

HL-67x5 Series

TRUERH™ Multi-function Humidity Device with Temperature Sensor

TRUERH™ — True $\pm 2\%$ Accuracy

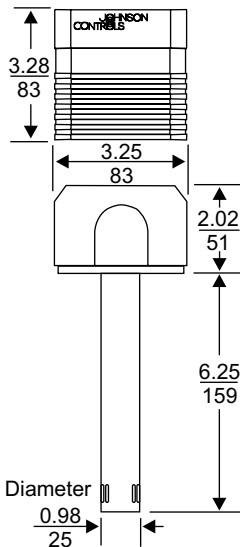


HL-67N5-8N00P
Multi-function Humidity Device

Description

Johnson Controls' TRUERH™ HL-67x5 Series is designed as a limiter of duct humidity by comparing a controller's request for humidification with the humidity present in a duct. The HL-67x5 Series will proportionately reduce its output signal to the humidification equipment as duct Relative Humidity (RH) approaches a user-defined setpoint. As a result, the HL-67x5 Series provides more accurate control of duct humidity and reduces condensation. The HL-67x5 Series also includes an integral temperature sensor, which adds to the product's versatility.

ASHRAE Standard 62-1999 outlines that duct humidity greater than 70% can lead to the growth of fungal contaminants. The HL-67x5 Series can help control duct humidity within the limits required by state, local, or ASHRAE guidelines.



HL-67N5 Dimensions, in. (mm)

Features

- TRUERH™ circuitry and calibration techniques for which patent is pending
- all-plastic material for duct probe improves thermal performance and complies with Underwriters Laboratories Inc.® (UL) flammability ratings for plenum use, and complies with Blue Angel (Germany) and TCO'95 (Sweden) environmental regulations
- All-Polymer™ humidity sensor with patented sensing element provides accurate and reliable humidity sensing with improved resistance to chemical corrosion
- National Institute of Standards and Technology (NIST) traceable calibration; tested, verified, and audited per NIST standards
- humidity and temperature sensors in one unit eliminates the need for separate sensors and reduces installation time and cost
- adjustable RH setpoint and proportional band enables the user to define the maximum humidity level allowed in the duct and reduces excessive humidification equipment cycling
- 0 to 10 VDC or 0 to 20 mA input and output signals interfaces with a wide variety of controllers and electronic actuators
- single-pole, single-throw (SPST), normally open relay contact accommodates on/off humidification equipment and can be used for alarm indication

To Order

Specify code number **HL-67N5-8N00P**.
(There are no accessories available.)

Specifications

HL-67x5 Series TRUERH™ Multi-function Humidity Device with Temperature Sensor	
Power Requirements	Proportional Output 20 to 30 VAC, 1.1 VA at 50/60 Hz or 12 to 30 VDC at 22 mA
	Relay Output 20 to 30 VAC, 1.1 VA at 50/60 Hz or 20 to 30 VDC at 22 mA
Wire Gauge	16 to 24 AWG (18 AWG recommended)
Humidity	Element All-Polymer
	Setpoint Adjustable from 60 to 95% RH
Temperature Sensor	Proportional Band Adjustable from 5 to 30% RH
	Type Thin-film nickel
Control Signal	Resistance 1,000 ohm at 70°F (21°C)
	Accuracy $\pm 0.34^\circ\text{F}$ (0.18°C) at 70°F (21°C)
	Coefficient Approximately +3 ohms/°F; 5 ohms/°C
Input Impedance	Input and Output 0 to 10 VDC or 0 to 20 mA
Output Load	Voltage 20,000 ohms
	Current $\geq 1,000$ ohm
Relay Contact	Voltage: $\geq 1,000$ ohm
	Current: ≤ 500 ohms
Relay Contact Rating	Single-Pole, Single-Throw (SPST), Normally Open Open at setpoint and closed at setpoint minus proportional band
Ambient Operating Conditions	Maximum: 4A, 24 VAC, Class 2; Pilot Duty 42.4 VA at 24 VAC
	Minimum: 100 mA at 5 VDC
Ambient Storage Conditions	32 to 150°F (0 to 66°C); 0 to 100% RH non-condensing; 90°F (32°C) maximum dew point
Materials	-40 to 150°F (-40 to 66°C); 0 to 100% RH; 90°F (32°C) maximum dew point
Dimensions (H x L x W)	Light gray plastic cover with dark gray housing and probe
	3.28 x 3.25 x 8.27 in. (83 x 83 x 210 mm)
Agency Compliance	Probe (L x D) 6.25 x 0.98 in. (159 x 25 mm)
Duct Probe Material	UL File E107041, CCN PAZX;
	CSA File LR68965, Class 4812 05