



Suitable for agricultural applications – building controls – coastal & harbours – commercial applications – energy – safety controls – transport

Datasheet

MET-THB-HS

Temperature humidity & barometric sensor

This high-specification temperature humidity and barometric sensor is compatible with RS-422 output for meteorological applications.

The MET-THB-HS is the most accurate combined instrument, mounted inside a three doubled louvered naturally aspirated radiation shields. This enables high-response time for each measurement.

Measurements

This sensing solution measures accurate air temperature ($\pm 0.10\text{C}$ accuracy), has a fast response, measures 0-100% humidity ($\pm 3\%$) and does absolute barometric readings (2,000mbar).

The system construction is designed to operate in extreme weather conditions. The device also provides a comprehensive configuration and a calibration interface to facilitate the requirements of sensors matching and adjustments.

Sensing elements

The MET-THB-HS consists of a platinum RTD sensing element for temperature sensing, one capacitive humidity sensor and one piezo-resistive pressure sensor. The sensor array is mounted inside a 128mm radiation shield.

Field applications

The MET-THB-HS is a lightweight, robust and compact instrument designed for a wide variety of high-accuracy applications:

- Agricultural
- Building controls
- Coastal & harbors
- Commercial applications
- Energy
- Safety controls
- Transport



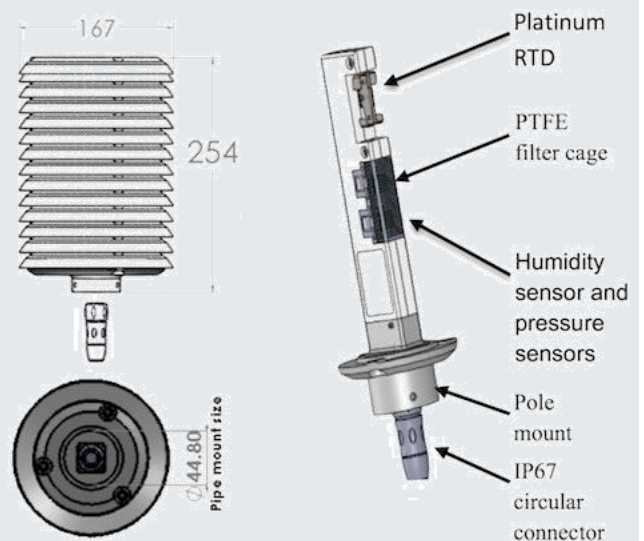
Electrical specifications

Supply Voltage	8V to 24VDC
Current	6-10mA @ 12VDC
Communication (data output)	RS422(4-wire) up to 200m
Physical connector	6-pin circular IP67
Data format	Start (*), sensor ID, temperature, humidity, barometric, end (:)+CR+LF.



Physical specifications

Dimensions	254L x 167Dia
Mount type	44mmDia pipe mount



Air temperature sensor

Measurement range	-20°C to +70°C
Accuracy	±0.1C
Temperature resolution	0.01C
Response time	4 seconds per 10°C
User calibration available	Yes, offset and gain
Measurement speed	1s to 256s

Humidity sensor

Measurement range	0 to 100% RH
Accuracy all	±3%
Relative humidity accuracy	±2% @25°C (20%RH to 80%RH)
Relative humidity resolution	0.04% RH
Response time	10 seconds
Temperature coefficient	-0.15% RH/°C (from 0°C to 80°C)
User calibration available	Yes, offset and gain
Measurement speed	1s to 256s

Barometric pressure sensor

Measurement range	10 to 2,000mbar
Absolute accuracy	±4mbar
Resolution	0.1mbar
Response time	500ms
User calibration available	Yes, offset and gain
Measurement speed	1s to 256s



Welcome to the world of Observator

Solutions beyond expectations. That's what sets Observator apart. We believe in taking the extra step. Retaining our competitive edge, through innovation and uncompromised support, are key to success. As an ISO 9001:2015 certified company, we apply the highest quality standards to our products and systems.

Since 1924 Observator has evolved to be a trend-setting developer and supplier in a wide variety of industries. From instruments for meteorological and hydrological solutions, air and climate technology, to high precision mechanical production, window wipers and sunscreens for shipping and inland applications.

Solutions beyond expectations

Originating from the Netherlands, Observator has grown into an internationally oriented company with a worldwide distribution network and offices in Australia, Germany, the Netherlands, Singapore and the United Kingdom.

www.observator.com