

## Temperature Sensors

Rev. 06/09/11

### Features & Options

- Etched Teflons Leads on the Remote Sensors
- Plenum Cable or FEP Cable on the Remote Probes
- Double Encapsulated Sensors on the Remote Probes
- Wide Selection of Temperature Sensing Elements

BAPI Remote Sensors feature a .85" long encapsulation shell and come with etched Teflon leads in lengths of 6", 18", 5', 10', 15', 20', and 25'. Because of their small size, Remote Sensors are perfect for tight locations. Additional cable options, lead lengths and probe styles are available upon request.

Remote Probes feature a 1.75" long stainless steel probe with either Plenum-Rated Cable or FEP-Jacketed Cable. Lead lengths are 18", 5', 10', 15', 20', and 25'. Remote Probes are commonly used in refrigerated case or strap-on applications. They are ideal for hard-to-access areas or spaces where the usual Immersion or Duct Sensors do not fit well. Additional cable options, lead lengths and probe styles are available upon request.

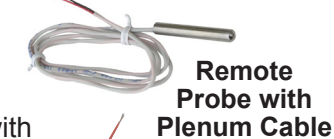
Remote Sensors and Probes are available with a Weatherproof (WP), Weather Tight (EU), BAPI-Box (BB) or BAPI-Box 2 (BB2) Enclosure.

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

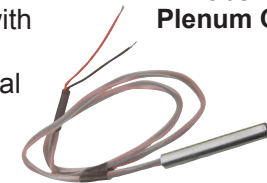
**For detailed specifications on the individual Sensors & Transmitters, turn to the "Sensors" Section.**



Remote Sensor with Epoxy Shell



Remote Probe with Plenum Cable



Remote Probe with FEP Cable



### Specifications

#### Environmental Operation Range:

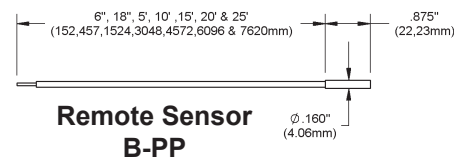
- Temperature Sensor: -40 °C to 105 °C
- Temperature Transmitter: -20 °C to 70 °C
- Humidity: 0 to 100%, non-condensing

#### Encl. Material:

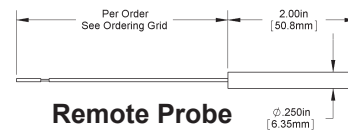
- WP Model: Cast Aluminum
- EU Model: ABS Plastic, UL94, V-0
- BB & BB2 Models: UV-resistant polycarbonate, UL94, V-0

#### Encl. Rating:

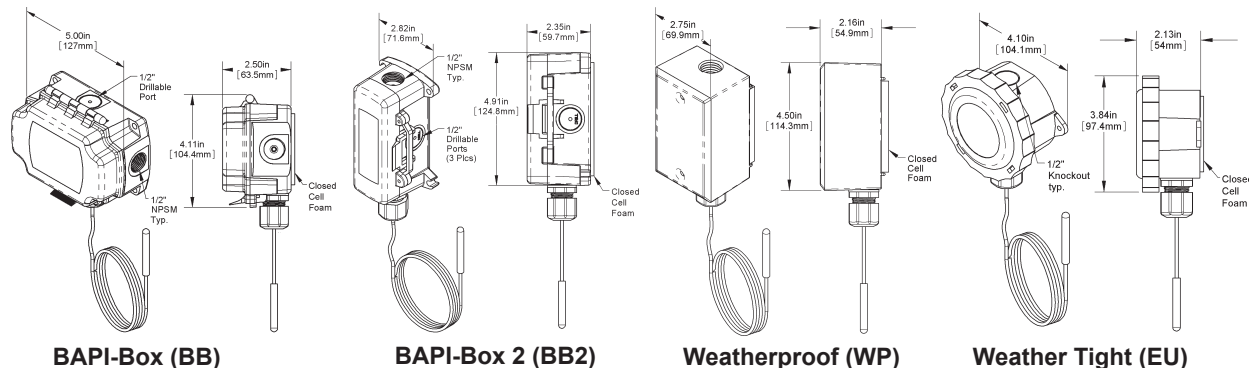
- WP Model: NEMA 3R
- EU, BB & BB2 Models: IP66, NEMA 4



Remote Sensor B-PP



Remote Probe -RPP



BAPI-Box (BB)

BAPI-Box 2 (BB2)

Weatherproof (WP)

Weather Tight (EU)



# Remote Sensors & Probes A71

## Temperature Sensors

Rev. 06/09/11

Ordering Grids without List Prices are available on our website at [www.bapihvac.com](http://www.bapihvac.com)

