Code No. LIT-1900121
Issued February 4, 2008

HE-67xx Series

TRUERH™ Humidity Element with Temperature Sensor - Metastat

Description

The TrueRH™ Series HE-67xx humidity transmitter with temperature sensor offers dependable technology, ease of installation, and application flexibility in an attractively styled wall mount package. The patented All-Polymer™ humidity sensor construction improves resistance to chemical corrosion. The element measures humidity within either ±2% or ±3% accuracy, and generates a voltage signal proportional to 0 to 100% Relative Humidity (RH).

Johnson Controls designed the HE-6700 Series humidity transmitter with temperature sensor to use with most controllers. It works directly with the VMA1200 and VMA1400 Series controllers. An additional thin-film nickel or thin-film platinum temperature sensor adapts the unit for zone enthalpy control applications. TrueRH products feature patented circuitry and calibration improvements.

Features

- tested and calibrated with equipment certified to be in compliance with National Institute of Standards and Technology (NIST) guidelines
- time response improvement enhances local temperature control, increases employee comfort, and reduces energy consumption
- controller configuration switch displays the controller's current operating mode
- setpoint adjustment (optional) allows the user to adjust room comfort and to choose occupancy features that match the application and controlled
- manual override pushbutton (PB) signals the controller that the space is occupied in order to override time-of-day setback
- globally scaled unit includes setpoint and bulb indicator (both optional) with Fahrenheit and Celsius ranges, 65 to 85°F (19 to 29°C)
- universal mounting provided: U.S. wallbox and surface mounting base and all installation hardware included

TrueRH™ Series HE-67xx

Repair Information

If the HE-67xx Series Humidity Element fails to operate within its specifications, replace the unit. For a replacement humidity device, contact the nearest Johnson Controls® representative.

Selection Chart

H E — 67 □ □ — □ □ 0 0 W

- **H E** — Humidity Sensing
- **67** — Humidity Sensor Accuracy: 2 = 2%, 3 = 3%
- Temperature Sensor Type: 0 = None, N = 1000 ohm Thin-film Nickel, P = 1000 ohm Thin-film Platinum
- Setpoint Adjustment and Scale Type: 0 = None, 1 = Single, Temperature, Warmer/Cooler, 2 = Single, Temperature, Scaled (65-85°F/18-29°C)
- Indication Type: N = None, B = Liquid Bulb Thermometer
- **0** — Package Color: 0 = White
- **W**

Note: All models have the manual override PB and a functioning LED display.

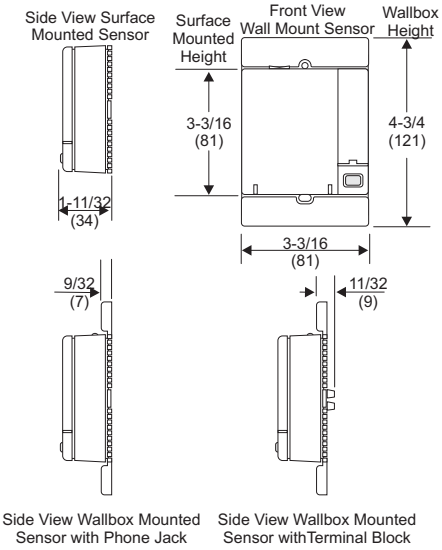
Example: To order a nickel sensor with a warmer/cooler temperature setpoint, and a liquid bulb thermometer, specify Product Code Number HE-67N3-1B00W.

Note: Not all models available.

Accessories for HE-67xx Series Humidity Element, Metastat

Code Number	Description
ACC-DWCLIP-0	Drywall Clip Mounting Kit (10 per bag)
ACC-INSL-0 [1]	Wallbox Mounting Pad (10 per bag)
ACC-INSL-1 [1]	Surface Mounting Pad (10 per bag)
GRD10A-608	Plastic Guard with Baseplate and Mounting Ring
T-4000-119	Allen-Head Adjustment Tool (30 per bag)
TE-67L-600	Fahrenheit Label Replacement Kit
TE-67L-601	Celsius Label Replacement Kit
TE-67MB-600	Mounting Base Kit
TE-67D0-601 [2]	Door Replacement Kit with Johnson Controls Logo
TE-67D0-602 [2]	Door Replacement Kit without a Logo

1. These foam pads will help prevent drafts from entering the unit through the wall, and make installation easier when mounting on an uneven surface.
2. Contains 10 original and 10 new style doors.



HE-67xx Dimensions, in. (mm)

HE-67xx Series TrueRH™ Humidity Element with Temperature Sensor - Metastat (Continued)

Technical Specifications

TrueRH Series HE-67xx Humidity Element with Temperature Sensor - Metastat		
Power Requirements		14 to 30 VDC or 20 to 30 VAC at 50/60 Hz, Class 2
Current Draw		3 mA with no load, 25 mA maximum
Humidity Element Characteristics at 77°F (25°C)	**Signal**	0 to 10 VDC
	Accuracy	HE-67x2: ±2% RH for 20 to 80% RH at 77°F (25°C) ±4% RH for 10 to 20% and 80 to 90% RH at 77°F (25°C) HE-67x3: ±3% RH for 20 to 80% RH at 77°F (25°C) ±5% RH for 10 to 20% and 80 to 90% RH at 77°F (25°C)
	Temperature Coefficient	-0.1 to 0.05% RH/°C at 5°C (41°F) to -0.07 to -0.21% RH/°C at 65°C (149°F)
Nickel Sensor	**Temperature Sensor**	1,000 ohm thin-film nickel
	Temperature Coefficient	Approximately 3 ohms per F° (5.4 ohms per C°)
	Reference Resistance	1,000 ohms at 70°F (21°C)
	Accuracy	±0.34F° at 70°F (±0.18C° at 21°C)
Platinum Sensor	**Temperature Sensor**	1,000 ohm thin-film platinum
	Temperature Coefficient	Approximately 2 ohms per F° (3.9 ohms per C°)
	Reference Resistance	1,000 ohms at 32°F (0°C)
	Accuracy	±0.65F° at 70°F (±0.36C° at 21°C)
Sensor Response Time (for both temperature sensors)		One time constant = 8 ±2 minutes at 10 feet per minute (fpm) airflow rate
Temperature Setpoint (Depending on option chosen)	**Type**	Single setpoint
	Scale (Range)	Red/blue visual scale (warmer/cooler) Graduated 5F° scale (65 to 85°F) Graduated 2C° scale (19 to 29°C)
	Resistance	Nominal 1.5k ohm range
Electrical Connections		18 to 24 AWG wire for 9-position terminal block
Zone Bus Access		6-pin connector with front access for a laptop with HVAC PRO™ software, a Palm™ compatible handheld device with Variable Air Volume Modular Assembly Balancing Tool software, or a Zone Terminal
Manual Override		Integral momentary PB (DIP switch selectable)
LED Display		Red LED indicates three modes of operation (application and controller dependent)
Ambient Operating Conditions		32 to 131°F (0 to 55°C) 0 to 100% RH, noncondensing; 85°F (29°C) maximum dew point
Ambient Storage Conditions		-40 to 140°F (-40 to 60°C) 0 to 100% RH, noncondensing; 85°F (29°C) maximum dew point
Mounting Style		Standard base for both surface or standard U.S. wallbox mounting, including hardware
Materials		White plastic case and mounting base
Dimensions (H x W x D)		3.2 x 3.2 x 1.4 in. (81 x 81 x 36 mm)