# IB IL 24/230 DOR4/W-PAC - Relay module

2861878

https://www.phoenixcontact.com/us/products/2861878

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CRA-READY



Inline, Relay terminal, Relay outputs: 4 (floating), Changeover contact, 24 V DC, 230 V AC, for switching ohmic loads, transmission speed in the local bus: 500 kbps, degree of protection: IP20, including Inline connectors and marking fields; The product is being prepared for compliance with the Cyber Resilience Act (CRA).

## Product description

The terminal is designed for use within an Inline station. The terminal has four floating relay changeover contacts. You can use the terminal block in protective extra-low voltage applications and in AC applications. When using the terminal block in AC applications, be sure to follow the applicable regulations and safety notes.

## Your advantages

- Safe isolation
- Floating connections for 4 actuators
- Nominal current at the output: 3 A
- Total current of the terminal block: 12 A

ELEKTROGERÄTE RÜCKNAHME

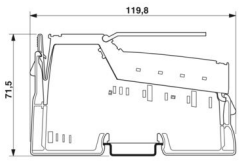
## Commercial data

| | |
|---|---|
| Item number | 2861878 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |

| | |
|---|---|
| Sales key | DR01 |
| Product key | DRI133 |
| GTIN | 4017918894573 |
| Weight per piece (including packing) | 216.4 g |
| Weight per piece (excluding packing) | 138 g |
| Customs tariff number | 85389099 |
| Country of origin | DE |

## Technical data

### Dimensions

| | |
|---|---|
| Dimensional drawing |  |
| Width | 48.8 mm |
| Height | 119.8 mm |
| Depth | 71.5 mm |
| Note on dimensions | Housing dimensions |

### Notes

| | |
|---|---|
| Note on application | Only for industrial use |
| Note on application | As things stand now, we are preparing the product so that, as of December 11, 2027, it will comply with the requirements of the EU Cyber Resilience Act (CRA) based on the information currently available regarding the CRA. |

### Mounting

| | |
|---|---|
| Mounting type | DIN rail mounting |

### Material specifications

| | |
|---|---|
| Color (Housing) | gray (RAL 7042) |

### Interfaces

Inline local bus

| | |
|---|---|
| Number of interfaces | 2 |
| Connection method | Inline data jumper |
| Transmission speed | 500 kbps |

### System properties

Programming data

| | |
|---|---|
| Length code (hex) | 41 |
| ID code (dec.) | 189 |
| Length code (dec) | 65 |
| Process data channel | 4 bit |
| Input address area | 0 Byte |
| Output address area | 4 bit |
| Parameter channel (PCP) | 0 bit |
| Register length (bus) | 4 bit |

Fieldbus data telegram (PROFIBUS)

| | |
|---|---|
| Required parameter data | 3 Byte |
| Required configuration data | 4 Byte |

## Output data

Relay

| | |
|---|---|
| Number of outputs | 4 (floating) |
| Connection method | Spring-cage connection |
| Contact switching type | Changeover contact |
| Contact material | $AgSnO_2$, hard gold-plated |
| Contact resistance | ≤ 50 mΩ (at 100 mA/6 V) |
| Nominal output voltage (DC) | 24 V DC |
| Nominal output voltage (AC) | 230 V AC |
| Output voltage range (AC) | 5 V AC ... 253 V AC |
| Output current (max. per channel) | max. 3 A (per channel) |
| Output current (max. per module) | max. 12 A (per module) |
| Inrush current | max. 6 A (for 200 µs, with lamp loads and capacitive loads) |
| Switching voltage | min. 5 V DC |
| | max. 250 V DC |
| | max. 253 V AC |
| Switching current | max. 3 A (At 30 V DC) |
| | max. 0.15 A (for 250 V DC) |
| Limiting continuous current | 3 A |
| Switching power | max. 750 VA (see to derating) |
| Switching frequency | max. 20 Hz (without load) |
| | max. 0.1 Hz (with load) |
| Coil resistance | 119 Ω ±12 Ω (at 20 °C) |
| Typical response time | typ. 5 ms |
| Bouncing time | typ. 5 ms |
| Typical release time | typ. 6 ms |
| Service life electrical | $10^5$ switching cycles (at 20 switching cycles per minute) |
| Mechanical service life | 2x $10^7$ cycles |
| Common potentials | all contacts floating |

