

H7625, H7635, H7655 Humidity/Temperature Sensors



The H7625, H7635, and H7655 are highly accurate, stable humidity transducers designed for use with HVAC controllers such as the T7350 Thermostat, H775 Remote Humidity Controller, and W7760 Direct Digital Controllers. The Ceramic Technology humidity sensor is not affected by condensation and provides excellent long-term stability.

SPECIFICATIONS

Models:

- See Table 1.

Dimensions:

- See Fig. 1 through 3.

Operating RH Range:

- 0 to 100% RH.

Humidity Accuracy:

- ±2%, ±3% or ±5% from 20 to 95% RH.

20K Ohm Temperature Accuracy:

- ±0.4°F at 77°F (±0.2°C at 25°C).

20K Ohm Temperature Output Range:

- Room: 40° to 110°F (4° to 43°C).
- Duct/Outdoor: -40° to 240°F (-40° to 116°C).

Hysteresis:

- Less than ±0.4% RH.

Supply Voltage:

- 18 to 36 Vdc or 24 Vac.

Maximum Impedance Load:

- 2.42K ohms at 60 Hz.

Maximum Supply Current:

- Current Mode: 22 mA.
- Voltage Mode: 5 mA.

Finish:

- Room Enclosure: ABS Plastic (UL94-HB rated).
- Duct Enclosure: ABS Plastic (UL94-5VA rated).
- Outdoor Enclosure: ASA Plastic (UL-94V0 rated).

SPECIFICATION DATA

FEATURES

- Ceramic Technology overcomes the limitations of other resistance based humidity sensors that use water soluble polymer coatings.
- Ceramic Technology allows sensors to recover fully from condensation, fog, and high humidity.
- Highly accurate, repeatable, stable output with negligible hysteresis.
- Temperature compensated output
- Zero and span trimmers, and increment/decrement recalibration feature.
- All units have selectable 4-20mA, 0-10Vdc, or 0-5Vdc output.
- NIST traceable 2%, 3%, and 5% calibration, every sensor calibrated at 3 different points.

Compensated Temperature Range:

- 10 to 160°F (-23 to 71°C).

Humidity Response Time:

- 30 seconds.

Saturation Response Time:

- 10 minutes.

Sensitivity:

- 0.1%RH.

Interchangeability:

- Less than ±3% RH nominal.

Repeatability:

- 0.5% RH.

Long term drift:

- Less than 2% RH drift/5 years.

Table 1. Models.

Model Number	RH Accuracy	Mount	Output Signal	Voltage Supply	Temperature Sensor
H7625A	2%	Room	Selectable: 4-20 mA, 0-10 Vdc, or 0-5 Vdc	18-36 Vdc or 24 Vac	20K ohm
H7635A	3%				
H7625B	2%	Duct			
H7635B	3%				
H7655B	5%				
H7635C	3%	Outdoor			



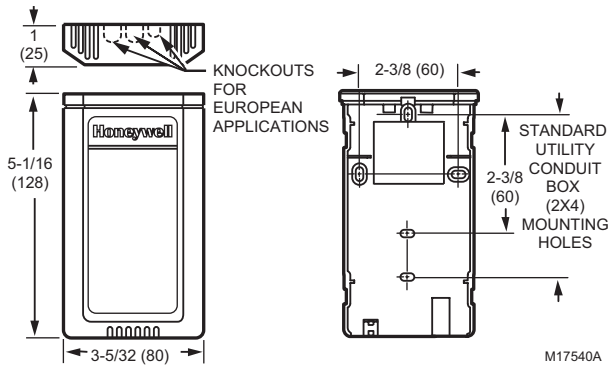


Fig. 1. Wall-mount sensor dimensions in in. (mm).

