

Thermo-Anemo-Manometer MP 200



Ask
about: Calibration
certificate



Advantages

- Interchangeable measurement modules
- User-friendly (Joystick navigation)
- Large graphic display
- Large **ICE Blue** backlight
- Up to 8,000 measurement points
- Up to 6 measurements simultaneously
- Instrument/PC wireless communication

Connection



Interchangeable measurement modules

1 instrument = more than 1 range and 1 parameter available.



Wireless connection

Instrument / PC



Smart-plus system

Probes automatically recognized when connected to the instrument.

The Thermo-Anemo-Manometers

MP 200 HP – ± 800 inH₂O (2000 mBar)



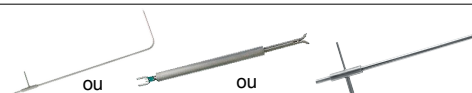
Thermocouple temperature module – 4 channels



Current / voltage module



Pitot tubes – Large choice



Thermocouple temperature probes – Large choice



CO / Temperature probe



CE



Functions

Manometer



PRESSURE

- Automatic self-calibration with solenoid valve (MP200 P)
- Manual self-calibration (MP200 M, MP200 G)
- Selection of units
- Pressure integration (0 to 9)
- Point/point average
- Automatic point/point average
- Automatic average
- Minimum / maximum values, hold, standard deviation
- Storage



AIR VELOCITY AND AIRFLOW

- Large choice of Pitot tube or Debimo blades or factor for other sensing elements
- Selection of duct type
- Selection of units
- Point/point average
- Automatic point/point average
- Automatic average
- Manual or automatic temperature balancing.
- Manual air pressure balancing.
- K2 Factor
- Minimum / maximum values, hold, standard deviation
- Storage



Thermometer

PRESSURE MODULE

- See pressure function above
- Storage of 1 thermocouple K, J or T channel

THERMOCOUPLE MODULE

- Selection of units
- Audible alarm (2 setpoints)
- Large choice of thermocouple type
- Dynamic delta T, minimum / maximum values and hold function
- Storage of 4 thermocouple K, J or T channels

Current / voltage module

- Adjustable ranges
- Minimum / maximum values and hold function
- Storage



CO / temperature probe

- Audible alarm (2 set points)
- CO maximum
- Minimum / maximum values and hold function
- Storage

Datalogger-10

- Multi-parameters recording
- Manual and automatic storage
- Memory : up to 8,000 measurement points or 50 datasets
- User-friendly with printing of customized report
- Management of instruments pool, follow-up of calibration periods
- Intervention planning
- Wired or wireless interface



Technical features

Sensing elements

Pressure module :

Piezo-resistive sensor

- Overpressure allowed ± 500 Pa : 250 mBar
- Overpressure allowed ± 2500 Pa : 500 mBar
- Overpressure allowed $\pm 10,000$ Pa : 1200 mBar
- Overpressure allowed ± 500 mBar : 2 Bar
- Overpressure allowed $\pm 2,000$ mBar : 6 Bar

Connection

- 2 pressure connectors $\varnothing 6,2$ mm made of nickelled brass
- 2 pressure threaded connectors $\varnothing 4,6$ mm of nickelled brass
- + 1 thermocouple temperature input for miniature connectors

Thermocouple module :

- Connection :** 4 thermocouple temperature inputs for thermocouple miniature connectors Type K, J or T Class 1 (IEC 584-3 norm)

Current / voltage module :

- Connection :** 2 stereo jacks

MP200 connection

On the top :

- 2 secured mini-DIN connectors for SMART-Plus probes

Left side :

- 1 USB port for EIG cable only
- 1 power supply plug

Display

- Graphic display 128x128 pixels
- Dim. 50 x 54 mm
- Blue backlight
- Display of 6 measurements (including 4 simultaneously)

Housing

- Shock-proof made of ABS
- IP54

Keypad

- Metal-coated,
- 5 keys
- 1 joystick

Conformity

- Electromagnetical compatibility
- (NF EN 61326-1 norm)

