

MACX MCR-PTB-SP - Power and error message module



2924184

<https://www.phoenixcontact.com/us/products/2924184>

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Power and fault signaling module with Push-in connection, including corresponding ME 17,5 TBUS 1,5/ 5-ST-3,81 GY DIN rail connector

Your advantages

- Simple or redundant supply, decoupled from diode, protected against polarity reversal
- Installation in zone 2 permitted
- Replaceable fuse
- Error message in the event of power supply failure or fuse fault
- Bus cable error message for MACX MCR-...(2)NAM... devices connected via DIN rail connectors
- Relay output (changeover contact) and blinking LED for error messages
- Supply current up to 3.75 A

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 2924184 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | C402 |
| Product key | DK111Z |
| GTIN | 4046356342766 |
| Weight per piece (including packing) | 156.9 g |
| Weight per piece (excluding packing) | 151 g |
| Customs tariff number | 85437090 |
| Country of origin | DE |

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Technical data

Product properties

| | |
|----------------|----------------|
| Product type | Feed-in module |
| Product family | MACX Analog |

Electrical properties

Electrical isolation

| | |
|----------------------|----|
| Overvoltage category | II |
| Pollution degree | 2 |

Electrical isolation Input/switching output

| | |
|--------------------------|------------|
| Rated insulation voltage | 50 V AC/DC |
|--------------------------|------------|

Supply

| | |
|------------------------|---------|
| Nominal supply voltage | 24 V DC |
|------------------------|---------|

Input data

Signal

| | |
|-----------------------------------|--|
| Voltage input signal | 19.2 V DC ... 30 V DC (24 V DC, -20 % ... +25 %) |
| Fuse | 5 A (replaceable), slow-blow 250 V AC |
| Polarization and surge protection | Yes |

Output data

Switching: Relay

| | |
|---------------------------|----------------------|
| Contact switching type | 1 changeover contact |
| Contact material | Gold (Au) |
| Maximum switching voltage | 50 V AC (2 A) |
| | 30 V DC (2 A) |
| | 50 V DC (0.22 A) |

Signal

| | |
|----------------------------|-------------------------------------|
| Max. current output signal | 3.75 A |
| Output voltage | Input voltage - max 0.8 V at 3.75 A |

Connection data

| | |
|---|---|
| Connection method | Push-in connection |
| Stripping length | 10 mm |
| Conductor cross-section rigid | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross-section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross-section flexible (2 conductors with same cross section) | 0.25 mm ² ... 0.34 mm ² (TWIN ferrule without plastic sleeve) |
| | 0.5 mm ² ... 1.5 mm ² (TWIN ferrule with plastic sleeve) |
| Conductor cross-section AWG | 24 ... 14 |
| | 24 ... 22 (TWIN ferrule without plastic sleeve) |

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| | |
|--|--|
| | 20 ... 16 (TWIN ferrule with plastic sleeve) |
|--|--|

Ex data

| | |
|-----------------------|--------|
| Ex installation (EPL) | Gc |
| | Div. 2 |

Signaling

| | |
|----------------|-------------------------------|
| Status display | 1 x red LED (error) |
| | 2x green LEDs (PWR1 and PWR2) |

Dimensions

| | |
|---------------------|--|
| Dimensional drawing | |
| Width | 17.5 mm |
| Height | 107.9 mm |
| Depth | 113.7 mm |
| Depth NS 35/7,5 | 114.5 mm (Snapped onto DIN rail NS 35/7,5 in accordance with EN 60715) |

Material specifications

| | |
|--|-----------------|
| Color | gray (RAL 7042) |
| Flammability rating according to UL 94 (Housing) | V0 (Housing) |
| Housing material | PA 6.6 |

Environmental and real-life conditions

Ambient conditions

| | |
|---|--|
| Degree of protection | IP20 (not assessed by UL) |
| Ambient temperature (operation) | -40 °C ... 60 °C (Any mounting position) |
| Ambient temperature (storage/transport) | -40 °C ... 80 °C |
| Permissible humidity (operation) | 5 % ... 95 % (non-condensing) |

Altitude range (≤ 2000 m)

| | |
|---------------------------------|--|
| Altitude | ≤ 2000 m (The technical data refers to altitudes ≤2000 m above mean sea level. For altitudes >2000 m above mean sea level, refer to the data sheet.) |
| Ambient temperature (operation) | -40 °C ... 60 °C |
| Rated insulation voltage | 50 V AC/DC |

Altitude range (≤ 3000 m)

| | |
|---------------------------------|---------------------|
| Height range | > 2000 m ... 3000 m |
| Ambient temperature (operation) | -40 °C ... 54 °C |

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| | |
|--------------------------|------------|
| Rated insulation voltage | 40 V AC/DC |
|--------------------------|------------|

Altitude range (≤ 4000 m)

| | |
|---------------------------------|---------------------|
| Height range | > 3000 m ... 4000 m |
| Ambient temperature (operation) | -40 °C ... 48 °C |
| Rated insulation voltage | 30 V AC/DC |

Altitude range (≤ 5000 m)

| | |
|---------------------------------|---------------------|
| Height range | > 4000 m ... 5000 m |
| Ambient temperature (operation) | -40 °C ... 42 °C |
| Rated insulation voltage | 30 V AC/DC |

