

# EMD-BL-3V-400-PT - Monitoring relay



2903526

<https://www.phoenixcontact.com/us/products/2903526>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Monitoring relay for monitoring 3-phase voltages of 400 V AC ±30%, window or window with phase sequence, 1 changeover contact, with Push-in 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.

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2903526       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | C440          |
| Product key                          | DK6481        |
| GTIN                                 | 4046356747226 |
| Weight per piece (including packing) | 73.18 g       |
| Weight per piece (excluding packing) | 73.18 g       |
| Customs tariff number                | 85364900      |
| Country of origin                    | AT            |

# EMD-BL-3V-400-PT - Monitoring relay



2903526

<https://www.phoenixcontact.com/us/products/2903526>

## Technical data

### Product properties

|                         |                          |
|-------------------------|--------------------------|
| Product type            | Voltage monitoring relay |
| Operating mode          | 100% operating factor    |
| Mechanical service life | $15 \times 10^6$ cycles  |

### Insulation characteristics

|                      |                  |
|----------------------|------------------|
| Insulation           | Basic insulation |
| Overtoltage category | III              |
| Pollution degree     | 2                |

### Electrical properties

|                          |  |
|--------------------------|--|
| Service life electrical  | $1 \times 10^5$ cycles                           |
| Mains type               | 3-phase  |
| Rated insulation voltage | 519 V (Supply circuit)<br>250 V (Output circuit) |
| Rated surge voltage      | 4 kV   |

### Supply

|                           |                                  |
|---------------------------|----------------------------------|
| Supply voltage            | $\pm 30\%$ (= measuring voltage) |
| Supply voltage range      | $\pm 30\%$ (= measuring voltage) |
| Nominal power consumption | 10 VA (1 W)                      |

### Input data

|   |                                   |
|---|-----------------------------------|
| Input name  | Measuring input                   |
| Measured value                                    | AC sine (48 Hz ... 63 Hz)         |
| Nominal input voltage $U_N$                       | $\pm 30\%$ (3~ 400/230 V)         |
| Frequency range                                   | 48 Hz ... 63 Hz                   |
| Maximum temperature coefficient                   | $\leq 0.05\%$                     |
| Setting range for response delay                  | 0.1 s ... 10 s                    |
| 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             |
| Function  | Window<br>Phase sequence          |
| Basic accuracy                                    | $\leq 5\%$ (of the nominal value) |
| Setting accuracy                                  | $\pm 5\%$ (of scale end value)    |
| Repeat accuracy                                   | $\leq 2\%$                        |
| Recovery time                                     | > 500 ms                          |

### Output data

#### Switching

# EMD-BL-3V-400-PT - Monitoring relay



2903526

<https://www.phoenixcontact.com/us/products/2903526>

|                                       |                                     |
|---------------------------------------|-------------------------------------|
| Contact switching type                | 1 floating changeover contact       |
| 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)                     |

## Connection data

|                                  |  |
|----------------------------------|--|
| Connection method                | Push-in connection                           |
| Stripping length                 | 8 mm   |
| Conductor cross-section rigid    | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross-section flexible | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross-section AWG      | 26 ... 14                                    |

## Signaling

|                  |              |
|------------------|--------------|
| Status display   | LED (yellow) |
| Error indication | Red LED      |

## Dimensions

|        |         |
|--------|---------|
| Width  | 17.5 mm |
| Height | 89.5 mm |
| Depth  | 65.5 mm |

## Material specifications

|                             |                                      |
|-----------------------------|--------------------------------------|
| Color                       | gray (RAL 7042)                      |
| Housing insulation material | Polyamide PA 6.6, self-extinguishing |

## Environmental and real-life conditions

|   |                                   |
|---|-----------------------------------|
| Ambient conditions                                |                                   |
| Degree of protection (Housing)                    | IP40 (Housing)                    |
| Degree of protection (Connection terminal blocks) | IP20 (Connection terminal blocks) |
| Ambient temperature (operation)                   | -25 °C ... 55 °C                  |
| Ambient temperature (storage/transport)           | -25 °C ... 70 °C                  |
| Climatic class                                    | 3K3 (in acc. with EN 60721)       |
| Permissible humidity (operation)                  | 15 % ... 85 %                     |

## Approvals

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

|                |                       |
|----------------|-----------------------|
| UL, USA/Canada |                       |
| Identification | UL/C-UL Listed UL 508 |

## EMC data

|                               |  |
|-------------------------------|--|
| Electromagnetic compatibility | Conformance with EMC directive         |
| Low Voltage Directive         | Conformance with Low Voltage Directive |

# EMD-BL-3V-400-PT - Monitoring relay



2903526

<https://www.phoenixcontact.com/us/products/2903526>

Noise immunity

EN 61000-6-2

Noise emission

Standards/regulations

EN 61000-6-3

## Standards and regulations

Standards/regulations

DIN EN 60947-5-1

## Mounting

Mounting type

DIN rail mounting

Assembly note

on standard DIN rail NS 35 in accordance with EN 60715

Mounting position

any

# EMD-BL-3V-400-PT - Monitoring relay

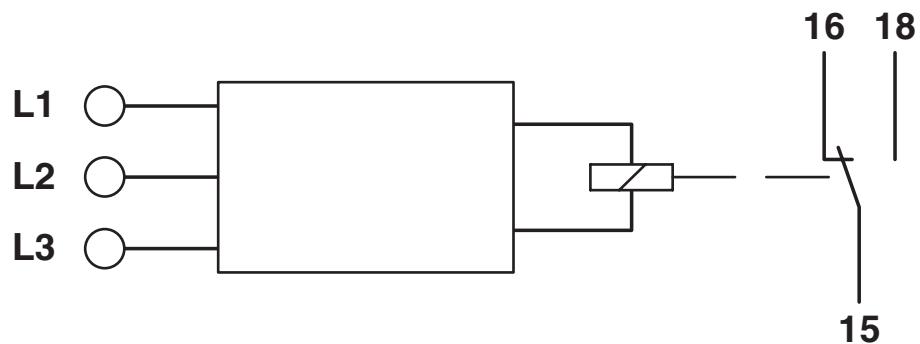


2903526

<https://www.phoenixcontact.com/us/products/2903526>

## Drawings

Block diagram



# EMD-BL-3V-400-PT - Monitoring relay



2903526

<https://www.phoenixcontact.com/us/products/2903526>

## Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2903526>



**EAC**

Approval ID: RU\*C-DE.\*08.B.00010



**UL Listed**

Approval ID: FILE E 172140



**cUL Listed**

Approval ID: FILE E 172140

# EMD-BL-3V-400-PT - Monitoring relay



2903526

<https://www.phoenixcontact.com/us/products/2903526>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27371801 |
| ECLASS-15.0 | 27371801 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC001438 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 41113600 |
|-------------|----------|

# EMD-BL-3V-400-PT - Monitoring relay



2903526

<https://www.phoenixcontact.com/us/products/2903526>

## Environmental product compliance

### EU RoHS

|   |                    |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

### China RoHS

|  |  |
|--|--|
| Environment friendly use period (EFUP) | EFUP-E                                   |
|  | No hazardous substances above the limits |

### EU REACH SVHC

|                                     |                            |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

Phoenix Contact 2025 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)