

Precision Portable Thermometer

Accurate and Reliable Temperature & Analog Measurement in a Compact Design Model : PTM - 201



Introduction

The Precision Portable Thermometer (PTM-201) is a state-of-the-art handheld measurement device designed for professionals who demand exceptional accuracy, versatility, and reliability. By supporting a wide range of input types — including RTD, Thermocouple, mA, Voltage, Resistance, and mV—this instrument is engineered to adapt to a variety of field and laboratory applications.

The PTM-201's intuitive 2.8" True Colour TFT touchscreen ensures a user- friendly experience, while comprehensive data logging features and a large 16 GB memory enable extensive record-keeping for analysis and compliance. With robust construction, an integrated rechargeable battery, and advanced calibration and alarm capabilities, the PTM-201 is the ideal partner for achieving precise and traceable measurements in demanding environments.

Key Features

- ✓ **Wide Measurement Range:** As per selected input
- ✓ **Resolution:** As per selected input
- ✓ **Intuitive Display:** 2.8" True Colour TFT touch screen for easy operation.
- ✓ **Inbuilt data logging with huge memory space**
- ✓ **Calibration:** Multipoint calibration feature available
- ✓ **Connectivity:** USB C-type port for data download via PC software (Sansel-Soft-01).
- ✓ **Alarm Functions:** Audible and visible alarms with user-settable thresholds.
- ✓ **Robust Design:** Durable ABS housing with anti-slip grip and IP40 protection class.
- ✓ **Protection Class:** IP40
- ✓ **Portable:** Compact dimensions and lightweight design for easy transport.

Applications

- ❑ **Quality Assurance & Laboratory Work:** Perform precise, traceable measurements to validate product quality, comply with standards, and support R&D activities.
- ❑ **Industrial Process Monitoring:** Measure temperature and other analog signals in manufacturing plants, refineries, and power generation facilities.
- ❑ **HVAC & Environmental Control:** Monitor temperature trends in HVAC systems, greenhouses, and environmental chambers.
- ❑ **Maintenance & Troubleshooting:** Quickly diagnose issues in electrical and mechanical equipment through accurate temperature and signal readings.

Technical Specifications

Parameter	Specification
Inputs	Universal
Range	As per selected input
Resolution	As per selected input
Display	2.8" True colour TFT with touch screen
Application environment range	-10 to 60 °C ; 0 to 100% RH (non condensed)
Storage environment range	-10 to 45 °C ; 10 to 90% RH
Display refresh rate	1 second (typical)
Data logging interval *	1 sec to 24 Hours (user selectable) (Only for PTM 201-A)
Data download *	Via USB C-type to PC software (Sansel-Soft-01) (Only for PTM 201-A)

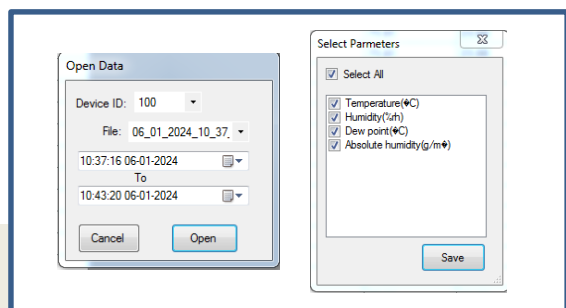
Calibration	Multipoint Calibration feature available
Alarm	Audible & Visible user settable individual High & Low alarm set with alarm mode selection
Touch sound	On / Off option available
Battery charging port	USB C-type
Integrated battery	3.7V / 10,000 mAh Inbuilt rechargeable polymer Li-ion battery
Backlight time interval	OFF to 59 mins : 59 secs (user adjustable)
Brightness adjustment	10 to 100% (user adjustable)
Housing Material	ABS with anti-slip grip silicon cover
Protection class	IP40
Dimension (L x B x H)	35 x 80 x 165 mm
Weight	560 g (Approx.)

Note: Specifications are subject to change without prior notice.

Model identification & ordering code

Ordering Code	Standard Model (Without Logger)	* Advanced Model (With Data Logger)
	PTM 201	PTM 201-A

SANSEL Soft 01 (version 1.0)



Sansel Soft 01 is the ultimate data analysis software designed to import data from **PTM 201-A models**. It enables ultra-fast downloading of stored data and converts it into visually compelling graphs through a user-friendly interface. Customize and enhance your visualizations, apply filters, and print directly from the tool. Perfect for laboratories, research institutes, hospitals, and food industries, Sansel Soft 01 is your go-to solution for powerful and easy data visualization. Where data meets design, Sansel Soft 01 delivers insights at your fingertips.

Note: PTM 201-A is an ordering code indicating the model with built-in data logger.

