# MCR-SL-S- 16-SP- 24 - Current monitoring

2864464

https://www.phoenixcontact.com/us/products/2864464

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MCR current protector, for sinusoidal alternating currents 0 … 16 A AC/ 1 changeover contact

## Your advantages

- Adjustable switching hysteresis
- Relay changeover contact output
- 3-way isolation
- Adjustable operating/closed circuit current behavior
- Switching point can be freely selected in the measuring range of 0 ... 16 A AC

## Commercial data

| | |
|---|---|
| Item number | 2864464 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | C444 |
| Product key | CMMA21 |
| GTIN | 4017918904456 |
| Weight per piece (including packing) | 160 g |
| Weight per piece (excluding packing) | 139.2 g |
| Customs tariff number | 85389091 |
| Country of origin | DE |

# Technical data

## Notes

Utilization restriction

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

## Product properties

| | |
|---|---|
| Product type | Current measuring transducer |

Insulation characteristics

| | |
|---|---|
| Overvoltage category | III |
| Pollution degree | 2 |

## Electrical properties

| | |
|---|---|
| Rated insulation voltage | 300 V AC (to earth) |
| Total error | ≤ 1.4 % (Temperature range) |
| Measuring category | III |
| Test voltage input/output | 3.5 kV (50 Hz, 1 min.) |
| Test voltage input/power supply | 3.5 kV (50 Hz, 1 min.) |
| Protective circuit | Surge protection; 33 V suppressor diode |
| Step response (10-90%) | 40 ms |
| Maximum temperature coefficient | < 0.02 %/K |

Supply

| | |
|---|---|
| Supply voltage range | 20 V DC ... 30 V DC |
| Max. current consumption | < 30 mA |

## Input data

Measurement:

| | |
|---|---|
| Frequency measuring range | 45 Hz ... 60 Hz |

Measurement

| | |
|---|---|
| Input current range | 0 A AC ... 16 A AC (Permitted continuous overload: 120%) |
| Overload capacity | 2 x $I_{N\ (}$continuous) |
| Nominal frequency $f_N$ | 50 Hz |
| | 60 Hz |
| Frequency measuring range | 45 Hz ... 65 Hz |
| Curve type | Sine |

## Output data

Switching: Relay

| | |
|---|---|
| Contact switching type | 1 changeover contact |
| Contact material | AgSnO, hard gold-plated |

| | |
|---|---|
| Maximum switching voltage | 30 V AC |
| | 36 V DC |
| | 250 V AC (when the gold layer is destroyed) |
| Limiting continuous current | 50 mA (for gold layer, 30 V AC/ 36 V DC) |
| | 2 A (in case of a destroyed gold layer, 250 V AC) |
| Setting range of the response delay | typ. 0.1 s ... 10 s (Adjustable using a potentiometer) |

## Connection data

| | |
|---|---|
| Connection method | Screw connection |
| Stripping length | 8 mm |
| Screw thread | M3 |
| 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 |
| Connection method | Through connection |

## Dimensions

Item dimensions

| | |
|---|---|
| Width | 22.5 mm |
| Height | 99 mm |
| Depth | 114.5 mm |

Circular conductor

| | |
|---|---|
| Diameter | 4.2 mm |

## Material specifications

| | |
|---|---|
| Color | green (RAL 6021) |
| Housing material | Polyamide PA non-reinforced |

## Environmental and real-life conditions

Ambient conditions

| | |
|---|---|
| Degree of protection | IP20 |
| Ambient temperature (operation) | -20 °C ... 65 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C (non-condensing) |
| Altitude | ≤ 2000 m |
| Permissible humidity (operation) | 10 % ... 95 % (non-condensing) |

