TRUERH[™] HL-67x5 Series Multi-function Humidity Device with Temperature Sensor

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.

Selection Chart

HL-67x5 Series Humidity Device

Code Number	Description
HL-67N5-8N00P	TRUERH™ Multi-function Humidity Device with Temperature Sensor

Technical Specifications

Refer to the TrueRH HL-67N5-8N00P Multi-function Humidity Device with Temperature Sensor Product Bulletin (LIT-216022) for important product application information.

Features

- patented TRUERH™ circuitry and calibration techniques
- 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
- tested and calibrated with equipment certified to be in compliance with National Institute of Standards and Technology (NIST) guidelines
- humidity and temperature sensors in one unit eliminates the need for separate sensors and reduces installation time and cost





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

- adjustable RH setpoint and proportional ٠ 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

HL-67x5 Series TRUERH™ Multi-function Humidity Device		
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
	Proportional Band	Adjustable from 5 to 30% RH
Temperature Sensor	Туре	Thin-film nickel
	Resistance	1,000 ohm at 70°F (21°C)
	Accuracy	±0.34°F (0.18°C) at 70°F (21°C)
	Coefficient	Approximately +3 ohms/°F; 5 ohms/°C
Control Signal	Input and Output	0 to 10 VDC or 0 to 20 mA
Input Impedance	Voltage	20,000 ohms
	Current	500 ohms
Output Load	Voltage:	≥ 1,000 ohm
	Current:	≤ 500 ohms
Relay Contact	·	Single-Pole, Single-Throw (SPST), Normally Open Open at setpoint and closed at setpoint minus proportional band
Relay Contact Rating	Maximum:	4A, 24 VAC, Class 2; Pilot Duty 42.4 VA at 24 VAC
	Minimum:	100 mA at 5 VDC
Ambient Operating Conditions		32 to 150°F (0 to 66°C); 0 to 100% RH non-condensing; 90°F (32°C) maximum dew point
Ambient Storage Conditions		-40 to 150°F (-40 to 66°C); 0 to 100% RH; 90°F (32°C) maximum dew point
Materials		Light gray plastic cover with dark gray housing and probe
Dimensions (H x L x W)		3.28 x 3.25 x 8.27 in. (83 x 83 x 210 mm)
	Probe (L x D)	6.25 x 0.98 in. (159 x 25 mm)
Agency Compliance		UL Listed, File E107041, CCN PAZX, UL916 cUL Listed, File E107041, CCN PAZX7, CSA C22.2 No. 205-M1983
	Duct Probe Material	94-5V flammability rated per UL 94



HL-67N5 Dimensions, in. (mm)

Repair Information

If the HL-67x5 Series Humidity Device fails to operate within its specifications, replace the unit. For a replacement humidity device, contact the nearest Johnson Controls® representative.

The performance specifications are nominal and conform to acceptable industry standards. For applications at conditions beyond these specifications, consult the local Johnson Controls office. Johnson Controls, Inc. shall not be liable for damages resulting from misapplication or misuse of its products. © 2015 Johnson Controls, Inc. www.johnsoncontrols.com