Power supply

- 4 alkaline batteries 1.5V LR6 Included

Operating environment

- Neutral gas

Operating temperature

- from 0 to $+122^{\circ}\text{F}$

Storage temperature

- from -4 to $+176^{\circ}\text{F}$

Auto shut-off

- adjustable from 0 to 120 min

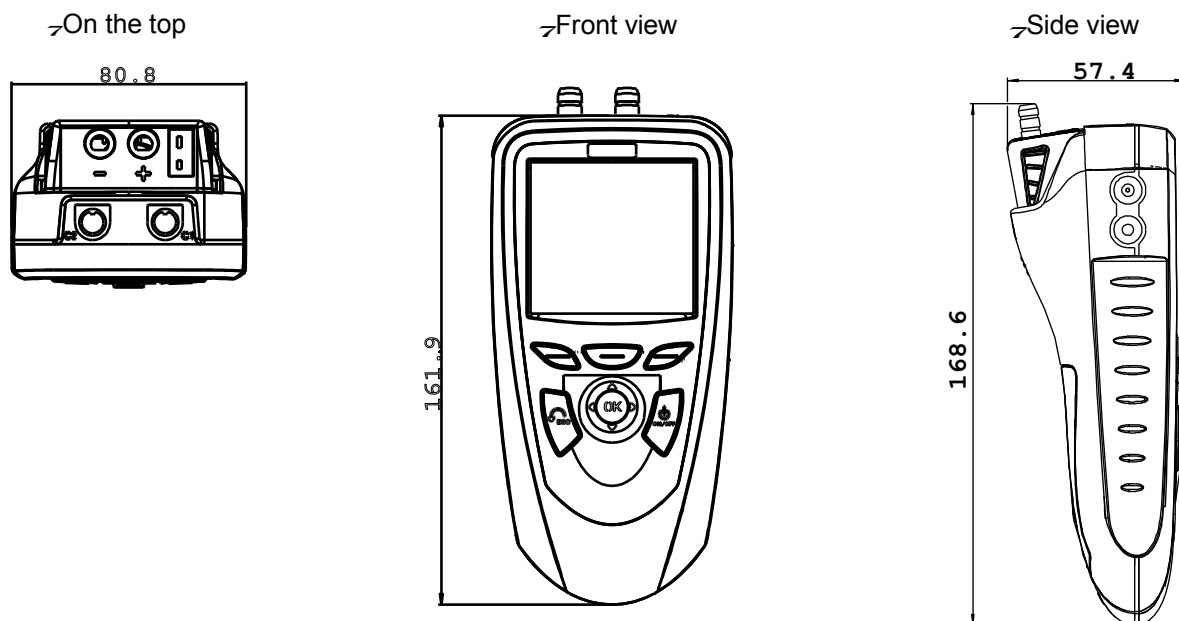
Weight

- 6.7 oz.

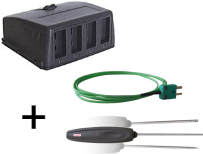
Languages

- English, French, Dutch, German, Italian, Spanish, Portuguese, Swedish, Norwegian, Finn, Danish

Dimensions



Specifications

	Measuring Units	Measuring Range	Accuracy*	Resolutions
PRESSURE				
	Pa, mmH ₂ O, In WG, mbar, hPa, mmHg, DaPa, kPa, bar, PSI	from 0 to ±500 Pa from 0 to ±2,500 Pa from 0 to ±10,000 Pa from 0 to ±500 mBar from 0 to ±2,000 mBar	± 100 Pa : ±0.2% of reading ±0.8Pa, beyond ±0.2% of reading ±1.5Pa, ±0.2% of reading ±2Pa ±0.2% of reading ±10Pa ±0.3% of reading ±0.5mBar ±0.3% of reading ±2mBar	0.1 Pa from -100 to +100 Pa, 1 Pa beyond 1Pa 1Pa 0.1mBar 1mBar
PITOT TUBE				
Air velocity	m/s, fpm, Km/h, mph	from 2 to 5 m/s from 5.1 to 100 m/s	±0.3 m/s ±0.5% of reading ±0.2m/s	0.1 m/s 0.1 m/s
Airflow	m ³ /h, cfm, l/s, m ³ /s	from 0 to 99,999 m ³ /h	±0.2% of reading ±1% PE	1 m ³ /h
DEBIMO BLADE				
Air velocity	m/s, fpm, Km/h, mph	from 4 to 20 m/s from 21 to 100 m/s	±0.3 m/s ±1% of reading ±0.1m/s	0.1 m/s 0.1 m/s
Airflow	m ³ /h, cfm, l/s, m ³ /s	from 0 to 99,999 m ³ /h	±0.2% of reading ±1% PE	1 m ³ /h
CURRENT / VOLTAGE				
	V, mA	from 0 to 2.5 V from 0 to 10 V from 0 to 4/20 mA	±2mV ±10mV ±0.01mA	0.001 V 0.01 V 0.01 mA
THERMOCOUPLE (See related datasheet)				
	°C, °F	K: from -200 to 1300°C J: from -100 to 750°C T: from -200 to 400°C	±1.1°C or ±0.4% of reading** ±0.8°C or ±0.4% of reading** ±0.5°C or ±0.4% of reading**	0.1 °C 0.1 °C 0.1 °C
CO / Temperature				
	Temp. °C, °F CO ppm	from -20 to +80°C from 0 to 100 ppm from 100 to 1,000 ppm	±0.4% of reading ±0.3°C ±5ppm ±3% of reading ±5ppm	0.1 °C 0.1 ppm 1 ppm

