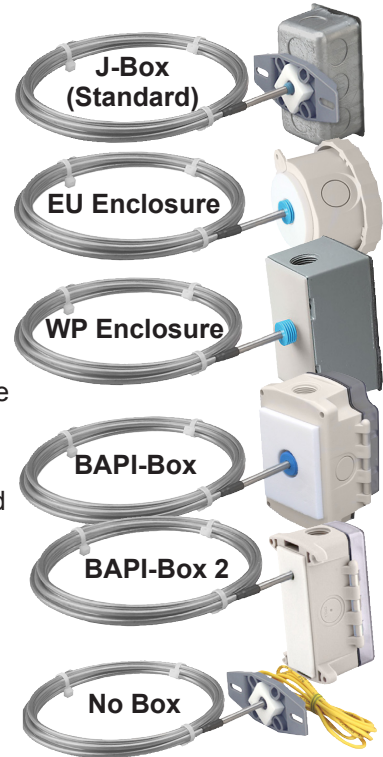


Rev. 08/02/10

### Features & Options

- Averaging Lengths: 8', 12' and 24'
- Five Enclosure Styles (optional)
- Limited Lifetime Warranty
- Wide Selection of Temperature Sensing Elements



BAPI Duct Averaging 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 units have etched Teflon leadwires and encapsulated sensors to create a watertight package that can withstand high humidity and condensation and perform under real world conditions.

Averaging probes should be used wherever there is a chance for stratified layers of hot and cold air. Averaging probes are made of bendable aluminum tubing and measure temperature along their entire length. Nylon tie straps are provided for mounting. Submersible Averaging and Rigid Averaging models are also available.

Duct Averaging Units come standard with a 2"x4" steel J-Box but are also available with No Box (**NB**) or four styles of enclosure: Weatherproof (**WP**), Weather Tight (**EU**), BAPI-Box (**BB**) or BAPI-Box 2 (**BB2**). The metal **WP** enclosure carries a NEMA 3R rating, while the ABS polymer **EU** carries an IP66 rating and is available in a UV-resistant material (**EUO**). The **BB** and **BB2** are made of UV-resistant polycarbonate and carry an IP66 rating. BAPI also offers optional liquid-tight fittings. For a comparison of the enclosure styles, please see the App. Notes section.

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

\* All Passive Thermistors 10K  $\Omega$  and smaller are CE compliant.

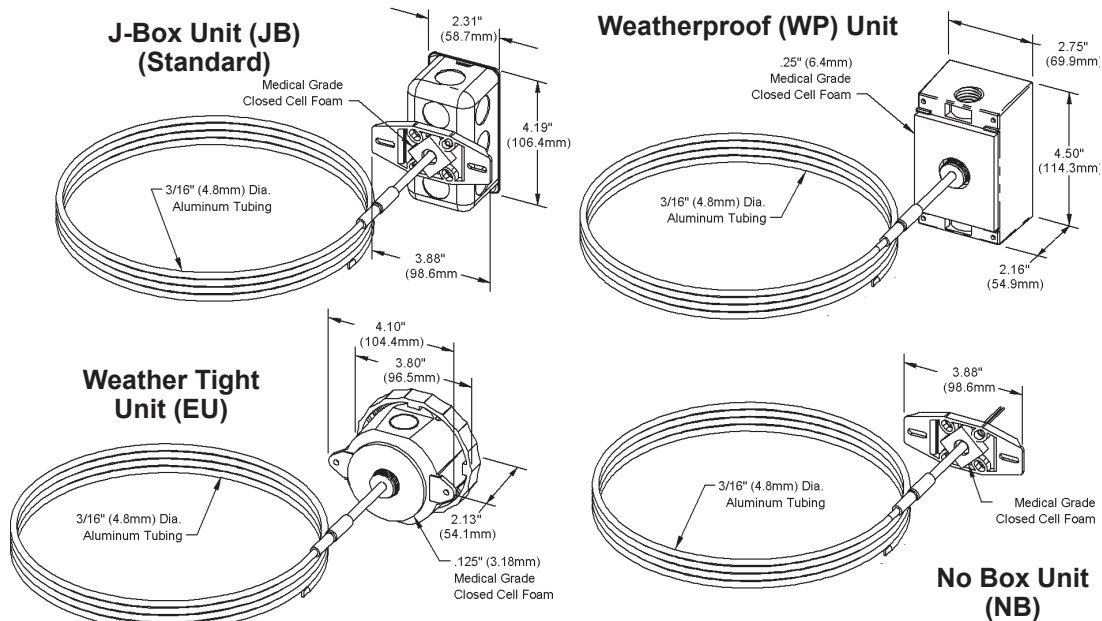
### Specifications for Duct Averaging & Rigid Duct Averaging Units

