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**Data Sheet 60.5521** 

# Resistance Thermometer 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, 50% time in water approx. 5 sec, in air approx. 60 sec

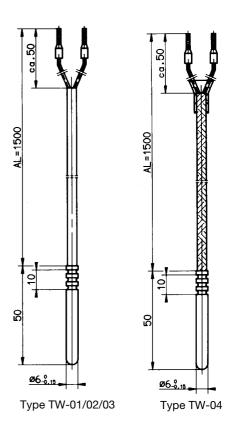
### General application

Resistance thermometers are used for direct temperature measurement, for instance in airconditioning and refrigeration, in heating systems, ovens and in equipment engineering.

Thanks to standardized reference values, resistance thermometers can be interchanged without the need for recalibrating indicators, controllers or recorders. The resistance values and their permissible tolerances are specified in standard tables.

## Principle of operation

The resistance thermometer is based on the principle of measuring the change in resistance of metal wires with temperature. The resistance sensors are made 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  $100\Omega$  At higher temperatures, the resistance is correspondingly higher, and at lower temperatures it is smaller.



### Technical data / Stock items

Sales No.	Туре	Temperature probe			Connecting cable: stranded wire 2 x 0.35mm <sup>2</sup>		
		Operating temperature		Material	Operating temp.	Material	Length
		min.	max.		max.		
60/00085315	TW-01	- 5°C	+ 80°C	st. steel 1.4303	+ 80°C	PVC	1.5 m
60/00085316	TW-02	- 5°C	+105°C		+105°C	PUR	
60/00085313	TW-03	-50°C	+200°C		+180°C	silicone	
60/00085311	TW-04	-50°C	+400°C		+400°C	CrNi braiding	

For other resistance thermometers to DIN specification and in special versions (also for temperatures up to +500°C), see the Sectional Catalog "Transducers".

Protection tube in brass, steel or CrNi as push-in pocket U G<sup>1</sup>/<sub>2</sub>, length 100 - 300mm as per Data Sheet 60.6710.