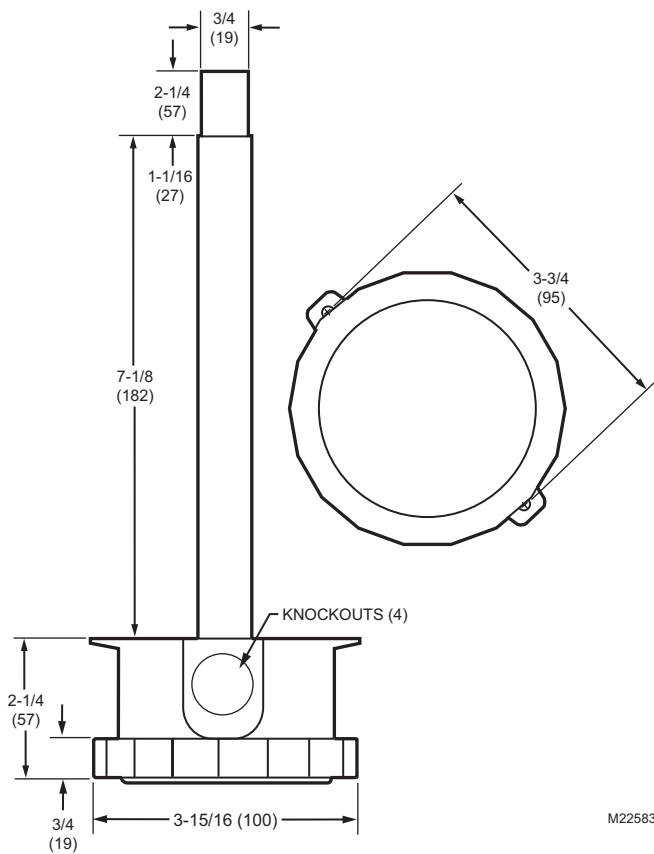


Fig. 2. Duct-mount sensor dimensions in in. (mm).

TYPICAL SPECIFICATION

Humidity transducer shall be accurate to $\pm 2\%$, $\pm 3\%$, or $\pm 5\%$ RH (whichever is specified) across the relative humidity range from 20-95%, NIST traceable calibration.

Humidity transducers shall be calibrated at three different points across the RH range.

Interchangeability of output between humidity transducers shall be within $\pm 3\%$.

Each humidity transducer shall have selectable 4 to 20 mA, 0 to 10 Vdc, or 0 to 5 Vdc output.

Each humidity transducer shall have the option for field calibration using zero and span potentiometers, and toggle switches to increment or decrement the RH value in steps of 0.5% RH.

Accuracy of the humidity transducers shall not be adversely affected by condensation.

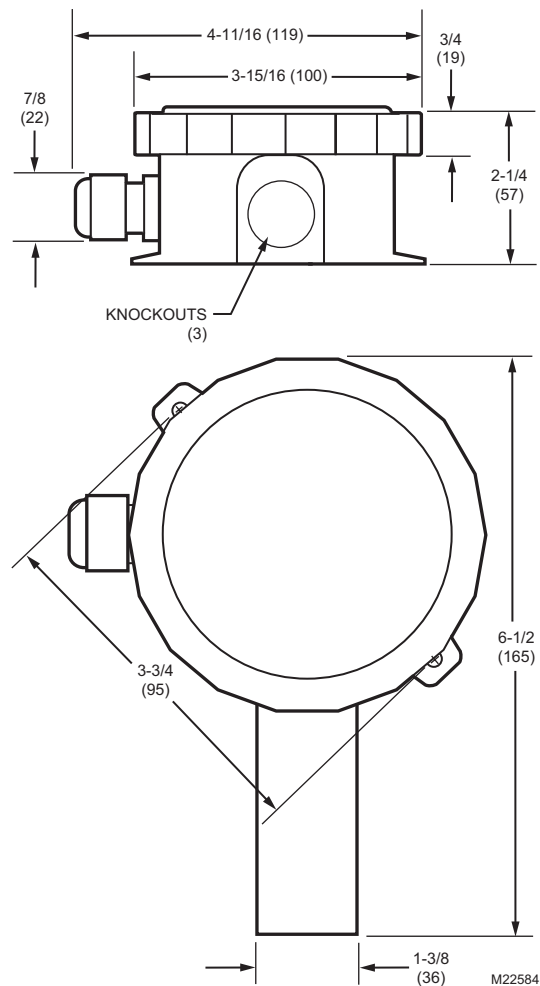


Fig. 3. Outdoor-mount sensor dimensions in in. (mm).

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