# MACX-MR-V-600-PT - Monitoring relay

1336507

https://www.phoenixcontact.com/us/products/1336507

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1-phase voltage monitoring relay, 24 V AC/DC … 240 V AC/DC wide range power supply, with adjustable threshold values, response delay, and the functions can be selected by configuration.

## Commercial data

| | |
|---|---|
| Item number | 1336507 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | C443 |
| Product key | CK4711 |
| GTIN | 4063151636562 |
| Weight per piece (including packing) | 198.4 g |
| Weight per piece (excluding packing) | 195 g |
| Customs tariff number | 85364900 |
| Country of origin | CN |

# Technical data

## Product properties

| | |
|---|---|
| Product type | Voltage monitoring relay |
| Operating mode | Closed circuit or wire break |

Insulation characteristics: Railway standard

| | |
|---|---|
| Overvoltage category | III |
| Pollution degree | 3 |

## Electrical properties

| | |
|---|---|
| Service life electrical | approx. 1x $10^5$ cycles, resistive load 2000 V A |
| Maximum power dissipation for nominal condition | 15 W |
| Mains type | 1-phase |

Railway standard

| | |
|---|---|
| Rated insulation voltage | 600 V |

Electrical isolation

| | |
|---|---|
| Electrical isolation | 300 V |

Supply

| | |
|---|---|
| Supply voltage range | 24 V AC ... 240 V AC -15 % ... +10 % |
| | 24 V DC ... 240 V DC -25 % ... +30 % |
| Nominal power consumption | 15 VA (1.5 W) |

## Input data

| | |
|---|---|
| Input name | Measuring input |
| Measured value | DC, AC sine (40 Hz ... 500 Hz) |
| Input voltage range | 0 V AC/DC ... 600 V AC/DC |
| Frequency range | 48 Hz ... 400 Hz |
| Maximum temperature coefficient | 0.05 %/K |
| Setting range for response delay | 0 s ... 99.9 s |
| Function | Undervoltage |
| | Overvoltage |
| | Window |
| Basic accuracy | 1 % (>50V, ±0.5V (0…50V)) |
| Repeat accuracy | 0.5 % |
| Recovery time | 200 ms |

## Output data

Switching

| | |
|---|---|
| Contact switching type | 2 floating changeover contacts |
| Maximum switching voltage | 250 V AC |
| Interrupting rating (ohmic load) max. | 2000 VA (8 A/250 V AC) |

| | |
|---|---|
| Output fuse | 8 A (fast-blow) |

## Connection data

| | |
|---|---|
| Connection method | Push-in connection |
| Stripping length | 10 mm |
| Conductor cross section rigid | 0.2 mm² ... 2.5 mm² |
| Conductor cross section flexible | 0.2 mm² ... 2.5 mm² |
| Conductor cross section AWG | 24 ... 14 |
| Tightening torque | 0.5 Nm ... 0.6 Nm (5 lb in ... 7 lb in) |

## Dimensions

| | |
|---|---|
| Width | 22.5 mm |
| Height | 109 mm |
| Depth | 114 mm |

## Material specifications

| | |
|---|---|
| Flammability rating according to UL 94 | V0 |
| Housing insulation material | PBT |

## Environmental and real-life conditions

### Ambient conditions

| | |
|---|---|
| Degree of protection | IP40 (Housing) |
| | IP20 (Connection terminal blocks) |
| Ambient temperature (operation) | -25 °C ... 70 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Permissible humidity (operation) | 10 % ... 95 % |

## Approvals

### CE

| | |
|---|---|
| Identification | CE-compliant |

### UL, USA/Canada

| | |
|---|---|
| Identification | UL/C-UL Listed UL 508 |

### CCC

| | |
|---|---|
| Identification | GB/T 14048.5 |

### Electronic devices in rail vehicles

| | |
|---|---|
| Operating temperature class | OT4 |
| Class of extended operating temperature upon activation | ST2 |
| Temperature change class | H1 |
| Interruption of the power supply/supply changeover | S2 |
| | S3/C1 |
| | C2 |
| | HL1 |

| | |
|---|---|
| Hazard levels | HL2 |
| | HL3 |
| Protective coating | PC2 |
| Shock (operation) | Category 1 |
| Vibration (operation) | Class B |

## EMC data

| | |
|---|---|
| Low Voltage Directive | Conformance with Low Voltage Directive |
| Noise immunity | EN 61000-6-2 |
| Electromagnetic compatibility | Conformance with EMC directive |
| Noise emission | EN 61000-6-4 |

