

Saturated Environment Relative Humidity Transmitter

- ✓ Waterproof Sensing Element and Housing
- ✓ Compact Transmitter with Built-in Sensor
- ✓ Bulk Polymer Resistance RH Sensor
- ✓ RTD Temperature Measurement Sensor
- ✓ Temperature Compensation
- ✓ Resistant to Contamination

HX98-1
Starts at
£315



Applications

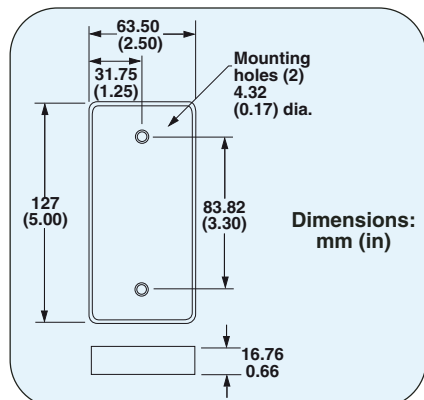
- ✓ Greenhouses
- ✓ Textile Mills
- ✓ Food Processing
- ✓ Shipping Containers
- ✓ Swimming Pools

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



Specifications

Humidity Sensing Element: Resistance change of bulk polymer sensor

Temperature Sensing Element: 100 Pt RTD

PERFORMANCE

Accuracy: @ 25°C (77°F) $\pm 2\%$ RH (30 to 95% RH including hysteresis, linearity and repeatability); $\pm 0.5^\circ\text{C}$

Temperature Effect: Less than 0.11% per $^\circ\text{C}$ (0.06% per $^\circ\text{F}$)

Sensitivity: 0.1% RH

Repeatability: 0.5% RH

Linearity: See accuracy

Hysteresis: Less than 1%

OPERATING RANGE

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

Max. Air Velocity: 10,000 ft/min

Output Ranges: 2-wire, loop-powered; 4 to 20 mA for 0 to 100% RH into 0 to 900 Ω ; 4 to 20 mA for -25 to 60°C (-20 to 140°F)

ADJUSTMENT

Zero: $\pm 20\%$, non-interactive

Span: $\pm 10\%$, non-interactive

Long-Term Stability: Less than 2% drift per year typical

POWER

Supply Voltage: 12 to 36 Vdc

Max Load: Ω = supply -10 Vdc x 50 A

Note: Minimum supply voltage of 15 Vdc is required for 10 V output units

HX98-1, £315, shown smaller than actual size.

Wiring Connection:

Deutsch 4-position waterproof connector (mating connector provided) (For front wiring only; flying leads for back wiring)

Storage Temperature:

-65 to 70°C (-85 to 158°F)

Optional Case: 304 SS (HX98-CASE), protects face from mechanical damage

MOST POPULAR MODEL HIGHLIGHTED!

To Order (Specify Model Number)		
Model No.	Price	Description
HX98-1	£315	RH/Temperature transmitter (front wiring)
HX98-2	315	RH/Temperature transmitter (rear wiring)
HX98-CASE	61	304 SS case, 0.06" thick
HX98-MC	6.70	Spare mating connector
PSR-24S	40	Regulated power supply, 24 Vdc, 400 mA, screw terminal
PSR-24L	40	Regulated power supply, 24 Vdc, 400 mA, UL stripped leads
PSR-24L-230	40	Regulated power supply, 24 Vdc, 400 mA, stripped leads, 230 Vac input, CE
PSU-93	27	Unregulated power supply, 16 to 23 Vdc, 300 mA max, screw terminal
CE-1201	101	Reference Book: Standard Handbook for Civil Engineers

Comes with complete operator's manual.

To order NIST-calibration add suffix "-NIST" to model number and add £84 to price.

Ordering Example: HX98-1-NIST, RH/TEMP transmitter (front wiring), with HX98-MC, spare mating connector and NIST traceable calibration, £315 + 6.70 + 84 = £405.70.

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• Heaters

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