Exicon

Relative Humidity Transmitters

Model ACI/RH

Design Features

- Linear 4-20mA output
- Advanced Ceramic Technology
- Accurate and reliable temperature compensation
- Room, duct, outside air configurations

The ACI/RH Series Relative Humidity transmitters, convert a resistance change to a linear 4 to 20mA, 0 to 5 VDC, or 0 to 10 VDC output. The current signal may be transmitted over long distances on unshielded twisted-pair wire. The current signal will not be affected by the lead wire resistance or electrical noise.

The Advanced Ceramic Technology design overcomes the limitations of other resistance-based humidity sensors that utilize water soluble polymer coatings. The Advanced Ceramic Technology enables these sensors to recover fully from condensation. This allows the sensor to maintain its accuracy over a longer period of time. Despite its accuracy, the Advanced Ceramic Technology sensor and related circuitry is economical.
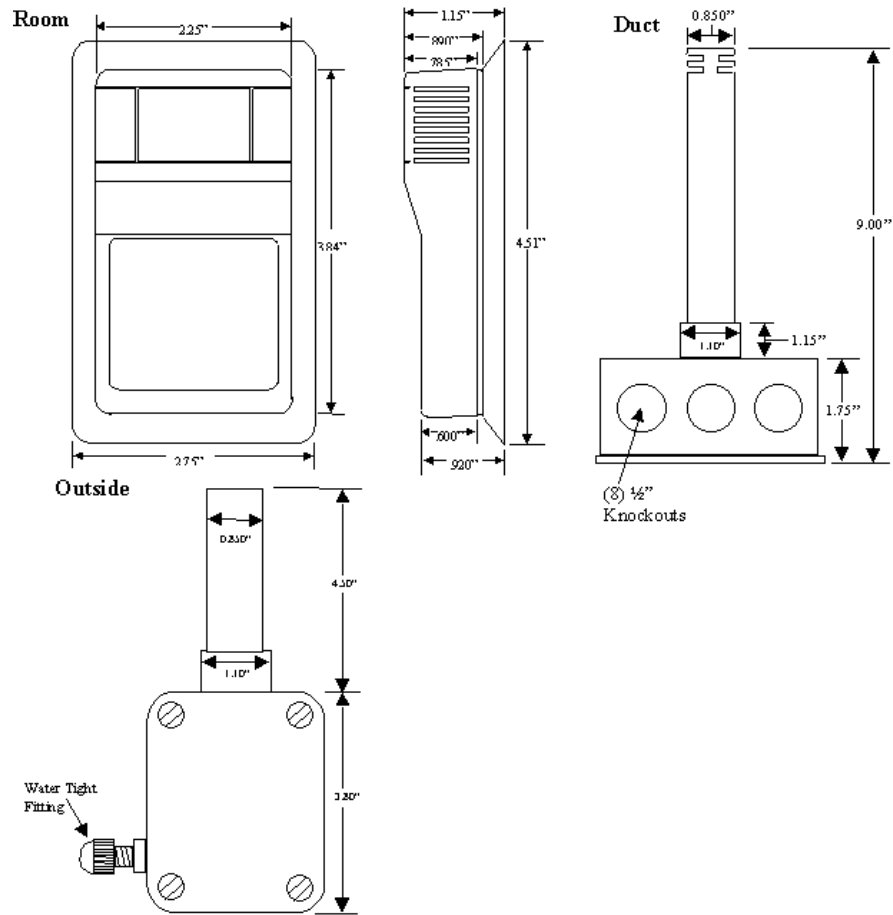
Accuracy is maintained over the entire operating range, using a thermistor for temperature compensation. Precision production tolerances maintain sensor interchangeability to within +/-3%. The ACI/RH transmitter is more versatile since it uses on board jumpers to select both the supply voltage and output signal range. Each ACI/RH Series humidity transmitter is calibrated at 3 different points, using an NIST Traceable Humidity Chamber.
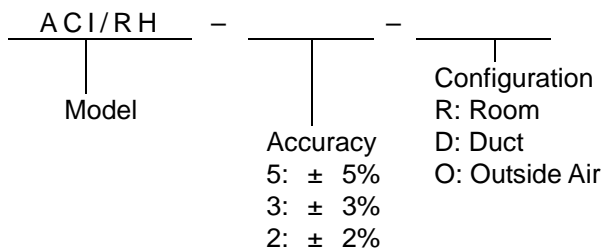
Specification

Supply Voltage	250 Ohm Load: 15 to 36 VDC/24V	**Response**	30 seconds for 63% step
	500 Ohm Load: 17 to 36 VDC/24 VA	**Saturation Response**	10 minutes for 63% step
Operating Range	-10 to 160 (-23.3 to 71)	**Operating RH**	0 to 100% RH
Output	2-wire, 4 to 20mA or 3-wire, 0-5 or 0-10 VDC	**Sensitivity**	0.1% RH
		Interchangeability	± 3%RH
Accuracy	+/- 2, 3, or 5% from 20 to 95% RH	**Repeatability**	0.5%RH
Long Term Stability	Less than 2% RH Drift / 5 Years	**Hysteresis**	< 0.4%RH

Due to ongoing research and product improvement, specifications are subject to change without notice.

Temperature / Humidity sensors

Excellence in Control

Exicon

Dimensions

Order Information

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ACI/RH  –  _____  –  _____
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Model

Accuracy
5: ± 5%
3: ± 3%
2: ± 2%

Configuration
R: Room
D: Duct
O: Outside Air

Locally Distributed By

ACI/RH-2003-7-19