Ordering Information			Remote Sensors & Probes	List Price	Your Order													
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>1.8K 1.8K Ω @ 25 °C</p> <p>2.2K 2.2K Ω @ 25 °C</p> <p>3K 3K Ω @ 25 °C</p> <p>3.25K 3.25K Ω @ 25 °C (T30 type)</p> <p>3.3K 3.3K Ω @ 25 °C</p> <p>10K-2 10K Ω @ 25 °C</p> <p>10K-3 10K Ω @ 25 °C</p> <p>10K-3[11K] 5,238 Ω @ 25 °C</p> <p>20K 20K Ω @ 25 °C</p> <p>47K 47K Ω @ 25 °C</p> <p>50K 50K Ω @ 25 °C</p> <p>100K 100K Ω @ 25 °C</p> <p><b>TEMPERATURE TRANSMITTERS*</b></p> <p>T100[range] 100 Platinum RTD, 100 Ω @ 0 °C with 4 to 20 mA Output</p> <p>T100M[range] 100 Platinum RTD, 100 Ω @ 0 °C with MATCHED 4 to 20 mA Output*</p> <p>T1K[range] 1K Platinum RTD, 1,000 Ω @ 0 °C with 4 to 20 mA Output</p> <p>T1KM[range] 1K Platinum RTD, 1,000 Ω @ 0 °C with MATCHED 4 to 20 mA Output*</p> <p>T10K[range] 10K Thermistor, 10,000 Ω @ 25 °C with 4 to 20 mA Output**</p> <p>T10K5[range] 10K Thermistor, 10,000 Ω @ 25 °C with 0-5 VDC Output**</p> <p>T10K10[range] 10K Thermistor, 10,000 Ω @ 25 °C with 0-10 VDC Output**</p> <p><b>TEMPERATURE TRANSMITTER RANGES</b></p> <p>Custom temperature transmitter ranges are available. Common ranges listed below</p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">0 TO 100F</td> <td style="text-align: center;">-18 TO 38C</td> <td style="text-align: center;">-4 TO 176F</td> <td style="text-align: center;">-20 TO 80C</td> </tr> <tr> <td style="text-align: center;">-50 TO 100F</td> <td style="text-align: center;">-46 TO 38C</td> <td style="text-align: center;">40 TO 240F</td> <td style="text-align: center;">4 TO 116C</td> </tr> <tr> <td style="text-align: center;">-52 TO 152F</td> <td style="text-align: center;">-47 TO 67C</td> <td></td> <td></td> </tr> </table>	0 TO 100F	-18 TO 38C	-4 TO 176F	-20 TO 80C	-50 TO 100F	-46 TO 38C	40 TO 240F	4 TO 116C	-52 TO 152F	-47 TO 67C			<p><b>RTDs</b></p> <p>100 100 Ω Platinum @ 0 °C, .385 Ω/°C temp. coeff.</p> <p>100[3W] 3 Wire 100 Ω Plat. @ 0 °C, .385 Ω/°C temp. coeff.</p> <p>1K[375] 1K Ω Platinum @ 0 °C, 3.75 Ω/°C temp. coeff.</p> <p>1K[Ni] 1K Ω Nickel @ 21°C, 5 Ω/°C temp. coeff.</p> <p>1K 1K Ω Platinum @ 0 °C, 3.85 Ω/°C temp. coeff.</p> <p>2K 2K Ω Silicon @ 20 °C, 8 Ω/°C temp. coeff.</p> <p><b>SEMICONDUCTORS</b></p> <p>334 LM334 Semiconductor</p> <p>592 AD592 Semiconductor, 273 μA @ 0 °C</p> <p>592-10K AD592 Semicond. w/10 kΩ shunt resistor, 2.73V @ 0 °C</p>	<p><b>Thermistors</b></p> <p>\$18 Each</p> <p><b>RTD's</b></p> <p>\$25 Each or \$35 for 1K[Ni]</p> <p><b>Semi-conductors</b></p> <p>\$25 Each</p> <p><b>Temperature Transmitters</b></p> <p>\$125 for T100, T1K &amp; T10K</p> <p>\$280 for T100M &amp; T1KM</p>		
	0 TO 100F	-18 TO 38C	-4 TO 176F	-20 TO 80C														
	-50 TO 100F	-46 TO 38C	40 TO 240F	4 TO 116C														
	-52 TO 152F	-47 TO 67C																
