

## Monitoring relay - EMD-SL-PH-400 - 2866077

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Monitoring relay for monitoring phase sequence, phase failure and asymmetry, 342...457 V AC, supply from the measurement voltage, 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

- Variable supply voltage range



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 952679
GTIN	4017918952679
Weight per Piece (excluding packing)	150.000 g
Custom tariff number	85364900
Country of origin	Austria

### Technical data

#### Dimensions

Width	22.5 mm
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## Technical data

### Dimensions

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

Nominal input voltage $U_N$	400 V (3 N ~ 400/230 V)
Function	Phase sequence
	Phase failure
	Asymmetry
Min setting range of the voltage threshold value	342 V AC
Max. setting range of the voltage threshold value	457 V AC
Setting range for response delay	≤ 350 ms (fixed setting)
Setting range for starting delay	≤ 500 ms (fixed setting)
Asymmetry	Fixed, approx. 30 %
Recovery time	< 100 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)
	1250 VA (5 A/250 V AC, module not aligned, ≥ 5 mm spacing)
Output fuse	5 A (fast-blow)

### Power supply

Supply voltage	From the measured voltage
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### General

Mechanical service life	approx. $2 \times 10^7$ 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

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## Technical data

### General

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 <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section flexible	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG	20 ... 14
Tightening torque	1 Nm

### Standards and Regulations

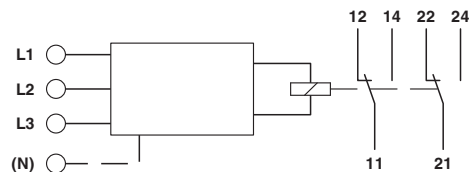
Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-3
Noise immunity	EN 61000-6-2
Standards/regulations	EN 50178
Rated insulation voltage	300 V
Insulation	Basic insulation
Pollution degree	2
Overvoltage category	III
Low Voltage Directive	Conformance with Low Voltage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

### Environmental Product Compliance

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

## Drawings

Block diagram



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## Classifications

### eCl@ss

eCl@ss 10.0.1	27371803
eCl@ss 11.0	27371803
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	27371803
eCl@ss 9.0	27371803

### ETIM

ETIM 4.0	EC001441
ETIM 6.0	EC001441
ETIM 7.0	EC001441

### UNSPSC

UNSPSC 6.01	30211916
UNSPSC 7.0901	39121535
UNSPSC 11	39121535
UNSPSC 12.01	39121535
UNSPSC 13.2	39121106
UNSPSC 18.0	39121106
UNSPSC 19.0	39121106
UNSPSC 20.0	39121106
UNSPSC 21.0	39121106

## Approvals

### Approvals

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Approvals

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

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Ex Approvals


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### Approval details

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## Approvals

UL Listed		<a href="http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm</a>	FILE E 172140
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cUL Listed		<a href="http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm</a>	FILE E 172140
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EAC			TR_TS_D_00573_c
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EAC			RU*C- DE.*08.B.00010
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cULus Listed			
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