Monitoring relays – OCTO series

- Installation design
- Width 35mm
- Temperature monitoring of the motor winding (max. 6PTC)
- External reset key connectable
- 1 change over contact and 1 normally open contact

Technical data

1. Functions

Temperature monitoring of the motor winding (max. 6 PTC) with fault latch, for temperature probes in accordance with DIN 44081
Test function with integrated reset key (connection of an external reset key possible)

2. Time ranges

	Adjustment range
Start-up suppression time:	-
Tripping delay:	-

3. Indicators

Green LED ON:	indication of supply voltage
Red LED ON/OFF:	indication of fault

4. Mechanical design

Self-extinguishing plastic housing, IP rating IP40
Mounted on DIN-Rail TS 35 according to EN 50022
Mounting position: any
Shockproof terminal connection according to VBG 4 (PZ1 required), IP rating IP20
Initial torque: max. 1Nm
Terminal capacity:
1 x 0.5 to 2.5mm² with/without multicore cable end
1 x 4mm² without multicore cable end
2 x 0.5 to 1.5mm² with/without multicore cable end
2 x 2.5mm² flexible without multicore cable end

5. Input circuit

Supply voltage:	230V AC	terminals A1-A2 (galvanically separated)
Tolerance:	-15% to +10%	
Rated frequency:	48 to 63Hz	
Rated consumption:	2VA (1.5W)	
Duration of operation:	100%	
Reset time:	300ms	
Residual ripple for DC:	–	
Drop-out voltage:	>30% of the supply voltage	

6. Output circuit

1 potential free change over contact and
1 potential free normally open contact

Switching capacity (distance < 5mm):	750VA (3A / 250V AC)
Switching capacity (distance > 5mm):	1250VA (5A / 250V AC)
Fusing:	5A fast acting
Mechanical life:	20 x 10^6 operations
Electrical life:	2 x 10^5 operations at 1000VA resistive load
Switching frequency:	max. 60/min at 100VA resistive load max. 6/min at 1000VA resistive load (according to IEC 947-5-1)
Insulation voltage:	250V AC (according to IEC 664-1)
Surge voltage:	4kV, overvoltage category III (according to IEC 664-1)

7. Measuring circuit

Input:	thermistor	terminals T1-T2
Initial resistance:		<1.5kΩ
Response value (relay in off-position):		≥3.3kΩ
Release value (relay in on-position):		≤1.8kΩ
Disconnection (short circuit thermistor):		no
Terminal voltage T1-T2:		max. 8V DC

8. Control contact R

Function:	external reset key
Connections:	potential free, terminals R1-R2
Loadable:	no
Line length:	max. 5m (twisted pair)
Control pulse length:	-

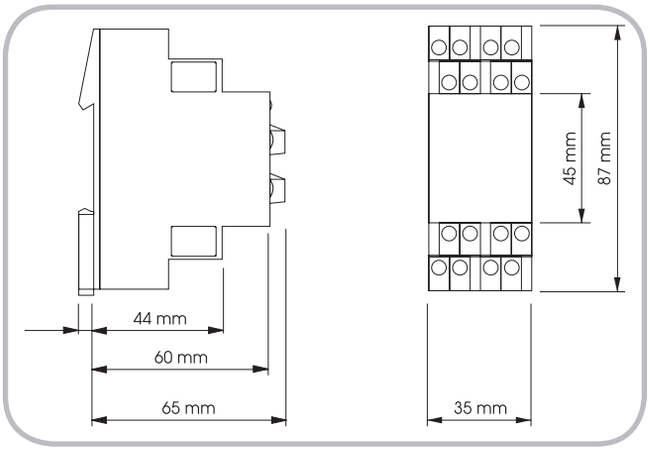
9. Accuracy

Base accuracy:	±10%
Adjustment accuracy:	-
Repetition accuracy:	<1%
Voltage influence:	≤1% / V
Temperature influence:	≤1% / °C

10. Ambient conditions

Ambient temperature:	-25 to +55°C (according to IEC 68-1)
Storage temperature:	-25 to +70°C
Transport temperature:	-25 to +70°C
Relative humidity:	15% to 85% (according to IEC 721-3-3 class 3K3)
Pollution degree:	2, if built-in 3 (according to IEC 664-1)

11. Dimensions

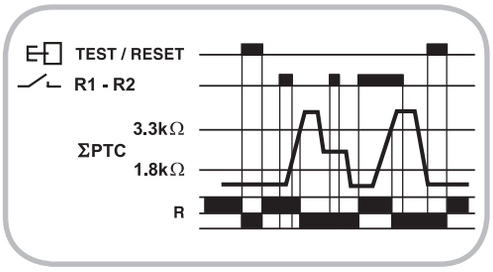


Subject to alterations and errors

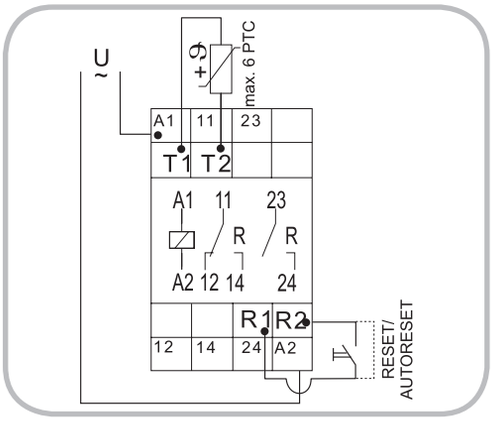
Functions

Temperature monitoring of the motor winding (max. 6 PTC) with fault latch, for temperature probes in accordance with DIN 44081
Test function with integrated reset key (connection of an external reset key possible)

Temperature monitoring of motor winding with fault latch
If the supply voltage is applied (green LED illuminated) and the cumulative resistance of the PTC-circuit is less than 1.8kΩ (standard temperature of the motor), the output relay R switches into on-position.
Pressing the reset key under this conditions forces the output relay to switch into off-position. It remains in this state as long as the reset key is pressed and thus the switching function can be checked in case of fault. The test function is not effective using an external reset key.
When the cumulative resistance of the PTC-circuit exceeds 3.3kΩ (at least one of the PTCs has reached the cut-off temperature), the output relay switches into off-position (red LED illuminated). The output relay again switches into on-position (red LED not illuminated), if the cumulative resistance drops below 1.8kΩ by cooling down of the PTC and either a reset key (internal or external) was pressed or the supply voltage was disconnected.



Connections



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Automation Components
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