

Monitoring relay - EMD-SL-C-UC-10 - 2867937

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Monitoring relay for monitoring 1-phase currents of 0...10 A AC/DC, undercurrent, supply voltage can be selected via power module, 1 changeover contact

Product Description


Increasingly higher demands are being placed on safety and system availability - across all sectors. Processes are becoming more and more complex, not only in mechanical engineering and the chemical industry, but also in plant and automation technology. Demands on power engineering are also increasing constantly. Error-free and therefore cost-effective operation can only be achieved through continuous monitoring of important network and system parameters. Electronic monitoring relays in the EMD series are available for a wide range of monitoring tasks to avoid the consequences of errors or to keep them within limits. The operating states are indicated using colored LEDs, errors that may occur can be sent to a control system via a floating contact or can shut down a part of the system. Some device versions are equipped with startup and response delays in order to briefly tolerate measured values outside the set monitoring range.

Your advantages

- Separately adjustable startup and response delays
- Variable supply voltage range
- Adjustable via potentiometer on the front



Key Commercial Data

| | |
|--------------|---|
| Packing unit | 1 pc |
| GTIN |  4 046356 046954 |
| GTIN | 4046356046954 |

Technical data

Dimensions

| | |
|--------|---------|
| Width | 22.5 mm |
| Height | 90 mm |
| Depth | 113 mm |

Ambient conditions

| | |
|---------------------------------|------------------|
| Ambient temperature (operation) | -25 °C ... 55 °C |
|---------------------------------|------------------|

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Ambient conditions

| | |
|---|--|
| | -25 °C ... 40 °C (corresponds to UL 508) |
| Ambient temperature (storage/transport) | -25 °C ... 70 °C |
| Permissible humidity (operation) | 15 % ... 85 % |
| Degree of protection | IP40 (Housing) |
| | IP20 (Connection terminal blocks) |
| Noise immunity | EN 61000-6-2 |

Input data

| | |
|----------------------------------|--|
| Input current range | 0 mA ... 100 mA (Connection terminals: I1 and GND) |
| | 0 A ... 1 A (Connection terminals: I2 and GND) |
| | 0 A ... 10 A (Connection terminals: I3 and GND) |
| Overload capacity | 800 mA (at $I_N = 100$ mA) |
| | 3 A (at $I_N = 1$ A) |
| | 12 A (at $I_N = 10$ A) |
| Maximum temperature coefficient | < 0.1 %/K |
| Function | Undercurrent |
| Min. setting range | 5 % ... 95 % (from I_N) |
| Max. setting range | 10 % ... 100 % (from I_N) |
| Setting range for response delay | 0.2 s ... 10 s |
| Basic accuracy | ± 5 % (of scale end value) |
| Setting accuracy | ≤ 5 % (of scale end value) |
| Repeat accuracy | ≤ 2 % |
| Recovery time | 500 ms |

Contact side

| | |
|---------------------------------------|--|
| Contact type | 1 floating changeover contact |
| Maximum switching voltage | 250 V AC (in acc. with IEC 60664-1) |
| Interrupting rating (ohmic load) max. | 750 VA (3 A/250 V AC, module aligned, ≤ 5 mm spacing) |
| | 1250 VA (5 A/250 V AC, module not aligned, ≥ 5 mm spacing) |
| Output fuse | 5 A (fast-blow) |

Power supply

| | |
|----------------------|--|
| Supply voltage range | 24 V AC ... 230 V AC (see Power modules) |
| | 24 V DC (see Power modules) |

General

| | |
|-------------------------------|--|
| Mechanical service life | approx. 2×10^7 cycles |
| Operating mode | 100% operating factor |
| Mounting position | any |
| Assembly instructions | on standard DIN rail NS 35 in accordance with EN 60715 |
| Electromagnetic compatibility | Conformance with EMC directive |
| Housing insulation material | Polyamide PA, self-extinguishing |

