

Temperature measuring device XP101 0.005°C accuracy

XPseries

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 XP1	101		Order No.
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.			5810.10
Technical data	Dimensions	170x62x34mm	
	Weight	Approx. 205g	
Temperature	Measurement range	-150450°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	-2060°C	
	Permitted rel. humidity	<90% RH non-condensing	
Operating	Permitted rel. humidity	<90% RH non-condensing	
conditions	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	
	Sensor power supply	5.5V ± 10% DC, max. 200mA	
Data storage	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	
Accessories			8120.KAB10 8120.NT

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



XP101 Order No 5810.10

High Quality Watertight case and PT100

Ceramic sensor, batteries and cable are included in delivery.



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