			<p><b>Probe Type and Lead Length</b></p> <p><b>Required selection</b></p> <p>-PP-6" Remote Sensor - 6" Leads (Etched Teflon Leadwires)</p> <p>-PP-18" Remote Sensor - 18" Leads (Plenum Rated Cable)</p> <p>-PP-5' Remote Sensor - 5' Leads (Plenum Rated Cable)</p> <p>-PP-10' Remote Sensor - 10' Leads (Plenum Rated Cable)</p> <p>-PP-15' Remote Sensor - 15' Leads (Plenum Rated Cable)</p> <p>-PP-20' Remote Sensor - 20' Leads (Plenum Rated Cable)</p> <p>-PP-25' Remote Sensor - 25' Leads (Plenum Rated Cable)</p> <p>-RPP-6" Remote Probe with Plenum Rated Cable - 6" Leads</p> <p>-RPP-18" Remote Probe with Plenum Rated Cable - 18" Leads</p> <p>-RPP-5' Remote Probe with Plenum Rated Cable - 5' Leads</p> <p>-RPP-10' Remote Probe with Plenum Rated Cable - 10' Leads</p> <p>-RPP-15' Remote Probe with Plenum Rated Cable - 15' Leads</p> <p>-RPP-20' Remote Probe with Plenum Rated Cable - 20' Leads</p> <p>-RPP-25' Remote Probe with Plenum Rated Cable - 25' Leads</p> <p>-RPFEP-6" Remote Probe with FEP Jacketed Cable - 6" Leads</p> <p>-RPFEP-18" Remote Probe with FEP Jacketed Cable - 18" Leads</p> <p>-RPFEP-5' Remote Probe with FEP Jacketed Cable - 5' Leads</p> <p>-RPFEP-10' Remote Probe with FEP Jacketed Cable - 10' Leads</p> <p>-RPFEP-15' Remote Probe with FEP Jacketed Cable - 15' Leads</p> <p>-RPFEP-20' Remote Probe with FEP Jacketed Cable - 20' Leads</p> <p>-RPFEP-25' Remote Probe with FEP Jacketed Cable - 25' Leads</p> <p>-RPFEP2-6" Remote Probe with FEP Jacketed Cable (suitable for extended submersion) - 6" Leads</p> <p>-RPFEP2-18" Remote Probe with FEP Jacketed Cable (suitable for extended submersion) - 18" Leads</p> <p>-RPFEP2-5' Remote Probe with FEP Jacketed Cable (suitable for extended submersion) - 5' Leads</p> <p>-RPFEP2-10' Remote Probe with FEP Jacketed Cable (suitable for extended submersion) - 10' Leads</p> <p>-RPFEP2-15' Remote Probe with FEP Jacketed Cable (suitable for extended submersion) - 15' Leads</p> <p>-RPFEP2-20' Remote Probe with FEP Jacketed Cable (suitable for extended submersion) - 20' Leads</p> <p>-RPFEP2-25' Remote Probe with FEP Jacketed Cable (suitable for extended submersion) - 25' Leads</p>															
			<p><b>Enclosure Type*</b></p> <p><b>Required for Temp. Transmitter units, optional for other units</b></p> <p>-BB BAPI-Box Enclosure - IP66 rated, UV-resistant polycarbonate</p> <p>-BB2 BAPI-Box 2 Enclosure - IP66 rated, UV-resistant polycarbonate</p> <p>-WP Weatherproof Enclosure - NEMA 3R rated metal enclosure</p> <p>-EU Weather Tight Enclosure - IP66 rated ABS polymer enclosure</p> <p>-EUO Weather Tight Enclosure - IP66 rated UV-resistant enclosure</p> <p><b>Options</b></p> <p><b>An enclosure is required</b></p> <p>-TB Test &amp; Balance Switch (BB or BB2 required, includes a Terminal Strip Connection, not available with Temp. Transmitter)</p> <p>-TS Terminal Strip Connection (BB or BB2 required for units with a Thermistor, RTD or Semiconductor)***</p>															
			<p><b>EXAMPLE</b></p> <p>BA/ 10K-2 -PP-18"</p> <p>Example Part Number: BA/10K-2-PP-18"</p> <p><b>Your Part Number:</b></p>															
					Total =	\$ _____												

Call BAPI if you have questions about the above ordering/pricing grid or the configuration of the product you are ordering.  
 \*Temperature Transmitters require an enclosure. The enclosure is optional for Thermistors, RTDs and Semiconductors.  
 \*MATCHED Transmitter use Class A RTD's & are matched at 25%, 50% & 75% of calibrated scale limited to within -25°C to 150°C.  
 \*\*Range is limited to -40 to 185°F (-40 to 85°C)  
 \*\*\*TS option is not available with the 100[3W] RTD sensor, the 592-10K Semiconductor sensor or the T10K transmitters.