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

2861580

https://www.phoenixcontact.com/in/products/2861580

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Inline, Bus coupler, INTERBUS, Inline shield connector, transmission speed in the local bus: 500 kbps, degree of protection: IP20, including Inline connectors and marking fields

Product Description

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

Commercial Data

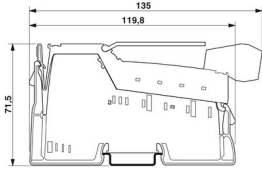|	
Item number	2861580
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	DRI
Product Key	DRI111
Catalog Page	Page 107 (C-6-2019)
GTIN	4017918894436
Weight per Piece (including packing)	275.2 g
Weight per Piece (excluding packing)	214 g
Customs tariff number	85389099
Country of origin	DE

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Technical Data

Dimensions

Dimensional drawing	
Width	48.8 mm
Height	135 mm
Depth	71.5 mm

Notes

Utilization restriction

CCCex note	Use in potentially explosive areas is not permitted in China.

Material specifications

Color	green

Interfaces

INTERBUS

Number of interfaces	2
Connection method	Inline shield connector
Transmission speed	500 kbps
Transmission physics	Copper

Remote bus branch / Inline local bus

Number of interfaces	1
Connection method	Inline data jumper
Transmission speed	500 kbps

System properties

System limits

Number of supported devices	max. 63
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

Module

ID code (dec.)	04
ID code (hex)	04
Length code (hex)	00

Length code (dec)	00
Process data channel	0 bit
Input address area	0 bit
Output address area	0 bit
Register length	0 bit

Product properties

Type	modular
Product type	I/O component
Product family	Inline
Scope of delivery	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	30 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 I/O terminal blocks)

Potentials: Communications power (U_L)

Supply voltage	7.5 V DC

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)

Potentials: Main circuit supply (U_M)

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Supply voltage	24 V DC (via Inline connector)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)

Potentials: Segment circuit supply (U_S)	
Supply voltage	24 V DC (via Inline connector)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)

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

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Drawings

Dimensional drawing
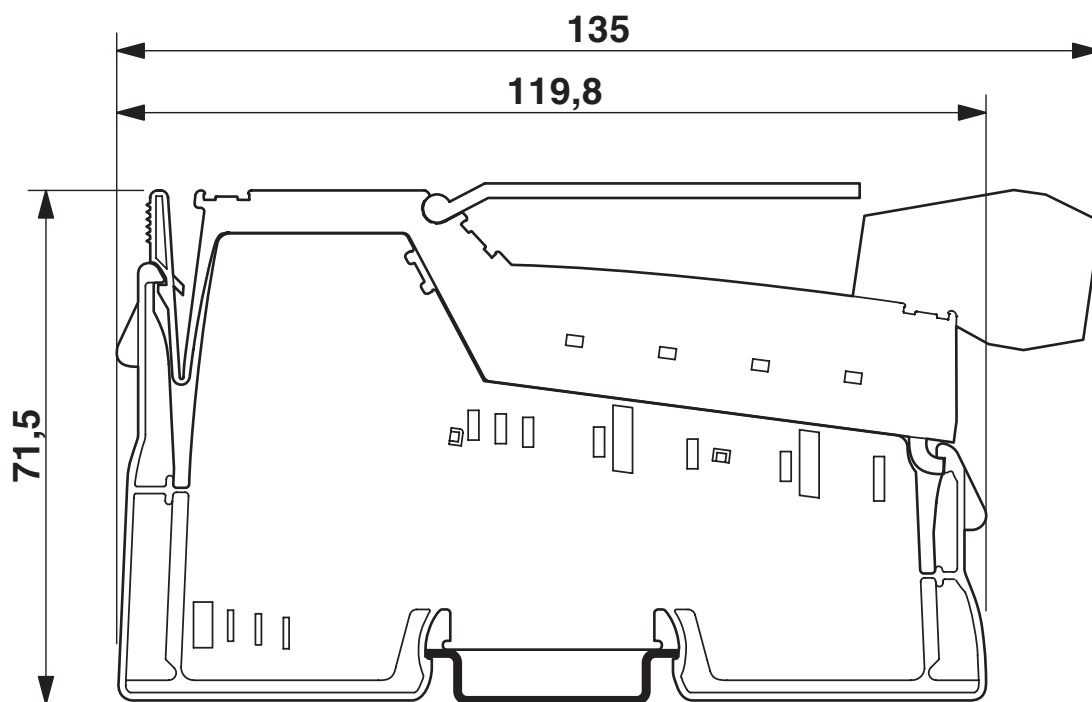
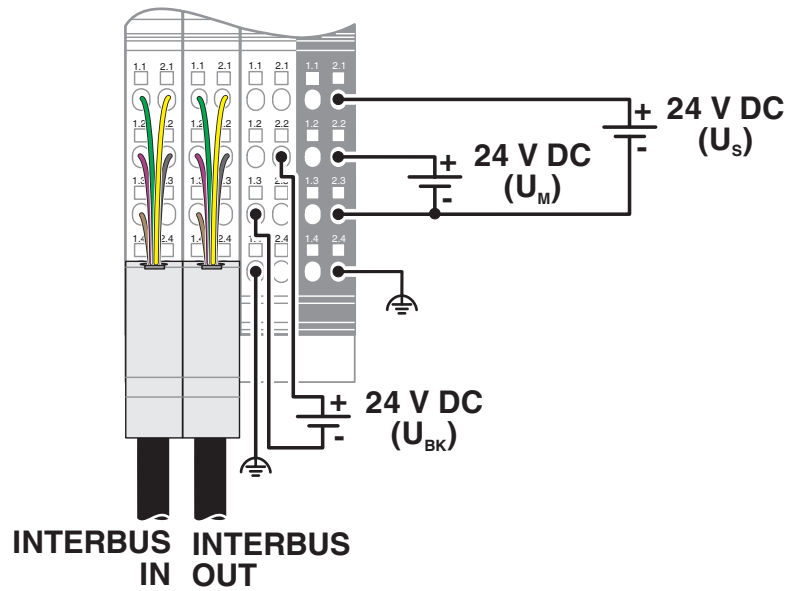Block diagram