#### Enclosure Material:

- J-Box Model: Galv. Steel
- WP Model: Cast Aluminum
- EU Model: ABS Plastic, UL94, V-0
- BB & BB2: UV-resistant polycarbonate, UL94, V-0

#### Enclosure Rating:

- J-Box Model: NEMA 1
- WP Model: NEMA 3R
- EU, BB & BB2 Models: IP66, NEMA 4

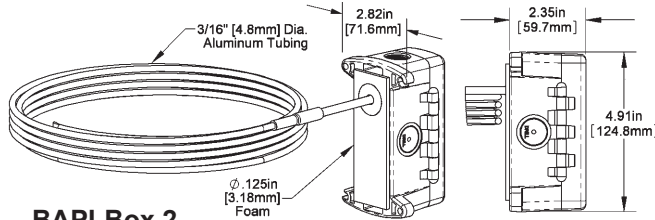


### Specifications for Duct Averaging & Rigid Duct Averaging Units

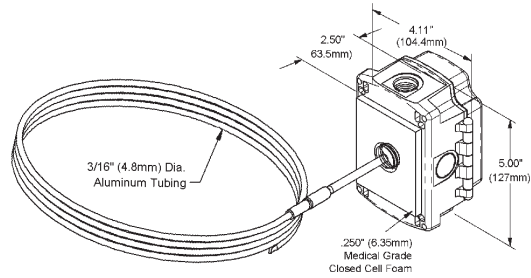
**Environmental Operation Range:**

Temperature: EU, BB & BB2 Encl.: -40 °C to 85 °C • J-Box, WP, NB: -40 °C to 100 °C