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Connection data

| | |
|----------------------------------|--|
| Connection method | Screw connection |
| Stripping length | 8 mm |
| Conductor cross section solid | 0.5 mm ² ... 2.5 mm ² |
| Conductor cross section flexible | 0.25 mm ² ... 2.5 mm ² |
| Conductor cross section AWG | 20 ... 14 |
| Tightening torque | 1 Nm |

Standards and Regulations

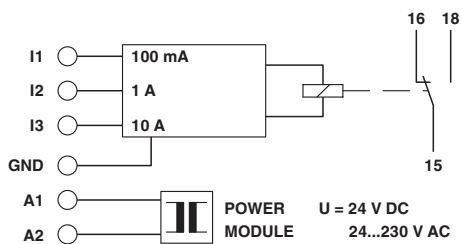
| | |
|-------------------------------|--|
| Low Voltage Directive | Conformance with Low Voltage Directive |
| Electromagnetic compatibility | Conformance with EMC directive |
| Noise emission | EN 61000-6-3 |
| Noise immunity | EN 61000-6-2 |
| Standards/regulations | EN 50178 |
| Rated insulation voltage | 300 V |
| Rated surge voltage | 4 kV |
| Insulation | Basic insulation |
| Pollution degree | 2 |
| Overvoltage category | III |

Environmental Product Compliance

| | |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| | No hazardous substances above threshold values |

Drawings

Block diagram



Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27371802 |
| eCl@ss 11.0 | 27371802 |
| eCl@ss 4.0 | 27371100 |
| eCl@ss 4.1 | 27371100 |
| eCl@ss 5.0 | 27371800 |

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Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 5.1 | 27371800 |
| eCl@ss 6.0 | 27371800 |
| eCl@ss 7.0 | 27371802 |
| eCl@ss 9.0 | 27371802 |

ETIM

| | |
|----------|----------|
| ETIM 2.0 | EC001440 |
| ETIM 3.0 | EC001440 |
| ETIM 4.0 | EC001440 |
| ETIM 6.0 | EC001440 |
| ETIM 7.0 | EC001440 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 30211916 |
| UNSPSC 7.0901 | 39121535 |
| UNSPSC 11 | 39121535 |
| UNSPSC 12.01 | 39121535 |
| UNSPSC 13.2 | 41113637 |
| UNSPSC 18.0 | 41113637 |
| UNSPSC 19.0 | 41113637 |
| UNSPSC 20.0 | 41113637 |
| UNSPSC 21.0 | 41113637 |

Approvals

Approvals

Approvals

UL Listed / cUL Listed / EAC / EAC / cULus Listed

Ex Approvals

Approval details

| | | | |
|-----------|--|---|---------------|
| UL Listed | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 172140 |
|-----------|--|---|---------------|

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| cUL Listed | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 172140 |
|------------|--|---|---------------|

| | | | |
|-----|--|--|-----------------|
| EAC | | | TR_TS_D_00573_c |
|-----|--|--|-----------------|

| | | | |
|-----|--|--|-------------------------|
| EAC | | | RU*C- DE.*08.B.00010 |
|-----|--|--|-------------------------|

| | | | |
|--------------|--|--|--|
| cULus Listed | | | |
|--------------|--|--|--|

Accessories

Additional products

Power module - EMD-SL-PS- 24DC - 2885359



Power modules, pluggable, for EMD-SL-..., supply voltage: 20 V DC ... 30 V DC

Power module - EMD-SL-PS- 24AC - 2866103



Power modules, pluggable, for EMD-SL-..., supply voltage: 20.2...26.4 V AC

Power module - EMD-SL-PS-110AC - 2866116



Power modules, pluggable, for EMD-SL-..., supply voltage: 88...121 V AC

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Power module - EMD-SL-PS-120AC - 2885731



Power modules, pluggable, for EMD-SL-..., supply voltage: 108 V AC ... 132 V AC

Power module - EMD-SL-PS-230AC - 2866129



Power modules, pluggable, for EMD-SL-..., supply voltage: 195...264 V AC

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PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>