

# Honeywell

# H7725, H7726, H7735, H7736 Humidity & Temperature Sensors

## PRODUCT DATA



## FEATURES

The wall sensors are designed to blend into any room space to provide accuracy for improved occupant comfort.

- Clean looking, low-profile, recessed design
- Comparable accuracy, performance and features as included in duct sensors
- Push-button field calibration – easy adjustment of relative humidity (RH) values

Duct sensors provide interior HVAC zone humidity and temperature measurement and control. Outdoor sensors are designed to be mounted on the building exterior to provide outside air RH measurement.

All humidity sensors provide high accuracy:

- On-board temperature compensation for RH
- Eliminates temperature coefficient errors and achieves an high measurement accuracy and high repeatability
- NIST traceable 3-point calibration, optional duct version with calibration certificate

## APPLICATIONS

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

## DIMENSIONS

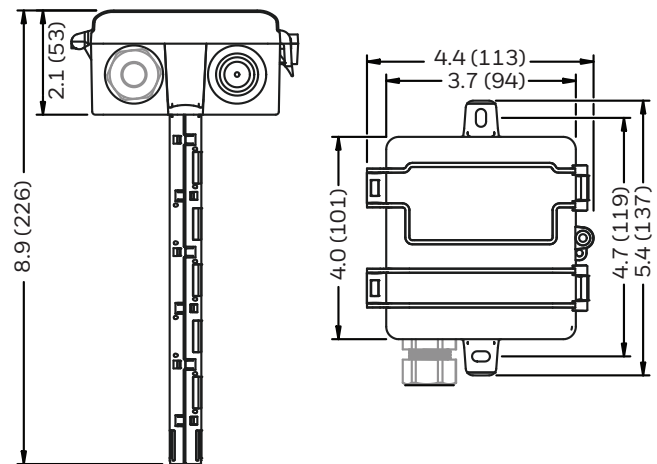


Fig. 1. Duct Mount Model Dimensions in inches (mm).

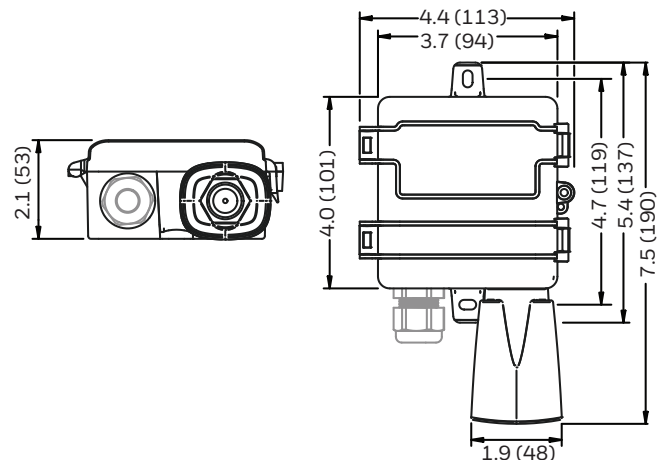


Fig. 2. Outdoor Model Dimensions in inches (mm).



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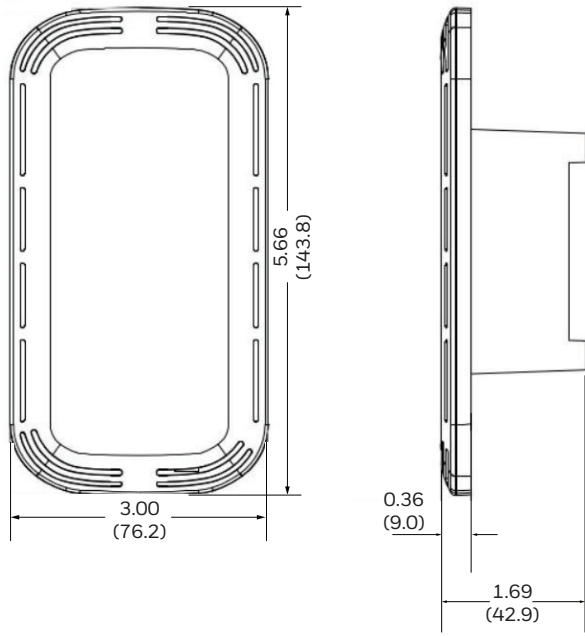


Fig. 3. Wall Mount Model Dimensions in inches (mm).

## SPECIFICATIONS

Table 1. Models.

Model	Humidity Accuracy	Thermistor	Type
H7726A2020	2%	1097 Ohm	Wall
H7725A2010	2%	20 kOhm	Wall
H7736A2022	3%	1097 Ohm	Wall
H7735A2012	3%	20 kOhm	Wall
H7725A2010-C	2% NIST Certified	20 kOhm	Wall
H7725B2006	2%	20 kOhm	Duct
H7725B2006-C	2% NIST Certified	20 kOhm	Duct
H7726B2024	2%	1097 Ohm	Duct
H7735B2018	3%	20 kOhm	Duct
H7736B2026	3%	1097 Ohm	Duct
H7735C2015	3%	20 kOhm	Outdoor

Table 2. Specifications.

Power supply	AC Supply/ DC Supply	24VAC, 100mA max. 12-30VDC, 50mA max.
Outputs	RH	3-wire 0-5V/10V <sup>4</sup> , 3-wire or 2-wire 4-20mA (Selectable)
Output scaling	RH	0-100%RH
Thermistor/ RTD	Nominal resistance @ 25 °C	20 kOhm 1097 kOhm
Media filter		PBT with water vapor-permeable membrane
Relative Humidity	Accuracy	2% models: ±2% max 0 to 100% RH, ±1.5% typ 0 to 80% RH @25°C 3% models: ±3% max 0 to 100% RH, ±2% typ 0 to 100% RH @25°C
	Resolution	0.01% RH
	Hysteresis	±0.8% RH
	Repeatability	0.08% RH
	Non-linearity	Factory linearized <1%RH
	Temperature coefficient	Fully compensated by on-board sensor
	Response time <sup>2</sup>	8s
	Output update	0.5s
	Operating range	0 to 100% RH (non-condensing)
	Long term drift	<0.25% RH per year
	Operating conditions <sup>3</sup>	41 to 140°F (5 to 60°C) @ 20-80% RH
Enclosure	Materials	ABS/Polycarbonate
	Dimensions	Duct/Outdoor: 4.0"h x 4.4"w x 2.1"d Duct: (+6.8" probe) Outdoor: (+2.8" Solar Shield) Wall: 5.66"h x 3.00"w x 0.36"d (1.69" depth including recessed components)
	Enclosure Rating	Wall/Duct: IP20/NEMA 1 Outdoor: IP20/NEMA 1 *Vent bottom of enclosure to achieve NEMA 3R Rating
	Unit Temp Rating	-40°F to 158°F (-40 to 70°C)

<sup>1</sup> One side of transformer secondary is connected to signal common. Dedicated transformer is recommended.

<sup>2</sup> Time for reaching 63% of reading at 25 °C and 1 m/s air-flow.

<sup>3</sup> Long term exposures to conditions outside normal range or high humidity may temporarily offset the RH reading (+3%RH after 60 hours).

<sup>4</sup> 15-30 VDC/24VAC power supply voltage required for 10 volt output.

### Honeywell Building Technologies

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