## Product properties

| | |
|---|---|
| Product type | I/O component |
| Product family | Inline |
| Type | modular |
| Installation location | Control cabinet |
| Scope of supply | including Inline connectors and marking fields |
| No. of channels | 4 |
| Operating mode | Process data operation with 4 bits |
| Special properties | The product is being prepared for compliance with the Cyber |

| | |
|---|---|
| | Resilience Act (CRA) |
| | for switching ohmic loads |

Insulation characteristics

| | |
|---|---|
| Protection class | II (IEC 61140, EN 61140, VDE 0140-1) () |
| Overvoltage category | III (IEC 60664-1, EN 60664-1) |
| Pollution degree | 2 (IEC 60664-1, EN 60664-1) |

## Electrical properties

| | |
|---|---|
| Maximum power dissipation for nominal condition | 2.85 W |

Potentials: Communications power ($U_L$)

| | |
|---|---|
| Supply voltage | 7.5 V DC (via voltage jumper) |
| Current draw | max. 187 mA |

Electrical isolation/isolation of the voltage ranges

| | |
|---|---|
| Test voltage: Relay contact / Bus logics | 4 kV, 50 Hz, 1 min |
| Test voltage: Contact/contact | 1 kV, 50 Hz, 1 min |
| Test voltage: Contact / PE | 1 kV, 50 Hz, 1 min |

## Connection data

Connection technology

| | |
|---|---|
| Connection name | Inline connector |

Inline connector

| | |
|---|---|
| Connection method | Spring-cage connection |
| Conductor cross-section, rigid | 0.08 mm² ... 1.5 mm² |
| Conductor cross-section, flexible | 0.08 mm² ... 1.5 mm² |
| Conductor cross-section AWG | 28 ... 16 |
| Stripping length | 8 mm |

## Environmental and real-life conditions

Ambient conditions

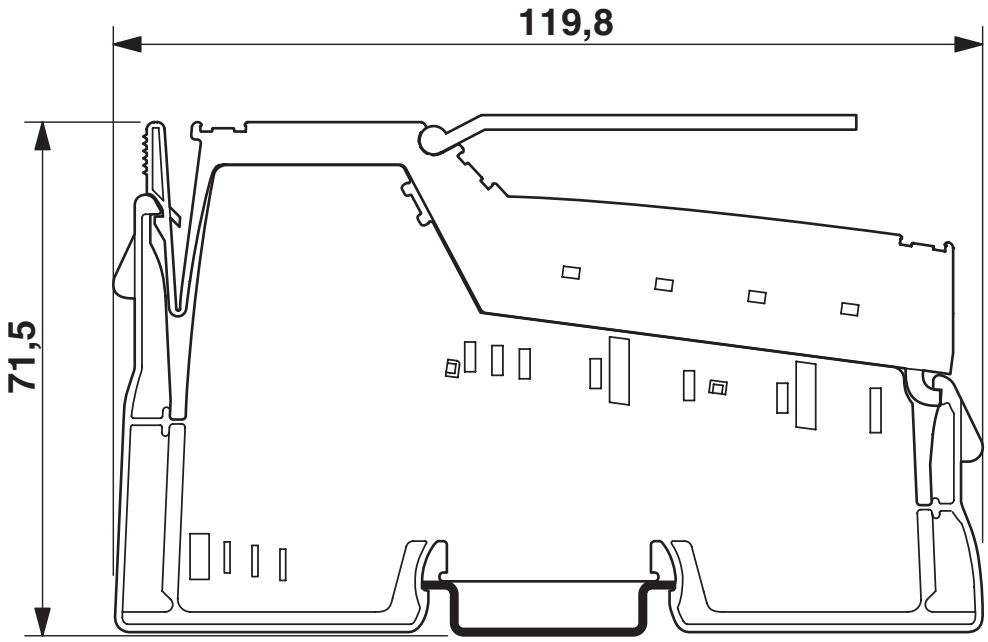
| | |
|---|---|
| Ambient temperature (operation) | -25 °C ... 55 °C |
| Degree of protection | IP20 |
| Air pressure (operation) | 80 kPa ... 106 kPa (up to 2000 m above sea level) |
| Air pressure (storage/transport) | 70 kPa ... 106 kPa (up to 3000 m above sea level) |
| Ambient temperature (storage/transport) | -25 °C ... 85 °C |
| Permissible humidity (operation) | 10 % ... 95 % (non-condensing) |
| Permissible humidity (storage/transport) | 10 % ... 95 % (non-condensing) |

