

IBS RL 24 DIO 8/8/8 RS-LK-2MBD - Distributed I/O device



2731733

<https://www.phoenixcontact.com/us/products/2731733>

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The figure shows version IBS RL 24 DIO 8/8/8 RS-LK

Digital I/O device for INTERBUS; fiber optic technology with 2 Mbaud, eight inputs (24 V DC), eight relay outputs (12 V AC to 250 V AC; 2 A, maximum), 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). This means they can even be mounted in the immediate vicinity of welding tongs, for example. Each Ruggedline module consists of a mounting panel and electronics module. The electronics module is snapped onto the mounting panel and fastened with two screws, if necessary. Peripheral faults can be clearly localized using the extended diagnostics. Short circuits in the sensor supply are signaled in groups of four inputs each, for example. And, in the case of a short circuit at an output, the respective output is even displayed directly. This information is made available to the controller as well as displayed on the module. For the modules with a fiber-optic connection, the diagnostic capability goes one step further. D

Your advantages

- Rugged Line connector for INTERBUS with fiber optic and supply voltage
- COMBICON connector for relay outputs
- M12 connector for digital inputs
- Comprehensive diagnostic functions
- Rugged metal housing

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 2731733 |
| Packing unit | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | DR03 |
| Product key | DRI517 |
| GTIN | 4017918901813 |
| Weight per piece (including packing) | 3,981 g |
| Weight per piece (excluding packing) | 3,500 g |
| Customs tariff number | 85389091 |
| Country of origin | DE |

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Technical data

Dimensions

| | |
|--------------------|--|
| Width | 185 mm |
| Height | 193 mm |
| Depth | 138 mm |
| Note on dimensions | with bus connection plugs and mounting panel |

Notes

Utilization restriction

| | |
|----------|---|
| EMC note | EMC: class A product, see manufacturer's declaration in the download area |
|----------|---|

Interfaces

INTERBUS

| | |
|----------------------|---|
| Connection method | Optic fiber (polymer fiber 980/1000 µm) |
| Transmission speed | 2 Mbps |
| Transmission physics | FO |

System properties

Programming data

| | |
|-------------------------|--------|
| Length code (hex) | 09 |
| ID code (dec.) | 3 |
| Length code (dec) | 9 |
| Process data channel | 8 bit |
| Input address area | 1 Byte |
| Output address area | 1 Byte |
| Parameter channel (PCP) | 0 Byte |
| Register length (bus) | 1 Byte |

Input data

Digital:

| | |
|------------------------------------|--|
| Input name | Digital inputs |
| Number of inputs | 8 |
| Connection technology | 2-, 3-, 4-conductor |
| Input voltage range "0" signal | -30 V DC ... 5 V DC |
| Input voltage range "1" signal | 11 V DC ... 30 V DC |
| Typical input current per channel | 5.7 mA |
| Delay at signal change from 0 to 1 | 2.2 ms |
| Delay at signal change from 1 to 0 | 3.3 ms |
| Protective circuit | Electronic short-circuit/overload protection |

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Output data

Digital:

| | |
|---|--------------|
| Output name | Relay output |
| Number of outputs | 8 |
| Maximum operating frequency with ohmic nominal load | 10 Hz |

Product properties

| | |
|-----------------|---------------|
| Product type | I/O component |
| Product family | Ruggedline |
| Type | Block design |
| No. of channels | 16 |

Electrical properties

Supply: Module electronics

| | |
|----------------------|--|
| Supply voltage | 24 V DC |
| Supply voltage range | 18.5 V DC ... 32 V DC (including ripple) |
| Supply current | typ. 120 mA (plus sensor current) |
| Ripple | Max 3.6 V _{SS} within the permissible voltage range |

Connection data

| | |
|-------------------|-------------|
| Connection method | Fiber optic |
|-------------------|-------------|

Environmental and real-life conditions

Ambient conditions

| | |
|--|---|
| Ambient temperature (operation) | -20 °C ... 55 °C |
| Degree of protection | IP65/IP67 |
| Note | Seal unused slots/connections to ensure the degree of protection. |
| Air pressure (operation) | 860 hPa ... 1080 hPa (up to 1500 m above sea level) |
| Air pressure (storage/transport) | 660 hPa ... 1080 kPa (up to 3500 m above sea level) |
| Ambient temperature (storage/transport) | -25 °C ... 70 °C |
| Permissible humidity (operation) | 100 % |
| Permissible humidity (storage/transport) | 95 % (non-condensing) |

Standards and regulations

| | |
|------------------|---------------------------------------|
| Protection class | III (IEC 61140, EN 61140, VDE 0140-1) |
|------------------|---------------------------------------|

Mounting

| | |
|---------------|----------------|
| Mounting type | Panel mounting |
|---------------|----------------|

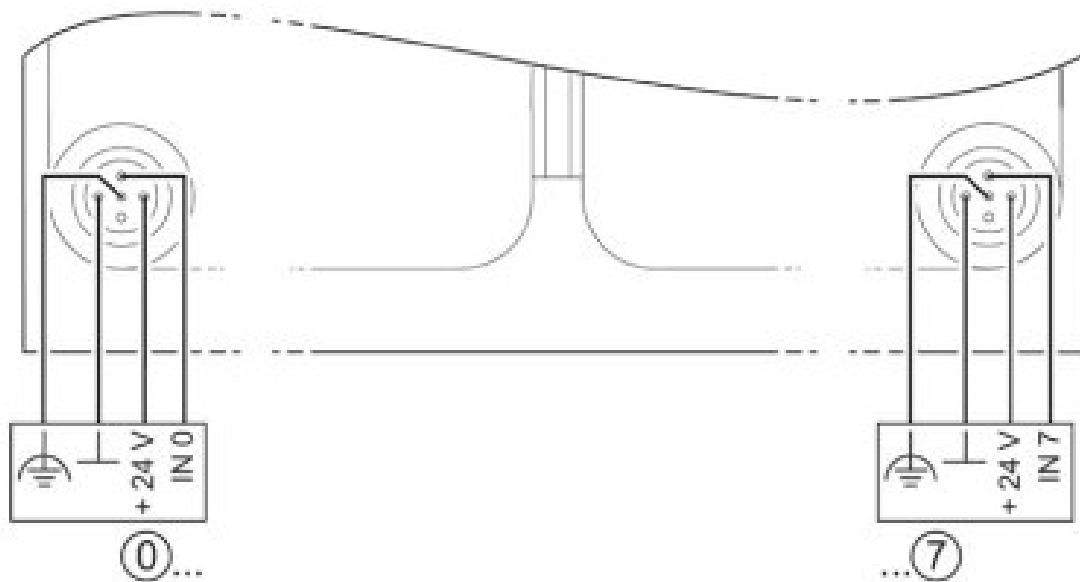
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Drawings

Connection diagram



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Environmental product compliance

China RoHS

| | |
|--|--|
| Environment friendly use period (EFUP) | EFUP-E |
| | No hazardous substances above the limits |

EU REACH SVHC

| | |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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