Operating manual for mechanical temperature controls

ENGLISH

Versions:

a) **Normally closed contact** (switching contact opens at rising temperature)
b) **Normally open contact** (switching contact closes at rising temperature)
c) **Change-over contact** (switching contact opens one and ciosas the otner contact at rising temperatures)
d) **Combination** (combination of a) and b))

Applications:

The temperature controls are used to regulate heating equipment, cooling equipment, filter fans and heat exchangers. In addition, they can also be used as switchirig contacts for signal devicos usea as low- or high-temperature aiarms.

Safety considerations:

- **The temperature control should only be installed by qualified technicians in accordance with the respective national electrical codes.**
- **The safety and protection against incidental contact is to be ensured through proper installation.**
- **The technical specifications (voltage and current) as stated on the product must not be exceeded!**

Installation guidelines:

The temperature controls are designed to measure the temperature in ericlosures. When used in heating applications, they should be installed in the upper area of the enclosure as far away as possible from heaters or other heat-generating components. When used in coolir,g applications, triey should be installed at the bottom of the enclosure as far away as possible from the cooling device.

Clip-mounting onto 35 mm DIN rails according tg EN50022 is standard.
The ventilation openings of the temperature control should not be covered at any time.
Operating temperature range: -20 °C to 80 °C (-4 ° F to 176°F)

Settjng recommendations:

The hysteresis (switching difference) of the temperature control should be taken into account:

a), b) and d): 7 K ± 4 K (Kelvin).
c): 4 K ± 1.5 K (Kelvin). Upon connection af the RF heating resistor (thermal coupling), the hysteresis is reduced to approx. 0.5 K.

In order to determine the actual set point of the normally closed contact and change-over contact (when used as normally closed contact), the maximum rated hysteresis should be added to the required minimum operating temperature:

Example for a): required minimum temperature in enclosure: 5° C (41°F)
Hysteresis of temperature control: + 11 K (= 7 K + 4 K)
Set point on adjustment knob: 16° C (61°F)