

## PANEL THERMOMETER

### Type EMT-102, EMT-112



- meter for panel mounting 48 x 96 mm
- large, easy to read display
- 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 operating temperature range
- 230V AC or 10 ... 30 V DC power supply
- alarm threshold (EMT-112)

EMT-102 and EMT-112 are microprocessor-based temperature meters 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. The design of the electronic circuit allows high accuracy to be achieved. Meters automatically change the resolution of the displayed value. The large display provides excellent visibility from large distances. Meter EMT-112 is equipped with an alarm system. Alarm threshold value setting is done from the keyboard on the front panel. Exceeding the threshold temperature illuminates the LED light on the front panel and activation of the relay.

### TECHNICAL DATA

Measuring range

Version	Sensor type	Range
<b>EMT-1x2-Pt100</b>	<b>Pt100</b>	-199 ... 850°C
<b>EMT-1x2-Ni100</b>	<b>Ni100</b>	-60 ... 180°C
<b>EMT-1x2-B</b>	<b>B PtRh30-PtRh6</b>	400 ... 1800°C
<b>EMT-1x2-J</b>	<b>J Fe-CuNi</b>	-199 ... 1200°C
<b>EMT-1x2-K</b>	<b>K NiCr-NiAl</b>	-199 ... 1370°C
<b>EMT-1x2-N</b>	<b>N NiCrSi-NiSi</b>	-199 ... 1300°C
<b>EMT-1x2-R</b>	<b>R PtRh13-Pt</b>	0 ... 1700°C
<b>EMT-1x2-S</b>	<b>S PtRh10-Pt</b>	0 ... 1700°C
<b>EMT-1x2-T</b>	<b>T Cu-CuNi</b>	-199 ... 300°C
<b>EMT-1x2-DS</b>	<b>DS DS18B20</b>	-55 ... 125°C

Resolution

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

Cold junction measurement error

Display

Standard power supply

Optional power supply

Alarm output (EMT-112 only)

Ambient temperature  $T_a$

Ingress protection (from the front / behind the panel)

Mounting window dimensions (height x width)

Dimensions (height x width x depth) / weight

0,1°C in range (-100 ... 1000°C); 1°C outside this range

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

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

**4 digits** 20mm high, red

230 V AC, 3VA

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

SPDT relay contact, 5 A, 250 V AC / 30 V DC

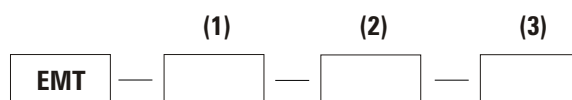
$-25^\circ\text{C} \dots + 50^\circ\text{C}$

IP61 / IP20

45,2 x 92 mm

48 x 96 x 80 mm / ca. 260 g

### ORDERING CODE



(1) TypE

(2) Sensor measuring element

(3) Power supply, if other than 230 V AC

**102, 112**

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

**LV**

**Example for order:**

EMT-112-Pt100 panel thermometer for Pt100 temperature sensor,  
standard power supply 230V AC with alarm indicator and relay contacts