

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

### Why buy this product

- Remote bus connections using copper technology
- Electrical isolation



### Key Commercial Data

Packing unit	1 STK
GTIN	 4 017918 894436
GTIN	4017918894436
Weight per Piece (excluding packing)	214.000 g
Custom tariff number	85389091
Country of origin	Germany

### Technical data

#### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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#### Dimensions

Width	48.8 mm
Height	135 mm
Depth	71.5 mm

#### Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C
Ambient temperature (storage/transport)	-25 °C ... 85 °C

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## Technical data

### Ambient conditions

Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	10 % ... 95 % (non-condensing)
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)
Degree of protection	IP20

### General

Mounting type	DIN rail
Net weight	214 g
Note on weight specifications	with connectors
Diagnostics messages	Peripheral fault yes, if the segment voltage $U_S$ is not present

### Interfaces

Designation	INTERBUS
No. of channels	2
Connection method	Inline shield connector
Transmission speed	500 kbps
Transmission physics	Copper
Designation	Inline local bus
Connection method	Inline data jumper
Transmission speed	500 kbps

### System limits of the bus coupler

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

### Inline potentials

Designation	Bus coupler supply $U_{BC}$ ; 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 consumption	typ. 100 mA (without connected Inline I/O terminals)
	max. 1.25 A (with max. number of connected I/O terminal blocks)
Designation	Communications power $U_L$
Supply voltage	7.5 V DC $\pm 5\%$
Power supply unit	max. 2 A DC (observe derating)
Designation	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 unit	max. 0.5 A DC (observe derating)
Designation	Main circuit supply $U_M$
Supply voltage	24 V DC

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### Inline potentials

Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply unit	max. 8 A DC (Sum of $U_M + U_S$ )
Designation	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 unit	max. 8 A DC (Sum of $U_M + U_S$ )

### Electrical isolation

Test section	5 V supply, incoming remote bus/5 V supply outgoing remote bus 500 V AC 50 Hz 1 min.
	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.
	5 V supply, incoming remote bus/24 V main supply, 24 V segment supply 500 V AC 50 Hz 1 min.
	5 V supply incoming remote bus / functional earth ground 500 V AC 50 Hz 1 min.
	5 V supply, outgoing remote bus/24 V main supply, 24 V segment supply 500 V AC 50 Hz 1 min.
	5 V supply outgoing remote bus/7.5 V communications power, 24 V analog supply, 24 V bus coupler supply 500 V AC 50 Hz 1 min.
	5 V supply outgoing remote bus / functional earth ground 500 V AC 50 Hz 1 min.
	7.5 V communications power, 24 V analog supply, 24 V bus coupler supply/functional earth ground 500 V AC 50 Hz 1 min.
	7.5 V communications power, 24 V analog supply, 24 V bus coupler supply / 24 V main supply, 24 V segment supply 500 V AC 50 Hz 1 min.
	24 V main supply, 24 V segment supply/functional earth ground 500 V AC 50 Hz 1 min.

### Standards and Regulations

Connection in acc. with standard	CUL
Protection class	III, IEC 61140, EN 61140, VDE 0140-1

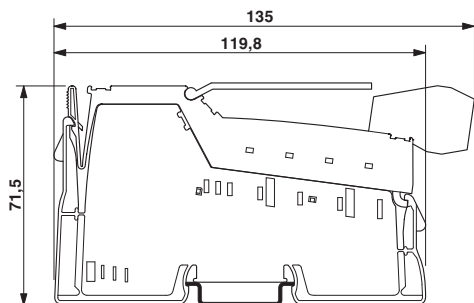
### Environmental Product Compliance

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

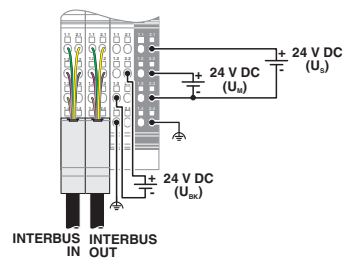
## Drawings

# Bus coupler - IBS IL 24 BK-T/U-PAC - 2861580

Dimensional drawing



Connection diagram



## Classifications

### eCl@ss

eCl@ss 4.0	27250203
eCl@ss 4.1	27250203
eCl@ss 5.0	27250203
eCl@ss 5.1	27242608
eCl@ss 6.0	27242608
eCl@ss 7.0	27242608
eCl@ss 8.0	27242608
eCl@ss 9.0	27242608

### ETIM

ETIM 2.0	EC001434
ETIM 3.0	EC001604
ETIM 4.0	EC001604
ETIM 5.0	EC001604
ETIM 6.0	EC001604

### UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015
UNSPSC 12.01	43201404
UNSPSC 13.2	32151602

## Approvals

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UL Recognized / cUL Recognized / LR / BV / ABS / RINA / BSH / BSH / EAC / DNV GL / cULus Recognized

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## Approvals

Ex Approvals

UL Listed / cUL Listed / cULus Listed

### Approval details

UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
LR		<a href="http://www.lr.org/en">http://www.lr.org/en</a>	08/20033
BV		<a href="http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials">http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials</a>	20977/B1 BV
ABS		<a href="http://www.eagle.org/eagleExternalPortalWEB/">http://www.eagle.org/eagleExternalPortalWEB/</a>	17-HG1621871-PDA
RINA		<a href="http://www.rina.org/en">http://www.rina.org/en</a>	ELE183315XG
BSH		<a href="http://www.bsh.de/de/index.jsp">http://www.bsh.de/de/index.jsp</a>	Anwenderhinweis
BSH		<a href="http://www.bsh.de/de/index.jsp">http://www.bsh.de/de/index.jsp</a>	658
EAC			EAC-Zulassung
DNV GL		<a href="http://exchange.dnv.com/tari/">http://exchange.dnv.com/tari/</a>	A-13955
cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	

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### Accessories

#### Accessories

#### Connector set

Connector set - IB IL BK-PLSET/CP - 2860374



Connector set for Inline bus coupler, color-coded

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#### End block

End clamp - CLIPFIX 35-5 - 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

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End clamp - E/UK - 1201442



End clamp, width: 9.5 mm, height: 35.3 mm, material: PA, length: 50.5 mm, Mounting on a DIN rail NS 32 or NS 35, color: gray

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#### Labeling panel

Labeling field - IB IL FIELD 2 - 2727501

Labeling field, width: 12.2 mm



Labeling field - IB IL FIELD 8 - 2727515

Labeling field, width: 48.8 mm



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### Accessories

#### Remote bus cable

Remote bus cable - IBS RBC METER-T - 2806286



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

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Remote bus cable - IBS RBC METER/F-T - 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<sup>2</sup>), color single wire: Green-yellow, white-brown, gray-pink, flexible installation

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#### Terminal marking

Insert strip - ESL 62X10 - 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

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Insert strip - ESL 62X46 - 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

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