Approvals

CE

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

ATEX

| | |
|----------------|-----------------------------|
| Identification | Ⓜ II 3 G Ex ec nC IIC T4 Gc |
| Certificate | PxCIF08ATEX2865625X |

IECEX

| | |
|----------------|--------------------|
| Identification | Ex ec nC IIC T4 Gc |
| Certificate | IECEX IBE 08.0004X |

CCC / China-Ex

| | |
|----------------|--------------------|
| Identification | Ex ec nC IIC T4 Gc |
| Certificate | 2021122303114198 |

UL, USA/Canada

| | |
|----------------|---------------------------------------|
| Identification | UL 61010 Listed |
| | Class I, Div. 2, Groups A, B, C, D T4 |
| | Class I, Zone 2, Group IIC T4 |

Shipbuilding approval

| | |
|-------------|------------------|
| Certificate | DNV GL TAA0000AG |
|-------------|------------------|

Shipbuilding data

| | |
|-------------|---|
| Temperature | B |
| Humidity | B |
| Vibration | A |
| EMC | B |
| 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 |

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| | |
|--|-------------|
| | deviations. |
|--|-------------|

Noise emission

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

Electromagnetic HF field

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

Fast transients (burst)

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

Conducted interference

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

Standards and regulations

GB Standard

| | |
|-----------------------|-------------|
| Standards/regulations | GB/T 3836.1 |
| | GB/T 3836.3 |
| | GB/T 3836.8 |

Mounting

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

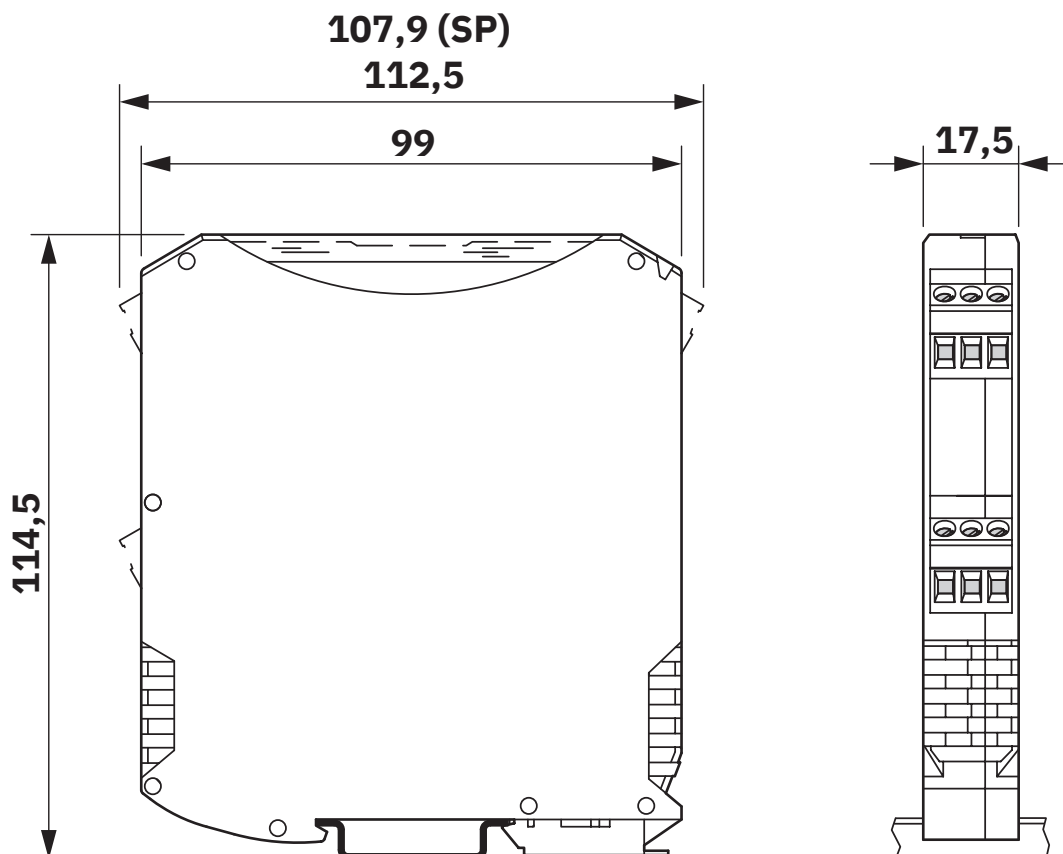
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Drawings

Dimensional drawing



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Approvals

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UL Listed

Approval ID: E330267



cUL Listed

Approval ID: E330267

DNV

Approval ID: TAA00000AG



IECEx

Approval ID: IECEx IBE 08.0004X



cUL Listed

Approval ID: E199827



UL Listed

Approval ID: FILE E 199827



CCC

Approval ID: 2021122303114198

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27242610 |
| ECLASS-15.0 | 27242610 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC001600 |
|-----------|----------|

UNSPSC

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

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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 | 1ac3de46-9ac0-4d18-a487-6bdb65fdcbb3 |

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