Humidity or Combination Temp/Humidity Sensors

Rev. 01/07/21

# Features & Options

- Optional Temperature Setpoint Adjustment and . Occupant Override
- Temp, Humidity and Room Occupancy Status Display
- Higher Contrast Display for Improved Clarity at **Greater Distances**

BAPI's BAPI-Stat Quantum room sensors feature a modern enclosure style with slider setpoint adjustment and occupancy override.

The optional LCD can display both temperature and humidity as well as room occupancy status. The display has been upgraded for higher contrast, providing improved clarity at greater distances.



It is available with an optional occupancy override, 3.5mm (1/8"), RJ11 or RJ22 Communication Jack and a 60mm mounting base is also available to fit European style junction boxes.

# Specifications

### Power:

12 to 35 VDC for 4 to 20 mA or 0 to 5 VDC Output 15 to 35 VDC for 0 to 10 VDC Output 15 to 28 VAC for 0 to 5 VDC or 0 to 10 VDC Output (AC power requires a separate pair of shielded wires.)

### **Power Consumption:**

20 mA max. for 4 to 20 mA Output 4 mA max. for 0 to 5 VDC and 0 to 10 VDC Output 0.1 VA max. for 0 to 5 VDC and 0 to 10 VDC Output

Temp/%RH Sensor Construction: **Communicating Integrated Circuit** 

Humidity: Capacitive Polymer, ±2%RH @ 25°C (77°F), 20 to 80%RH

Temp: Semi-conductor Band Gap, ±0.3°C (±0.54°F) @ 20 to 40°C (68 to 104°F)

**Field Calibration Adjustment:** ±5% in 0.1% increments (Factory Calibrated)

**Optional Passive Temperature Sensor Accuracy:** ±0.36°F Thermistor, ±0.5°F RTD (Higher accuracy available)

Wiring: 2 to 5 pair of 16 to 22 AWG\*

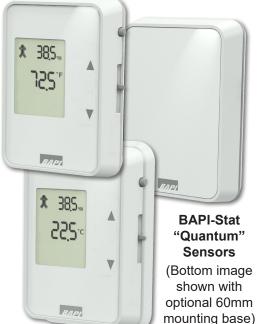
Mounting: Standard 2"x4" junction box, European junction box or drywall mount (screws provided)

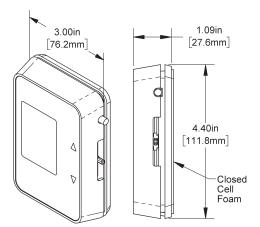
**Environmental Operation Range:** 32 to 122 °F (0 to 50 °C) • 0 to 95%, non-condensing

Material & Rating: ABS Plastic, UL 94, V-0

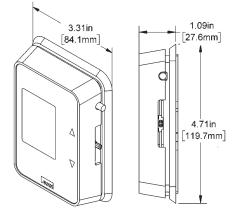
### Agency: RoHS

\*BAPI recommends that you do not run wiring for the Room Units in the same conduit as line voltage wiring or with wiring for highly inductive loads such as motors, generators and coils. Also, these units are not designed for line voltage applications.





**Unit with Standard Mounting Base** 



Unit with 60mm Mounting Base (Fits European wall boxes and junction boxes with 60mm mounting centers)



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Use the Option Selection Guide below to create your custom part number. Replace the number and parenthesis with the designator for each selection. Skip the designator and dashes for optional selections that are not required in your configuration.

# BAPI-Stat "Quantum" Humidity Sensor Option Selection Guide:

Unit w/ Standard Mounting Base BA/HQ ( **#1** ) - ( **#2** ) - ( **#3** ) - ( **#4** ) - ( **#5** )( **#6** ) - ( **#7** ) - ( **#8** )

Unit w/ 60mm Mounting Base BA/HQ60(#1)-(#2)-(#3)-(#4)-(#5)(#6)-(#7)-(#8)

#### #1: Display (required)

F ......Temperature Displayed in °F C......Temperature Displayed in °C X......No Display

### #2: Temperature Sensor (required)

A ......1K Platinum RTD (385 curve) B ......10K-2 Thermistor C ......10K-3 Thermistor D ......10K-3[11K] Thermistor E .....20K Thermistor F .....1.8K Thermistor G.....1K Ω Nickel RTD H ......3K Thermistor X .....No Temperature Sensor

#### #3: Humidity (%RH) Sensor (required)

A ......4 to 20 mA Output B .....0 to 5 V Output C .....0 to 10 V Output

# #4: Setpoint Adjustment (required)

1......Slider Setpoint Adjustment X.....No Setpoint Adjustment

### #5: Setpoint Display Range (required)

A ......-3 to +3 B ......5 to +5 C ......50 to 90 °F or 10 to 32 °C D .....55 to 85 °F or 13 to 30 °C E ......60 to 80 °F or 15 to 27 °C F ......65 to 80 °F or 18 to 27 °C X ......No Setpoint Adjustment

### #6: Setpoint Output Range (required)

00.....0 to 5 V 10.....0 to 10 V 40.....0 to 1 KΩ 60.....0 to 10 KΩ 80.....0 to 20 KΩ 81.....4.75 K to 24.75 KΩ 82.....6.19 K to 26.19 KΩ 84.....10 K to 30 KΩ X......No Setpoint Adjustment

### #7: Occupant Override (required)

J......Override as a Separate Output N.....Override in Parallel (//) with Sensor P.....Override in Parallel (//) with Setpoint X.....No Override

### #8: Optional Selections\* (optional)

A ......Differential Ground B ......Comm Jack C35 C ......Comm Jack C11\*\* D ......Comm Jack C22\*\* F ......Test & Balance Switch

\*When more than one is selected, put in alphabetical order. Additional options and descriptions can be found on pg. I4.

\*\*Comm Jacks C11 and C22 are available for display units only

Additional options are available for these units but not shown in this Selection Guide. Contact your BAPI representative for the complete list of options. Submittal sheets without List Prices can be downloaded from our website at www.bapihvac.com

Example Number: BA/HQ(F) - (B) - (C) - (1) - (C)(80) - (J)

### Actual Number (with brackets removed): BA/HQF-B-C-1-C80-J

### **Description:**

BAPI-Stat Quantum Series Room Temp/Humidity Sensor, °F Display, 10K-2 Thermistor Temperature Sensor, 0 to 10 V Humidity Output, Slider Setpoint Adjustment, 50 to 90°F Setpoint Display Range, 0 to  $20K\Omega$  Setpoint Output Range, Override in Parallel with Sensor, No additional optional selections.

## Your Number: BA/

