TM-1000

High temperature precision meter

Fig.1. Photo of TM-1000 meter

BASIC INFORMATION:

The series of TM-1000 thermometers are a laboratory-grade precision digital thermometers which use thermocouples as temperature sensor. The meters are controlled from PC/laptop/tablet via USB port using specialized software.

There are two types of TM-1000 meters available:

- TM-1000N meter cooperating with a metal probe with thermocouple type N optimized for measurement of high temperatures up to 1010°C
- TM-1000S meter cooperating with a ceramic probe with thermocouple type S optimized for measurement of ultra high temperatures up to 1500ºC.

TM-1000 meters are characterized by near perfect measurement resolution equal to 10mK. From this point TM-1000 meters have no rivals on the market. Accuracy of measurement can be also considered as very good.

TM-1000 temperature meters have been developed meters for for recalibration of high temperature cavity blackbodies manufactured by Inframet (HTB, UHT). However, the meters can be used in any application when high resolution, high accuracy contact temperature meters are needed. The calibration scheme of TM-1000 temperature meters is traceable to EU main national laboratories (typically Central Office of Measures of Poland).

SPECIFICATIONS

Parameter	Value	
Meter type	TM-1000N	TM-1000S
Thermocouple type	N (metal)	S (ceramic)
temperature measurement range	100°C ÷ 1010°C (short-term up 1050°C)	600°C ÷ 1510°C (short-term up 1550°C)
Resolution	0,01°C (10mK)	0,01°C (10mK)
Measurement uncertainty	0,6°C up to 250°C 1,2°C up to 750°C 1,5°C up to 1000°C	0,6°C up to 750°C 1,2°C up to 1000°C 1,8°C up to 1500°C
Temperature units	°C, K, °F	°C, K, °F
Voltage supply	5V from USB interface	5V from USB interface
Power consumption	1W max.	1W max.
Connector	USB B connector	USB B connector
Interface standard	USB 2.0	USB 2.0
Communication protocol	SCPI compatible	SCPI compatible
Temperature range (control box only)	Storage:-10°C ÷ +60°C; usage: 10°C ÷ 40°C, non-condensing	Storage:-10°C ÷ +60°C; usage: 10°C ÷ 40°C, non-condensing
Dimensions	Control box: 110x55x38mm Probe: φ3mm L=400mm Cable length: 1,5m	Control box: 110x55x38mm Probe: φ6mm L=400mm Cable length: 1,5m
Weight	Ca. 400g /set	Ca. 400g /set

*specifications are subject to change without prior notice

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