

THERMO - ANEMOMETER DATALOGGER



The HD2103.2 is a Portable Instrument with a large LCD display. It is designed for use in the fields of Air Conditioning, Heating, Ventilation & Environmental Comfort. Hot-wire or Vane Probes are Used to Measure Air Speed, Flow Rate, & Temperature inside pipelines & vents.

The HD2103.2 instrument is a Datalogger. It Memorizes up to 38,000 samples which can be transferred from the instrument connected to a PC via the multi-standard RS232C serial port & USB 2.0. The Storing Interval, Printing, & Baud rate can be configured using the menu.

The HD2103.2 is fitted with an RS232 serial port & can transfer the acquired measurements in real time to a PC or to a portable printer. The Max, Min & Avg function calculate the Maximum, Minimum or Average values.

Model : HD 2103.2

Specifications :

Instrument Technical Characteristics

Display	: 2 x 4 ½ Digit LCD
Measuring Unit	: °C - °F-m/s-km / h-ft / min-mph-knot-l/s m ³ / s-m ³ / min-m ³ / h-ft ³ / s-ft ³ / min
Air Speed Measuring Range	: Depends on type of sensor input
Temperature Measuring Range Using external PT100 Sensor	: -200°C ~ 650°C
Resolution	: 0.1°C
Accuracy	: ±0.1°C
Drift After 1 year	: 0.1°C / Year
Body	: ABS
Operating Temperature	: -5°C ~ 50°C
Working Relative Humidity	: 0 ~ 90% RH
Protection Degree	: IP67
Dimensions (L x W x H)	: 185 x 90 x 40 mm
Weight	: 470g
Batteries	: 4 x 1.5V type AA batteries
Autonomy	: 200 hours with 1800 mAh alkaline
Power Absorbed with instrument off	: 20mA
Probe Connection	: 8 Pole Male DIN 45326 Connector

WIND SPEED MEASUREMENT PROBES

Hot-wire probes: AP471 S1 - AP471 S2 - AP471 S3 - AP471 S4-AP471 S5

	AP471 S1 - AP471 S3	AP471 S2	AP471 S4 AP471 S5
Type of measure	Air speed, calculated flow rate, air temperature		
Type of Sensor			
Speed	NTC thermistor	Omnidirectional NTC thermistor	
Temperature	NTC thermistor	NTC thermistor	
Measurement range			
Speed	0...40m/s	0...5m/s	
Temperature	-30...+110 °C	-30...+110°C	0...80°C
Measurement resolution			
Speed	0.01 m/s 0.1 km/h 1 ft/min 0.1 mph 0.1 knot		
Temperature	0.1 °C		
Measurement accuracy			
Speed	±0.05 m/s (0...0.99m/s)	±0.02m/s (0...0.99m/s)	
	±0.2 m/s ((1.00...9.99m/s)	±0.1m/s (1.00...5.00m/s)	
	±0.6 m/s (10.00...40.0m/s		
Temperature	± 0.4°C (30°C ~ +110°C)	± 0.4°C (-30°C ~ +110°C)	
Minimum speed	0 m/s		
Air temperature compensation	0...80°C		
Battery life	Approx. 20 hours @ 20m/s with alkaline batteries	Approx. 30 hours @ 5m/s with alkaline batteries	
Unit of Measurement			
Speed	m/s -km/h - ft/min - mph - knot		
Flow rate	l/s-m³/s-m³/min-m³/h-ft³/s-ft³/min		
Pipeline section for flow rate calculation	0.0001.....1.9999 m²		
Cable length	~2m		

ORDER CODES :

HD2103.2K : The Kit is composed of the HD2103.2 Datalogger, connection cable HD2101/USB, 4 1.5V alkaline batteries, operating manual, case & 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, 24column thermal printer, 58mm paper width.

Probes Complete with SICRAM Module AIR Speed Measurement Probes

Hot-wire PROBES :

AP471 S1 : Hot-wire telescopic probe, Measuring Range : 0...40m/s. Cable length 2 meters.

AP471 S2 : Omnidirectional Hot-wire Probe, Measuring Range : 0....5m/s. Cable length 2 meters.

Vane probes : AP472 S1... AP472 S2 - AP472 S4....

	AP472 S1...		AP472 S2	AP472 S4...			
	L	H		L	LT	H	HT
Type of measure	Air speed, calculated flow rate, air temperature		Air speed, calculated flow rate	Air speed, calculated flow rate	Air speed, calculated flow rate, air temperature	Air speed, calculated flow rate	Air speed, calculated flow rate, air temperature
Diameter	100mm		60mm	16mm			
Type of measurement							
Speed	Vane		Vane	Vane			
Temperature	K thermo-couple		----	----	K thermo-couple	----	K thermo-couple
Measurement range							
Speed (m/s)	0.6...20	10...30	0.25...20	0.6...20		10...50	
Temperature (°C)	-25...+80 (*)		-25...+80 (*)	-25...+80 (*)	-30...+120 (**)	-25...+80 (*)	-30...+120 (**)
Resolution							
Speed	0.01 m/s 0.1 km/h 1 ft/min 0.1 mph 0.1 knot						
Temperature	0.1°C		----	----	0.1°C	----	0.1°C
Accuracy							
Speed	±(0.1m/s ±1.5% f.s.)		±(0.1m/s ±1.5% f.s.)	±(0.2m/s ±1.0% f.s.)			
Temperature	±0.5°C		----	----	±0.5°C	----	±0.5°C
Minimum speed	0.6m/s	10m/s	0.25m/s	0.60m/s		10m/s	
Unit of Measurement							
Speed	m/s -km/h - ft/min - mph - knot						
Flow rate	l/s-m³/s-m³/min-m³/h-ft³/s-ft³/min						
Pipeline section for flow rate calculation	0.0001....1.9999 m²						
Cable length	~2m						

AP471 S3 : Hot wire telescopic probe with terminal tip for easy position, measuring : 0....40m/s. Cable length 2 meters.

AP471 S4 : Omnidirectional Hot-Wire telescopic probe with base, Measuring Range : 0....5m/s. Cable length 2 meters.

AP471 S5 : Omnidirectional Hot-Wire telescopic probe, Measuring Range : 0....5m/s. Cable length 2 meters.

Vane Probes

AP472 S17: Vane probe with thermocouple ø 100mm, Speed from 0.6 to 20m/s ; Temp. from -25°C ~ 80°C, Cable length 2 meters.

AP472 S1H : Vane probe with thermocouple ø 100mm, Speed from 10 to 30m/s ; Temp. from -25°C ~ 80°C, Cable length 2 meters.

AP472 S2 : Vane probe, ø 60mm, Measurement Range : 0.25..20m/s Cable Length 2 meters.

AP472 S4L : Vane probe, ø 16mm, Speed from 0.6 to 20m/s. Cable length 2 meters.

AP472 S4LT : Vane Probe with thermocouple, ø16mm, speed from 0.6 to 20m/s. Temperature from -30°C ~ 120°C with thermocouple K sensor, Cable length 2 meters.

AP472 S4H : Vane probe, ø 16mm, Speed from 10 to 50m/s. Cable length 2 meters.

AP472 S4HT : Vane probe with thermocouple, ø16mm Speed from 10 to 50m/s. Temperature from -30°C ~ 120°C with thermocouple K sensor, Cable length 2 meters.