## Standards and regulations

Railway standard

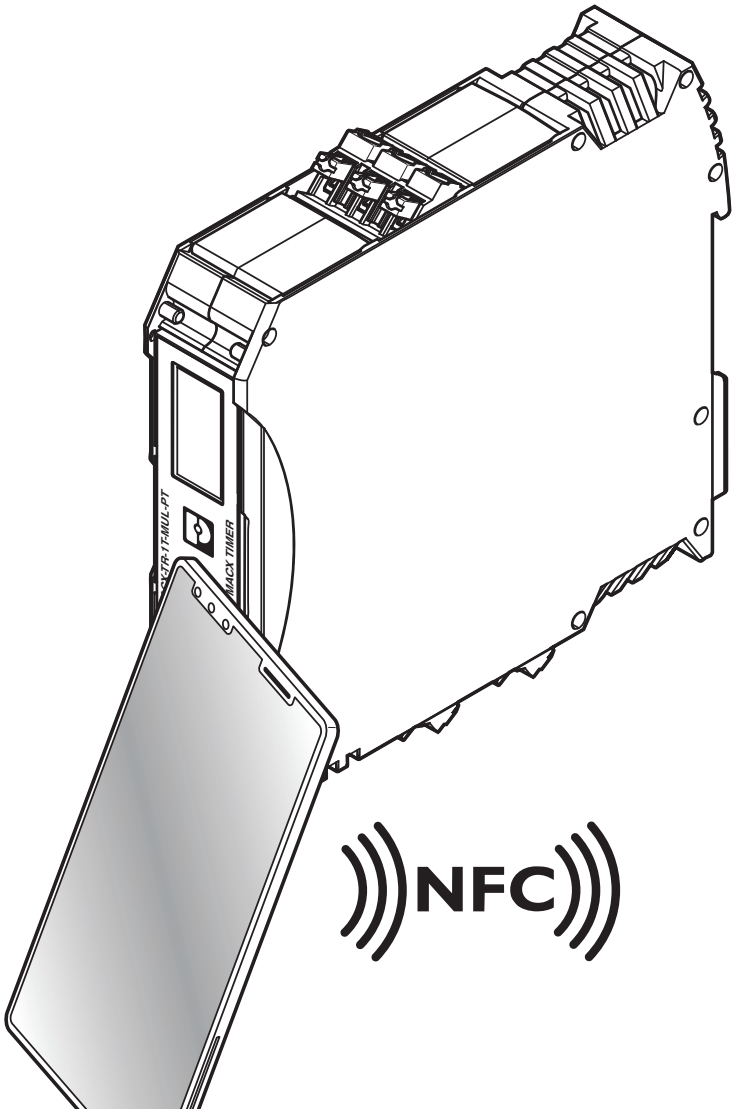
| | |
|---|---|
| Standard designation | EN 50155, GB/T 25119 |

## Mounting

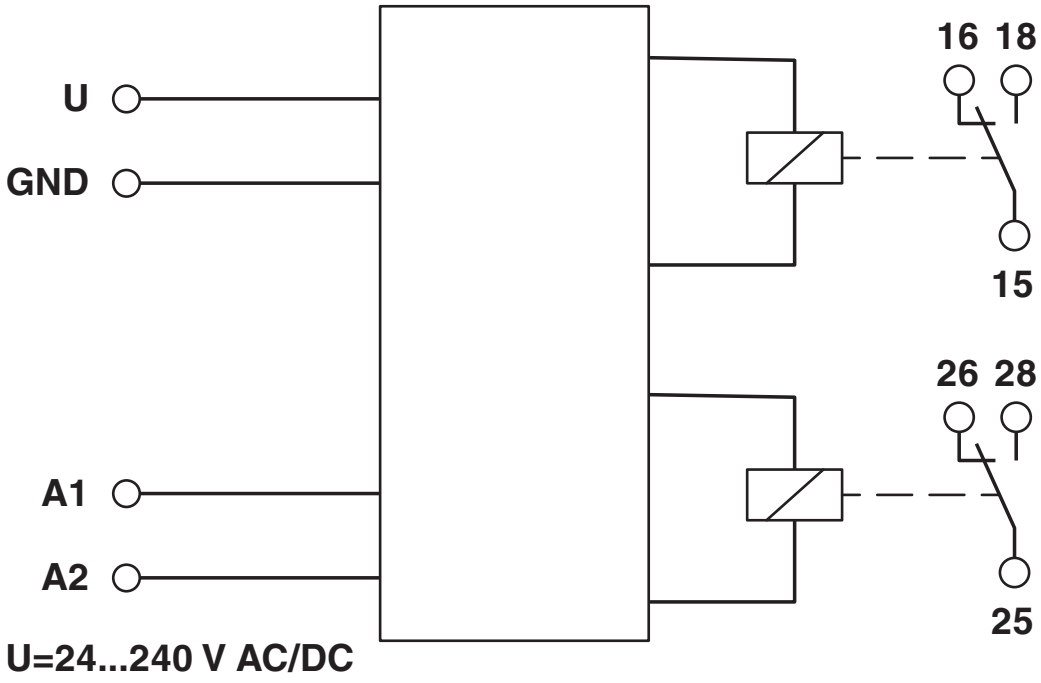
| | |
|---|---|
| Assembly note | on standard DIN rail NS 35 in accordance with EN 60715 |
| Mounting position | any |

## Drawings

Schematic diagram



Block diagram



## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-11.0 | 27371801 |
| ECLASS-13.0 | 27371801 |
| ECLASS-12.0 | 27371801 |

### ETIM

| | |
|---|---|
| ETIM 9.0 | EC001438 |

## 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) |

## Accessories

### MACX-BLUETOOTH-NFC - Adapter

1142259

https://www.phoenixcontact.com/us/products/1142259



Bluetooth NFC adapter

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