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

2862000

https://www.phoenixcontact.com/us/products/2862000

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Inline, Bus coupler, INTERBUS, Inline shield connector, transmission speed in the local bus: 2 Mbps, degree of protection: IP20, including Inline connectors and marking fields

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 and provides the supply voltages for the connected devices.

Your advantages

- Remote bus connections using copper technology
- An Inline station can be supplied with all of the required 24 V voltages for low-level signals
- Automatic configuration of the outgoing interface as a remote bus or local bus interface
- Up to 15 connected terminals with remote bus branch supported
- Electrical isolation of the remote bus segments

ELEKTROGERÄTE RÜCKNAHME

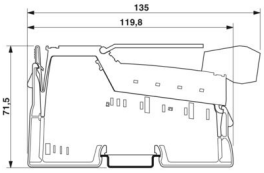
Commercial data

Item number	2862000
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR01
Product key	DRI111
GTIN	4017918974640

Weight per piece (including packing)	268.4 g
Weight per piece (excluding packing)	142 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

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area

Mounting

Mounting type	DIN rail mounting

Material specifications

Color (Housing)	green (RAL 6021)

Interfaces

INTERBUS

Number of interfaces	2
Connection method	Inline shield connector
Transmission speed	2 Mbps
Transmission physics	Copper

Remote bus branch / 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	max. 63
Number of devices with parameter channel	max. 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
Input address area	0 bit
Output address area	0 bit
Parameter channel (PCP)	0 bit
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 connectors and marking fields
Diagnostics messages	I/O error yes, if the segment voltage U_S is not present

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	Short-circuit protection of the communications power; electronic
	Short-circuit protection of the analog supply; electronic
	Surge protection (segment supply, main supply, bus coupler 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 (bus coupler 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: 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 ±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
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: 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

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

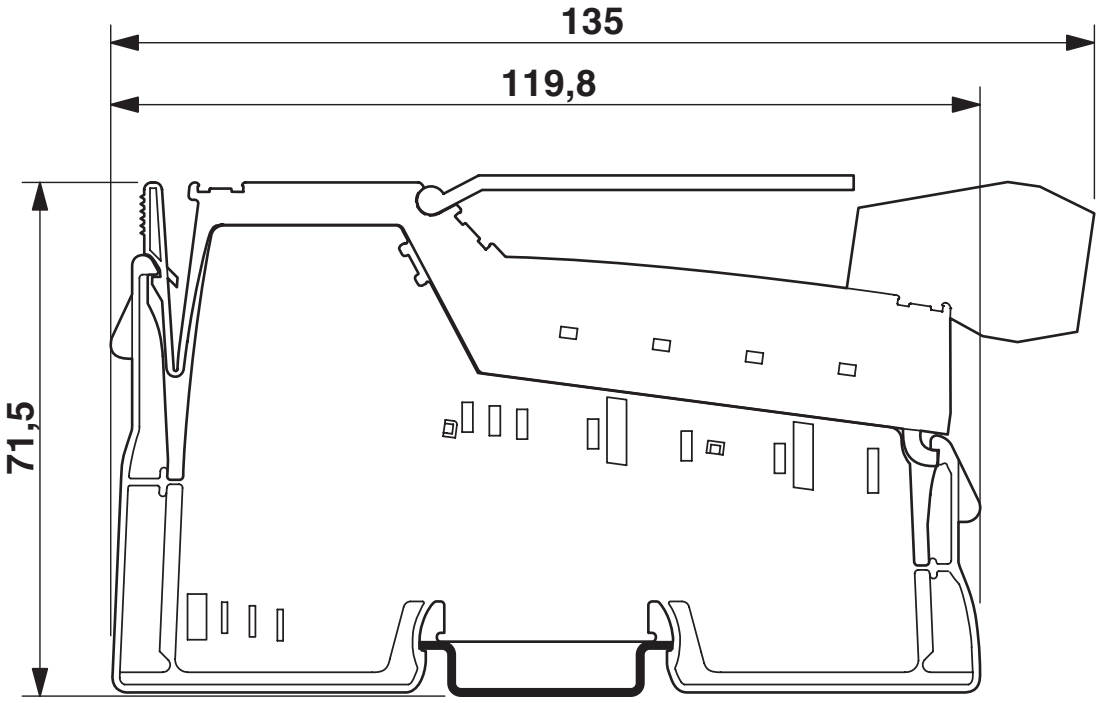
Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	5g
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	25g

