

# Room Humidistats, Single-Stage, 1-SPDT

Specifications subject to change without notice. | USA 200204 | Page 1 of 2



NZH-101

## DESCRIPTION

Electro-mechanical humidistats to detect and control relative humidity in air.

## APPLICATION

To sense the relative humidity in air, and for low- or line-voltage on/off single-stage control of humidifiers, dehumidifiers, compressors, solenoids, valves, relays, and other electrical equipment in commercial and industrial environments, i.e., offices, computer rooms, food storage warehouses, greenhouses, indoor swimming pools; dairy-, textile-, paper- and printing plants, and many more.

## FEATURES

- Continuous monitoring
- Humid- or dehumidification on/off control
- Switched output, SPDT
  - 24...230 VAC, 5 (0.2)A
  - 50 VDC, 1A
- Scaled setpoint knob
- Easy to install
- Maintenance-free in clean air applications



certified ISO 9001

## SPECIFICATIONS

### Sensor Performance

Relative humidity in air	0-100% rH (rF)
- operating range	30-100% rH (rF)
- condition	non-aggressive air
Sensor element	Polyga® bands of multi-synthetic fibers, water-resistant
Accuracy	± 3% rH (rF)
Permissible air velocity, maximum	2970 ft/min (15 m/sec)
Response time	< 72 sec. for 50% step change, at 394 ft/min (2 m/sec)

### Type of Control

General	On/Off, single-stage control, with (1) microswitch output
Stage level/setpoint	Field adjustable over the full operating range
- dial knob range	30-100% rH (rF)
- hysteresis/switching differential	4% rH (rF), fixed, @ 50% rH (rF) environment
Microswitch	SPDT, airtight
- contact rating	24...230 VAC, 5(0.2)A 50 VDC, 1A

### Environmental

Permissible ambient	
- working temperature	32°F to 140°F (0°C to 60°C)
- storage temperature	-4°F to 158°F (-20°C to 70°C)
- humidity	0 to 95% rH (rF), non-condensing
- working pressure	Atmospheric ± 10%

### Physical

Enclosure	
- material	ABS, fire-retardant
- color	Light grey
- protection	NEMA1 (IP20)
Installation	Room, Wall (surface) mounted
Dimensions (HxWxD)	
- enclosure	2.8 x 4.6 x 1.4 in. (70 x 115 x 35 mm)
Cable entry	Slot entry, backside of enclosure base
Wire connection	Terminal block, screw type for lead wire
Wire size	Max. 16 AWG (1.5 mm <sup>2</sup> )
Weight	0.3 lbs., (0.12 kg)
<b>Approvals / Listings</b>	CE

### Approvals / Listings

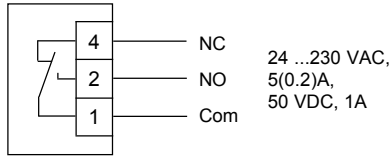
Electromagnetic compatibility (EMC)	
- resistance interference, conformity	EN50082-2
- interference emission, conformity	EN50081-2
<b>Warranty</b>	18 months material and workmanship

## ORDERING INFORMATION

	Humidistat, room surface mount, single-stage
<b>NZH-101</b>	- w/external setpoint dial knob
<b>NZH-101U</b>	- w/internal setpoint dial

## WIRING CONFIGURATION

### NZH-101/101U

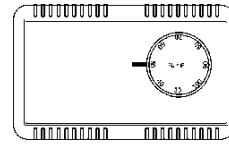


#### Sensing rH (rF)

- Below setpoint = 1 to 2 (humidification)
- Above setpoint = 1 to 4 (dehumidification)

#### Contacts Closed

## INSTALLATION



#### **Attention**

- Must avoid chemically aggressive atmosphere.
- Horizontally surface mount
- Give enough space around the unit to allow appropriate airflow thru the enclosure's ventilation slots.