

# IBS IL 24 BK-T/U-2MBD - Bus coupler

2855240

<https://www.phoenixcontact.com/us/products/2855240>

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INTERBUS bus coupler, copper connection, transmission speed 2 Mbaud, 24 V DC, without accessories

The figure shows the version IBS IL 24 BK-T/U

## Your advantages

- Remote bus connections using copper technology
- Electrical isolation

## Commercial data

Item number	2855240
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	NULL
Product key	DRI111
GTIN	4017918901882
Weight per piece (including packing)	190 g
Weight per piece (excluding packing)	190 g
Customs tariff number	85389091
Country of origin	DE

## Technical data

### Product properties

Type	modular
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### System properties

#### INTERBUS-Master

Number of devices with parameter channel	63
Number of supported branch terminals with remote bus branch	max. 15

#### Module

ID code (dec.)	04
ID code (hex)	04
Length code (hex)	00
Input address area	0 Byte
Output address area	0 Byte
Register length	0 bit

### Electrical properties

Protective circuit	Reverse polarity protection
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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) typ. 100 mA (without connected Inline I/O terminals)

#### 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)

#### Potentials: Main circuit supply ( $U_M$ )

Supply voltage	24 V DC
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 -15 % / +20 % (in accordance with EN 61131-2)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply	max. 8 A DC (sum of $U_M + U_S$ )

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## Electrical isolation/isolation of the voltage ranges

Test voltage: 5 V supply, incoming remote bus / 5 V supply outgoing remote bus	500 V AC, 50 Hz, 1 min
Test voltage: 5 V supply incoming remote bus / 7.5 V communications power, 24 V analog supply, 24 V bus coupler supply	500 V AC, 50 Hz, 1 min
Test voltage: 5 V supply, incoming remote bus / 24 V main supply, 24 V segment supply	500 V AC, 50 Hz, 1 min
Test voltage: 5 V supply incoming remote bus / functional ground	500 V AC, 50 Hz, 1 min
Test voltage: 5 V supply outgoing remote bus / I/O ( $U_M$ , $U_S$ )	500 V AC, 50 Hz, 1 min
Test voltage: 5 V supply outgoing remote bus / communications power ( $U_{BK}$ , $U_L$ , $U_{ANA}$ )	500 V AC, 50 Hz, 1 min
Test voltage: 5 V supply outgoing remote bus / functional ground	500 V AC, 50 Hz, 1 min
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
Test voltage: Communications power ( $U_{BK}$ , $U_L$ , $U_{ANA}$ ) / I/O ( $U_M$ , $U_S$ )	500 V AC, 50 Hz, 1 min
Test voltage: 24 V main supply, 24 V segment supply/functional ground	500 V AC, 50 Hz, 1 min

## Connection data

### Inline connector

Connection method	Spring-cage connection
Conductor cross-section, rigid	0.08 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross-section, flexible	0.08 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross-section AWG	28 ... 16

## Interfaces

### INTERBUS

No. of channels	2 (Connected to functional ground with a capacitor)
Connection method	Inline shield connector
Number of positions	6
Transmission speed	2 Mbps
Transmission physics	Copper

### Inline local bus

Connection method	Inline data jumper
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### Supply

Connection method	8-pos. Inline connector
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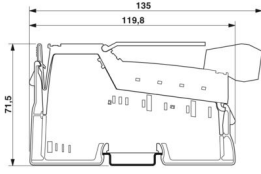
## Dimensions

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Dimensional drawing	
Width	48.8 mm
Height	119.8 mm
Depth	71.5 mm

## Material specifications

Color	green
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## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C
Degree of protection	IP20
Air pressure (operation)	80 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)	75 % ... 85 % (in the range of -25°C ... +55°C, appropriate measures against increased humidity (> 85%) must be taken.)
Permissible humidity (storage/transport)	75 % ... 85 % (Slight temporary condensation may sometimes appear on the housing, e.g. when the terminal block is brought out of a vehicle into an enclosed room.)

