



## Features & Options

- 10 Points of Calibration from 10 to 90%RH
- Humidity Only or Temp./Humidity Combination
- Replaceable Filter
- $\pm 2\%$  and  $\pm 3\%$  RH Accuracies
- BAPI-Box 2 or BAPI-Box Enclosure Styles
- Wide Selection of Temperature Sensing Elements

Humidity control is an important aspect of any climate control system. Therefore, humidity sensors must be both accurate and dependable. BAPI's humidity transmitters are calibrated at 10 points from 10 to 90% RH for accuracy, eliminating field calibration.

The Outside Air Units are also extremely dependable, featuring two of the most watertight enclosures available today. The BAPI-Box and BAPI-Box 2 are made of UV-resistant polycarbonate and carry an IP66 rating. The BAPI-Box is only available for units with a temperature transmitter and a humidity transmitter.

## Weather Shade

External temperature, humidity and air quality sensors are affected by radiant heat from the surfaces of buildings and parking lots. The BAPI Weather Shade effectively blocks the radiant heat, improving the accuracy of the sensor.



(See Accessories for more info.)

**BAPI-Box 2  
Enclosure**



**BAPI-Box  
Enclosure**

## Specifications

### Power:

10 to 35 VDC, 22 mA max .....For units with 0 to 5 or 1 to 5 VDC or 4 to 20 mA Humidity Outputs  
 15 to 35 VDC, 6 mA max .....For units with 0 to 10 or 2 to 10 VDC Humidity Output  
 12 to 27 VAC, 0.53 VA max .....For units with 0 to 5 or 1 to 5 VDC Humidity Outputs  
 15 to 27 VAC, 0.53 VA max .....For units with 0 to 10 or 2 to 10 VDC Humidity Output

### Enclosure Dimensions: H x W x D

BAPI-Box .....5 x 4.1 x 2.5" (127 x 104 x 63.5mm)  
 BAPI-Box 2: .....4.9 x 2.8 x 2.35" (125 x 71.6 x 60mm)

(For enclosure dimension drawings, turn to the end of the section.)

### Sensor:

2% Humidity: Capacitive  $\pm 2\%$  (10 to 80% RH @ 25°C)  
 $\pm 3\%$  (80 to 90% RH @ 25°C)

3% Humidity: Capacitive  $\pm 3\%$  (10 to 90% RH @ 25°C)

Temp: Thermistor or RTD (See Sensors section for specs)

**Enclosure Rating:** IP66, NEMA 4

**Enclosure Material:** UV-resistant Polycarbonate, UL 94, V-0

### Environmental Operation Range:

Temp: -40 to 158°F (-40 to 70°C)

Humidity: 0 to 100% RH

Fully Temperature Compensated

**Agency:** CE EN 61326-1:2013 EMC





Use the Option Selection Guides 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. Additional options are available but not shown above. Contact BAPI for the complete list of options.

**Option Selection Guide**

### Outside Air Units with Optional Temperature Sensor

BA/ ( #1 ) - ( #2 ) - ( #3 )

**#1: Temp Sensor (Optional)**

1.8K ..... 1.8K Thermistor  
 3K ..... 3K Thermistor  
 10K-2 ..... 10K-2 Thermistor  
 10K-3 ..... 10K-3 Thermistor  
 10K-3[11K]... 10K-3[11K] Thermistor  
 20K ..... 20K Thermistor  
 1K[375] ..... 1K Plat. RTD (375 curve)  
 1K ..... 1K Plat. RTD (385 curve)  
 1K[NI]..... 1K Nickel RTD

**#2: Humidity Output (Required)**

H200 ... ±2% Accuracy, 0 to 5V Output  
 H215 ... ±2% Accuracy, 1 to 5V Output\*  
 H210 ... ±2% Accuracy, 0 to 10V Output  
 H212 ... ±2% Accuracy, 2 to 10V Output\*  
 H220 ... ±2% Accuracy, 4 to 20mA Output  
 H300 ... ±3% Accuracy, 0 to 5V Output  
 H315 ... ±3% Accuracy, 1 to 5V Output\*  
 H310 ... ±3% Accuracy, 0 to 10V Output  
 H312 ... ±3% Accuracy, 2 to 10V Output\*  
 H320 ... ±3% Accuracy, 4 to 20mA Output

**#3: Enclosure (Required)**

O-BB2....BAPI-Box 2 (IP66, NEMA 4)  
 O-BB.....BAPI-Box (IP66, NEMA 4)

**Example Number:**

BA/(10K-2) - (H200) - (O-BB2)  
BA/10K-2-H200-O-BB2 (no parenthesis)

**Description:** 10K-2 Thermistor, ±2%RH with 4 to 20mA Output, BAPI-Box 2 Enclosure

**Option Selection Guide**

### Outside Air Units with a Temperature Transmitter

BA/ ( #1 )( #2 ) - ( #3 ) - ( #4 ) - ( #5 )

**#1: Temp Transmitter (Required)**

T1K ..... 4 to 20mA Output\*  
 TXS20..... 4 to 20mA Output  
 TXS05..... 0 to 5V Output  
 TXS10..... 0 to 10V Output  
 TXS12..... 2 to 10V Output  
 TXS15..... 1 to 5V Output

**#2: Temperature Range (Required)**

[32 TO 212F] ... 32 to 212°F Range  
 [20 TO 120F] ... 20 to 120°F Range  
 [0 TO 100F] ..... 0 to 100°F Range  
 [0 TO 100C] ..... 0 to 100°C Range  
 [-7 TO 49C] ..... -7 to 49°C Range  
 [-18 TO 38C].... -18 to 38°C Range

**#3: Humidity Output (Required)**

H200 ... ±2% Accuracy, 0 to 5V Output  
 H215 ... ±2% Accuracy, 1 to 5V Output  
 H210 ... ±2% Accuracy, 0 to 10V Output  
 H212 ... ±2% Accuracy, 2 to 10V Output  
 H220 ... ±2% Accuracy, 4 to 20mA Output  
 H300 ... ±3% Accuracy, 0 to 5V Output  
 H315 ... ±3% Accuracy, 1 to 5V Output  
 H310 ... ±3% Accuracy, 0 to 10V Output  
 H312 ... ±3% Accuracy, 2 to 10V Output  
 H320 ... ±3% Accuracy, 4 to 20mA Output

**#4: BAPI-Box Enclosure (Required)**

O-BB.... BAPI-Box (IP66, NEMA 4)

\*Output not field selectable

**Example Number:**

BA/(T1K)([0 TO 100F]) - (H200) - (O-BB)  
BA/T1K[0 TO 100F]-H200-O-BB (no parenthesis)

**Description:** Temperature Transmitter with 4 to 20mA Output and 0 to 100°F Range, ±2%RH with 4 to 20mA Output, BAPI-Box Enclosure

**Your Number:** BA/

