# MINI MCR-2-PTB - Power terminal block

2902066

https://www.phoenixcontact.com/us/products/2902066

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CRA-READY



Power terminal with plug-in connection technology for delivering the supply voltage to the DIN rail connector. Monitoring of the supply voltages in combination with the fault monitoring module. Screw connection technology

## Product description

The power terminal with plug-in connection technology is used to deliver the supply voltage to the DIN rail connector. Two separate voltage inputs permit a redundant and diode-decoupled power supply up to a maximum current of 3.2 A. The FM power terminal offers the additional functions of monitoring in combination with the MINI MCR-2-FM-RC(-PT) fault monitoring module (Order No.: 2904504, 2904508), the flexible, redundant supply of one or both module sides, and an extended supply voltage range of 9.6...30 V DC. The power terminal supports NFC communication.

## Commercial data

| | |
|---|---|
| Item number | 2902066 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | C404 |
| Product key | DK112Z |
| GTIN | 4046356649933 |
| Weight per piece (including packing) | 71.7 g |
| Weight per piece (excluding packing) | 98 g |
| Customs tariff number | 85389099 |
| Country of origin | DE |

# Technical data

## Notes

Note on application

| | |
|---|---|
| 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. |

Utilization restriction

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

## Product properties

| | |
|---|---|
| Product type | Feed-in module |

## Electrical properties

| | |
|---|---|
| Maximum temperature coefficient | < 0.01 %/K |

## Input data

| | |
|---|---|
| Input voltage range DC | 9.9 V DC ... 30 V DC |
| Max. input current | 3.2 A |
| Reverse polarity protection | yes |

## Output data

| | |
|---|---|
| Output voltage range | 9.6 V DC ... 29.7 V DC |

## Connection data

Input

| | |
|---|---|
| Connection method | Screw connection |
| Conductor cross-section, rigid min. | 0.14 mm² |
| Conductor cross-section, rigid max. | 2.5 mm² |
| Conductor cross-section flexible min. | 0.14 mm² |
| Conductor cross-section flexible max. | 2.5 mm² |
| Conductor cross-section AWG min. | 24 |
| Conductor cross-section AWG max. | 12 |
| Stripping length | 10 mm |
| Screw thread | M3 |
| Tightening torque, min | 0.5 Nm |
| Tightening torque max | 0.6 Nm |

## Interfaces

| | |
|---|---|
| Interface | NFC interface |

## Signaling

| | |
|---|---|
| Operating voltage display | Green LED (PWR 1) |
| | Green LED (PWR 2) |
| Error indication | Red LED (ERR 1) |
| | Red LED (ERR 2) |

## Dimensions

| | |
|---|---|
| Width | 6.2 mm |
| Height | 109.81 mm |
| Depth | 119.2 mm |

## Material specifications

| | |
|---|---|
| Housing material | PBT |
| Fire protection for rail vehicles (DIN EN 45545-2) R22 | HL 1 - HL 2 |
| Fire protection for rail vehicles (DIN EN 45545-2) R23 | HL 1 - HL 2 |
| Fire protection for rail vehicles (DIN EN 45545-2) R24 | HL 1 - HL 2 |

## Environmental and real-life conditions

### Ambient conditions

| | |
|---|---|
| Degree of protection | IP20 (not assessed by UL) |
| Ambient temperature (operation) | -40 °C ... 70 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Maximum altitude | ≤ 2000 m |
| Permissible humidity (operation) | 5 % ... 95 % (non-condensing) |

## Approvals

### CE

| | |
|---|---|
| Certificate | CE-compliant |

### ATEX

| | |
|---|---|
| Identification | Ⓔx II 3 G Ex ec IIC T4 Gc |
| Certificate | BVS 20 ATEX E 014X |

### IECEx

| | |
|---|---|
| Identification | Ex ec IIC T4 Gc |
| Certificate | IECEx BVS 20.0010X |

### CCC / China-Ex

| | |
|---|---|
| Identification | Ex ec IIC T4 Gc |

### UL, USA/Canada

| | |
|---|---|
| Identification | UL 508 Listed |
| | Class I, Div. 2, Groups A, B, C, D T6 |
| | Class I, Zone 2, Group IIC T6 |

### Shipbuilding approval

| | |
|---|---|
| Certificate | DNV GL TAA00002UA |

EAC Ex

| | |
|---|---|
| Identification | Ex ec IIC T4 Gc |
| Certificate | BY/112 02.01 TP012 103.01 00079 |

Shipbuilding data

| | |
|---|---|
| Temperature | B |
| Humidity | B |
| Vibration | A |
| EMC | A |
| Enclosure | Required protection according to the Rules shall be provided upon installation on board |

