

WATERLOG®

YSI *incorporated*

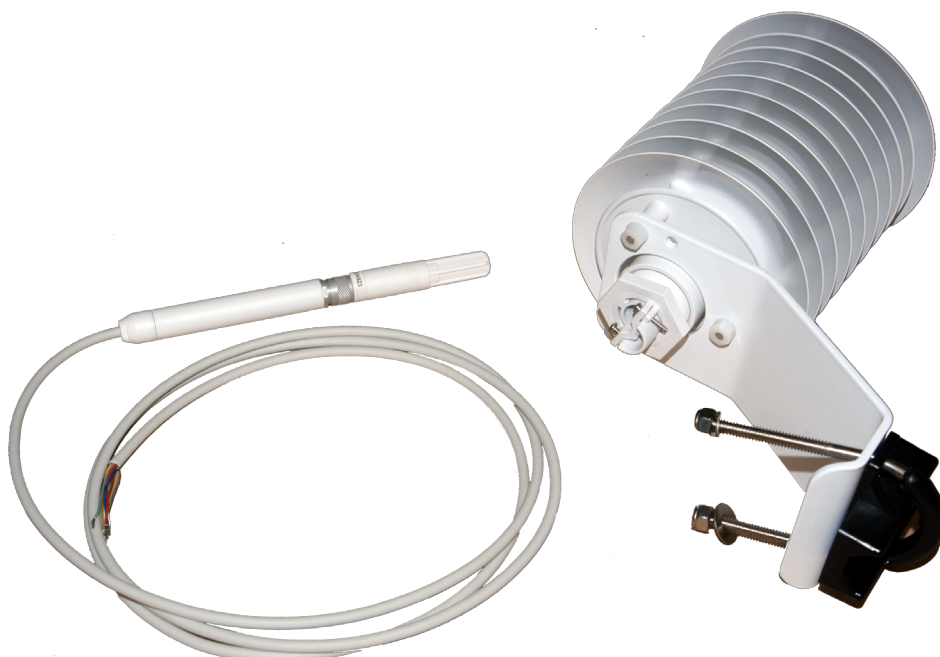
MODEL H-380

Relative Humidity / Temperature Probe & Radiation Shield

The WaterLOG® Model H-380 Relative Humidity/Temperature Probe combines a high accuracy, capacitance type humidity sensor and temperature sensor in one probe. It is a well proven, accurate and durable sensor.

KEY FEATURES

- Reliable data acquisition and long term calibration-free operation
- Well proven humidity sensor resists condensation and contaminants
- Temperature measurement with precision RTD probe provides fast response and high accuracy
- Linear voltage or current output signals for transmission over long distance
- Operating temperature range of -40° to 85° C
- Fully interchangeable HygroClip module is quickly replaced in the field with no loss of accuracy and no calibration
- Sealed, corrosion-resistant, and nonconductive enclosure
- Digital and analog outputs
- Low heat absorption color



H-380 shown with H-380-SS Radiation Shield

| DATA INPUT | |
|--|--|
| Humidity Sensor | Rotronic Hydromer® C94 (capacitive) |
| Temperature Sensor | RTD Pt100 Ohm, 1/3 DIN |
| Sensor Protection | Wire mesh filter (standard) / foam filter (optional) |
| Measuring Range | 0 to 100 % RH and -40° to 185° F (-40° to 85° C) |
| Accuracy at 23° C (73° F) | ± 0.8% RH and ±0.1° C / 0.5° standard calibration |
| Operating Range | -50° C to 100° C |
| Repeatability | Better than 0.5% RH and 0.1 degrees F(degrees C) |
| DATA OUTPUT | |
| Analog Output Signals: (Minimum load > 10 k Ohm) | 0 to 100% RH = 0 - 1V -40° to 60° C = 0-1V (-40° to 85° C = 0-1.25V) |
| Digital Output/Input Signal | UART |
| Analog Signal Resolution | 0.02% RH and 0.06 degrees C |
| Digital Signal Resolution | 0.004% RH and 0.004 degrees C |
| Sampling Time | < 0.7 seconds |



| MECHANICAL DATA | | |
|-------------------------|---|--|
| Physical | Maximum Cable Length | 15 ft. (5m.) for direct output up to 325 ft. (100m.) with signal amplifier |
| | Connection Type | Bayonet cap on mounting connector |
| | Material | Polycarbonate, white |
| | Dimension | Length: 3.94 in. (100mm.) Diameter: 0.59 in. (15mm.) |
| | Weight | 0.5 oz. (14g.) |
| Power | Protection Grade | IP65 (probe to connector) |
| | Supply Voltage | 3.5 - 50 VDC |
| | Current Consumption | < 4mA |
| | Minimum Excitation Time | < 4 seconds |
| | EMC Compatibility (CE) | EN-50081-2, EN50082-2 |
| Radiation Shield | The H-380-SS is a natural aspiration shield. Optimum protection against rainfall and sunshine. Suitable for horizontally incident rain up to 68 km/h. | |
| | Construction | UV stabilized white thermoplastic plates aluminum mounting bracket, white stainless steel U-bolt clamp. |
| | Dimensions | 4.7 in. (12cm.) diameter x 10.6 in. (27 cm.) high Mounting fits vertical pipe 1-2 in. (25 to 50 mm.) diameter. |
| | Weight | Net weight 1.5 lbs. (0.7 kg.) |
| | MISCELLANEOUS | |
| Other | The probe is a digital humidity temperature plug-in probe with two analog output signals and a one-wire digital output. | |
| Warranty | The WaterLOG® H-380 is warranted against defects in materials and workmanship for one year from date of shipment. | |
| Note | Specifications subject to change without prior notice due to ongoing commitment to product testing and improvement. LR February 15, 2011. D46 0211. | |