

## **AZ-HRC**

### **ROOM HUMIDITY TRANSMITTER**

#### **DESCRIPTION**

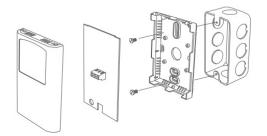
The AZ-HRC series room humidity transmitter uses a highly accurate and field-proven RH sensor in an attractive low profile enclosure to monitor room relative humidity levels. Additional options include an occupancy override button, a communication jack, a fan speed switch, a slide-pot setpoint control, a resistive temperature sensor and a status LED or LCD display. The RH output can be field selected as a linear 4-20 mA or 0-5 / 0-10 Vdc signal

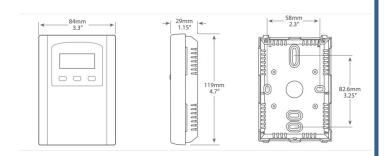


#### **TYPICAL INSTALLATION**

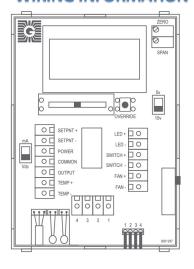
For complete installation and wiring details, please refer to the product installation instructions.

The AZ-HRC series can be mounted directly to a single gang electrical box or directly to a wall. Multiple mounting holes are provided for connection to a variety of electrical boxes. A terminal block connection is provided for connection to the Building Automation System.





#### WIRING INFORMATION



TERMINAL	FUNCTION
PWR	+24 Vdc/ac Input
СОМ	Common
OUT	0-5 or 10 Vdc Output
TEMP +	Resistance Output
TEMP -	Resistance Output
SETPNT +	Resistance Output
SETPNT -	Resistance Output
SWITCH +	Digital Output
SWITCH -	Digital Output

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# AZ-HRC ROOM HUMIDITY TRANSMITTER

SPECIFICATIONS	
SENSOR	Thermoset polymer based capacitive
ACCURACY	±2, 3 or 5 %RH from 5 to 95 %RH
RANGE	0 to 100 %RH non-condensing
HYSTERESIS	±3 %RH
RESPONSE TIME	15 seconds typical
STABILITY	±1.2 %RH typical @ 50 %RH in 5 years
POWER SUPPLY	24 Vac/dc ±10% (non-isolated half-wave rectified)
CONSUMPTION @ 24 VDC	20 mA
INPUT VOLTAGE EFFECT	Negligible over specified operating range
OUTPUT SIGNAL	4-20 mA current loop, 0-5 Vdc or 0-10 Vdc, jumper selectable
OUTPUT DRIVE @ 24 VDC	Current: 550 $\Omega$ maximum Voltage: 10 K $\Omega$ minimum
OUTPUT RESOLUTION	10 bit PWM
INTERNAL ADJUSTMENTS	ZERO and SPAN pots
PROTECTION CIRCUITRY	Reverse voltage protected and output limited
OPERATING CONDITIONS	0 to 50°C (32 to 122°F), 0 to 95 %RH non-condensing
ENCLOSURE	White ABS - IP30 (NEMA 1) 84mm W x 119mm H x 29mm D (3.3" x 4.7" x 1.15")
WIRING CONNECTIONS	Screw terminal block (14 to 22 AWG)
OPTIONAL TEMPERATURE SENSOR	Various Thermistors and RTDs available as 2 wire resistive output
SETPOINT ADJUSTMENT	<b>Type:</b> Front panel slidepot, 2 wire resistance output Range: 0K to 10K $\Omega$ standard Custom Spans Available: 1K, 2K, 5K, 10K, or 20K $\Omega$
MANUAL OVERRIDE	<b>Type:</b> Front panel, momentary pushbutton <b>Ratings:</b> 50 mA @ 12 Vdc, N.O., SPST
LCD DISPLAY	Range: 00.0 to 99.9 %RH, 3 digit Size: 38.1mm W x 16.5mm H (1.5" x 0.65") Digit Height: 11.43mm (0.45") Symbols: %RH
STATUS LED INPUT (N/A WHEN LCD SELECTED)	Signal Type: 5V current limited, 2 wire standard LED Colors: Yellow (Y), Red (R), or Green (G) Power Supply: 5 Vdc standard, 10 or 24 Vdc optional
COMMUNICATION JACKS	<b>Molex:</b> 4 pin header to 4 pin terminal block, requires HHTA - Hand Held Adapter
FAN SPEED SWITCH	<b>Type:</b> Side mounted, 5 position slide switch <b>Designators:</b> Off, Auto, Low, Medium, High <b>Signal:</b> 2 wire, resistance output - 0, 2, 4, 6, 8 K $\Omega$ , custom ranges available, contact Greystone
COUNTRY OF ORIGIN	Canada

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ORDERING		
PRODUCT	HRC	Room Humidity Transmitter
RH ACCURACY	2 3 5	2% 3% 5%
OUTPUTS	N L	NO LCD LCD
SENSOR	T2 T5 T6 T7 T8 T12 T13 T14 T20 T24 T59	100 Ω Platinum, IEC 751, 385 Alpha, thin film 1801 Ω NTC Thermistor, $\pm 0.2^{\circ}$ C 3000 Ω NTC Thermistor, $\pm 0.2^{\circ}$ C 10,000 Ω Type 3, NTC Thermistor, $\pm 0.2^{\circ}$ C 2.252K Ω NTC Thermistor, $\pm 0.2^{\circ}$ C 1000 Ω Platinum, IEC 751, 385 Alpha, thin film 1000 Ω Nickel, Class B, DIN 43760 10,000 Ω Type 3, NTC Thermistor, $\pm 0.2^{\circ}$ C c/w 11K shunt resistor 20,000 Ω NTC Thermistor, $\pm 0.2^{\circ}$ C 10,000 Ω Type 2, NTC Thermistor, $\pm 0.2^{\circ}$ C 10,000 Ω $\oplus$ 25°C, $\pm 1\%$ , B = 3435 $\pm 1\%$ (25/85)
OPTIONS (MULTIPLE SELECTIONS CAN BE MADE)	P S Y R G E F	O-10K linear slide pot for set point control (other ranges available, contact AirZoe) Front panel push button momentary switch (N.O.) Yellow LED (n/a when LCD is selected) Red LED (n/a when LCD is selected) Green LED (n/a when LCD is selected) External jack for remote system access (4 pin header) Fan speed switch, 5 position, (Off, Auto, Low, Mid, High)