## EMC data

| | |
|---|---|
| Electromagnetic compatibility | Conformance with EMC directive |
| Noise immunity | EN 61000-6-2 |
| Note | When being exposed to interference, there may be minimal deviations. |

Noise emission

| | |
|---|---|
| Standards/regulations | EN 61000-6-4 |

Electrostatic discharge

| | |
|---|---|
| Standards/regulations | EN 61000-4-2 |

Electrostatic discharge

| | |
|---|---|
| Comments | Safety measures must be taken to prevent electrostatic discharge. |

Electromagnetic HF field

| | |
|---|---|
| Designation | Electromagnetic RF field |
| Standards/regulations | EN 61000-4-3 |

Fast transients (burst)

| | |
|---|---|
| Designation | Fast transients (burst) |
| Standards/regulations | EN 61000-4-4 |

Surge current load (surge)

| | |
|---|---|
| Standards/regulations | EN 61000-4-5 |

Conducted interference

| | |
|---|---|
| Designation | Conducted interferences |
| Standards/regulations | EN 61000-4-6 |

## Standards and regulations

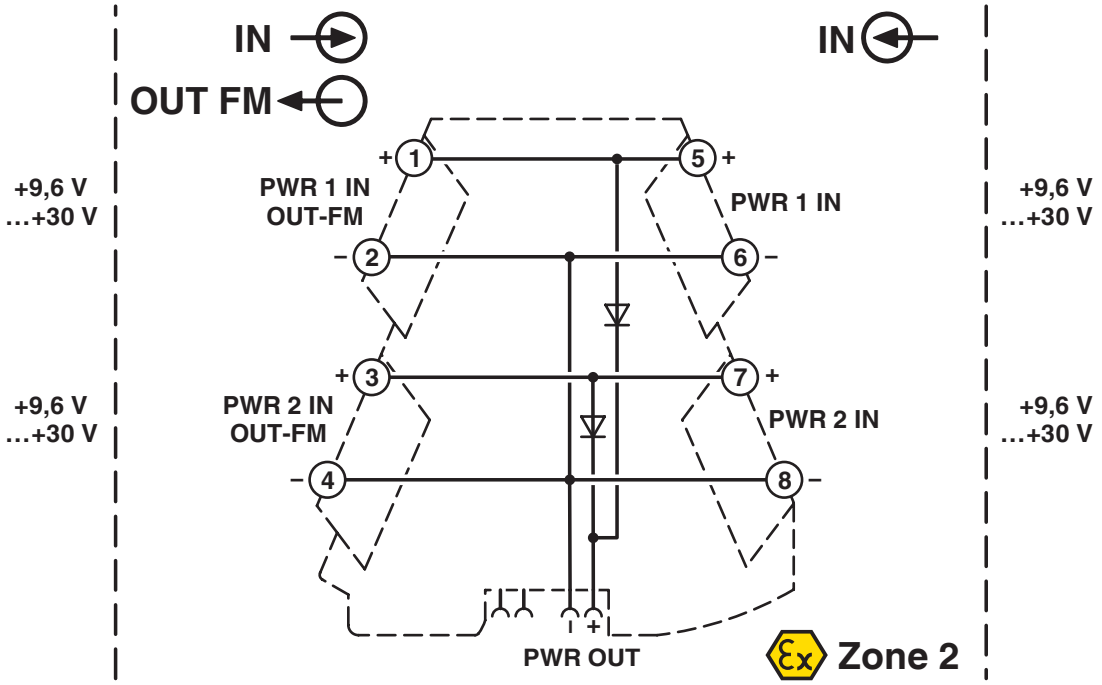
| | |
|---|---|
| Standard designation | GB Standard |
| Standards/specifications | GB/T 3836.1 |
| | GB/T 3836.3 |

## Mounting

| | |
|---|---|
| Mounting type | DIN rail mounting |
| Assembly note | The DIN rail connector can be used for bridging the supply voltage. It can be snapped onto a 35 mm EN 60715 DIN rail. |
| Mounting position | any |

## Drawings

Block diagram



## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2902066

**UL Listed**
Approval ID: FILE E 238705

**cUL Listed**
Approval ID: FILE E 238705

**DNV**
Approval ID: TAA00002UA

**IECEx**
Approval ID: IECEx BVS 20.0010X

**cUL Listed**
Approval ID: E196811

**UL Listed**
Approval ID: E196811

**ATEX**
Approval ID: BVS 20 ATEX E 014X

**CCC**
Approval ID: 2022122313115968

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27371392 |
| ECLASS-15.0 | 27371392 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC002886 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 39121100 |

## 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 | 8dfa4e6a-956d-4070-b6ae-c7b4a2f60968 |

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