Standards and regulations

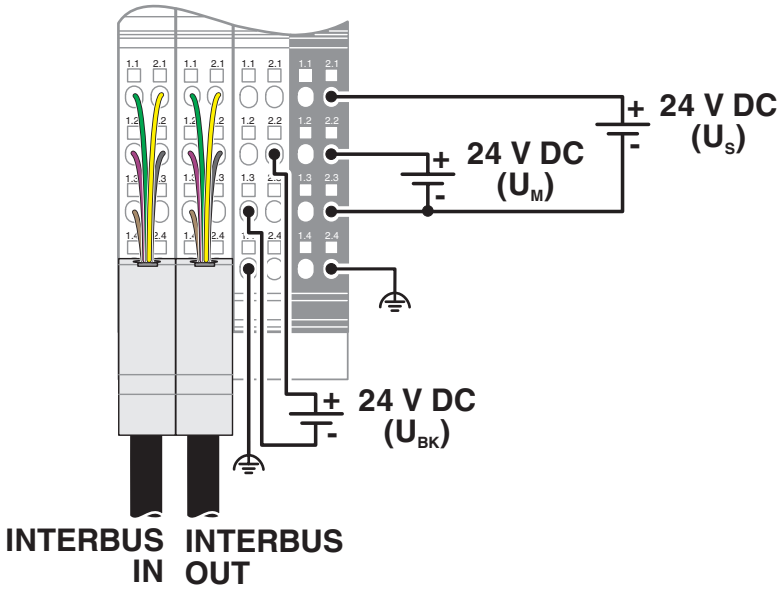
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

Drawings

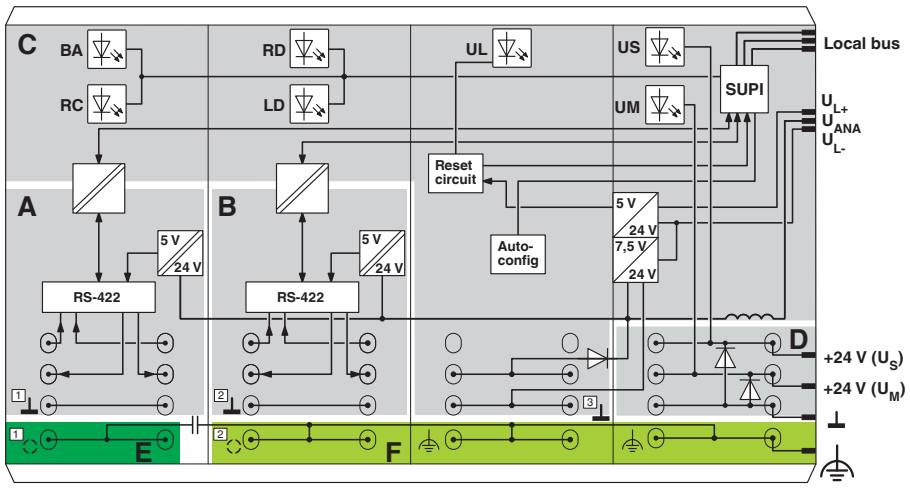
Dimensional drawing



Connection diagram



Block diagram



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2862000

cULus Listed
Approval ID: E140324

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-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	e6ffaac8-4d46-4ee8-9478-83ac6d8aae22

EF3.1 Climate Change

CO2e kg	6.413 kg CO2e

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