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Monitoring relay for monitoring single-phase currents of 0 \dots 5 A AC or 0 \dots 10 A AC, overcurrent/undercurrent or window, 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 747257
GTIN	4046356747257

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



Technical data

Input data

Input current range	0 A 5 A
	0 A 10 A
	Configurable via rotary switches
Overload capacity	13 A AC
Maximum temperature coefficient	≤ 0.05 %
Function	Overcurrent, undercurrent, window
Min. setting range	5 % 95 % (from I _N)
Max. setting range	10 % 100 % (from I _N)
Setting range for response delay	0.1 s 10 s
Basic accuracy	\leq 5 % (of the nominal value)
Setting accuracy	± 5 % (of the nominal 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	230 V AC ±15 %

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 2014/30/EU
Housing insulation material	Polyamide PA 6.6, self-extinguishing
Color	gray

Connection data

Connection method	Screw connection
Stripping length	8 mm
Conductor cross section solid	0.5 mm² 2.5 mm²
Conductor cross section flexible	0.5 mm² 2.5 mm²
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



Technical data

Standards and Regulations

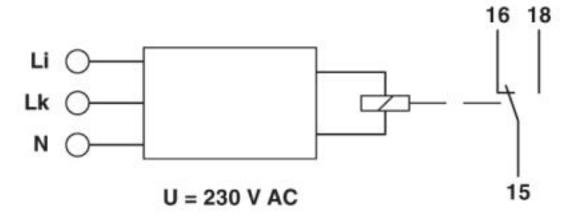
Noise immunity	EN 61000-6-2	
Standards/regulations	DIN EN 60947-5-1	
Rated insulation voltage	300 V (Supply circuit)	
	250 V (Output circuit)	
	300 V (Measuring circuit)	
Rated surge voltage	4 kV	
Insulation	Basic insulation	
Pollution degree	2	
Overvoltage category	III	
Low Voltage Directive	Conformance 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



Approvals

Approvals

Approvals

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

Ex Approvals



Approvals

Approval details

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

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