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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.



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



Technical data

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 _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	≤ 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	
Power supply Supply voltage	-25 % +20 % (= measuring voltage)
	-25 % +20 % (= measuring voltage)
Supply voltage	-25 % +20 % (= measuring voltage) 15x 10 ⁶ cycles
Supply voltage General	
Supply voltage General Mechanical service life	15x 10 ⁶ cycles
Supply voltage General Mechanical service life Operating mode	15x 10 ⁶ cycles 100% operating factor
Supply voltage General Mechanical service life Operating mode Mounting position	15x 10 ⁶ cycles 100% operating factor any
Supply voltage General Mechanical service life Operating mode Mounting position Assembly instructions	15x 10 ⁶ cycles 100% operating factor any on standard DIN rail NS 35 in accordance with EN 60715
Supply voltage General Mechanical service life Operating mode Mounting position Assembly instructions Electromagnetic compatibility	15x 10 ⁶ cycles 100% operating factor any on standard DIN rail NS 35 in accordance with EN 60715 Conformance with EMC Directive 2004/108/EC
Supply voltage General Mechanical service life Operating mode Mounting position Assembly instructions Electromagnetic compatibility Housing insulation material	15x 10 ⁶ cycles 100% operating factor any on standard DIN rail NS 35 in accordance with EN 60715 Conformance with EMC Directive 2004/108/EC Polyamide PA 6.6, self-extinguishing
Supply voltage General Mechanical service life Operating mode Mounting position Assembly instructions Electromagnetic compatibility Housing insulation material Color	15x 10 ⁶ cycles 100% operating factor any on standard DIN rail NS 35 in accordance with EN 60715 Conformance with EMC Directive 2004/108/EC Polyamide PA 6.6, self-extinguishing
Supply voltage General Mechanical service life Operating mode Mounting position Assembly instructions Electromagnetic compatibility Housing insulation material Color Connection data	15x 10 ⁶ cycles 100% operating factor any on standard DIN rail NS 35 in accordance with EN 60715 Conformance with EMC Directive 2004/108/EC Polyamide PA 6.6, self-extinguishing gray
Supply voltage General Mechanical service life Operating mode Mounting position Assembly instructions Electromagnetic compatibility Housing insulation material Color Connection data Connection method	15x 10 ⁶ cycles 100% operating factor any on standard DIN rail NS 35 in accordance with EN 60715 Conformance with EMC Directive 2004/108/EC Polyamide PA 6.6, self-extinguishing gray
Supply voltage General Mechanical service life Operating mode Mounting position Assembly instructions Electromagnetic compatibility Housing insulation material Color Connection data Connection method Stripping length	15x 10 ⁶ cycles 100% operating factor any on standard DIN rail NS 35 in accordance with EN 60715 Conformance with EMC Directive 2004/108/EC Polyamide PA 6.6, self-extinguishing gray Push-in connection 8 mm

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



Technical data

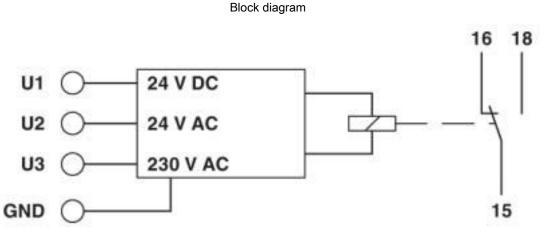
Standards and Regulations

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



Classifications

eCl@ss

27371801
27371100
27371100
27371800
27371800
27371800
27371801
27371801
27371801

ETIM

ETIM 2.0	EC001438



Classifications

ETIM

ETIM 3.0	EC001438
ETIM 4.0	EC001438
ETIM 5.0	EC001438
ETIM 6.0	EC001438
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	41113620

Approvals

Approvals

Approvals

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

Ex Approvals

Approval details

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

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Approvals

EAC	EAC	RU*C- DE.*08.B.0001
cULus Listed	CULUSTED US	

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