PHŒNIX CONTACT

Monitoring relay - EMD-BL-V-230-PT - 2903524

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Monitoring relay for monitoring 1-phase voltages of 24 V AC/DC or 230 V AC, undervoltage or window, 1 PDT, 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.

RoHS

Key Commercial Data

Packing unit	1 pc
GTIN	‖‖‖‖‖‖‖‖‖‖‖‖ 4 046356 747288
GTIN	4046356747288

Technical data

Dimensions

Width	17.5 mm
Height	88 mm
Depth	65.5 mm

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

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Input data

Input voltage range	0 V DC ... 24 V DC (connection terminal blocks: U1 and GND)
	0 V AC ... 24 V AC (connection terminal blocks: U2 and GND)
	0 V AC ... 230 V AC (connection terminal blocks: U3 and GND)
Maximum temperature coefficient	$\leq$ 0.05 %
Function	Undervoltage, window
Min. setting range	75 % ... 115 % (From U_N)
Max. setting range	80 % ... 120 % (From U_N)
Setting range for response delay	0.1 s ... 10 s
Basic accuracy	$\leq$ 5 % (of scale end value)
Setting accuracy	± 5 % (of scale end value)
Repeat accuracy	$\leq$ 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	-25 % ... +20 % (= measuring voltage)

General

Mechanical service life	15x 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 2004/108/EC
Housing insulation material	Polyamide PA 6.6, self-extinguishing
Color	gray

Connection data

Connection method	Push-in connection
Stripping length	8 mm
Conductor cross section solid	0.14 mm² ... 2.5 mm²
Conductor cross section flexible	0.14 mm² ... 2.5 mm²
Conductor cross section AWG	26 ... 14

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 61000-6-3
Noise immunity	EN 61000-6-2
Standards/regulations	DIN EN 60947-5-1

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Standards and Regulations

Rated insulation voltage	300 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 LV directive 2006/95/EC

Environmental Product Compliance

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

Drawings

Block diagram
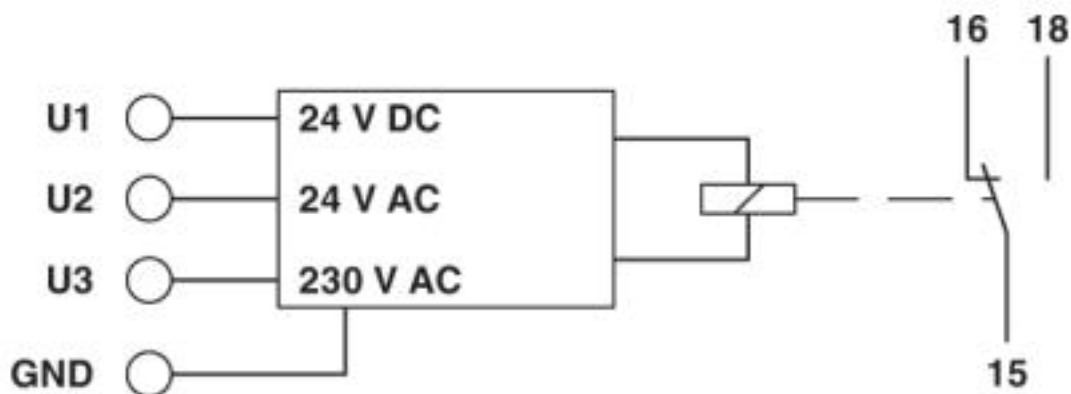
Approvals

Approvals

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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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EAC		TR_TS_D_00573_c

EAC		TR_TS_S_00010_c

cULus Listed	