Duct Units

Humidity or Combination Temp/Humidity Sensors

Rev. 01/12/16

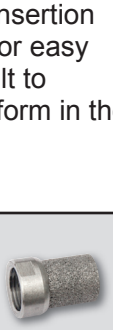
Features & Options

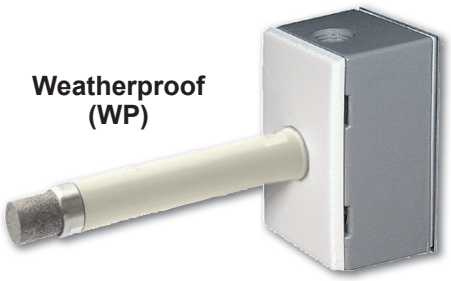
- 10 Points of Calibration from 10 to 90% RH
- Humidity Only or Temp./Humidity Combination
- Three Watertight Enclosure Styles
- Replaceable Stainless Steel Filter
- 2% and 3% RH Accuracies
- Wide Selection of Temperature Sensing Elements

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 Duct Units are also extremely dependable, featuring three of the most watertight enclosures available today: the polycarbonate BAPI-Box and BAPI-Box 2 and the cast aluminum WP enclosure.

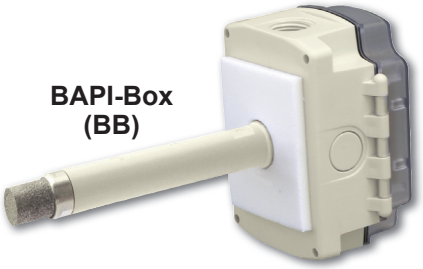
All Duct Units feature closed cell foam to seal the insertion hole and to absorb vibration. Mounting tabs allow for easy installation to the wall of the duct. The units are built to withstand high humidity and condensation and perform in the real world.

Replacement Filter - The 80 micron sintered stainless steel filter protects the sensor from contamination while allowing airflow. See "Accessories" for more info.

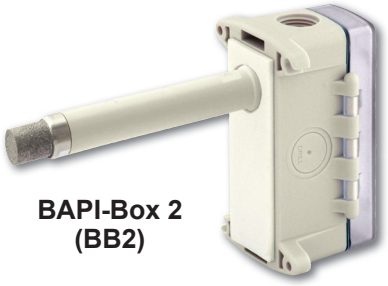




Weatherproof (WP)



BAPI-Box (BB)



BAPI-Box 2 (BB2)

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 Rating:

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

Enclosure Material:

WP Model: Cast Aluminum
BB & BB2: UV-resistant Polycarbonate, UL 94, V-0

Environmental Operation Range:

Temp: -40°F to 158°F (-40 to 70°C)
Humidity: 0% to 100% RH
Fully Temperature Compensated

Note: See installation sheets for full specifications.

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

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

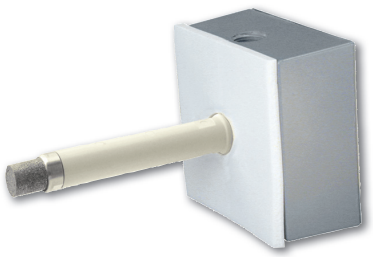
Ordering Information	*Duct Units - Humidity or Combination Temp. & Humidity*				List Price	Your Order
BA/						
Optional Sensor Type	**Use the designator number (shown to the left in bold) to indicate the sensor**					
	THERMISTORS		**RTDs**		**Thermistors**	
##-	**1.8K**	1.8K Ω @ 25 °C	**1K[375]**	1K Ω Platinum @ 0 °C, 3.75 Ω/°C temp. coeff.	**$18 Each**	$_____
	3K	3K Ω @ 25 °C	**1K[NI]**	1K Ω Nickel @ 21°C, 5 Ω/°C temp. coeff.		
	3.25K	3.25K Ω @ 25 °C (T30 type)	**1K**	1K Ω Platinum @ 0 °C, 3.85 Ω/°C temp. coeff.	**RTD's**	
	3.3K	3.3K Ω @ 25 °C	**2K**	2K Ω Silicon @ 20 °C, 8 Ω/°C temp. coeff.	**$25 Each**	
	10K-2	10K Ω @ 25 °C			**or**	$_____
	10K-3	10K Ω @ 25 °C			**$35 for 1K[NI]**	
	10K-3[11K]	5,238 Ω @ 25 °C		**SEMICONDUCTORS**		
	20K	20K Ω @ 25 °C	**334**	LM334 Semiconductor	**Semi-**	
	50K	50K Ω @ 25 °C	**592**	AD592 Semiconductor, 273 µA @ 0 °C	**conductors**	
	100K	100K Ω @ 25 °C	**592-10K**	AD592 Semiconductor with 10 kΩ shunt resistor, 2.73 V @ 0 °C	**$25 Each**	$_____
	TEMPERATURE TRANSMITTERS *Must include a "range" figure*				**Temperature**	
	T1K[range]	1K Platinum RTD, 1,000 Ω @ 0 °C with 4 to 20 mA Output*			**Transmitters**	
	T1KM[range]	1K Platinum RTD, 1,000 Ω @ 0 °C with MATCHED 4 to 20 mA Output*			**$125 for T1K**	$_____
	T10K[range]	10K Thermistor, 10,000 Ω @ 25 °C with 4 to 20 mA Output*			**or T10K**	
	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*				
	STANDARD TEMPERATURE TRANSMITTER RANGES					
	40 TO 90F	**-30 TO 130F**	**4 TO 32C**	**-34 TO 54C**	**$280 for**	$_____
	0 TO 100F	**32 TO 212F**	**-18 TO 38C**	**0 TO 100C**	**T1KM**	
	20 TO 120F	**30 TO 234F**	**-7 TO 48C**	**-1 TO 112C**		
	32 TO 134F		**0 TO 57C**			
	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)				
		-D-BB	BAPI-Box Enclosure - IP66 rated, UV-resistant polycarbonate		**$12**	$_____
		-D-BB2	BAPI-Box 2 Enclosure - IP66 rated, UV-resistant polycarbonate*		**$12**	$_____
		-D-WP	Weatherproof Enclosure - NEMA 3R rated metal enclosure*		**$12**	$_____
EXAMPLE						
BA/	**10K-2-**	**H200**	**D-BB**		**Total =**	$_____
Example Part Number: BA/10K-2-H200-D-BB						
Your Part Number:						

*Note: Units with a temperature transmitter and a humidity transmitter require a doublegang D-WP enclosure or D-BB enclosure. Dual transmitter units are not available with the D-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 (D-WP) enclosure or BAPI-Box (D-BB) enclosure and are not available in the BAPI-Box 2 (D-BB2) enclosure.



Doublegang Weatherproof Enclosure

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