

## Features & Options

- Humidity Only or Temp./Humidity Combination
- Etched Teflon Leadwires & Foamback Insulator
- Three Enclosure Styles
- Ruggedized (Encapsulated) Transmitter
- Replaceable Filter & Humidity Probe
- 2% and 3% RH Accuracies
- Wide Selection of Temperature Sensing Elements
- Two Year Warranty



Humidity control is an important aspect of any climate control system. Therefore, humidity sensors must be both accurate and dependable. BAPI's humidity sensors are prescreened for accuracy, eliminating field calibration even when replacing a sensor or probe. The Duct Units are also extremely dependable, featuring three of the most watertight enclosures available today. The Weather Tight (EU) enclosure is made from a flame-retardant polymer that carries an IP66 rating. The cast aluminum Weatherproof (WP) enclosure carries a NEMA 3R while the BAPI-Box (BB) is made of UV-resistant polycarbonate and carries an IP66 rating. Optional liquid-tight fittings are available.

All Duct Units feature medical-grade closed cell foam to seal the probe insertion hole and to absorb vibration. Mounting tabs allow for easy installation directly to the wall of the duct. All Duct Units have etched Teflon leadwires and are built to withstand high humidity and condensation and perform under real world conditions.

**For detailed specs on the individual Sensors & Transmitters, turn to the Sensors section.**

## Specifications

### Power:

10 to 35 VDC (0 - 5 VDC or 4 - 20 mA outputs)  
 15 to 35 VDC (0 - 10 VDC Output)  
 12 to 24 VAC (0 - 5 VDC Output)  
 15 to 24 VAC (0 - 10 VDC Output)

### Power Consumption:

22 mA max. DC (0 - 5 VDC or 4 - 20 mA Outputs)  
 6 mA max. DC (0 - 10 VDC Output)  
 0.53 VA max. AC (0 - 5 VDC Output)  
 0.14 VA max. AC (0 - 10 VDC Output)

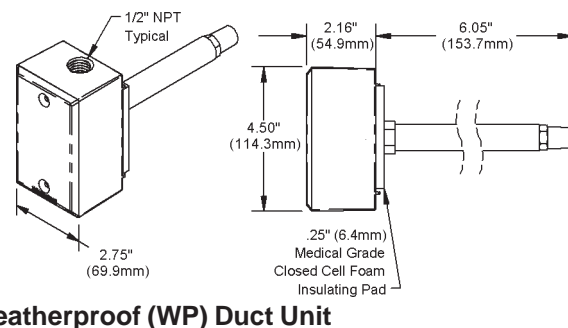
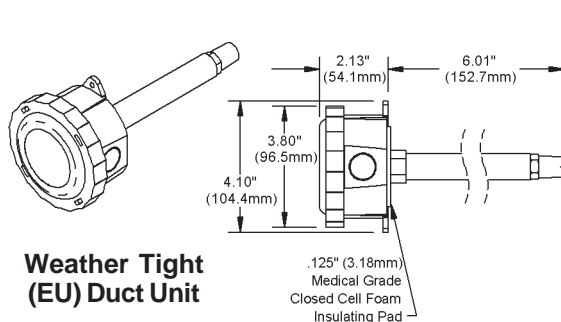
### Encl. Material:

WP Model: Cast Aluminum  
 EU Model: ABS Plastic, UL 94, V-0  
 BB Model: UV-resistant polycarbonate, UL 94, V-0

**Enclosure Rating:** WP Model: NEMA 3R  
 EU & BB Model: IP 66

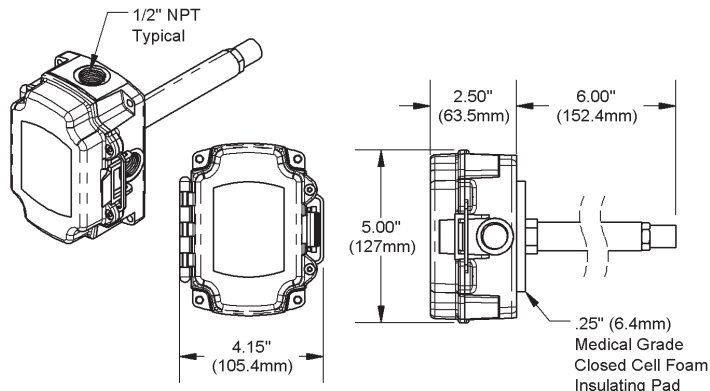
### Environmental Operation Range:

Temp: -30 °C to 70 °C  
 Humidity: 0% to 100% RH

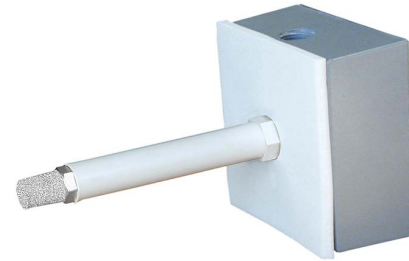


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### Specifications



**BAPI-Box (BB) Enclosure**



**Doublegang D-WP Enclosure**  
 (Units with a T100 or T1K Transmitter and a Humidity Transmitter require a doublegang D-WP enclosure or BAPI-Box enclosure and are not available in a D-EU enclosure. Units with a T10K transmitter and 4-20 mA or 0-5V output do not require a doublegang D-WP enclosure.)

