

Temperature measuring device XP101

0.005°C accuracy



High-precision reference measurement standard for industrial temperature calibrations. Suitable as temperature reference in block calibrators, climate chambers or liquid baths. Mini USB interface with software, online data collection.

Hand-held device XP101		Order No.
<p>The most accurate handheld device (0.005°C) for temperature. Ideal as reference standard. Excellent stability through multiple annealing cycles. Sensor characteristic curve is determined individually and is saved in the device. Integrated root 2 function for determination of the sensor self-heating, plus automatic elimination of parasitic thermovoltage. For traceability to national standards a DAkkS calibration certificate is attached.</p>		5810.10
Technical data	Dimensions	170 x 62 x 34 mm
	Weight	Approx. 205g
Temperature	Measurement range	-150 ... 450 °C
	Accuracy	0.005°C at 0.005°C otherwise -40...+200°C 0.02°C
	Measuring technique	Four terminal sensing
	Reaction time	10s
Measuring current in normal operation	1 mA DC with duty cycle of 50% = 0.50 mA, 1.85 measurements/sec. Automatic elimination of thermo voltage	
Measuring current "root 2 function"	1 mA DC with duty cycle of 33% = 0.30 mA, 1.25 measurements/sec. Automatic elimination of thermo voltage	
Integrated sensor characteristic curves	DIN EN IEC 60751 / ITS-90 or XP101-mode	
Storage conditions	Permitted ambient temperature	-20...60°C
	Permitted rel. humidity	<90% RH non-condensing
Operating conditions	Permitted rel. humidity	<90% RH non-condensing
	Permitted altitude above sea level	4000m
Power supply	Power supply	4 Alkaline LR6 AA 1.5V / USB 5V
	Active power consumption	Approx. 400mW
	Battery life passive	Approx. 1 year
	Battery life active	Min. 24 hours
Data storage	Sensor power supply	5.5V ± 10% DC, max. 200mA
	Integrated data storage	Up to 200 data/approx. 1 Mio measured values
Interface	USB	Cable and SmartGraph3 software included in delivery
Resolution	Definition of measured values	3 decimal places
Display	Control	Touch screen, capacitive
	Technology	TFT, resolution 240x320, 65k colours, very good contrast, suitable for sunlight
	Surface, toughened glass	Degree of hardness: 7, scratch-resistant glass
Accessories	Extension and/or connecting cable for digital sensor, 10m	8120.KAB10
	Power supply adapter	8120.NT



High quality wooden case and PT100 ceramic sensor are included in delivery

PT100 (immersion) probe, long		Order No.
<p>Precision PT100, ceramic sensor, bifilar coiled, mineral insulated version</p>		3120.700
Technical data	Dimensions, probe	300 x 4 mm
	Dimensions, housing	119 x 27/35 mm
	Weight	120g
	Protective housing	IP40
	Max. permitted operating temperature	PUR cable and handle can be used up to 80°C
Compatibility	XP100, XP101	

