Thermostat
Type CO 9000

Highlights

- **High Reliability**
- **Compact Housing**
- **Low power consumption**
- **Semi-conductor outputs**

General

The **CO 9000** is a thermostat to monitor up to 4 temperature limits. The device has inputs for PT-100 sensors. The input signals are checked for exceeding or falling below the defined setpoints. Crossing the setpoints causes the semi-conductor outputs to switch.

Mounting

The **CO 9000** is designed for rail mounting (17,5 mm). The housing is made of Polyamid PA 6.6 (Color: green).

Function

The CO 9000 has up to 4 inputs for Pt-100 two-wire sensors. The measuring current is 2 mA and causes only a minor raise of temperature within the sensor.
The measured values are processed and compared with the defined setpoints.
The CO 9000 has up to 4 n.o. contacts (normally open contacts) and each contact has two setpoints.
The setpoints are factory programmed to customers requirements. The crossing of a setpoint causes the corresponding semi-conductor relay to switch.
Each relay can switch 100 mA/33V as maximum. The forward resistance is 10 Ohm (typically). The switching contacts of the semi-conductor relays are protected with surppressor diods against voltage peaks (<33V)

Startup

The connection of the device is showed on picture 1 (see overleaf). The Pt100 sensor is connected to clamp 1 and 4. Polarity doesn' t matter. The 4 off-normal contacts are connected with 8 screw terminals (3/6, 9/12, 8/11, 7/10). The relay outputs are potential free and have no polarity. The device needs a power supply of 16,6 to 31,2 Volt. The power supply is connected to srew terminal 2 (+) and 5 (-).

Order key

Order key	contact	on	off
CO 9000-00402	A	< 5°C	>7°C
	B	>45°C	<35°C
	C	>50°C	<40°C
	D	>65°C	<55°C

The requested contacts (A,B,C,D) and the on and off set points has to be specified with an order.

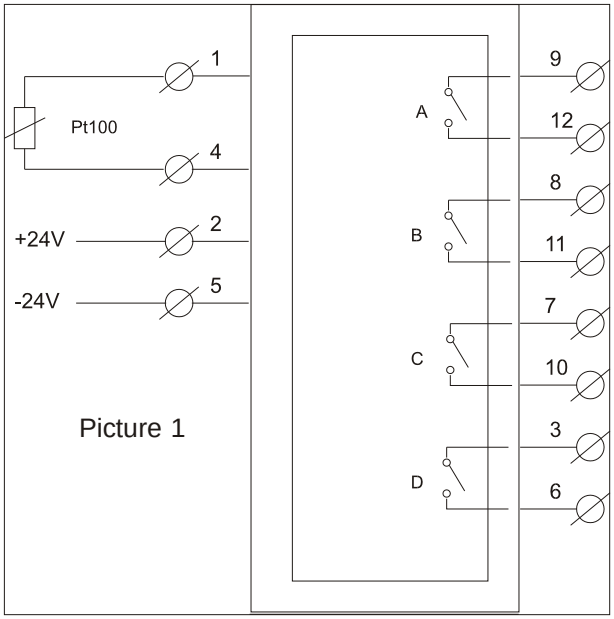
Power Supply Voltages

CO 9000-	X	XXXXX
		Configuration
	Power supply	
	0	18...36 V DC (Standard)
	1	4,5...9 V DC (Option)
	2	9...18 V DC (Option)
	3	36...48 V DC (Option)

Connections

CO 9000-

Screw terminal 1	Pt100
Screw terminal 2	+24V
Screw terminal 3	Contact D
Screw terminal 4	Pt100
Screw terminal 5	- 24 V
Screw terminal 6	Contact D
Screw terminal 7	Contact C
Screw terminal 8	Contact B
Screw terminal 9	Contact A
Screw terminal 10	Contact C
Screw terminal 11	Contact B
Screw terminal 12	Contact A



Picture 1

Technical data

Pt100-input
measuring current : 2 mA

Set point A : programmable
Set point B : programmable
Set point C : programmable
Set point D : programmable
Tolerance : < 1°C

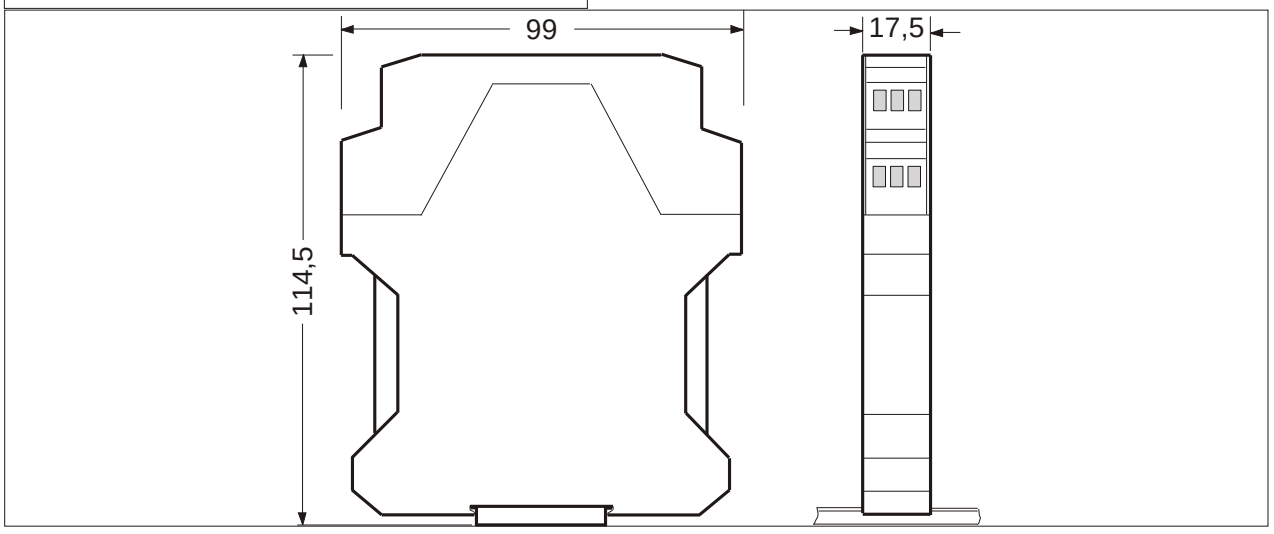
Outputs : 4 normal open
max. switching voltage : 33 V
max. switching current : 100 mA

Power supply : 16,8 V..31,2 V DC
Power consumption : max 31 mA

Design
EMV : ENV 50121-3-2
Protection class : IP40
Combustible class : VO (UL94)
Mounting : ref. EN 50022
Environment temperature : -25 bis +70 °C
Shock protection : VDE 0115/Chap.
: 200/page 520211

Dimensions :99x114,5x17,5 mm
Weight : 100 g

Dimensions



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