

ST501-LN1KV.04

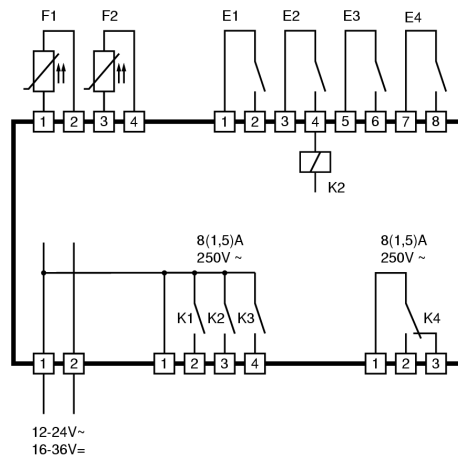
Differential temperature controller

Order number 900219.015

Old Id.Nr.: 228221



Wiring diagram



Product description

The differential temperature controller with 3-digit LED seven segment display, 6 keys and 4 relays is variably applicable due to its freely programmable general functions. Either differential or standard regulation can be selected via parameters. With four digital inputs a logic evaluates status messages from a connected refrigerating plant and thus guarantees a defined operational sequence under all conditions.

As a special feature of the power board the output relay for the compressor is switched off as soon as the digital input for the high pressure alarm is opened.

Sensor: PTC

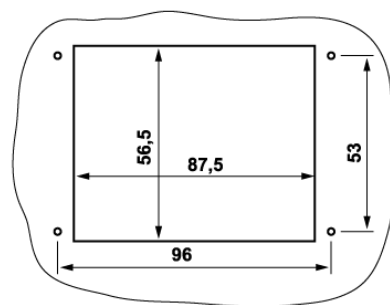
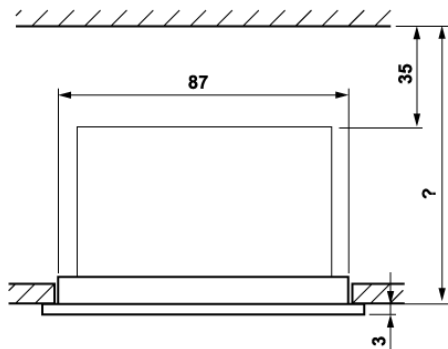
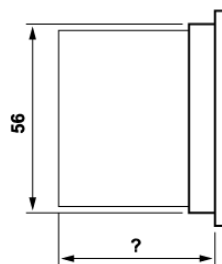
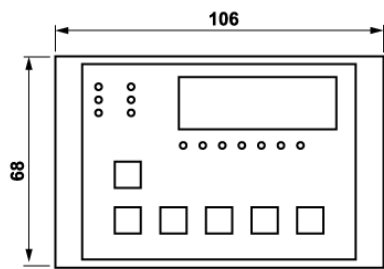
Range: -50...130°C

Front size: 106mm x 68mm

Panel cut-out: 87.5mm x 56.5mm

Connector: screw terminal

ST 501 ...



Technical data of ST501-LN1KV.04

Inputs

- E1:** extern potential-free switching input for pump failure, closed at failure
E2: extern potential-free switching input for high pressure alarm, opened at alarm
E3: extern potential-free switching input for low pressure alarm, opened at alarm
E4: extern potential-free switching input for ventilator failure, opened at failure

Measuring input

A99 = 0, operation as standard temperature controller:

- F1:** Resistance thermometer PTC, actual value
F2: input inactive

A99 = 1, operation as differential temperature controller:

- F1:** Resistance thermometer PTC, following value
F2: Resistance thermometer PTC, leading value
Measuring range for PTC (KTY81-121): -50 ...+130 °C
Accuracy: $\pm 0.5 \text{ K} \pm 0.5 \%$ at 25 °C

Display

One 3-digit LED-Display, height 13 mm, colour red.

Ten LEDs for status display of the outputs K1, K2 und K3, the constant value control, the generic alarm and the digital inputs E1, E2, E3 and E4.

Outputs

- K1:** Relay 8(1.5) A normally-open contact, connected to power supply 12-24 V
K2: Relay 8(1.5) A normally-open contact, connected to power supply 12-24 V
K3: Relay 8(1.5) A normally-open contact, connected to power supply 12-24 V
K4: Relay 250 V~, 8(1.5) A change-over contact, galvanically separated
Relay K2 is in series with input E2 and thus is interrupted by high pressure alarm.
Relays K1 to K3 have a common root and are connected to power supply 12-24 V.

Power supply

12...24 V AC (50/60 Hz) or 16...36V DC, power consumption max. 3 VA.

Connectors

screw terminals, spacing 5.0 mm, for cable up to 2.5 mm².

Ambient conditions:

Storage temperature	-20...70 °C
Operating temperature	0...55 °C
Relative humidity	max. 75 %, without dew.

Weight

ca. 130 g without sensor.

Enclosure

Front IP65

Installation data

Front size:	106 x 68 mm
Panel cut-out:	87.5 x 56.5 mm
Installation depth:	c. 50 mm