### Ordering Information Duct Units - Humidity or Combination Temp. & Humidity

BA/		Sensor Type Use the designator number (shown to the left in bold) to indicate the sensor		
##-		<b>THERMISTORS</b>		
	<b>1.8K</b>	1.8K Ω @ 25 °C		
	<b>3K</b>	3K Ω @ 25 °C		
	<b>3.3K</b>	3.3K Ω @ 25 °C		
	<b>10K-2</b>	10K Ω @ 25 °C		
	<b>10K-3</b>	10K Ω @ 25 °C		
	<b>10K-3[11K]</b>	5,238 Ω @ 25 °C		
	<b>20K</b>	20K Ω @ 25 °C		
	<b>50K</b>	50K Ω @ 25 °C		
	<b>100K</b>	100K Ω @ 25 °C		
			<b>RTDs</b>	
			<b>100</b>	100 Ω Platinum @ 0 °C, .385 Ω/°C temp. coeff.
			<b>100[3W]</b>	3 Wire 100 Ω Plat. @ 0 °C, .385 Ω/°C temp. coeff.
			<b>1K[375]</b>	1K Ω Platinum @ 0 °C, 3.75 Ω/°C temp. coeff.
			<b>1K[Ni]</b>	1K Ω Nickel @ 21°C, 5 Ω/°C temp. coeff.
		<b>1K</b>	1K Ω Platinum @ 0 °C, 3.85 Ω/°C temp. coeff.	
		<b>2K</b>	2K Ω Silicon @ 20 °C, 8 Ω/°C temp. coeff.	
		<b>SEMICONDUCTORS</b>		
		<b>334</b>	LM334 Semiconductor	
		<b>592</b>	AD592 Semiconductor, 273 μA @ 0 °C	
		<b>592-10K</b>	AD592 Semicond. w/ 10 kΩ shunt resistor, 2.73 V @ 0 °C	
		<b>TEMPERATURE TRANSMITTERS Must include a "range" figure</b>		
	<b>T100[range]</b>	100 Platinum RTD, 100 Ω @ 0 °C with 4 to 20 mA Output*		
	<b>T100M[range]</b>	100 Platinum RTD, 100 Ω @ 0 °C with MATCHED 4 to 20 mA Output*		
	<b>T1K[range]</b>	1K Platinum RTD, 1,000 Ω @ 0 °C with 4 to 20 mA Output*		
	<b>T1KM[range]</b>	1K Platinum RTD, 1,000 Ω @ 0 °C with MATCHED 4 to 20 mA Output*		
	<b>T10K - Note</b>	See T10K Specific ordering grid on page B29		
		<b>STANDARD TEMPERATURE TRANSMITTER RANGES</b>		
		40 TO 90F	-30 TO 130F	
		0 TO 100F	32 TO 212F	
		20 TO 120F	30 TO 234F	
		32 TO 134F		
		4 TO 32C	-34 TO 54C	
		-18 TO 38C	0 TO 100C	
		-7 TO 48C	-1 TO 112C	
		0 TO 57C		
	<b>Humidity Transmitter</b>			
	<b>H200</b>	±2% Humidity Transmitter with Interchangeable Output of 0 to 5 V or 4 to 20 mA		
	<b>H210</b>	±2% Humidity Transmitter with 0 to 10 V Output		
	<b>H300</b>	±3% Humidity Transmitter with Interchangeable Output of 0 to 5 V or 4 to 20 mA		
	<b>H310</b>	±3% Humidity Transmitter with 0 to 10 V Output		
	<b>Enclosure</b>			
	<b>-D-BB</b>	BAPI-Box Enclosure - IP66 rated, UV-resistant polycarbonate		
	<b>-D-EU</b>	Weather Tight Enclosure - IP66 rated ABS polymer enclosure		
	<b>-D-EUO</b>	Weather Tight Enclosure - IP66 rated UV-resistant enclosure		
	<b>-D-WP</b>	Weatherproof Enclosure - NEMA 3R rated metal enclosure		

EXAMPLE			
BA/	10K-2-	H200	D-EUO

Example Part Number: BA/10K-2-H200-D-EUO

**Your Part Number:**

Units with a T100 or T1K transmitter and a humidity transmitter require a doublegang D-WP enclosure or BAPI-Box enclosure.  
 \*Note: The T100 and T1K Transmitters are not available with the D-EU or D-EUO enclosure.  
 Call BAPI if you have questions about the above ordering grid or the configuration of the product you are ordering.