



Texas Electronics, Inc.

The Gold Standard in Weather Instrumentation Since 1957

Relative Humidity

TH-2013-QR Humidity Sensor



Description

The Texas Electronics, Inc. Model TH-2013-QR Relative Humidity Sensor consists of two major components; the sensing element and the radiation shield. The capacitive sensing element and its signal conditioning electronics are housed in an ABS plastic, IP65 probe-like housing. The element is protected from dust, dirt and debris by a filter and a metal shield. This assembly is mounted inside an all-aluminum radiation shield with a white baked-enamel finish. This shield keeps sunlight from directly hitting the element or the probe housing, as well as providing substantial physical protection from rain, hail, small animals, etc.

The capacitive sensing element can be easily replaced in the field with no calibration needed. The elements are interchangeable with no degradation in accuracy. The quick-release mounting bracket allows for ease in maintaining the unit.

Features & Benefits

- Interfaces to virtually all data acquisition systems
- Capacitive sensing element, interchangeable with no loss of accuracy
- Sensing element and signal conditioning encased in ABS probe housing
- Quick-release mounting bracket for easy installation and maintenance
- Over 5 years in production
- Lightweight spun Aluminum Exterior with white baked-enamel finish

Specifications

Range:	0-100% Relative Humidity
Accuracy:	+/- 3% with +/- stability per year over 10% to 90% range
Power Supply:	7 - 28 VDC
Output:	0-1 VDC
Wiring:	Brown - Signal Black - Common Red - Excitation
Environmental Range:	Temperature +14° to +140°F, -32° to +194°C
Physical:	Height: 6.75" (17.1 cm) not including mounting bracket Diameter: 7.25" (18.4 cm) Weight: 3.5 lb. (1.587 kg) Cable: 60 ft. (18.29 meters), 3-conductor Materials: Element - encased in ABS plastic
Warranty:	3 year

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 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 that they will extend from the side of the building roof or tower assembly.

Because of the interchangeability and the ease with which the elements can be replaced, it is recommended that the element be replaced every two to three years to maintain accuracy. No further calibration is required.

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Ordering Information

<u>Model #</u>	<u>Description</u>
TH-2013QR	Relative Humidity Sensor with Quick-Release Mounting Bracket

Optional Parts / Accessories

Humitter 50U	Humidity Sensing Element with probe housing & signal conditioner
H50	Interior Humidity Sensing element only
Cable	Additional Cable