



Features & Options

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



**BAPI-Box
(BB)**



**BAPI-Box 2
(BB2)**



**Weatherproof
(WP)**

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 three of the most watertight enclosures available today.

The cast aluminum Weatherproof (**WP**) enclosure carries a NEMA 3R, while the BAPI-Box (**BB**) and BAPI-Box 2 (**BB2**) are made of UV-resistant polycarbonate and carry an IP66 rating.

All Outside Air Units are built to withstand high humidity and condensation and perform in the real world. This is especially important in an Outside Air Unit which can be exposed to rain, snow and large temperature swings.

Replacement Filter - The 100 micron sintered stainless steel filter protects the sensor from contamination while allowing airflow. See "Accessories" for more info.



*All Passive Thermistors 10K Ω and smaller are CE compliant.

Specifications

Power and Consumption:

- 10 to 35 VDC, 22 mA max. (for units with 0 to 5 VDC or 4 to 20 mA Humidity Outputs)
- 15 to 35 VDC, 6 mA max. (for units with 0 to 10 VDC Humidity Output)
- 12 to 27 VAC, 0.53 VA max. (for units with 0 to 5 VDC Humidity Outputs)
- 15 to 27 VAC, 0.14 VA max. (for units with 0 to 10 VDC Humidity Output)

Encl. Dimensions:

H x W x D

- BAPI-Box (BB) 5 x 4.1 x 2.5" (127 x 104 x 63.5mm)
- BAPI-Box 2 (BB2) 4.9 x 2.8 x 2.35" (125 x 71.6 x 60mm)
- Weatherproof (WP) 4.5 x 2.75 x 2.2" (114 x 70 x 55mm)

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

Sensor:

- Humidity: Capacitive 2% or 3% RH (10 to 90% RH @ 23°C)
- Temp: Thermistor, Semiconductor RTD or Temp Transmitter

Enclosure Material:

- WP Model: Cast Aluminum
- BB & BB2: 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

Enclosure Rating:

- WP Model: NEMA 3R
- BB & BB2: IP66, NEMA 4

Note: See installation sheets for full specifications.

For detailed specifications on the Sensors & Transmitters, see the "Sensors" section.





Rev. 03/26/14

Outside Air Units

B23

Humidity & Combination Temp/Humidity Sensors

Ordering Grids without List Prices are available on our website at www.bapihvac.com

