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Pt 100 THERMOMETERS

HD2307.0 Sensor Pt100 - Pt1000 Thermometer

The **HD2307.0** is a portable instrument with a large LCD display. It measures the temperature using Pt100 or Pt1000 immersion, penetration, contact or air probes. The sensor can be a Pt100 3 or 4 wires, Pt1000. The probes are fi tted with an automatic detection module, with the factory calibration settings already being memorized inside. 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.**

TECHNICAL CHARACTERISTICS

Instrument	
Dimensions	(Length x Width x Height) 140x88x38mm
Weight	160g (complete with batteries)
Materia	ABS
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
Power	Batteries 3 1.5V type AA batteries Autonomy 200 hours with 1800mAh alkaline batteries
Power absorbed	with instrument off 20µA
Measuring unit	°C - °F
Connections	
Input module for the probes	8-pole male DIN45326 connector
Measurement of temperature	by Instrument
Pt100 measurement range	-200…+650°C
Pt1000 measurement range	-200…+650°C
Resolution	0.1°C
Accuracy	±0.05°C
Drift after 1 year	0.1°C/year

ORDER CODES
HD2307.0K: The kit is composed of the instrument HD2307.0, 3 1.5V alkaline batteries, operating manual, case.
The probes must be ordered separately..

Probes complete with SICRAM module
TP472I: Immersion probe, sensor Pt100. Stem Ø 3 mm, length 300 mm. Cable length 2 metres.
TP472I.0: Sonda de inmersión, sensor Pt100. Vaina Ø 3 mm y L= 230 mm. Cable L= 2 m.
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.
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 1000mm. 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..

Temperature probes Pt100 sensor with SICRAM module

Model	Type	Range	Accuracy
TP472I	Immersión	-196 a 500 ºC	±0,25 ºC (-196 a 350 ºC) ±0,4 ºC (350 a 500 ºC)
TP472I.0	Immersión	-50 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP473P.0	Penetration	-50 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP474C.0	Contact	-50 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP475A.0	Air	-50 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP472I.5	Immersión	-50 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP472I.10	Immersión	-50 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP49A	Immersión	-70 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP49AC	Contact	-70 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP49AP	Penetration	-70 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP875	Globe Thermom. ø 150 mm	-10 a 100 ºC	±0,25 ºC

Common characteristics Resolutión 0,1 ºC
Temperature Drift @ 20 ºC 0,003% ºC

4 wire Pt100 and 2 wire Pt1000 Probes

Model	Type	Range	Accuracy
TP47.100	Pt 100 4 wires	-50 a 400 ºC	Class A
TP47.1000	Pt 1000 2 wires	-50 a 400 ºC	Class A

Common characteristics Resolutión 0,1 ºC
Temperature Drift @ 20 ºC Pt100 0,003% ºC
Pt1000 0,005%ºC

HD2107.1 HD2107.2 Sensor Pt100 - Pt1000 - Ni1000 – NTC Thermometers

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 fi tted 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 confi gured using the menu. The HD2107.1 and HD2107.2 models are fi tted 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.

TECHNICAL CHARACTERISTICS

Instrument	
Dimensions	(Length x Width x Height) 140x88x38mm
Weight	160g (complete with batteries)
Materia	ABS
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
Power	Batteries 4 1.5V type AA batteries Autonomy 200 hours with 1800mAh alkaline batteries
Power absorbed	with instrument off 20µA
Measuring unit	°C - °F - ºK
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
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

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.

ORDER CODES

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. m

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...

