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



#### **Key Commercial Data**

Packing unit	1 pc
GTIN	4 046356 747288
GTIN	4046356747288

#### Technical data

#### **Dimensions**

Width	17.5 mm
Height	89.5 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)

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### Technical data

#### Ambient conditions

Noise immunity	EN 61000-6-2
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	≤ 0.05 %
Function	Undervoltage
	Window
Min. setting range	75 % 115 % (From U <sub>N</sub> )
Max. setting range	80 % 120 % (From U <sub>N</sub> )
Setting range for response delay	0.1 s 10 s

 $\leq$  5 % (of scale end value)  $\pm$  5 % (of scale end value)

# Recovery time Contact side

Basic accuracy

Setting accuracy
Repeat accuracy

Contact 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)

 $\leq 2 \%$ 

> 500 ms

#### Power supply

Supply voltage	-25 % +20 % (= measuring voltage)
Supply voltage range	-25 % +20 % (= measuring voltage)

#### General

Mechanical service life	15x 10 <sup>6</sup> 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 6.6, self-extinguishing

#### 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

Low Voltage Directive	Conformance with Low Voltage Directive

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### Technical data

#### Standards and Regulations

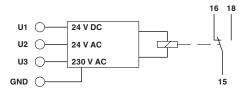
Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-3
Noise immunity	EN 61000-6-2
Standards/regulations	DIN EN 60947-5-1
Rated insulation voltage	300 V (Supply circuit)
	250 V (Output circuit)
Rated surge voltage	4 kV
Insulation	Basic insulation
Pollution degree	2
Overvoltage category	III

#### **Environmental Product Compliance**

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

### **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

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### Classifications

E.	Τ	ı	Ν	V	1

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	41113600	
Approvals		
Approvals		
Approvals		
ppiotaio		

#### Ex Approvals

#### Approval details

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

UL Listed	LISTED	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 172140
cUL Listed	C UL	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 172140

EAC	EAC	TR_TS_D_00573_c

EAC RU\*C-DE.\*08.B.00010

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### **Approvals**

cULus Listed



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