The motor protection relay DHC is a temperature control relay for electric motors with no-voltage protected reconnection-stop, e.g. in case of a mains failure the relay remains to be interlocked at a release.

It is specially distinguished because of:



- *Very compact housing*
- *High security is given by the reconnection-stop and the principle of rest current*
- *Easy installation of several sensor resistances at one relay*
- *Maximum of reliability because of the modern CMOS-technology*
- *Integrated reset key*
- *Galvanic isolation of the sensor circuit from the voltage supply at the AC-type*
- *Models with 1 or 2 contacts*

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Function

At a small sensor resistance (normal temperature) the output contact 13-14 is closed. When the nominal cut-off temperature is reached, the contact 13-14 opens and interrupts the control circuit. Simultaneously, the interlocking of the output relay follows assured by the permanent memory; the red LED shines.

This interlocking could only be canceled after the temperature falls under the nominal cut-off temperature and the reset key is pressed. An interruption of the supply voltage will not lead to electrical reset. A reset and therewith a restart of the motor could only result of a cooled off motor winding and an actuation of the integrated reset key at the front.

Installation

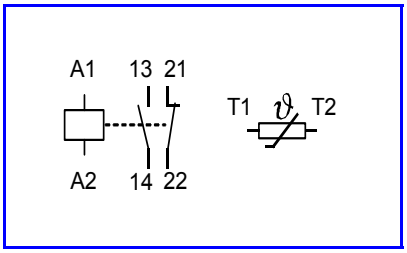
At the terminals T1-T2 the thermally controlled resistors (PTC), which are in the motor winding, are connected. Several temperature sensors can be connected in series; the cumulative cold resistance has to be smaller than 1.65 kΩ.

Because of the principle of rest current, also a wire breakage in the sensor line will be indicated as a fault.

By the DHC with alternating voltage supply (standard type), the measuring circuit is galvanically isolated from the mains.

On application items with DC24V-supply are possible; but for the galvanic isolation of the measuring line it is recommended to connect the DC24V-type to an external transformer.

Contact configuration



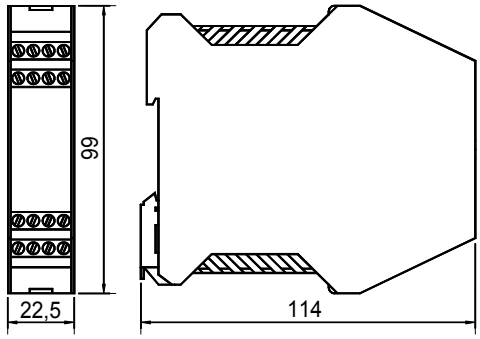
Order-No	Type
446050	DHC AC230V, 1 N/O
446051	DHC AC115V, 1 N/O
446052	DHC AC24V, 1 N/O
446060	DHC AC230V, 1 N/O / 1 N/C
446061	DHC AC230V, 1 N/O / 1 N/C

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Thermistor Motor Protection Relay DHC

Specifications	
Operating voltage U_N	AC 230V, 50-60Hz AC 115V, 50-60Hz AC 24V, 50-60Hz
Voltage tolerance	85..110% of U_N
Power consumption	approx. 0.5VA
LED´s	stand by (green) overtemperature relay contact (red)
Protection	IP20
Operating range T1-T2	1.65 - 4.0 kOhm
Terminal voltage resistor-input	< 6V
Reset/acknowledgement	Key at the front
Switching capacity	1 N/O 13 -14 (optional add. 1N/C 21-22) max. AC 250V, max. 5A, max.1250VA DC: 2A at DC 24V
Contact life	mechanical $5x10^7$ operations
Temperature range	-20^0 - + 60^0C (dew-free)
Dielectric strength	4kV DIN VDE 0110-1:1997-04
Weight: approx	approx. 200g
Installation position	any
Mounting	DIN-rail mounting



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