



RTD THERMOMETERS HD2107.1 AND HD2107.2

SENSORS: Pt100, Pt1000, Ni1000, NTC

The **HD2107.1** and **HD2107.2** are portable instruments with a large LCD display. They measure the temperature using Pt100 or Pt1000 immersion, penetration, contact or air probes. The sensor can be a Pt100 3 or 4 wires, Pt1000, Ni1000 or NTC 2 wires

The probes are fitted with an automatic detection module, with the factory calibration settings already being memorized inside.

The HD2107.2 instrument is a **datalogger**. It memorizes up to 80,000 samples which can be transferred from the instrument connected to a PC via the multi-standard RS232C serial port and USB 2.0. The storing interval, printing, and baud rate can be configured using the menu.

The HD2107.1 and HD2107.2 models are fitted with an RS232C serial port and can transfer the acquired measurements in real time to a PC or to a portable printer.

The *Max*, *Min* and *Avg* function calculate the maximum, minimum or average values.

Other functions include: the relative measurement REL, the HOLD function, and the automatic turning off that can also be disabled.

The instruments have IP67 protection degree.

INSTRUMENT TECHNICAL CHARACTERISTICS

Instrument

Dimensions (Length x Width x Height)	185x90x40mm
Weight	470g (complete with batteries)
Materials	ABS, rubber
Display	2x4½ digits plus symbols Visible area: 52x42mm

Operating conditions

Operating temperature	-5...50°C
Warehouse temperature	-25...65°C
Working relative humidity	0...90%RH without condensation
Protection degree	IP67

Power

Batteries	4 1.5V type AA batteries
Autonomy	200 hours with 1800mAh alkaline batteries
Power absorbed with instrument off	20µA
Mains	Output mains adapter 9Vdc / 250mA

Measuring unit

°C - °F - °K



Security of stored data

Unlimited, independent of battery charge conditions

Time

Date and time	Schedule in real time
Accuracy	1min/month max departure

Measured values storage - model **HD2107.2**

Type	2000 pages containing 40 samples each
Quantity	Total of 80000 samples
Storage interval	1s...3600s (1hour)

Serial interface RS232C

Type	RS232C electrically isolated
Baud rate	Can be set from 1200 to 38400 baud
Data bit	8
Parity	None
Stop bit	1
Flow Control	Xon/Xoff
Serial cable length	Max 15m
Immediate print interval	1s...3600s (1hour)

USB interface - model **HD2107.2**

Type	1.1 - 2.0 electrically isolated
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Connections

Input module for the probes	8-pole male DIN45326 connector
Serial interface and USB	8-pole MiniDin connector
Mains adapter	2-pole connector (positive at centre)

Measurement of temperature by Instrument

Pt100 measurement range	-200...+650°C
Pt1000 measurement range	-200...+650°C
Ni1000 measurement range	-50...+250°C
NTC measurement range	-30...+120°C

Resolution

0.01°C in the range ±199.99 °C
0.1 °C in the remaining field

Accuracy	±0.01°C
Drift after 1 year	0.1°C/year



TECHNICAL DATA OF PROBES AND MODULES EQUIPPED WITH INSTRUMENT

Temperature probes Pt100 sensor with SICRAM module

Model	Type	Application range	Accuracy
TP472I	Immersion	-196°C...+500°C	±0.25°C (-196°C...+350°C) ±0.4°C (+350°C...+500°C)
TP472I.0	Immersion	-50°C...+400°C	±0.25°C (-50°C...+350°C) ±0.4°C (+350°C...+400°C)
TP473P.0	Penetration	-50°C...+400°C	±0.25°C (-50°C...+350°C) ±0.4°C (+350°C...+400°C)
TP474C.0	Contact	-50°C...+400°C	±0.25°C (-50°C...+350°C) ±0.4°C (+350°C...+400°C)
TP475A.0	Air	-50°C...+250°C	±0.3°C (-50°C...+250°C)
TP472I.5	Immersion	-50°C...+400°C	±0.3°C (-50°C...+350°C) ±0.4°C (+350°C...+400°C)
TP472I.10	Immersion	-50°C...+400°C	±0.3°C (-50°C...+350°C) ±0.4°C (+350°C...+400°C)
TP49A	Immersion	-70°C...+400°C	±0.25°C (-50°C...+350°C) ±0.4°C (+350°C...+400°C)
TP49AC	Contact	-70°C...+400°C	±0.25°C (-50°C...+350°C) ±0.4°C (+350°C...+400°C)
TP49AP	Penetration	-70°C...+400°C	±0.25°C (-50°C...+350°C) ±0.4°C (+350°C...+400°C)
TP875	Globe thermometer Ø 150mm	-10°C...+100°C	±0.25°C

