

Monitoring relay - EMD-FL-V-300 - 2866048

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Monitoring relay for monitoring 1-phase voltages of 0...300 V AC/DC, overvoltage/undervoltage or window, error memory, wide range power supply unit, 2 changeover contacts

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

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



Key Commercial Data

| | |
|--------------------------------------|---|
| Packing unit | 1 pc |
| GTIN |  4 017918 975012 |
| GTIN | 4017918975012 |
| Weight per Piece (excluding packing) | 169.400 g |
| Custom tariff number | 85364900 |
| Country of origin | Austria |

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Technical data

Note

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

Dimensions

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

Ambient conditions

| | |
|---|--|
| Ambient temperature (operation) | -25 °C ... 55 °C |
| | -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 voltage range | 0 V ... 30 V AC/DC (connection terminal blocks: U1 and GND) |
| | 0 V ... 60 V AC/DC (connection terminal blocks: U2 and GND) |
| | 0 V ... 300 V AC/DC (connection terminal blocks: U3 and GND) |
| Maximum temperature coefficient | < 0.1 %/K |
| Function | Undervoltage |
| | Overvoltage |
| | Window |
| | Error memory |
| Min. setting range | 5 % ... 95 % (From U_N) |
| Max. setting range | 10 % ... 100 % (From U_N) |
| Setting range for response delay | 0.1 s ... 10 s |
| Setting range for starting delay | 0 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 | 2 floating changeover contacts |
| 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) |

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Technical data

Contact side

| | |
|-------------|---|
| | 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 ... 240 V AC -15 % ... +10 % |
| | 24 V DC ... 240 V DC -20 % ... +25 % |

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 |
| Color | green |

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 61000-6-4 |
| 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 |

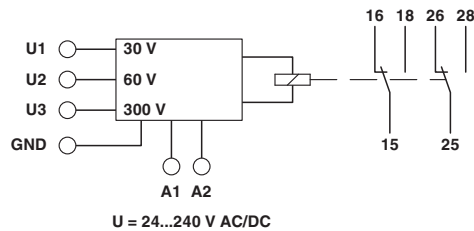
Environmental Product Compliance

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

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Drawings

Block diagram



Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27371801 |
| eCl@ss 11.0 | 27371801 |
| eCl@ss 4.0 | 27371100 |
| eCl@ss 4.1 | 27371100 |
| eCl@ss 5.0 | 27371800 |
| eCl@ss 5.1 | 27371800 |
| eCl@ss 6.0 | 27371800 |
| eCl@ss 7.0 | 27371801 |
| eCl@ss 9.0 | 27371801 |

ETIM

| | |
|----------|----------|
| ETIM 2.0 | EC001438 |
| ETIM 3.0 | EC001438 |
| ETIM 4.0 | EC001438 |
| ETIM 6.0 | EC001438 |
| ETIM 7.0 | EC001438 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 30211916 |
| UNSPSC 7.0901 | 39121535 |
| UNSPSC 11 | 39121535 |
| UNSPSC 12.01 | 39121535 |
| UNSPSC 13.2 | 41113620 |
| UNSPSC 18.0 | 41113620 |
| UNSPSC 19.0 | 41113620 |
| UNSPSC 20.0 | 41113620 |
| UNSPSC 21.0 | 41113620 |

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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 |
| 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 |  | | |
