# Texas Electronics

*"Relied on Worldwide in the Most Extreme Conditions"*

## Ambient Air Temperature & Humidity

### TTH-1315 Temperature Humidity Sensor



## Description

The Texas Electronics, Inc. Model TTH-1315 Sensor utilizes a Vaisala HMP60 Humidity Temperature Probe with interchangeable sensing elements that do not require calibration.    The unit is encased in a corrosive-resistant spun aluminum radiation shield that allows for wind aspiration and protection from the sun's UV rays. The shield is finished in white powder-coat to provide for virtual cosmetic invisibility while reflecting much of the radiant heat from surrounding objects and the sun.    Overcurrent protection is provided in a NEMA 4X enclosure that is mounted to the angled mounting bracket on the sensor. Tranzorbs are utilized to protect the sensor and signal conditioning units in an overcurrent situation.    With DC voltage applied to the sensor, the unit will return signal voltages that are linear to the range of the instrument. Signal conditioning is applied to ensure proper voltages are returned and can be amplified or modified to a current output to connect to any analog signal processing unit.

## Specifications

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|---|---|
| Sensor | Viasala INTERCAP HMP60 |
| Sensor Protection: | Stainless steel sintered filter |
| Measuring Range: | 0 to 100% Relative Humidity |
| | 40° to +140°F (-40° to +60°C) |
| Analog Output Signals: | 0 to 1 V |
| Analog Signal Resolution: | 0.02% RH & 0.1°F |
| Operating Limits: | Same as measuring range |
| Accuracy: | +/- 1.5% RH and +/- 0.5°F / 0.3°C |
| Repeatability: | Better than 0.5% RH and 0.1°C / 32.18°F |
| Protection Grade: | IP65 |
| Supply Voltage: | 5 to 28 VDC |
| Current Consumption: | 1 mA average, max. peak 5 mA |
| Minimum Excitation Time: | 4s |
| EMC Compatibility (CE): | EN 61326-1 |
| Material: | Powder-coat, White Aluminum |
| Dimensions: | 12" Height |
| Diameter: | 7¼" |
| Warranty: | 3 years |

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## Features & Benefits

- Combines temperature and humidity in one sensing unit
- Vaisala HMP60 has interchangeable sensing elements requiring no calibration
- Stacked plate construction of shelter provides natural ventilation
- Quick-release mounting bracket allows for easy installation and maintenance
- Aluminum radiation shield is lightweight and extremely durable
- White powder coat finish reflects most radiant heat from sun and surrounding objects

## Installation & Maintenance

The radiation shield with sensing element can be pole or mast mounted. Whenever possible, sensors should be installed at a height of 4 ft. (1.2 meters) or greater over earth or sod at least 100 ft. (30.48 meters) away from any concrete or other hard-surfaced area and not closer to any other object than four times the height of the object above the instrument shelter or remote sensors. Avoid roof installations if possible. If it is necessary to roof-mount shelters and sensors, they should not be closer than 30 ft. (9.14 meters) to any large, vertical reflecting surface (walls, etc.), exhaust fans, or cooling towers. Electronic remote sensors, when roof-mounted, should be installed at least 9 ft. (2.74 meters) or greater above the roof surface. To minimize radiation effects from the roof, they can also be mounted on a horizontal boom so they extend from the side of the building roof or tower assembly.

## ORDERING INFORMATION

Model #:

| | |
|---|---|
| TTH-1315 | Temperature & Humidity Sensor |
| TTH-1315-A | Temperature & Humidity Sensor, 4-20 mA |

Optional Parts / Accessories

Radiation Shield Assembly
Vaisala HMP60 Humidity & Temperature Probe