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

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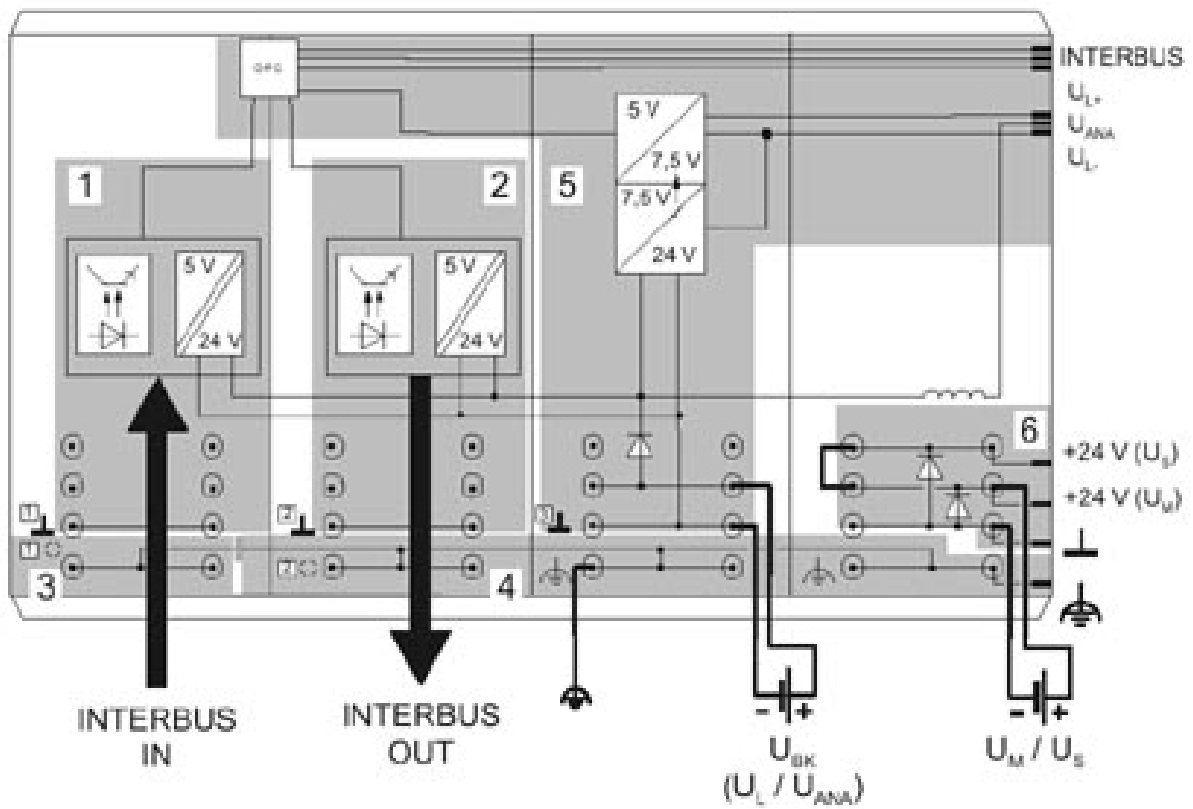
https://www.phoenixcontact.com/in/products/2861580

