



Board-mounted measuring devices of the Series PM are designed for displaying the temperature, which is measured by means of platinum or nickel sensing units and transducers, further for displaying the values of resistance transmitters OV100 (0 to 100 Ω) and OV105 (5 to 105 Ω), and for monitoring the processes, which are being measured by means of transducers with standardised voltage or current outputs. The devices are provided with a 3,5-place LED display of high sensitivity. With their front dimension of the plastics casing 96 x 48 mm and the method of clamping, they are designed for a direct building-in into device board, in the first place. Not being protected against water, these devices are designed for operating in conventional and chemically non-aggressive environments free of shocks and impacts. Subject of customer wishes, the device front side may be delivered in the protection IP 54 or IP 65.

Technical description

The measuring device is comprised of a differential amplifier, an integrating A/D converter, a LED display, and of auxiliary circuits. A set of boards is located in a plastics casing, which is provided with a recess for mounting into a board; for this purpose, a pair of clamps is delivered. From the external side, the device is to be slid into the back part of an opening, which must have the dimensions of 43,8 x 91,2 mm; against falling out, the device is protected by means of grips.

The temperature measured is up-to-dated on the display each 0,3 s, approximately.

For the individual device types, the temperature range (i.e., the displaying capability) results from the type of the sensing element used:

Ni1000, Ni10000-50 to 200 °C
Pt100, Pt1000-50 to 600 °C

In case of the devices with the resolution 0,1 °C, the measuring range is restricted to 199,9 °C for all types of inputs resulting from the display representation capability.

The devices with inputs OV100 and OV105 and the devices with voltage and with current inputs require an assignment of the values of the input signal quantity displayed.

For instance.: for the input signal 4 to 20 mA to the value of
4 mA corresponds 0 %
20 mA corresponds 100 %.

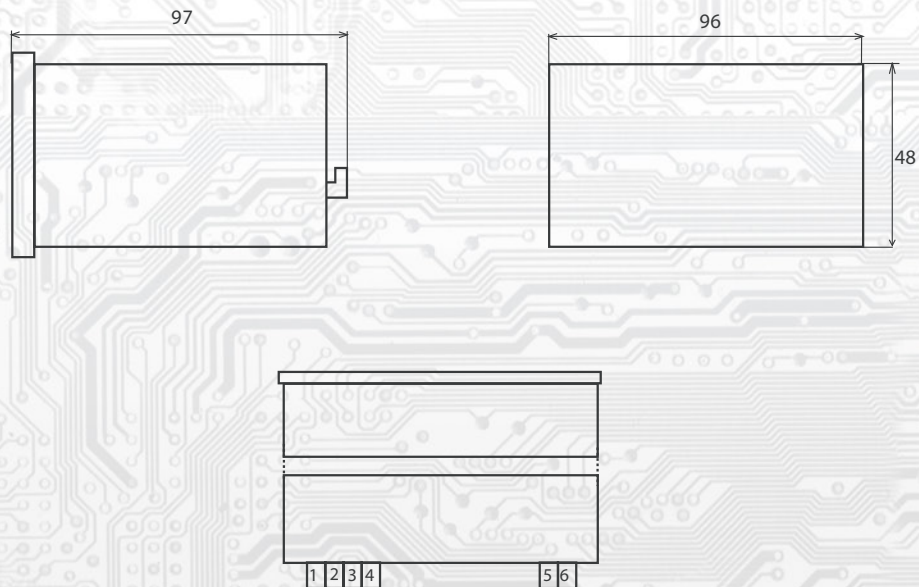
Basic technical parameters

Power supply	230 V, 50 Hz
Accuracy	± 0,3 % within the whole range
Sensitivity (for temperature measuring)	0,1 °C or 1 °C
Sensitivity (for the remaining signals)	results from the signal type and the representation capability
Quick responses	follows from the sensing element type
Power input	max. 2 VA
Steady state time	5 minutes after turning on
Working temperatures range	Results from the sensing element type
Ambient temperature - working	0 to 50 °C
Ambient temperature - storing	-10 to 70 °C
Relative humidity	< 70 %
Material	Noryl
Display	14 mm red
Casing dimensions	48 x 96 x 97 mm (DIN 43700)
Degree of protection	IP 40
Connection	Terminals CP, cross section. 2,5 mm ² maximum
Opening into the board	43,8 x 91,2 mm

Type	Input
PM-U1	0 to 2V
PM-U2	0 to 5V
PM-U3	0 to 10V
PM-I1	0 to 20 mA
PM-I2	4 to 20 mA
PM-RT	OV100 three-wire
PM-RD	OV100 two-wire
PM-R TA	OV105 three-wire
PM-RDA	OV105 two-wire
PM-LX	Ni1000/5000ppm
PM-SX	Ni1000/6180ppm
PM-SA.X	Ni10000/6180ppm
PM-P.X	Pt100
PM-P.A.X	Pt1000

where X = 1 for a representation in whole degrees
X = 0 for a representation in tenths of a degree

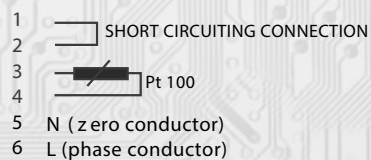
Dimensions



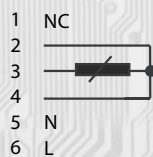
Connection

PM-P.x

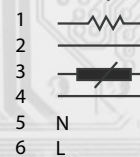
Two-wire connection



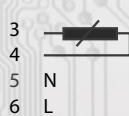
Three-wire connection



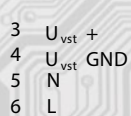
Connection with compensative loop



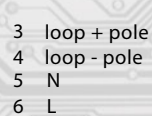
PM-L.x; S.x; SA.x



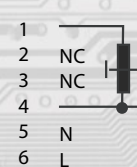
PM-U1; U2; U3



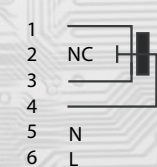
PM-I1; I2



PM-RD; RDA



PM-R T; RTA



Method of ordering

State the quantity of pieces and the device type in your order, i.e. the panelmeter with the input Pt100, resolution 1°C

Example of the order: 5 pieces panelmeter PM-P.1

Name of the device

Resolution (1 °C)