Common characteristics

Resolution 0.01°C in the range ± 199.99°C
0.1°C in the remaining field

Temperature drift @ 20°C 0.003%/°C



HD2101/USB



HD2110CSNM



AF209.60

4 wire Pt100 and 2 wire Pt1000 Probes

Model	Type	Application range	Accuracy
TP47.100	Pt100 4 wires	-50...+400°C	Class A
TP47.1000	Pt1000 2 wires	-50...+400°C	Class A

Common characteristics

Resolution 0.01°C in the range ± 199.99°C
0.1°C in the remaining field

Temperature drift @ 20°C

Pt100 0.003%/°C
Pt1000 0.005%/°C

ORDER CODES

HD2107.1K: The kit is composed of the instrument HD2107.1, connection cable for serial output HD2110CSNM, 4 1.5V alkaline batteries, operating manual, case and DeltaLog9 software. **The probes must be ordered separately.**

HD2107.2K: The kit is composed of the HD2107.2 datalogger, connection cable HD2101/USB, 4 1.5V alkaline batteries, operating manual, case and DeltaLog9 software. **The probes must be ordered separately.**

HD2110CSNM: 8-pole connection cable MiniDin - Sub D 9-pole female for RS232C.

HD2101/USB: Connection cable USB 2.0 connector type A - 8-pole MiniDin.

DeltaLog9: Software for download and management of the data on PC using Windows 98 to XP operating systems.

AF209.60: Stabilized power supply at 230Vac/9Vdc-300mA mains voltage.

S'print-BT: On request, portable, serial input, 24 column thermal printer, 58mm paper width.



S'print-BT



Probes complete with SICRAM module

- TP472I:** Immersion probe, sensor Pt100. Stem Ø 3 mm, length 300 mm. Cable length 2 metres.
- TP472I.0:** Immersion probe, sensor Pt100. Stem Ø 3 mm, length 230 mm. Cable length 2 metres.
- TP473P.0:** Penetration probe, sensor Pt100. Stem Ø 4mm, length 150 mm. Cable length 2 metres.
- TP474C.0:** Contact probe, sensor Pt100. Stem Ø 4mm, length 230mm, contact surface Ø 5mm. Cable length 2 metres.
- TP475A.0:** Air probe, sensor Pt100. Stem Ø 4mm, length 230mm. Cable length 2 metres.
- TP472I.5:** Immersion probe, sensor Pt100. Stem Ø 6mm, length 500 mm. Cable length 2 metres.
- TP472I.10:** Immersion probe, sensor Pt100. Stem Ø 6mm, length 1,000mm. Cable length 2 metres.
- TP49A:** Immersion probe, sensor Pt100. Stem Ø 2.7mm, length 150mm. Cable length 2 metres. Aluminium handle.
- TP49AC:** Contact probe, sensor Pt100. Stem Ø 4 mm, length 150mm. Cable length 2 metres. Aluminium handle.
- TP49AP:** Penetration probe, sensor Pt100. Stem Ø 2.7mm, length 150mm. Cable length 2 metres. Aluminium handle.
- TP875:** Globe thermometer Ø 150 mm with handle, complete with SICRAM module. Cable length 2 metres.

Temperature probes without SICRAM module

- TP47.100:** Direct 4 wires Pt100 sensor immersion probe. Probe's stem Ø 3mm, length 230mm. Connection cable 4 wires with connector, length 2 metres.
- TP47.1000:** Pt1000 sensor immersion probe. Probe's stem Ø 3mm, length 230mm. Connection cable 2 wires with connector, length 2 metres.
- TP47:** Only connector for probe connection: Pt100 direct 3 and 4 wires, Pt1000 2 wires and Ni1000 2 wires

