

Monitoring relay - EMD-BL-3V-400 - 2903525

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Monitoring relay for monitoring 3-phase voltages of 400 V AC $\pm 30\%$, window or window with phase sequence, 1 PDT, with screw connection

Product Description

Safety and system availability requirements are constantly on the increase – across all industries. Processes are becoming more and more complex, not only in machine building and the chemical industry but also in building technology. The demands placed on energy technology are also constantly on the rise.


It is only by continuously monitoring key network and system parameters that error-free and therefore cost-effective operation can be achieved.

Electronic monitoring relays from the EMD series are available for a wide range of monitoring tasks so that the consequences of errors can be avoided or kept within limits.

The operating states are signaled via color LEDs and any errors that occur can be sent to a controller via a floating contact or can shut down a section of the system. All device versions are equipped with response delays so that measured values outside the set monitoring range can be briefly tolerated.



Key Commercial Data

| | |
|--------------------------------------|---|
| Packing unit | 1 pc |
| GTIN |  4 046356 747219 |
| GTIN | 4046356747219 |
| Weight per Piece (excluding packing) | 80.000 g |
| Custom tariff number | 85364900 |
| Country of origin | Austria |

Technical data

Dimensions

| | |
|--------|---------|
| Width | 17.5 mm |
| Height | 88 mm |
| Depth | 65.5 mm |

Ambient conditions

Monitoring relay - EMD-BL-3V-400 - 2903525

Technical data

Ambient conditions

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

| | |
|---|-----------------------------------|
| Nominal input voltage U_N | ± 30 % (3~ 400/230 V) |
| Maximum temperature coefficient | ≤ 0.05 % |
| Function | Window, phase sequence |
| Min. setting range | 70 % ... 120 % (From U_N) |
| Max. setting range | 80 % ... 130 % (From U_N) |
| Min setting range of the voltage threshold value | 280 V AC ... 480 V AC |
| Max. setting range of the voltage threshold value | 320 V AC ... 519 V AC |
| Setting range for response delay | 0.1 s ... 10 s |
| Basic accuracy | ≤ 5 % (of the nominal value) |
| Setting accuracy | ± 5 % (of scale end value) |
| Repeat accuracy | ≤ 2 % |
| Recovery time | > 500 ms |

Contact side

| | |
|---------------------------------------|-------------------------------------|
| Contact type | 1 floating PDT |
| Maximum switching voltage | 250 V AC (in acc. with IEC 60664-1) |
| Interrupting rating (ohmic load) max. | 1250 VA (5 A / 250 V AC) |
| Output fuse | 5 A (fast-blow) |

Power supply

| | |
|----------------|----------------------------------|
| Supply voltage | ± 30 % (= measuring voltage) |
|----------------|----------------------------------|

General

| | |
|-------------------------------|--|
| Mechanical service life | 15×10^6 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 2014/30/EU |
| Housing insulation material | Polyamide PA 6.6, self-extinguishing |
| Color | gray |

Connection data

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Technical data

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 | 0.5 mm ² ... 2.5 mm ² |
| Conductor cross section AWG | 20 ... 14 |
| Torque | 1 Nm ... 1 Nm |

Standards and Regulations

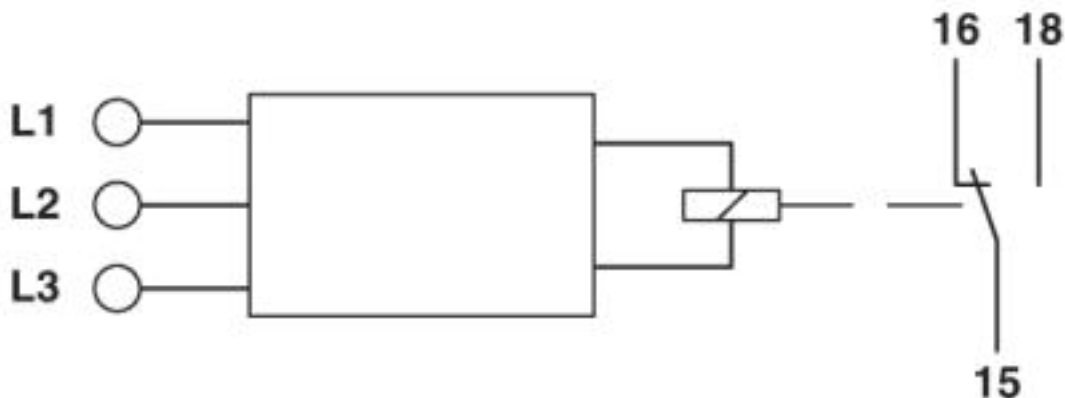
| | |
|-------------------------------|---|
| Electromagnetic compatibility | Conformance with EMC Directive 2014/30/EU |
| Noise emission | EN 61000-6-3 |
| Noise immunity | EN 61000-6-2 |
| Standards/regulations | DIN EN 60947-5-1 |
| Rated insulation voltage | 519 V (Supply circuit) |
| | 250 V (Output circuit) |
| Rated surge voltage | 4 kV |
| Insulation | Basic insulation |
| Pollution degree | 2 |
| Overvoltage category | III |
| Low Voltage Directive | Conformance with Low Voltage Directive 2006/95/EC (valid until 2016-04-19) / 2014/35/EU (valid from 2016-04-20) |

Environmental Product Compliance

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

Drawings

Block diagram



<https://www.phoenixcontact.com/us/products/2903525>

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Classifications

eCl@ss

| | |
|------------|----------|
| 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 8.0 | 27371801 |
| eCl@ss 9.0 | 27371801 |

ETIM

| | |
|----------|----------|
| ETIM 2.0 | EC001438 |
| ETIM 3.0 | EC001438 |
| ETIM 4.0 | EC001438 |
| ETIM 5.0 | 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 |

Approvals

Approvals

Approvals

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

Ex Approvals






Approval details

<https://www.phoenixcontact.com/us/products/2903525>



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Approvals

| | | | |
|--------------|---|---|-----------------|
| UL Listed |  | http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm | FILE E 172140 |
| cUL Listed |  | http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm | FILE E 172140 |
| EAC |  | | TR_TS_D_00573_c |
| EAC |  | | TR_TS_S_00010_c |
| cULus Listed |  | | |

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