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with Pt100 resistance sensor 2DIN IEC Class B

- For temperatures from -50 to +400°C
- High measurement accuracy and long-term stability
- Short response time, decay time in: water approx. 5sec, air approx. 60sec



General applications

Resistance thermometers are used for the direct measurement of temperature, for instance in the HVAC and refrigeration industries, in ovens and in plant construction.

Thanks to the standardised characteristics, the thermometer can be replaced without requiring a recalibration of the indicating, control or recording instruments. The resistance values and their permissible tolerances are defined in the standardised series of values.

Operating principle

The resistance thermometer is based on the principle of measuring the temperature dependent change in resistance of metal wires. The resistance sensors are manufactured from platinum wire, and its resistance is an indication of the particular temperature. In accordance with IEC 751, the resistance of a PT100 at 0°C is 100Ω. At higher temperatures the temperature is correspondingly larger, and at lower temperatures it is smaller.

Technical data

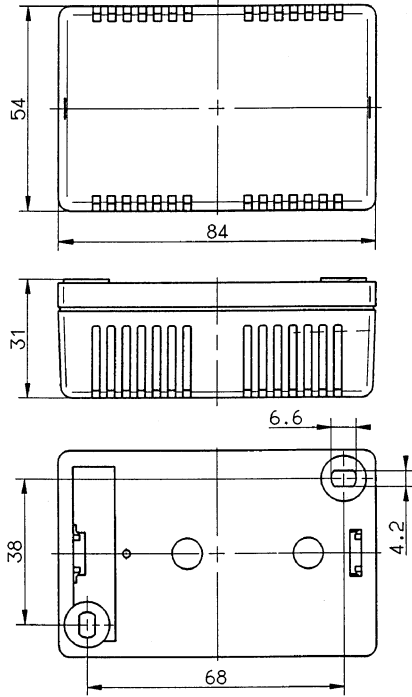
Type	Temperature probe			Connecting cable: stranded wire 2x0.35mm ²		
	Operating temperature min.	Operating temperature max.	Material	Operating temperature max.	Material	Length
TW-01	- 5°C	+ 80°C	St. steel 1.4303	+ 80°C	PVC	1.5m
TW-02	- 5°C	+105°C	St. steel 1.4303	+105°C	PUR	1.5m
TW-03	-50°C	+200°C	St. steel 1.4303	+180°C	Silicon	1.5m
TW-04	-50°C	+400°C	St. steel 1.4303	+400°C	CrNi braided	1.5m
TW-05	-50°C	+400°C	St. steel 1.4303	+180°C	Silicon	1.5m

For further resistance thermometers to DIN / IEC and special versions (also for temperatures up to +500°C), see Sectional Catalogue 90 "Temperatur probes ... Sensors".

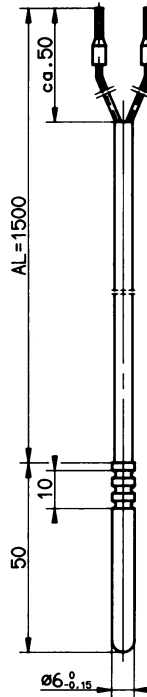
Protective tubes in brass, steel of chrome-nickel, as pockets to Form "U" G½, length 130 to 300mm, as in Data Sheet 60.9710.

Type	Version	Operating temperature	
		min.	max.
TW-20	Temperature sensor for dry areas, in a plastic housing	- 30°C	+ 80°C
TW-21	Temperature sensor for mounting on rails: 35mmx7.5mm, EN 50 022	- 50°C	+100°C

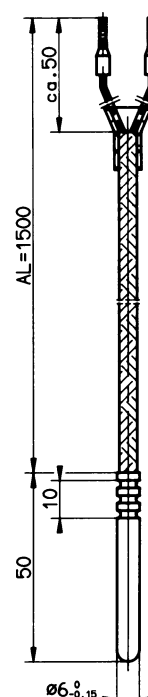
Dimensions



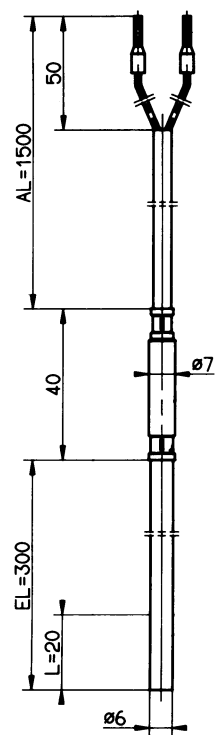
Type TW-20



Type TW-01/02/03



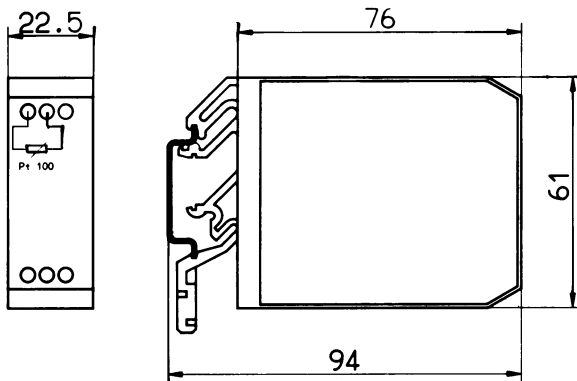
Type TW-04



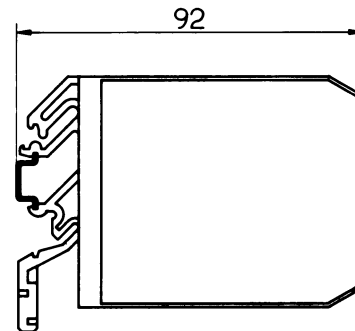
Type TW-05

Type TW-21

Mounting rail: C-rail 35mm x 7.5mm, EN 50 022



Mounting rail: C-rail 15mm, EN 50 022



Mounting rail: G-rail EN 50 022

