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.

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

Key Commercial Data

Packing unit	1 pc
GTIN	4 017918 894436
GTIN	4017918894436
Weight per Piece (excluding packing)	269.800 g
Custom tariff number	85389099
Country of origin	Germany

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
	Use in potentially explosive areas is not permitted in China.

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

Technical data

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
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)
	80 kPa ... 106 kPa (up to 3000 m above sea level, in ATEX Zone 2)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Degree of protection	IP20

General

Mounting type	DIN rail
Color	green
Net weight	214 g
Note on weight specifications	with connectors
Diagnostics messages	I/O error yes, if the segment voltage U_S is not present

Interfaces

Designation	INTERBUS
Number	2
Connection method	Inline shield connector
Transmission speed	500 kbps
Transmission physics	Copper
Designation	Remote bus branch / Inline local bus
Connection method	Inline data jumper
Transmission speed	500 kbps

Network/bus system

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

Inline potentials

Designation	Bus coupler supply U_{BC}; Communications power U_L (7.5V) and the analog supply U_{ANA} (24 V) are generated from the bus coupler supply.
Supply voltage	24 VDC (via Inline connector)

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

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Inline potentials

Supply voltage range	19.2 VDC ... 30 VDC (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 VDC ±5 %
Power supply unit	max. 2 ADC (observe derating)
Designation	Supply of analog modules (U_{ANA})
Supply voltage	24 VDC
Supply voltage range	19.2 VDC ... 30 VDC (including all tolerances, including ripple)
Power supply unit	max. 0.5 ADC (observe derating)
Designation	Main circuit supply (U_M)
Supply voltage	24 VDC
Supply voltage range	19.2 VDC ... 30 VDC (including all tolerances, including ripple)
Power supply unit	max. 8 ADC (sum of $U_M + U_S$)
Designation	Segment circuit supply (U_S)
Supply voltage	24 VDC
Supply voltage range	19.2 VDC ... 30 VDC (including all tolerances, including ripple)
Power supply unit	max. 8 ADC (sum of $U_M + U_S$)

Electrical isolation

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

Standards and Regulations

Connection in acc. with standard	CUL

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

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Standards and Regulations

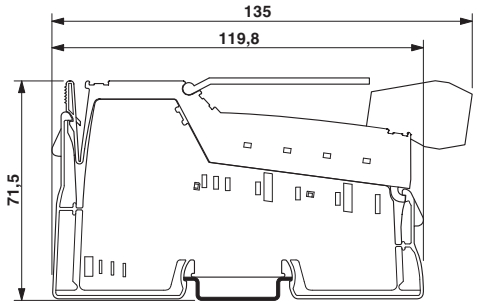
Protection class	III (IEC61140, EN61140, VDE0140-1)

Environmental Product Compliance

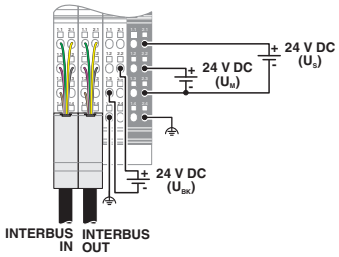
REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

Dimensional drawing



Connection diagram



Classifications

eCl@ss

eCl@ss 10.0.1	27242608
eCl@ss 11.0	27242608
eCl@ss 4.0	27250200
eCl@ss 4.1	27250200
eCl@ss 5.0	27250200
eCl@ss 5.1	27242600
eCl@ss 6.0	27242600
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

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

Classifications

ETIM

ETIM 6.0	EC001604
ETIM 7.0	EC001604

UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015
UNSPSC 12.01	43201404
UNSPSC 13.2	32151602
UNSPSC 18.0	32151602
UNSPSC 19.0	32151602
UNSPSC 20.0	32151602
UNSPSC 21.0	32151602

Approvals

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

Ex Approvals

UL Listed / cUL Listed / ATEX / ATEX / UL Listed / cUL Listed

Approval details

DNV GL	https://approvalfinder.dnvgl.com/	TAA00001KV
BSH		658
BV	http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials	20977/B1 BV

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

Approvals

LR		http://www.lr.org/en	08/20033
ABS		http://www.eagle.org/eagleExternalPortalWEB/	17-HG1621871-PDA
BSH			658
RINA		http://www.rina.org/en	ELE001320XG
UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324
EAC			EAC-Zulassung
UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324
LR		http://www.lr.org/en	08/20033
ABS		http://www.eagle.org/eagleExternalPortalWEB/	17-HG1621871-PDA
DNV GL		https://approvalfinder.dnvgl.com/	TAA00001KV
BV		http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials	20977/B1 BV

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

Approvals

RINA		http://www.rina.org/en	ELE001320XG
BSH			Anwenderhinweis
BSH			Anwenderhinweis
EAC			EAC-Zulassung

Accessories

Accessories

Connector set

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



Connector set for Inline bus coupler, color-coded

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

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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Accessories

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

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 mm²), 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 mm²), color single wire: Green-yellow, white-brown, gray-pink, flexible installation

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Terminal marking

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Accessories

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, Number of individual labels: 72

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, Number of individual labels: 120

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