Humidity: 0 to 95%, non-condensing



**BAPI-Box 2 Unit (BB2)**



**BAPI-Box Unit (BB)**

Ordering Information		Duct Averaging Units - Temperature																
BA/	Sensor Type (Required selection)	Use the designator number (shown to the left in bold) to indicate the sensor																
#	<p><b>THERMISTORS</b></p> <p><b>1.8K</b> 1.8K Ω @ 25 °C</p> <p><b>3K</b> 3K Ω @ 25 °C</p> <p><b>3.25K</b> 3.25K Ω @ 25 °C (T30 type)</p> <p><b>3.3K</b> 3.3K Ω @ 25 °C</p> <p><b>10K-2</b> 10K Ω @ 25 °C</p> <p><b>10K-3</b> 10K Ω @ 25 °C</p> <p><b>10K-3[11K]</b> 5,238 Ω @ 25 °C</p> <p><b>20K</b> 20K Ω @ 25 °C</p> <p><b>50K</b> 50K Ω @ 25 °C</p> <p><b>100K</b> 100K Ω @ 25 °C</p> <p><b>TEMPERATURE TRANSMITTERS</b> <i>Must include a "range" figure</i></p> <p><b>T100[range]</b> 100 Platinum RTD, 100 Ω @ 0 °C with 4 to 20 mA Output</p> <p><b>T100M[range]</b> 100 Platinum RTD, 100 Ω @ 0 °C with MATCHED 4 to 20 mA Output*</p> <p><b>T1K[range]</b> 1K Platinum RTD, 1,000 Ω @ 0 °C with 4 to 20 mA Output</p> <p><b>T1KM[range]</b> 1K Platinum RTD, 1,000 Ω @ 0 °C with MATCHED 4 to 20 mA Output*</p> <p><b>T10K[range]</b> 10K Thermistor, 10,000 Ω @ 25 °C with 4 to 20 mA Output</p> <p><b>TEMPERATURE TRANSMITTER RANGES</b></p> <p>Custom temperature transmitter ranges are available. Common ranges are listed below</p> <table border="0"> <tr> <td><b>40 TO 90F</b></td> <td><b>4 TO 32C</b></td> <td><b>-30 TO 130F</b></td> <td><b>-34 TO 54C</b></td> </tr> <tr> <td><b>0 TO 100F</b></td> <td><b>-18 TO 38C</b></td> <td><b>32 TO 212F</b></td> <td><b>0 TO 100C</b></td> </tr> <tr> <td><b>20 TO 120F</b></td> <td><b>-7 TO 48C</b></td> <td><b>30 TO 234F</b></td> <td><b>-1 TO 112C</b></td> </tr> <tr> <td><b>32 TO 134F</b></td> <td><b>0 TO 57C</b></td> <td></td> <td></td> </tr> </table>	<b>40 TO 90F</b>	<b>4 TO 32C</b>	<b>-30 TO 130F</b>	<b>-34 TO 54C</b>	<b>0 TO 100F</b>	<b>-18 TO 38C</b>	<b>32 TO 212F</b>	<b>0 TO 100C</b>	<b>20 TO 120F</b>	<b>-7 TO 48C</b>	<b>30 TO 234F</b>	<b>-1 TO 112C</b>	<b>32 TO 134F</b>	<b>0 TO 57C</b>			<p><b>RTDs</b></p> <p><b>100</b> 100 Ω Platinum @ 0 °C, .385 Ω/°C temp. coeff.</p> <p><b>100[3W]</b> 3 Wire 100 Ω Plat. @ 0 °C, .385 Ω/°C temp. coeff.</p> <p><b>1K[375]</b> 1K Ω Platinum @ 0 °C, 3.75 Ω/°C temp. coeff.</p> <p><b>1K[Ni]</b> 1K Ω Nickel @ 21°C, 5 Ω/°C temp. coeff.</p> <p><b>1K</b> 1K Ω Platinum @ 0 °C, 3.85 Ω/°C temp. coeff.</p> <p><b>SEMICONDUCTORS</b></p> <p><b>334</b> LM334 Semiconductor</p>
<b>40 TO 90F</b>	<b>4 TO 32C</b>	<b>-30 TO 130F</b>	<b>-34 TO 54C</b>															
<b>0 TO 100F</b>	<b>-18 TO 38C</b>	<b>32 TO 212F</b>	<b>0 TO 100C</b>															
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<b>32 TO 134F</b>	<b>0 TO 57C</b>																	
	<p><b>Configuration (Required selection)</b></p> <p><b>-A-8'</b> 8' Duct Averaging - 3/16" Diameter, Bendable Aluminum</p> <p><b>-A-12'</b> 12' Duct Averaging - 3/16" Diameter, Bendable Aluminum</p> <p><b>-A-24'</b> 24' Duct Averaging - 3/16" Diameter, Bendable Aluminum</p> <p><b>-A-XX'</b> Custom Length Duct Averaging - 3/16" Diameter, Bendable Aluminum, Call for Details</p> <p><b>-RA-12"</b> 12" Rigid Averaging - 1/4" Diameter, Stainless Steel</p> <p><b>-RA-2"</b> 2" Rigid Averaging - 1/4" Diameter, Stainless Steel</p> <p><b>-RA-4"</b> 4" Rigid Averaging - 1/4" Diameter, Stainless Steel</p> <p><b>-RA-XX</b> Custom Length Rigid Averaging - 1/4" Diameter, Stainless Steel, Call for details</p> <p><b>Optional Enclosure 2"x4" J-Box comes standard</b></p> <p><b>-NB</b> No Junction Box, 6" Etched Teflon Leadwires</p> <p><b>-BB</b> BAPI-Box Enclosure - IP66 rated, UV-resistant polycarbonate</p> <p><b>-BB2</b> BAPI-Box 2 Enclosure- IP66 rated, UV-resistant polycarbonate</p> <p><b>-EU</b> Weather Tight Enclosure - IP66 rated ABS polymer enclosure</p> <p><b>-EUO</b> Weather Tight Enclosure - IP66 rated UV-resistant enclosure</p> <p><b>-WP</b> Weatherproof Enclosure - NEMA 3R rated metal enclosure</p> <p><b>Options</b></p> <p><b>-TB</b> Test and Balance Switch (BB or BB2 required)</p> <p><b>-TS</b> Terminal Block Connection (BB or BB2 required)</p>																	
<b>EXAMPLE</b>																		
BA/	10K-2	-A-8'	-NB															
Example Part Number: BA/10K-2-A-8'-NB																		
<b>Your Part Number:</b>																		

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

\*MATCHED Transmitter use Class A RTD's & are matched at 25%, 50% & 75% of calibrated scale limited to within -25°C to 150°C.