

Wall Humidity Humidity/Temperature

- 3% accuracy
- 4-20mA and 0-5/10V RH/Temp (RTD/thermistor options)
- Optional LCD and Override
- Field replaceable element



DESCRIPTION

The HW Series is designed to monitor indoor relative humidity and temperature conditions and provide a proportional 4-20mA or 0-5/10V output. The sensor includes a field replaceable RH sensing element and optional add-on features including LCD, override button, temperature transmitter and RTD/thermistors to match project requirements. The LCD version includes options for provisional offsets for temperature (+/-5°) and RH readings (+/-5%) for in-field calibration.

APPLICATIONS

- HVAC room humidity and temperature measurement and control
- Energy management/building control

FEATURES

Easy to install and maintain

- Dual 4-20mA and 0-5/0-10V output (jumper selectable)

3% RH field replaceable sensor

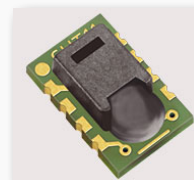
- On-board temperature compensation for RH eliminates temperature coefficient errors achieving excellent measurement accuracy, high repeatability and offset stability

Customize to meet project requirements

- Optional LCD with provisional offsets for temperature (+/-5°) and RH readings (+/-5%) for in-field calibration
- Select analog temperature transmitter or specified RTD/thermistor for temperature sensing
- Override button available

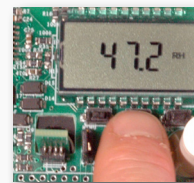
Quality

- Industry leading 7-year limited warranty / 2-year RH element



Field replaceable element

- Ideal for harsh environments
- Accurate dual RH/Temp IC sensing



Optional LCD with menu

- Easier commissioning
- Re-scale to field metrics if required



7 year limited warranty

ORDERING

HW - **3** -

accy temp ovr opt

Accuracy
 3 = 3%

Temperature
 A = None
 B = Transmitter
 C = 100Pt (385)
 D = 1000Pt (385)
 E = 10k Type 2
 F = 10k Type 3
 G = 10k Type 3
 w/ 11k shunt
 H = 3k
 I = 2k2
 J = 1k8
 K = 20k
 L = 100k

Override
 A = None
 B = Override

Options
 = Standard Version (LCD/Menu)
 VAL = Value, No Display / Menu

SPECIFICATIONS

| | | |
|---------------------------|-------------------------------------|--|
| Power Supply | 3-wire voltage mode (0-5v/10v) | 12-30VDC/24VAC ⁽¹⁾ , 15mA max |
| | 2-wire current mode (4-20mA) | 12-30vdc, 30mA max |
| Outputs | RH and Temperature (option) | 3-wire 0-5/10v ⁽⁴⁾ or 2-wire 4-20mA |
| Output Scaling | RH | 0-100%RH |
| | Temperature (jumper selectable) | 32-122°F (0-50°C) or -40-140°F (-50-50°C) |
| Thermistor/RTD Options | See ordering table | |
| Relative Humidity | Accuracy | +/-3% over 20 to 75% range |
| | Resolution | 0.05%RH |
| | Hysteresis | +/-1%RH |
| | Non-linearity | Factory linearized <1%RH |
| | Temperature coefficient | Fully compensated by on-board sensor |
| | Response time ⁽²⁾ | 30s |
| | Output update rate | 2s |
| | Operating range | 0 to 100%RH (non-condensing) |
| | Long term drift | <0.5%RH per year |
| | Operating conditions ⁽³⁾ | -20 to 60°C @ RH > 90% -20 to 70°C @ RH = 50% |
| Temperature (transmitter) | Accuracy (-20 to 70°C range) | <+/-2°C; 0.5°C @ RH > 90% |
| | Resolution | 0.01°C |
| | Repeatability | +/-0.1°C |
| | Response Time ⁽²⁾ | 30s |
| | Output update rate | 2s |
| | Operating range | -40 to 70°C |

(1) One side of transformer secondary is connected to signal common. Dedicated transformer is recommended.
 (2) Time for reaching 63% of reading at 25°C at 1 m/s airflow.
 (3) Long term exposures to conditions outside normal range or high humidity may temporarily offset the RH reading (+3%RH after 60 hours).
 (4) 15-30vdc/24vac power supply voltage required for 10 volt output.