

## Distributed I/O device - IBS RL 24 DO 16/8-R-LK - 2734170

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)

Digital output device for INTERBUS, fiber optic technology with 500 kbaud, 16 readback outputs (24 V DC), actuator connection via 5-pos. M12 female connectors, rugged metal housing, IP67 degree of 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 an 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) | 830.3 GRM |
| Custom tariff number                 | 85176200  |

## Distributed I/O device - IBS RL 24 DO 16/8-R-LK - 2734170

|                   |         |
|-------------------|---------|
| 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)          | -20 °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)                 | 800 hPa ... 1060 hPa (up to 2000 m above sea level) |
| Air pressure (storage/transport)         | 700 hPa ... 1060 hPa (up to 3000 m above sea level) |
| Degree of protection                     | IP65/IP67   |

#### General

|                               |   |
|-------------------------------|---|
| Weight                        | 810 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. |
| Test section                  | Between bus logic and outputs 500 V AC 50 Hz 1 min                |

#### Interfaces

|                      |   |
|----------------------|---|
| Fieldbus system      | INTERBUS                                |
| Designation          | INTERBUS                                |
| 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 DC ... 32 V DC (including ripple)                     |
| Ripple               | Max 3.6 V <sub>SS</sub> within the permissible voltage range |
| Supply current       | typ. 120 mA  |
| Current consumption  | 120 mA   |

## Distributed I/O device - IBS RL 24 DO 16/8-R-LK - 2734170

### Technical data

#### Digital outputs

|                                    |   |
|------------------------------------|---|
| Output name                        | Digital outputs   |
| Connection method                  | 2, 3-wire   |
| Number of outputs                  | 16  |
| Protective circuit                 | Electronic short-circuit/overload protection for each channel |
| Output voltage                     | 24 V DC   |
| Nominal output voltage             | 24 V DC   |
| Maximum output current per channel | 500 mA  |
| Maximum output current per module  | 4 A   |
| Nominal load, inductive            | 12 VA (1.2 H; 48 Ω)   |
| Nominal load, lamp                 | 12 W  |
| Nominal load, ohmic                | 12 W  |

### 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 |

# Distributed I/O device - IBS RL 24 DO 16/8-R-LK - 2734170

## Approvals

Approvals

---

Approvals

UL Recognized / cUL Recognized / INTERBUS CLUB / cULus Recognized

---

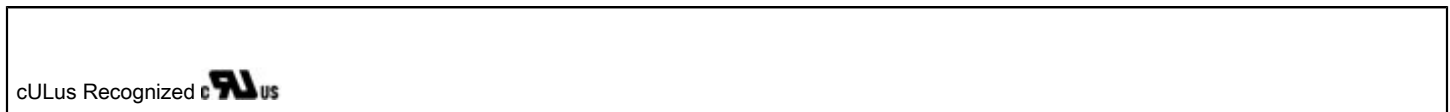
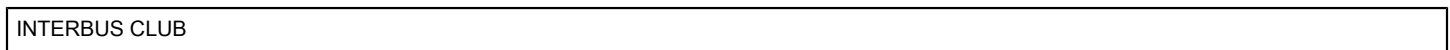
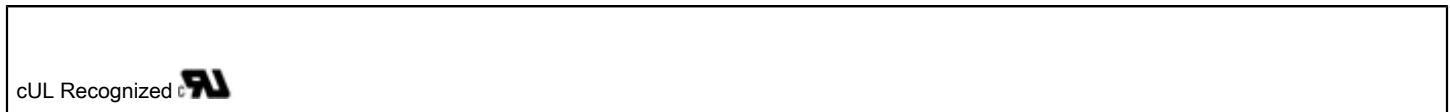
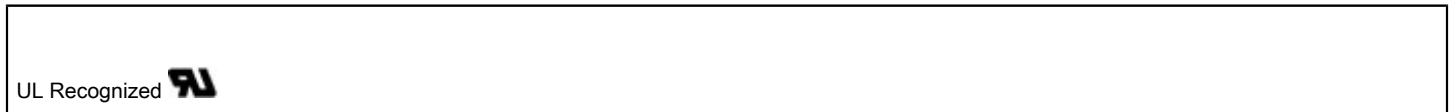
Ex Approvals

---

Approvals submitted

---

## Approval details



## Drawings

Connection diagram