Ordering Information Outside Air Units - Humidity or Combination Temp. & Humidity				List Price	Your Order																
BA/	Optional Temp. Sensor Use the designator number (shown to the left in bold) to indicate the sensor																				
##-	<p>THERMISTORS</p> <p>1.8K 1.8K Ω @ 25 °C 3K 3K Ω @ 25 °C 3.25K 3.25K Ω @ 25 °C (T30 type) 3.3K 3.3K Ω @ 25 °C 10K-2 10K Ω @ 25 °C 10K-3 10K Ω @ 25 °C 10K-3[11K] 5,238 Ω @ 25 °C 20K 20K Ω @ 25 °C 50K 50K Ω @ 25 °C 100K 100K Ω @ 25 °C</p> <p>RTDs</p> <p>100 100 Ω Platinum @ 0 °C, .385 Ω/°C temp. coeff. 100[3W] 3 Wire 100 Ω Plat. @ 0 °C, .385 Ω/°C temp. coeff. 1K[375] 1K Ω Platinum @ 0 °C, 3.75 Ω/°C temp. coeff. 1K[Ni] 1K Ω Nickel @ 21°C, 5 Ω/°C temp. coeff. 1K 1K Ω Platinum @ 0 °C, 3.85 Ω/°C temp. coeff. 2K 2K Ω Silicon @ 20 °C, 8 Ω/°C temp. coeff.</p> <p>SEMICONDUCTORS</p> <p>334 LM334 Semiconductor 592 AD592 Semiconductor, 273 μA @ 0 °C 592-10K AD592 Semicond. with 10 kΩ shunt resistor, 2.73 V @ 0 °C</p> <p>TEMPERATURE TRANSMITTERS <i>Must include a "range" figure</i></p> <p>T1K[range] 1K Platinum RTD, 1,000 Ω @ 0 °C with 4 to 20 mA Output* T1KM[range] 1K Platinum RTD, 1,000 Ω @ 0 °C with MATCHED 4 to 20 mA Output* T10K[range] 10K Thermistor, 10,000 Ω @ 25 °C with 4 to 20 mA Output* T10K5[range] 10K Thermistor, 10,000 Ω @ 25 °C with 0 to 5 VDC Output* T10K10[range] 10K Thermistor, 10,000 Ω @ 25 °C with 0 to 10 VDC Output*</p> <p>TEMPERATURE TRANSMITTER RANGES Custom temperature transmitter ranges are available. Common ranges are listed below</p> <table border="0"> <tr> <td>40 TO 90F</td> <td>4 TO 32C</td> <td>-30 TO 130F</td> <td>-34 TO 54C</td> </tr> <tr> <td>0 TO 100F</td> <td>-18 TO 38C</td> <td>32 TO 212F</td> <td>0 TO 100C</td> </tr> <tr> <td>20 TO 120F</td> <td>-7 TO 48C</td> <td>30 TO 234F</td> <td>-1 TO 112C</td> </tr> <tr> <td>32 TO 134F</td> <td>0 TO 57C</td> <td></td> <td></td> </tr> </table>			40 TO 90F	4 TO 32C	-30 TO 130F	-34 TO 54C	0 TO 100F	-18 TO 38C	32 TO 212F	0 TO 100C	20 TO 120F	-7 TO 48C	30 TO 234F	-1 TO 112C	32 TO 134F	0 TO 57C			<p>Thermistors \$18 Each</p> <p>RTD's \$25 Each or \$35 for 1K[Ni]</p> <p>Semi-conductors \$25 Each</p> <p>Temperature Transmitters \$125 for T1K or T10K</p> <p>\$280 for T1KM</p>	<p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p>
40 TO 90F	4 TO 32C	-30 TO 130F	-34 TO 54C																		
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Humidity Transmitter (Required)																					
	H200	±2% Humidity Transmitter with Interchangeable Output of 0 to 5 V or 4 to 20 mA		\$240	\$ _____																
	H210	±2% Humidity Transmitter with 0 to 10 V Output		\$240	\$ _____																
	H212	±2% Humidity Transmitter with 2 to 10 V Output		\$240	\$ _____																
	H300	±3% Humidity Transmitter with Interchangeable Output of 0 to 5 V or 4 to 20 mA		\$240	\$ _____																
	H310	±3% Humidity Transmitter with 0 to 10 V Output		\$240	\$ _____																
	H312	±3% Humidity Transmitter with 2 to 10 V Output		\$240	\$ _____																
Enclosure (Required)																					
	-O-BB	BAPI-Box Enclosure - IP66 rated, UV-resistant polycarbonate		\$12	\$ _____																
	-O-BB2	BAPI-Box 2 Enclosure - IP66 rated, UV-resistant polycarbonate*		\$12	\$ _____																
	-O-WP	Weatherproof Enclosure - NEMA 3R rated metal enclosure*		\$12	\$ _____																
EXAMPLE																					
BA/	10K-2-	H200	-O-BB																		
Example Part Number: BA/10K-2-H200-O-BB				Total =	\$ _____																
Your Part Number:																					

*Note: Units with a temperature transmitter and a humidity transmitter require a doublegang O-WP enclosure or O-BB enclosure. Dual transmitter units are not available with the O-BB2 enclosure.

Call BAPI if you have questions about the above ordering grid or the configuration of the product you are ordering.

Doublegang Weatherproof Enclosure

Units with a Temperature Transmitter and a Humidity Transmitter require a doublegang Weatherproof (O-WP) enclosure or BAPI-Box (O-BB) enclosure and are not available in the BAPI-Box 2 (O-BB2) enclosure.



Doublegang Weatherproof Enclosure