## Approvals

CE

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

## 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 |

## Standards and regulations

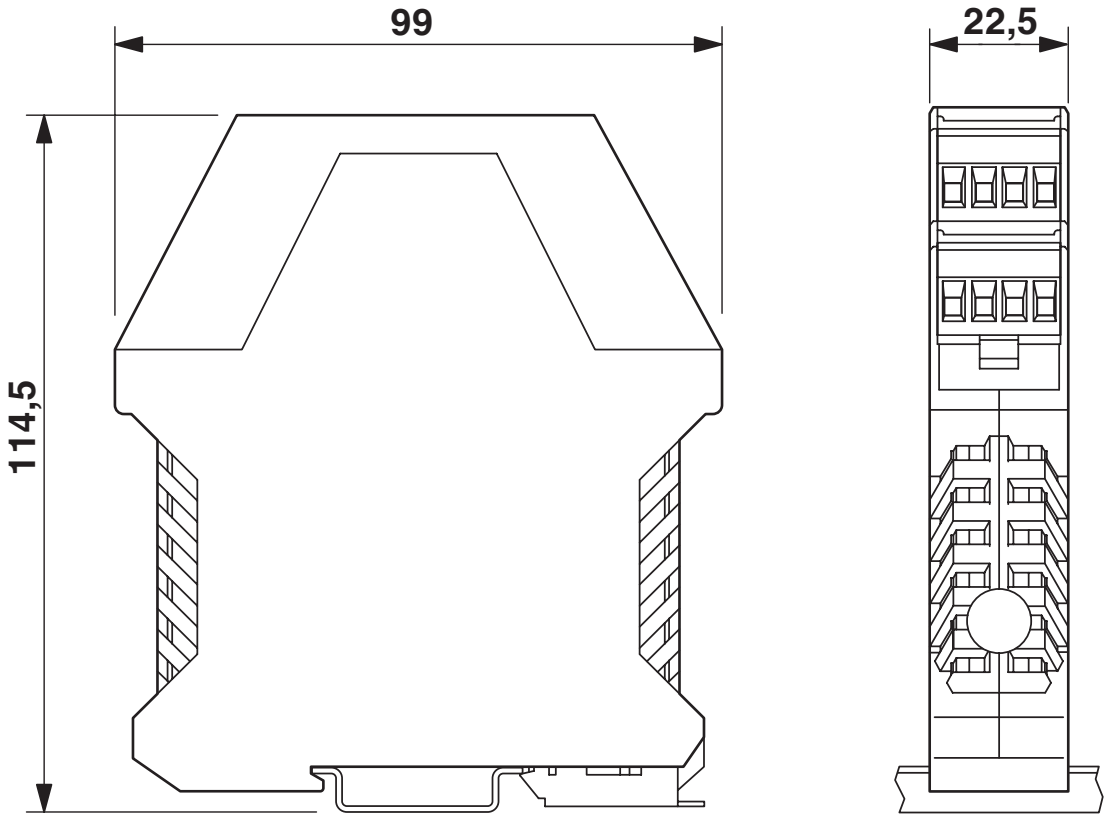
| | |
|---|---|
| Standards/regulations | IEC 61010-2-030 |

## Mounting

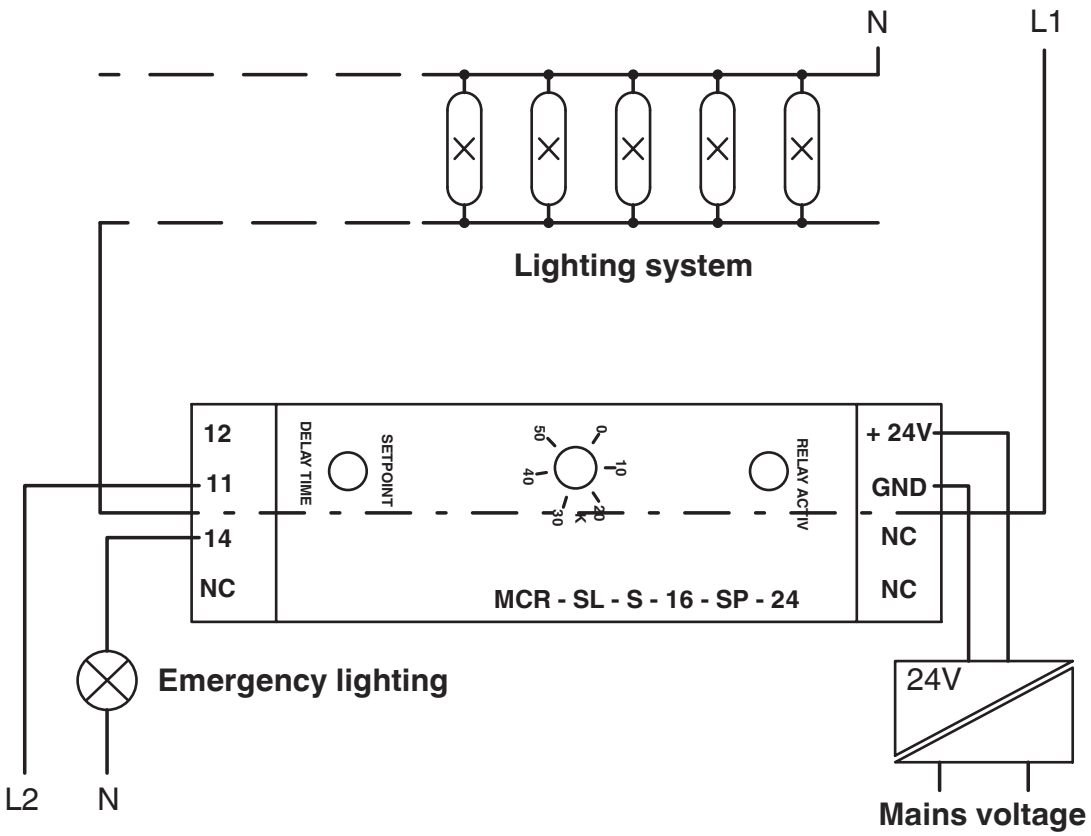
| | |
|---|---|
| Mounting type | DIN rail mounting |
| Mounting position | any |

