Chipsmall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

Distributed I/O device - IBS RL 24 DI 16/8-LK - 2724850

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Digital input device for INTERBUS; fiber optic technology with 500 kbaud, 16 inputs (24 V DC), sensor connection via 5-pos. M12 female connectors, rugged metal housing, IP67 protection

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.

Product Features

☑ Rugged metal housing

☑ Comprehensive diagnostic functions

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

☑ M12 connector for I/O devices

Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	840.2 GRM
Custom tariff number	85389099

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Country of origin	Germany

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	IP65/67

General

Weight	720 g
Note on weight specifications	Without plug or mounting plate
Mounting type	Wall mounting
Note	Seal unused slots/connections to ensure the degree of protection.

Interfaces

Fieldbus system	INTERBUS
Designation	INTERBUS remote bus
Connection method	Optic fiber (polymer fiber 980/1000 µm)
Transmission speed	500 kBit/s
Transmission physics	FO

Power supply for module electronics

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

Digital inputs

Input name	Digital inputs

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Technical data

Digital inputs

Connection method	2, 3, 4-wire
Number of inputs	16
Protective circuit	Electronic short-circuit/overload protection for each group
Input voltage range "0" signal	0 V ... 5 V
Input voltage range "1" signal	11 V ... 32 V
Typical input current per channel	50 mA

Classifications

eCl@ss

eCl@ss 4.0	27250302
eCl@ss 4.1	27250302
eCl@ss 5.0	27250302
eCl@ss 5.1	27242604
eCl@ss 6.0	27242604
eCl@ss 7.0	27242604
eCl@ss 8.0	27242604

ETIM

ETIM 2.0	EC001430
ETIM 3.0	EC001599
ETIM 4.0	EC001599
ETIM 5.0	EC001599

UNSPSC

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

Approvals

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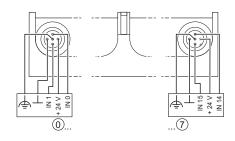UL Recognized / cUL Recognized / GOST / INTERBUS CLUB / cULus Recognized

Distributed I/O device - IBS RL 24 DI 16/8-LK - 2724850

Approvals

Ex Approvals

Approvals submitted

Approval details

UL Recognized

Nominal current IN	0.003 A
Nominal voltage UN	24 V

cUL Recognized

Nominal current IN	0.003 A
Nominal voltage UN	24 V

GOST

INTERBUS CLUB

cULus Recognized

Drawings

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Connection diagram