltage ranges

|   |                        |
|---|------------------------|
| Test voltage: 7.5 V communications power, 24 V analog supply, 24 V bus coupler supply/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    | 0.09 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Conductor cross-section, flexible | 0.09 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |

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|                             |           |
|-----------------------------|-----------|
| 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) |
|------------------|---------------------------------------|

## Mounting

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

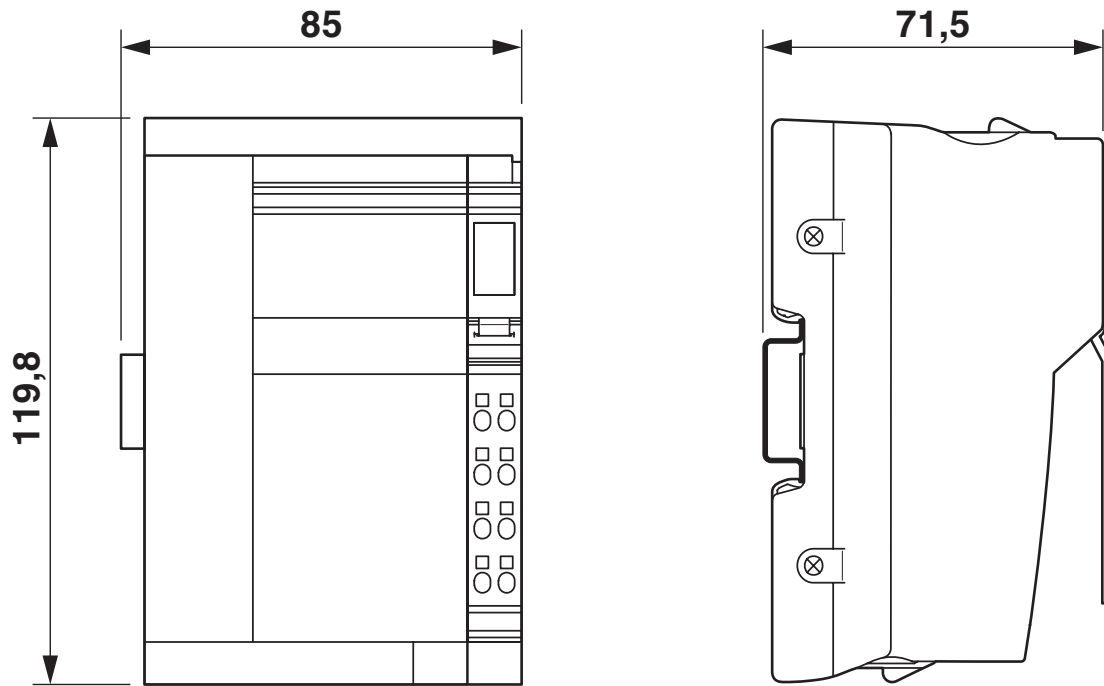
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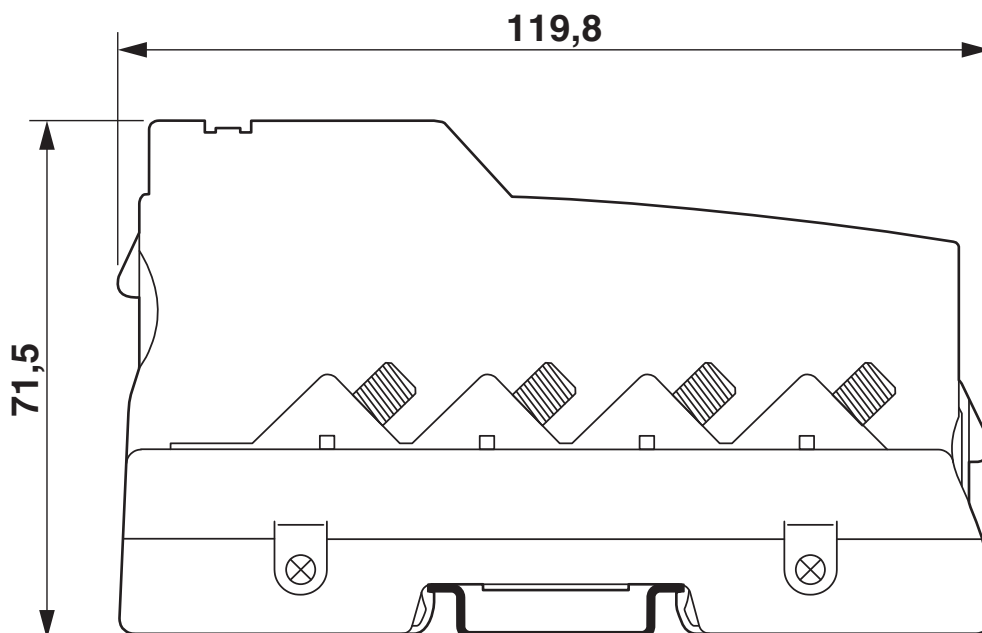
<https://www.phoenixcontact.com/us/products/2862068>