Connection diagram

INTERBUS
IN

INTERBUS
OUT

24 V DC (U_S)

24 V DC (U_M)

24 V DC (U_{BK})

Approvals

UL Recognized
Approval ID: FILE E 140324

EAC
Approval ID: TR TS_S_03508-21

DNV GL
Approval ID: TAA00001KV

LR
Approval ID: LR22191720TA

UL Recognized
Approval ID: FILE E 140324

BV
Approval ID: 20977/C0 BV

RINA
Approval ID: ELE121121XG

BV
Approval ID: 20977/C0 BV

DNV GL
Approval ID: TAA00001KV

RINA
Approval ID: ELE121121XG

LR
Approval ID: LR22191720TA

ATEX
Approval ID: PxCIF07ATEX2861580X

cUL Listed
Approval ID: FILE E 199827

UL Listed
Approval ID: FILE E 199827

UL Listed
Approval ID: FILE E 199827

cUL Listed
Approval ID: FILE E 199827

ATEX
Approval ID: PxCIF07ATEX2861580X

Classifications

ECLASS

ECLASS-11.0	27242608
ECLASS-12.0	27242608
ECLASS-13.0	27242608

ETIM

ETIM 8.0	EC001604

UNSPSC

UNSPSC 21.0	32151600

Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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Accessories

IB IL FIELD 2 - Labeling field

2727501

https://www.phoenixcontact.com/in/products/2727501

Labeling field, width: 12.2 mm

IB IL FIELD 8 - Labeling field

2727515

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Labeling field, width: 48.8 mm

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ESL 62X10 - Insert strip

0809492

https://www.phoenixcontact.com/in/products/0809492

Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems: Laser printer, mounting type: insert, lettering field size: 62 x 10 mm, Number of individual labels: 72

ESL 62X46 - Insert strip

0809502

https://www.phoenixcontact.com/in/products/0809502

Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems: Laser printer, mounting type: insert, lettering field size: 62 x 46 mm, Number of individual labels: 15

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CLIPFIX 35-5 - End clamp

3022276

https://www.phoenixcontact.com/in/products/3022276

Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, with parking option for FBS...5, FBS...6, KSS 5, KSS 6, width: 5. 15 mm, color: gray

E/UK - End clamp

1201442

https://www.phoenixcontact.com/in/products/1201442

End clamp, material: PA, color: gray, Mounting on a DIN rail NS 32 or NS 35

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IBS RBC METER-T - Remote bus cable

2806286

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By the meter, Remote bus cable, INTERBUS, shielded, PVC, may green RAL 6017, 6-wire (3 x 2 x 0.22 mm^2), color single wire: green-yellow, white-brown, gray-pink, fixed installation

IBS RBC METER/F-T - Remote bus cable

2723123

https://www.phoenixcontact.com/in/products/2723123

By the meter, Remote bus cable, INTERBUS, shielded, PUR halogen-free, may green RAL 6017, 6-wire (3 x 2 x 0.22 mm^2), color single wire: green-yellow, white-brown, gray-pink, flexible installation