

GE Sensing

Features

- Waterproof sensing element and housing
- Compact transmitter with built-in sensor
- Bulk polymer resistance RH sensor
- Resistant to contamination
- Thermistor temperature measurement
- Temperature compensation

Applications

- Greenhouses
- Textile mills
- Food processing
- Shipping containers

- Swimming pools
- Hospital suites

The EHRH Relative Humidity Transmitter is a waterproof RH sensing element and package which is ideally suited for monitoring relative humidity in high RH/harsh environment applications or where washdowns are required. The unit is designed for continuous monitoring of relative humidity and temperature and is available in $\pm 2\%$ accuracy.

Both the sensor and electronics are contained in an epoxy-hardened enclosure designed for continuous service. A water-tight membrane filter is installed over the RH sensor for increased protection against high RH, contaminants and washdowns. The unit is designed to withstand 100% saturation.

The sensor incorporates a bulk polymer resistance element. The polymer is impervious to most contaminants and, since it is a bulk resistance device, surface contamination such as dust will not alter the accuracy of the readings.

The unit is provided with continuous temperature compensation which adjusts for temperature-induced change in the RH sensor output. The compensation provides high measurement accuracy over the entire operating range of the instrument.

EHRH

General Eastern Waterproof RH Transmitter

EHRH is a General Eastern product. General Eastern has joined other GE high-technology sensing businesses under a new name—GE Industrial, Sensing.



EHRH Specifications

Humidity

Sensing Element

Resistance change of bulk polymer sensor

Accuracy at 77°F (25°C)

±2% RH. 30 to 95% RH including hysteresis, linearity, and repeatability.

Temperature Effect

Less than 0.11% per °F (0.06% per °C)

Sensitivity

0.1% RH

Repeatability

0.5% RH

Linearity

See accuracy

Hysteresis

Less than 1%

Operating Range, Sensor & Electronics

0% to 100% RH, -20°F to 54°F (-4°C to 129°C)

Maximum Air Velocity

10,000 ft/minute (3,048 m/minute)

Output Ranges

4 to 20 mA current, two-wire, loop-powered for 0 to 100% RH (standard) into 0 to 900 Ω

Adjustment

Zero

±20%, non-interactive

Span

±10%, non-interactive

Long Term Stability

Less than 2% drift per year typical

Power Supply

Voltage

12 to 36 VDC

Wiring Connection

Deutsch four-position waterproof connector (For front wiring only—flying leads for back wiring).

Storage Temperature

-65°F to 70°F (-85°C to 158°C)

Temperature

Sensing Element

Thermistor, 10 kΩ at 77°F (25°C), two-wire measurement

Accuracy at 77°F (25°C)

±0.5°F (±0.3°C). Also available with 100 (RTD with 4 mA to 20 mA analog output).

Consult factory for further information.



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