Mechanical test

| | |
|---|---|
| Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6 | 2g |
| Shock in accordance with EN 60068-2-27/IEC 60068-2-27 | 2g |

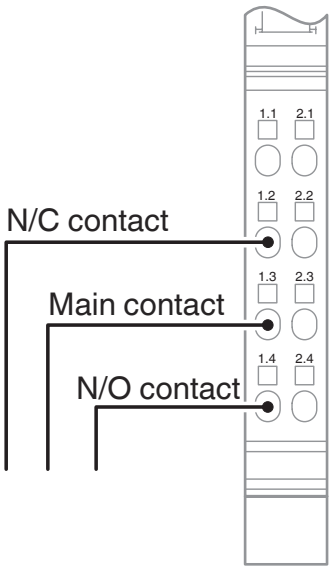
## Drawings

Dimensional drawing

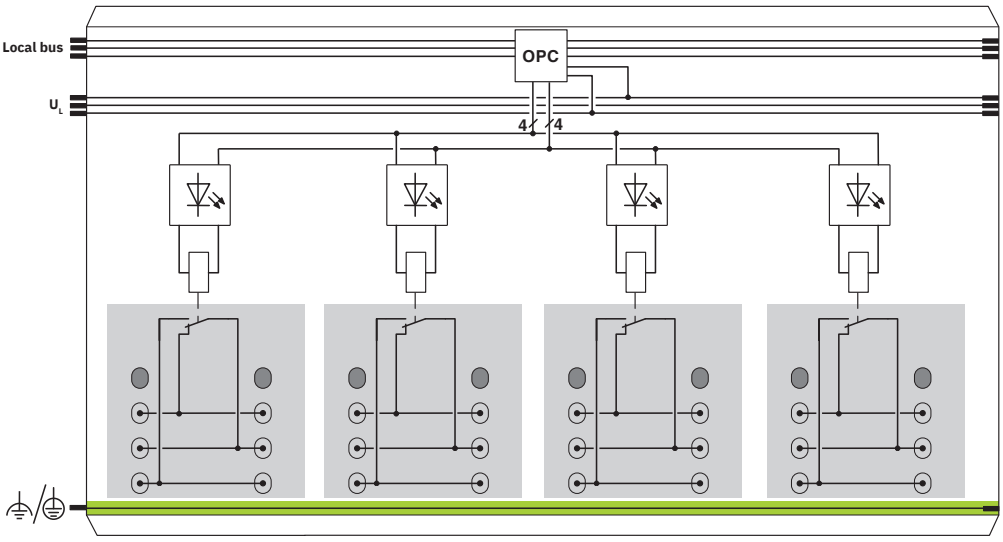



Dimensions (in mm)

Connection diagram



Block diagram



## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2861878

**LR**
Approval ID: LR23398855TA

**BV**
Approval ID: 21725/C1 BV

**BSH**
Approval ID: 658a

**RINA**
Approval ID: ELE121121XG

**ABS**
Approval ID: 22-2226444-PDA

**cULus Recognized**
Approval ID: E140324

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27242604 |
| ECLASS-15.0 | 27242604 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC001599 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 32151600 |

## Environmental product compliance

EU RoHS

| | |
|---|---|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 7(a), 7(c)-I |

China RoHS

| | |
|---|---|
| Environment friendly use period (EFUP) | EFUP-50 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

| | |
|---|---|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1) |
| SCIP | aa33a80b-10d2-497c-9332-4cda31e84913 |


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