

HP125 Series

RH, Temperature, Pressure and Dew/Frost Point Measurement

The HP125 Series from Edgetech Instruments is the next generation of precision probes, offering rapid and accurate measurements of up to four parameters using a single smart sensor.

The HP125 measures relative humidity, temperature, pressure and two ranges of calculated dew/frost point temperature. The HP125 Series remote Smart Probe incorporates a rugged capacitive humidity sensor plus temperature and pressure sensors that are resistant to most chemicals. It has a wide operating temperature range of -40°C to 125°C ensuring excellent calibration accuracy and long term stability.

The HP125 Series is designed to serve wide ranging industrial applications including compressed air, environmental chambers, furnaces, building automation/HVAC and a wide variety of relative humidity and temperature monitoring applications. Its field replaceable Smart Sensor Tip module allows the end user to replace the probe's sensors with ease, on-site while maintaining $\pm 1.8\%$ RH accuracy and NIST traceability, eliminating the need for time consuming and costly factory calibration while reducing downtime during service intervals.

The HP125 Smart Probe can also be supplied with an optional remote display module that indicates measured parameters and provides current and voltage analog output signals, serial RS232 interface and two programmable alarm relays.

All Edgetech Instruments Inc.'s sensor probes and display modules are manufactured and supported in the USA in a modern, ISO 9001:2008 registered facility with an ISO/IEC 17025:2005 accredited calibration laboratory. The HP125 series is supplied with a NIST traceability calibration certificate.

Features:

- RH, temperature and pressure Smart Probe
- Calculated dew/frost point temperature
- Four simultaneous 0-10 Vdc output signals
- RH accuracy $\pm 1.8\%$
- Operating temperature -40°C to 125°C
- NIST traceable calibration
- Field-replaceable Smart Sensor Tip
- Excellent chemical resistance
- Low cost of ownership
- Easy installation



The HP125 Series Smart Probe

Applications:

- Compressed air
- Furnaces
- Environmental chambers
- HVAC/building controls
- Clean rooms
- Pharmaceutical
- Laboratories
- Energy managements systems
- Enthalpy control

[Click here](#) for HP125 installation notes.



 **Edgetech Instruments**

ISO/IEC 17025:2005 Accredited
ISO 9001:2015 Registered

Technical Specifications

Probe Options:

HP125 Series: RH, Temperature, Calculated Dew/Frost Point Temperature

HPP125 Series: Pressure, RH, Temperature, Calculated Dew/Frost Point Temperature

HPB125 Series: Barometric Pressure, RH, Temperature, Calculated Dew/Frost Point Temperature

Measurement Range:

Relative Humidity:

0-99.9% non-condensing

Temperature:

-40°C to +125°C (-40°F to 257°F)

Dew/Frost Point:

-40°C to +95°C (-40°F to 203°F)

Pressure:

600 to 1200 mbar (HPB125 Series)

0 to 400 psia (0 to 27.6 bar) (HPP125 Series)

Accuracy:

Relative Humidity:

±1.8% @ 23°C (0 TO 90% RH)

Temperature:

±0.5°C

Pressure:

±1 mbar from 600 to 1200 mbar at 25°C

±5 mbar over -40°C to +125°C range

Dew/Frost Point:

±1°C from -10°C to 95°C

±2°C from -40°C to -10°C

Operating Range:

Temperature: -40°C to +125°C (-40°F to 257°F)

Pressure: 800 psig (55 barg) maximum

Environmental: dust and water resistant

Media: most gases

Power & Outputs:

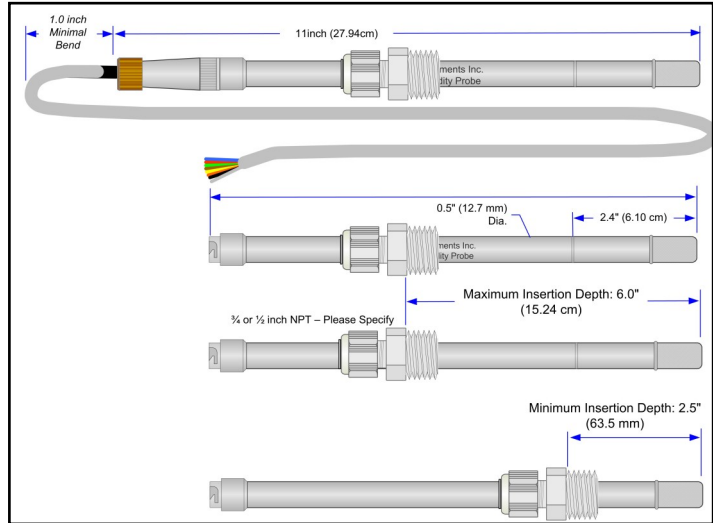
Supply: 24 Vdc ±10% unregulated, 50 mA max

Connection 22 AWG wire leads, within single shielded cable

Analog Outputs: 0 to 10 Vdc

Analog Output Cable: 1 common, 4 signal

Serial Output: RS-232, space delimited, 10 sec.



The HP125 Series Smart Probe

General:

Speed of Response: 6-12 sec., flow dependent

Life expectancy: in excess of 5 years, duty dependent

Storage Temperature: -20°C to +50°C (-4°F to 122°F)

Cable Length: 1m (3ft) standard, additional length supplied on request

Sensor Tip Filter: sintered stainless steel, 100 micron porosity, easily removable for cleaning or replacement

Wetted Materials: 316 stainless steel plus sensor components

Enclosure: 316 stainless steel

Supplied Pipe Fittings: 1/2" male NPT standard, 3/4" inch male NPT optional

Insertion Length: adjustable from 2.5' to 6"

Dimensions: 11" (27.9 cm) L; 0.5" (12.7 mm) D

Weight: 6.9 ounces (197 g)



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