

PANEL THERMOMETER

type EMT-133, EMT 134



- miniature thermometer with front panel dimensions **24 x 48 mm**
- for use with sensors:
 RTD: Pt100, Ni100
 thermocouples: K, J, N, T, B, R, S
 semiconductor: 1-Wire® (DS18B20)
- linearization of the sensor characteristics
- wide range of ambient operating temperature
- power supply **230 V AC** or **10...30 V DC**

EMT-133 and EMT-134 are microprocessor thermometers designed for installation in a control panel. Depending on the version they operate with RTDs: Pt100, Ni100 (in a two- or three-wire connection), with thermocouples or semiconductor temperature sensors with 1-Wire® interface type DS18B20. Design of the electronic circuit allows high accuracy to be achieved. Meters automatically change the resolution of the displayed value. Small size and minimal weight make them ideal for use in portable measuring equipment.

TECHNICAL DATA

Measuring range

Sensor type	EMT-133	EMT-134
Pt100	-199 ... 850°C	-199 ... 850°C
Ni100	-60 ... 180°C	-60 ... 180°C
B PtRh30-PtRh6	400 ... 999°C	400 ... 1800°C
J Fe-CuNi	-199 ... 999°C	-199 ... 1200°C
K NiCr-NiAl	-199 ... 999°C	-199 ... 1370°C
N NiCrSi-NiSi	-199 ... 999°C	-199 ... 1300°C
R PtRh13-Pt	0 ... 999°C	0 ... 1700°C
S PtRh10-Pt	0 ... 999°C	0 ... 1700°C
T Cu-CuNi	-199 ... 300°C	-199 ... 300°C
DS DS18B20	-55 ... 125°C	-55 ... 125°C

Resolution

0,1°C in range (- 10 ... 100°C),
 1°C below -10°C and above 100°C

0,1°C in range (-100 ... 1000°C)
 1°C below -100°C and above 1000°C

Temperature drift ($T_a = 23^\circ\text{C}$)

$\pm 0,15\%$ of measuring range ± 1 digit

Cold junction temperature compensation error

$\pm 0,4^\circ\text{C}$

Display

LED **3 digits** 13 mm, red

LED **4 digits** 10mm red

Standard power supply

230 V AC, 2VA

Optional power supply

10 ... 30 V DC, 500 mW (LV version)

Ambient temperature T_a

-25°C ... + 50°C

Ingress protection (from the front / behind the panel)

IP61 / IP20

Mounting window dimensions (height x width)

21,5 x 44,5 mm

Dimensions (height x width x depth) / weight

24 x 48 x 90 mm / ok. 60 g

ORDERING CODE



(1) Type

133, 134

(2) Sensor element

Pt100, Ni100, K, J, N, T, B, R, S, DS

(3) Supply voltage if other then 230 V AC

LV

Example for order: EMT-133-Pt100

miniature panel thermometer for Pt100 temperature sensor,
 standard power supply 230V AC