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Monitoring relay for monitoring 1-phase currents of 0...10 A AC/DC, undercurrent, supply voltage can be selected using power module, 1 PDT

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.

Product Features

- Separately adjustable startup and response delays
- ☑ Variable supply voltage range
- ☑ Adjustable via potentiometer on the front



Key commercial data

package_quantity	1
GTIN	4046356046954

Technical data

Dimensions

Width	22.5 mm
Height	90 mm
Depth	113 mm

Ambient conditions

Ambient temperature (operation)	-25 °C 55 °C
Ambient temperature (operation)	-25 °C 40 °C (corresponds to UL 508)
Ambient temperature (storage/transport)	-25 °C 70 °C

Input data

Input current range	0 mA 100 mA AC/DC (Connection terminals: I1 and GND)
Input current range	0 A 1 A AC/DC (Connection terminals: I2 and GND)
Input current range	0 A 10 A AC/DC (Connection terminals: I3 and GND)



Technical data

Input data

Overload capacity	800 mA (at I _N = 100 mA)
Overload capacity	3 A (at I _N = 1 A)
Overload capacity	12 A (at I _N = 10 A)
Maximum temperature coefficient	< 0.1 %/K
Function	Undercurrent
Min. setting range	5 % 95 % (From I _N)
Max. setting range	10 % 100 % (From I _N)
Setting range for response delay	0.2 s 10 s
Basic accuracy	± 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.	750 VA (3 A/250 V AC, module aligned, ≤ 5 mm spacing)
Interrupting rating (ohmic load) max.	1250 VA (5 A/250 V AC, module not aligned, ≥ 5 mm spacing)
Output fuse	5 A (fast-blow)
Power supply	
Supply voltage range	24 V AC 230 V AC (see Power modules)
Supply voltage range	24 V DC (see Power modules)
General	
Mechanical service life	Approx. 2 x 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 2004/108/EC
Surge voltage category	III, basic insulation (as per EN 50178)
Housing insulation material	Polyamide PA, self-extinguishing
Color	green
Rated insulation voltage	300 V (According to EN 50178)
Conformance	CE-compliant

Connection data

Conductor cross section stranded min.	0.25 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section solid min.	0.5 mm²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	20



Technical data

Connection data

Conductor cross section AWG/kcmil max	14
Stripping length	8 mm
Connection method	Screw connection

classifications

eCl@ss

eCl@ss 4.0	27371105
eCl@ss 4.1	27371105
eCl@ss 5.0	27371802
eCl@ss 5.1	27371802
eCl@ss 6.0	27371802
eCl@ss 7.0	27371802
eCl@ss 8.0	27371802

ETIM

ETIM 2.0	EC001440
ETIM 3.0	EC001440
ETIM 4.0	EC001440
ETIM 5.0	EC001440

UNSPSC

UNSPSC 6.01	30211916
UNSPSC 7.0901	39121535
UNSPSC 11	39121535
UNSPSC 12.01	39121535
UNSPSC 13.2	39121535

approvals

UL Listed / cUL Listed / cULus Listed /

Approval details

UL Listed 🛞

cUL Listed 🖤



approvals

cULus Listed 🗐 Drawings Block diagram 16 18 11 100 mA 12 1 A 10 A 13 GND 15 A1 U = 24 V DC POWER MODULE 24...230 V AC A2

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