Features

- ✓ Ultra fastest download data's in fraction of seconds from PTM 201-A model to PC local database & analyze.
- ✓ Data Report & Graph view with user selectable parameters for both USB connected PTM 201-A instrument's storage data and old Database stored data's in local PC.
- ✓ Report export in CSV & PDF format.
- ✓ Graph export in PNG & PDF format.
- ✓ Easy customized filter option available based on both Report & Graph view by Date & time for selected parameters.
- ✓ User selectable report Title, subtitle & logo for both Report & Graph.
- ✓ User selectable graph Title, X-label, Y-label, maker scale, Auto scale.
- ✓ Multiple PTM 201-A Model possible to connect and download data one by one in single software.
- ✓ Software license key protection available to protect your software to misuse by unauthorized user in different PC.

Standard Delivery

1. Basic Instrument
2. Standard Test Probe – 1no
3. USB C-Type Data Cable
4. Instruction manual

Optional

1. Additional Test Probe
2. 1/10 DIN RTD sensor
3. Protective Carrying Case
4. SANSEL-SOFT-01 software for PTM 201-A
5. ISO/IEC 17025 Accredited Calibration Certificate

Important

Logged data can be downloaded, analysed, and printed only using the SANSEL-SOFT-01 software. Without this software, data retrieval is not possible



Carrying Case

Measurement Range, resolution & Accuracy

Type	Effective Measurement Range	Measurement Resolution	1 – year Tolerance (* see the notes)	Temperature Coefficient (0-18 DegC) & (28-40 DegC)
RTD – PT 100	-200 to 850 DegC	0.001 DegC	± 0.02% RDG + 0.06 DegC	± 0.01 DegC / DegC
RTD – PT 200	-200 to 600 DegC	0.01 DegC	± 0.02% RDG + 0.06 DegC	± 0.003 DegC / DegC
RTD – PT 500	-200 to 600 DegC	0.01 DegC	± 0.02% RDG + 0.06 DegC	± 0.01 DegC / DegC
RTD – PT 1000	-200 to 630 DegC	0.001 DegC	± 0.02% RDG + 0.06 DegC	± 0.003 DegC / DegC
Ohms	0 to 4000 Ohms	0.01 Ohms	± 0.02% RDG + 50 mOhms	± 20 mOhms / DegC
TC - J	-200 to 1200 DegC	0.01 DegC	± 0.6 DegC	± 0.05 DegC / DegC
TC - K	-200 to 1768 DegC	0.01 DegC	± 0.7 DegC	± 0.05 DegC / DegC
TC – E	-200 to 1000 DegC	0.01 DegC	± 0.5 DegC	± 0.05 DegC / DegC
TC – N	-200 to 1300 DegC	0.01 DegC	± 0.7 DegC	± 0.05 DegC / DegC
TC – T	-200 to 400 DegC	0.01 DegC	± 0.6 DegC	± 0.05 DegC / DegC
TC – B	600 to 1800 DegC	0.01 DegC	± 1.1 DegC	± 0.07 DegC / DegC
TC – R	0 to 1750 DegC	0.01 DegC	± 1.0 DegC	± 0.07 DegC / DegC
TC – S	0 to 1750 DegC	0.01 DegC	± 1.0 DegC	± 0.07 DegC / DegC
Milli Volt	0 to 75 mVolt	0.001 mV	± 0.015% RDG + 10 uV	± 3 uV / DegC
Current	0 to 20 mAmps	0.001 mA	± 0.03% RDG + 3 uA	± 0.4 uA / DegC
Voltage	0 to 30 Volt	0.001 V	± 0.015% RDG + 10 mV	± 3 mV / DegC

Notes: 1) Based on ITS-90 (ITS: The International Temperature Scale); the environmental condition: (23±5)°C, ≤85%RH: it should be put in the stable environmental conditions for at least one hour, wait 5 minutes after start-up. with the menu parameters of Filter Constant=1, exclusive of sensor errors.

2) Using the method of "Calibration" of the Instruction manual, the fixed error component between sensor and thermometer can be eliminated.

3) The thermal resistance and thermocouple's measurement range and tolerance shown in other units (Ohms & mV) are equivalent to the above table.

SANSEL INSTRUMENTS AND CONTROLS SANSEL CALIBRATION LABORATORIES LLP

ISO/IEC 17025 Accredited Calibration Laboratory by NABL CC - 2879

(Thermal, Mechanical, Electro-Technical, Dimension Parameters)

1 / 46 , 3rd Main road, Ganga Nagar, MMDA Colony , Maduravoyal , Chennai - 600 095. INDIA

☎ +91 44 2378 3951, ☎ +91 72999 72085 / 86 / 93, ☎ +91 98401 49928 ✉ enquiry@ sansel.net

🌐 www.sansel.net

🌐 www.sansel.in

🌐 www.sansel.co.in

🌐 www.calibrators.in