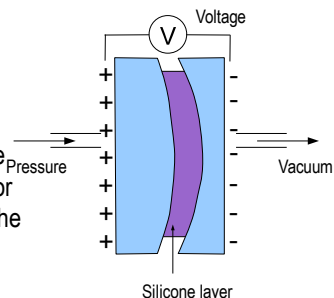
*All accuracies indicated in this document were stated in laboratory conditions and can be guaranteed for measurements carried out in the same conditions, or carried out with required compensation.

**The accuracy is expressed either by a deviation in °C, or by a percentage of the value concerned. Only the bigger value is considered.

Working principle

Piezoresistif sensor

Piezoresistif sensor is a diaphragm formed on a silicone substrate, which bends with applied pressure and generates millivoltage or millicurrent proportional to the pressure applied.



Pitot tube

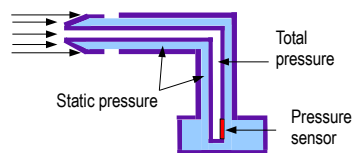
Dynamic pressure is measured by Pitot tube :

P_d = Total pressure – Static pressure

Velocity is calculated according to Bernoulli simplified formula.

Formula with temperature correction :

$$V_{ms} = K \times \sqrt{\frac{P_d}{P_0}} \times \sqrt{\frac{T_0}{T}} \text{ en Pa}$$



P_0 = Barometric pressure in Pa
 T = Temperature in °C
 K = Pitot tube coefficient

Supplied with...

● Supplied with ○ Option

DESCRIPTION	MP 200 P	MP 200 M	MP 200 G	MP 200 H	MP 200 HP
Pressure module from 0 to ±500 Pa	●				
Pressure module from 0 to ±2,500 Pa		●			
Pressure module from 0 to ±10,000 Pa			●		
Pressure module from 0 to ±500 mBar				●	
Pressure module from 0 to ±2000 mBar					●
Thermocouple temperature module	○	○	○	○	○
Current / Voltage module	○	○	○	○	○
SMART-Plus CO / Temperature probe	○	○	○	○	○
Pitot tube Ø 6mm, lg. 300 mm	○	○	○	○	○
Pitot tube Ø 6mm, lg. 300 mm T	○	○	○	○	○
Pitot tube Ø 6mm, lg. 300 mm S	○	○	○	○	○
Thermocouple K, T and J probe	○	○	○	○	○
8 rechargeable batteries with charger	○	○	○	○	○
2x1 m silicone tube Ø 4 x 7 mm	●	●	●	●	●
Stainless steel tip Ø 6 x 100 mm	●	●	●	●	●
Calibration certificate	●	●	●	●	●
Transport Case	●	●	●	●	●

Large choice of temperature probes (See related datasheet) :

- ambient
- contact
- penetration
- Food industry penetration
- General use



Accessories (See related datasheet)

Datalogger-10	KPIJ 20 – 50 – 100 – 200 – 600	RTS	KCTJ10 - KCTJ02
Datalogger-10 PC software for data recording and processing. Wired (LPCF) or wireless (LPCR) interface.	Ammeter clamp with PVC cable lg. 2m and jack connector.	Telescopic extension, length 1 m, bent at 90° for measuring probe.	Input cable current (KCTJ02) or voltage (KCTJ10) with PVC cable lg 2 m and jack connector
CE 200	GST	ADS	See related datasheet
Hands-free protective cover	Silicone heat conductive grease for temperature probes	Adaptor for power supply 230 Vac	Debimo airflow blades of different sizes
See related datasheet	JAC	CHA	
Pitot tube available in many lengths Ø 3 – 6 or 8 mm, with or without temperature compensation	Set of 4 LR6 batteries	4 batteries AC charger	

Warranty period

Instruments have 1-year guarantee for any manufacturing defect (return to our Service Department).

E Instruments International

P: 215-750-1212 F: 215-750-1399 A: 402 Middletown Blvd, Ste 216, Langhorne, PA 19047

www.E-Inst.com