

PD-3 / PD-5 [®] (KD, P-3/5)

Operating Instructions



RESISTRON/CIRUS temperature controllers are available in several different variants. Some of these controllers allow the set point to be selected by means of an externally connected potentiometer.

ROPEX offers PD-3 (300°C range) and PD-5 (500°C range) precision potentiometers, which are optimally tuned to the controllers, for this purpose.

These potentiometers permit the SET temperature to be adjusted exactly with the help of the digital display in the window of the fine control knob. The number that

appears on the display corresponds to the SET temperature in °C.

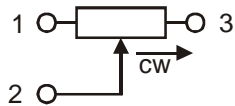
The PD-3 (or PD-5) precision potentiometer consists of a P-3 (or P-5) setting potentiometer and a KD fine control knob with digital display.

⚠ The information provided in the latest version of the controller documentation shall be heeded when using the PD-3 or PD-5 potentiometer, in order to avoid malfunctions.

Technical data

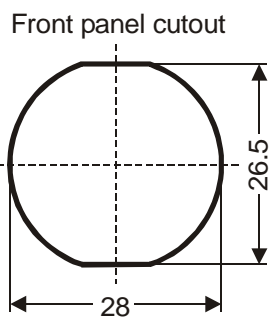
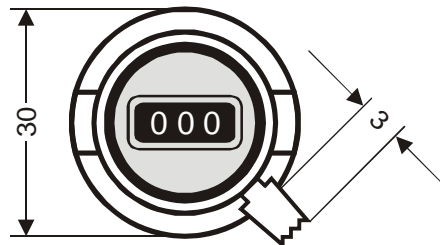
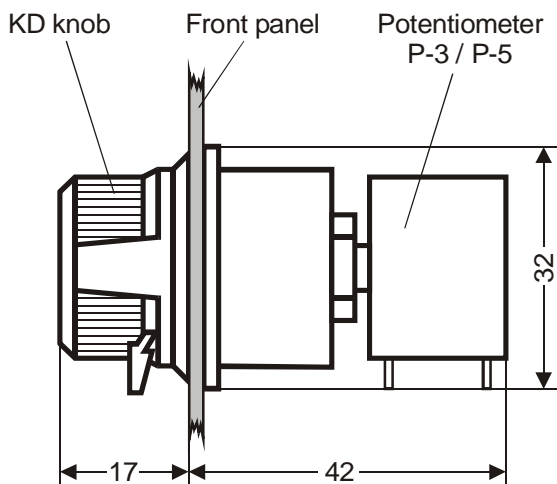
Type of construction	Precision potentiometer with a digital fine control knob, for front panel mounting
Resistance, power	PD-3 (P-3): 2kohms; 3 turns; 2.0W PD-5 (P-5): 2kohms; 5 turns; 2.0W
Set point indication (KD knob)	Window with digital display PD-3: 0...300 PD-5: 0...500
Accuracy	Linearity +0.15%
Degree of protection	Front (KD knob): IP20; back (P-x potentiometer): IP00
Insulation voltage	1000VAC, 1 min.
Ambient temperature	+5...+45°C
Weight	Approx. 60g
Connecting cable Type / cross-sections	Flexible; 0.2...1.5mm ² (AWG 16...12) Connection by means of soldering lugs Note: Rigid cables break easily !

Wiring diagram

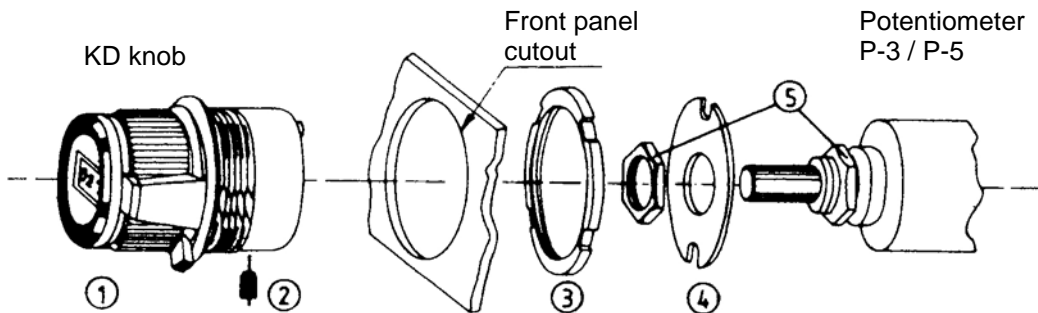


! When you connect the potentiometer, please note the direction of rotation, in order to avoid malfunctions.

Dimensions



Installing the PD-3/-5 (assembly of P-3/-5 and KD)






Proceed as follows to assemble/install the potentiometer:

1. Make a cutout in the front panel (↳ section „Dimensions“ on page 2).
2. Insert the KD fine control knob ① into the front panel cutout and screw it tight with the nut ③.
For assembly of the nut ③ a hock spanner (DIN 1810 contour A, diameter 32mm) shall be used.
3. Screw the lock washer ④ onto the P-3/-5 potentiometer with the two hexagon nuts ⑤.
4. Turn the potentiometer shaft counterclockwise as far as the minimum resistance setting (0ohms).
Note: This is NOT necessarily the same as the shaft end stop!

5. Turn the dial of the KD fine control knob ① until the display indicates "000". Loosen the locating screw ② on the underside of the knob.
6. Insert the shaft of the P-3/-5 potentiometer into the KD knob from behind. The lock washer ④ must snap into the lugs on the KD knob. Then tighten the locating screw ② again.

⚠ The shaft of the P-3/-5 potentiometer and the dial of the KD fine control knob must remain absolutely stationary until the installation is complete. If they are moved, the display on the knob will deviate from the value set with the potentiometer.

How to order

	<p>Precision potentiometer with digital fine control knob PD-3 (resistance 2kohms, display 0...300): Art. No. 881103 PD-5 (resistance 2kohms, display 0...500): Art. No. 881105</p>
	<p>Precision potentiometer (as spare part) P-3 (resistance 2kohms, 3 turns): Art. No. 881003 P-5 (resistance 2kohms, 5 turns): Art. No. 881005</p>
	<p>Fine control knob with digital display (as spare part) KD: Art. No. 881113</p>