## Mounting

Mounting type	DIN rail mounting
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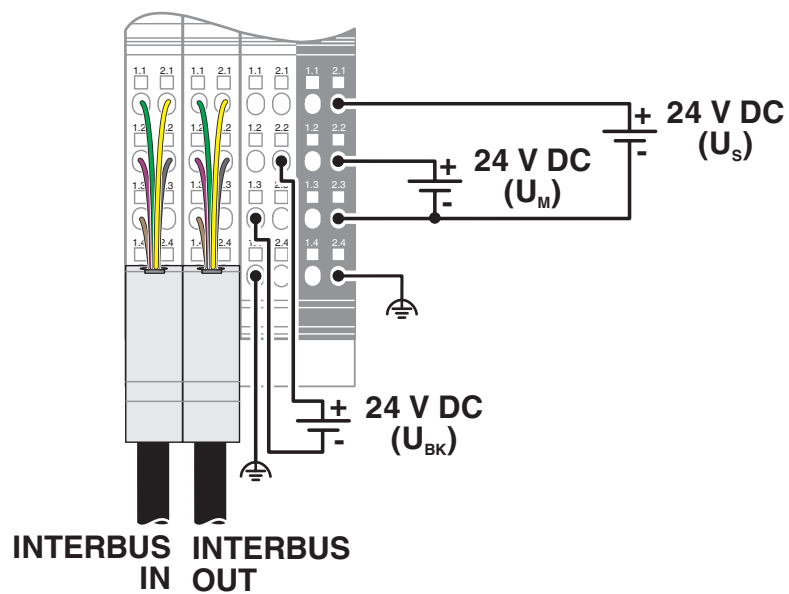
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## Drawings

Dimensional drawing



Connection diagram

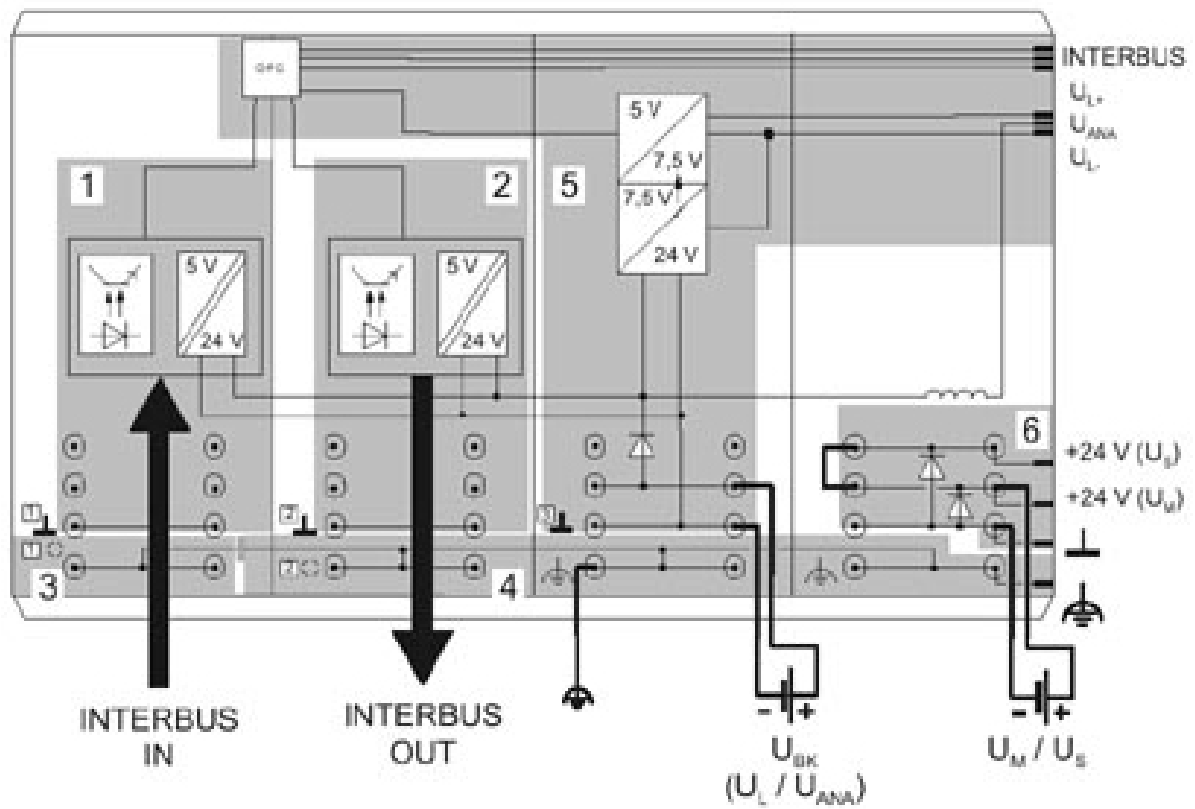


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Block diagram



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## Environmental product compliance

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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