## Drawings

Dimensional drawing

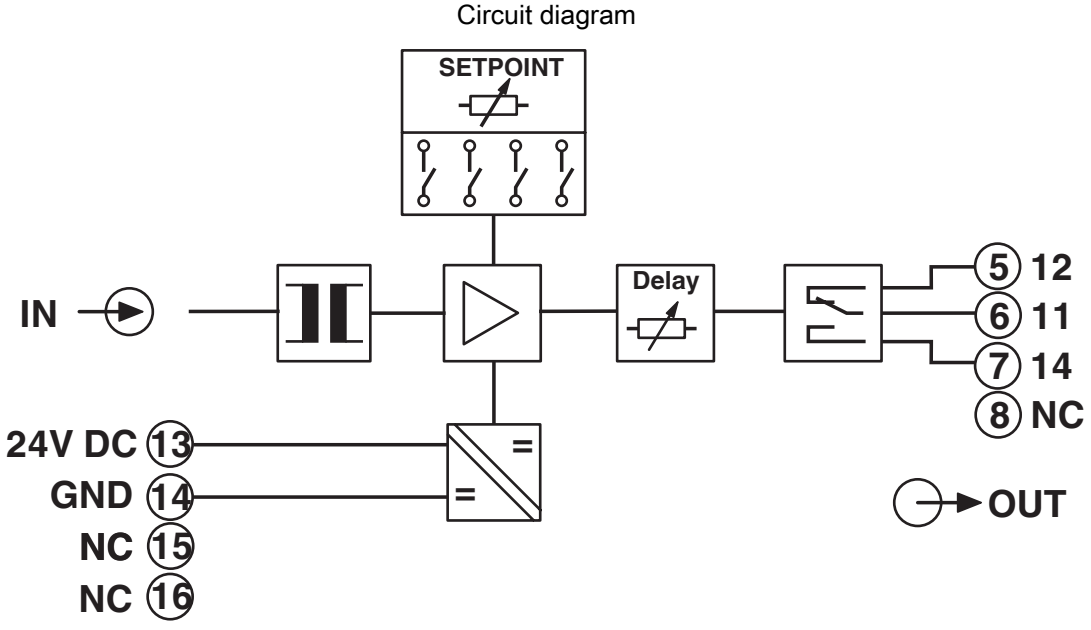


Application drawing




Lighting system with emergency lighting

Circuit diagram



## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2864464

**cUL Recognized**
Approval ID: E238705

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Approval ID: E238705

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27210123 |
| ECLASS-15.0 | 27210123 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC002475 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 39121000 |

## Environmental product compliance

EU RoHS

| | |
|---|---|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 6(c), 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 | 612d9570-bbc2-4415-9ebc-e5214cd59614 |


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