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PHŒNIX CONTACT

Bus coupler - IBS RL 24 BK RB-T-T - 2731063

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Bus coupler with remote bus branch for INTERBUS; twisted pair with 500 kbaud, rugged metal housing with IP67 protection, tool-free mounting on a separate mounting plate, can be used directly on welding robots

The illustration shows version IBS RL 24 BK RB-LK-LK

Product Description

INTERBUS Ruggedline modules are provided for harsh ambient conditions or in the case of high requirements regarding system diagnostics. To ensure maximum availability, these modules are equipped with a zinc die-cast housing (IP67). Therefore, they can be installed in the direct vicinity of welding tongs.

Each Ruggedline module consists of a mounting plate and and electronics module. The electronics module is snapped onto the mounting plate and fixed with two screws if necessary.

I/O errors can be clearly localized by means of extended diagnostics. Short-circuits of the power supply of the sensors, for example, are reported in groups of 4 inputs. And, in the case of a short-circuit at an output, the respective output is even reported directly. This information will be made available to the controller and displayed at the module.

In the case of modules with fiber optic connection, the diagnostics capability even goes one step further. By using the latest fiber optic technology, the quality of the transmission path is permanently ascertained and optimally adjusted. This information is available to the controller and at the module. Due to these additional features, slow deterioration of the transmission path can be detected before errors occur during transmission or transmission is interrupted.

In the case of Ruggedline modules, the bus medium can be selected. Apart from versions with fiber optic connection (polymer fiber), there are modules which are used with twisted pair cables. The bus medium can be changed from FO installation to a copper medium at any time using the corresponding plug-in adapters.

The bus is connected by means of IP67 plug-in plugs, which transport both the bus signal and the power supply to the modules. For easy preparation, the power supply cable is connected to the plug using the QUICKON fast connection method, and connection of the fiber optic cable is made using a simple cutting and assembly tool; additional polishing is not necessary.

If a fiber optic bus cable is assembled by the user, e.g. the bridge between 2 modules, it must be at least one meter long. For shorter cable bridges, please use only cable bridges from Phoenix Contact.

Why buy this product

■ Rugged metal housing

■ Comprehensive diagnostic functions

■ M12 connector for I/O devices

■ Rugged Line connector for INTERBUS, either with fiber optic or twisted pair, and supply voltage

INTERBUS

Key Commercial Data

Packing unit	1 STK
GTIN	4 017918 185640

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Technical data

Note

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

Dimensions

Width	179 mm
Height	67 mm
Depth	71 mm
Note on dimensions	With bus connectors and mounting plate

Ambient conditions

Ambient temperature (operation)	0 °C ... 55 °C
Ambient temperature (storage/transport)	-25 °C ... 70 °C
Permissible humidity (operation)	100 %
Permissible humidity (storage/transport)	95 % (non-condensing)
Air pressure (operation)	860 hPa ... 1080 hPa (up to 1500 m above mean sea level)
Air pressure (storage/transport)	660 hPa ... 1080 hPa (up to 3500 m above mean sea level)
Degree of protection	IP65/IP67

General

Net weight	610 g
Mounting type	Wall mounting
	On mounting plate

Interfaces

Fieldbus system	INTERBUS
Designation	INTERBUS
Connection method	Copper via IP67 RL connectors
Transmission speed	500 kBit/s

Power supply for module electronics

Supply voltage	24 V DC
Supply voltage range	18.5 V DC ... 32 V DC (including ripple)
Ripple	Max 3.6 V_{SS} within the permissible voltage range
Current consumption	typ. 120 mA

Standards and Regulations

Air clearances and creepage distances	According to EN 50178: 1998
Connection in acc. with standard	CUL
Protection class	III, IEC 61140, EN 61140, VDE 0140-1

Classifications

eCl@ss

eCl@ss 4.0	27250203

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Classifications

eCl@ss

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

ETIM

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

UNSPSC

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

Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / INTERBUS CLUB / cULus Recognized

Ex Approvals

Approvals submitted

Approval details

UL Recognized	
Nominal current IN	0.12 A
Nominal voltage UN	24 V

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Approvals

cUL Recognized c ꞮꞮ	
Nominal current IN	0.12 A
Nominal voltage UN	24 V

INTERBUS CLUB

cULus Recognized c ꞮꞮ us

Drawings

Connection diagram
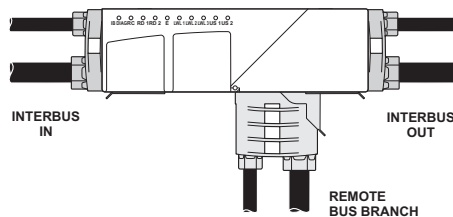
PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
http://www.phoenixcontact.com

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Product	Code	Reference	Product link
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