Temperature probes Pt100 sensor with SICRAM module

Model	Type	Range	Accuracy
TP472I	Immersión	-196 a 500 ºC	±0,25 ºC (-196 a 350 ºC) ±0,4 ºC (350 a 500 ºC)
TP472I.0	Immersión	-50 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP473P.0	Penetration	-50 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP474C.0	Contact	-50 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP475A.0	Air	-50 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP472I.5	Immersión	-50 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP472I.10	Immersión	-50 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP49A	Immersión	-70 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP49AC	Contact	-70 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP49AP	Penetration	-70 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP875	Globe Thermom. ø 150 mm	-10 a 100 ºC	±0,25 ºC

Common characteristics Resolutión 0,1 ºC
Temperature Drift @ 20 ºC 0,003% ºC

4 wire Pt100 and 2 wire Pt1000 Probes

Model	Type	Range	Accuracy
TP47.100	Pt 100 4 wires	-50 a 400 ºC	Class A
TP47.1000	Pt 1000 2 wires	-50 a 400 ºC	Class A

Common characteristics Resolutión 0,1 ºC
Temperature Drift @ 20 ºC Pt100 0,003% ºC
Pt1000 0,005%ºC

HD2127.1 HD2127.2 Termómetros sensor Pt100 - Pt1000 - Ni1000 - NTC con dos entradas

The **HD2127.1** and **HD2127.2** are portable instruments **with two inputs** and a large LCD display. They measure the temperature using immersion, penetration, contact or air probes. The instruments accept input from probes with SICRAM module and Pt100 sensor or probes with direct 4 wire Pt100 sensor. The Pt100 probes are fi tted with SICRAM module and the factory calibration settings are already memorized inside. Upon turning on the instrument automatically detects them. The HD2127.2 instrument is a **datalogger**. It memorizes up to 32,000 pairs of data 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 confi gured using the menu. The HD2127.1 and HD2127.2 models are fi tted with an RS232C serial port and can transfer the acquired measurements to a PC or to a portable printer in real time. The Max, Min and Avg function calculates the maximum, minimum or average values; the A-B function calculates the difference of the temperatures measured by the two inputs A and B. Other functions include: the relative measurement REL, the HOLD function, and the automatic turning off which can also be disabled.
The instruments have IP67 protection degree.

TECHNICAL CHARACTERISTICS

Instrument	
Dimensions	(Length x Width x Height) 140x88x38mm
Weight	160g (complete with batteries)
Materia	ABS
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
Power	Batteries 4 1.5V type AA batteries Autonomy 200 hours with 1800mAh alkaline batteries
Power absorbed	with instrument off 20µA
Measuring unit	°C - °F - ºK
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 **HD2127.2**	
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 **HD2127.2**	
Type	1.1 – 2.0 electrically isolated
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

ORDER CODES

HD2127.1K: The kit is composed of the instrument HD2127.1, connection cable for serial output HD2110CSNM, 4 1.5V alkaline batteries, operating manual, case and DeltaLog9 software.
The probes must be ordered separately.

HD2127.2K: The kit is composed of the HD2127.2 **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.

ORDER CODES

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. m

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...

Temperature probes Pt100 sensor with SICRAM module

Model	Type	Range	Accuracy
TP472I	Immersión	-196 a 500 ºC	±0,25 ºC (-196 a 350 ºC) ±0,4 ºC (350 a 500 ºC)
TP472I.0	Immersión	-50 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP473P.0	Penetration	-50 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP474C.0	Contact	-50 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP475A.0	Air	-50 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP472I.5	Immersión	-50 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP472I.10	Immersión	-50 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP49A	Immersión	-70 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP49AC	Contact	-70 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP49AP	Penetration	-70 a 400 ºC	±0,25 ºC (-150 a 350 ºC) ±0,4 ºC (350 a 400 ºC)
TP875	Globe Thermom. ø 150 mm	-10 a 100 ºC	±0,25 ºC

Common characteristics Resolutión 0,1 ºC
Temperature Drift @ 20 ºC 0,003% ºC

4 wire Pt100 and 2 wire Pt1000 Probes

Model	Type	Range	Accuracy
TP47.100	Pt 100 4 wires	-50 a 400 ºC	Class A
TP47.1000	Pt 1000 2 wires	-50 a 400 ºC	Class A

Common characteristics Resolutión 0,1 ºC
Temperature Drift @ 20 ºC Pt100 0,003% ºC
Pt1000 0,005%ºC