## Drawings

Dimensional drawing



Dimensional drawing



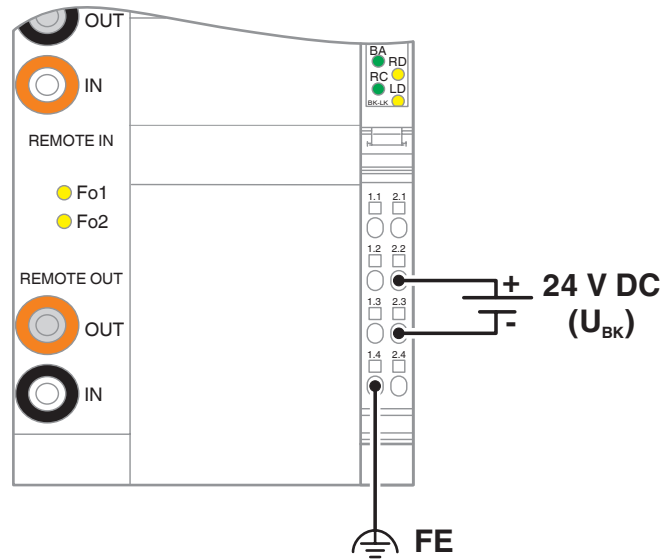
# IBS IL 24 BK-LK-2MBD-PAC - Bus coupler



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Connection diagram

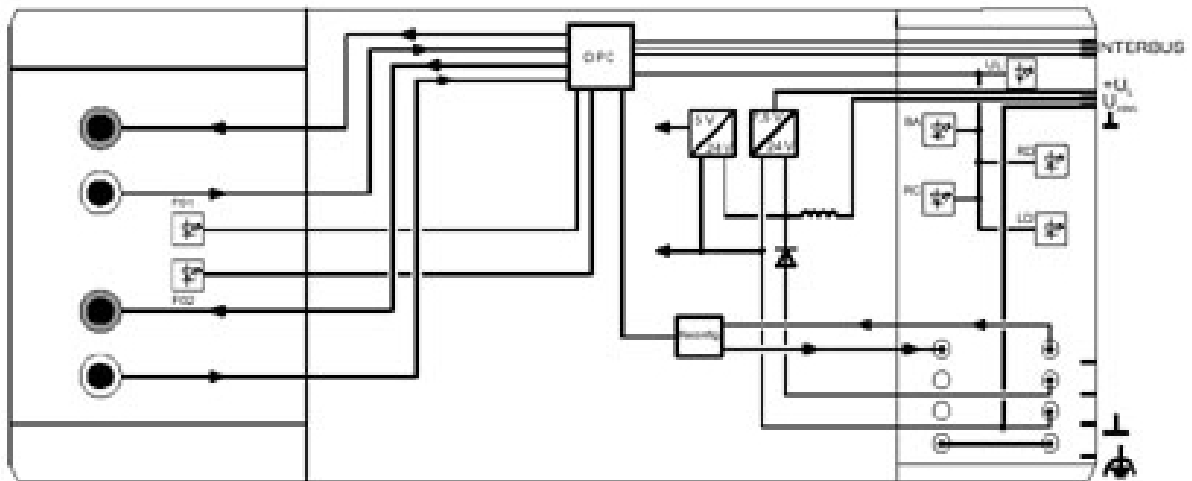


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Block diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2862068>



**cULus Listed**

Approval ID: E140324

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## Classifications

### ECLASS

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

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC001604 |
|-----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 32151600 |
|-------------|----------|

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## 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-E                                   |
|  | No hazardous substances above the limits |

### EU REACH SVHC

|                                     |                                      |
|-------------------------------------|--------------------------------------|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1)                 |
| SCIP                                | 174445c5-d3b3-4fd4-8de3-d9e12b6bd17e |

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