



## Features & Options

- Series 304 Stainless Steel Probes: 2", 4", 8", 12" and 18"
- Several Enclosure Styles
- Double Encapsulated Sensors & Etched Teflon Leadwires
- Limited Lifetime Warranty
- Wide Selection of Temperature Sensing Elements

Single Point Duct Units feature 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 double encapsulated sensors to create a watertight package that can withstand high humidity and condensation and perform under real world conditions. Duct Units have probe lengths from 2" to 18" to accommodate most duct shapes and sizes. Custom probe lengths are also available.

Duct Units come standard with a 2"x4" steel J-Box but are also available with no box or four styles of enclosure: the metal Weatherproof, the UV-resistant polycarbonate BAPI-Box and BAPI-Box 2 or nylon & ABS plastic BAPI-Box 4.

### Pierceable Knockout Plug

A Pierceable Knockout Plug is available for the open hole in the BAPI-Box 4 enclosure (and for ports in other enclosures). With the plug installed, the BAPI-Box 4 carries an IP44 rating. See "Accessories" for more info.

BAPI-Box 4 Duct Sensor  
with Plug Installed



No Box  
(NB)

J-Box (JB)  
(Standard)

Weatherproof  
(WP)

BAPI-Box  
(BB)

BAPI-Box 2  
(BB2)

BAPI-Box 4  
(BB4)

## Specifications

### Enclosure Material:

J-Box Model: Galv. Steel  
 WP Model: Cast Aluminum  
 BB & BB2: Polycarbonate, UL94, V-0  
 BB4 Model: Nylon & Plastic, UL94, V-0

### Enclosure Rating:

J-Box Model: IP20, NEMA 1  
 BB4 Model: IP10  
 (IP44 with Knockout Plug)  
 WP Model: NEMA 3R  
 BB & BB2 Models: IP66, NEMA 4

### Environmental Operation Range:

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

### 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)
BAPI-Box 4 (BB4)	2.8 x 2.8 x 2.06" (72 x 71.4 x 52.3mm)
J-Box (JB)	4.2 x 3.9 x 1.94" (106 x 98.4 x 49mm)
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.)

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

\*All Passive Thermistors 20KΩ and smaller are CE compliant.





10/14/15

Ordering Information		Duct Units - Temperature		
BA/				
Sensor Type (Required) Use the designator number (shown to the left in bold) to indicate the sensor				
#	<b>THERMISTORS</b>		<b>RTDs</b>	
	<b>1.8K</b>	1.8K $\Omega$ @ 25 °C	<b>1K[375]</b> 1K $\Omega$ Platinum @ 0 °C, 3.75 $\Omega$ /°C temp. coeff.	
	<b>2.2K</b>	2.2K $\Omega$ @ 25 °C	<b>1K[Ni]</b> 1K $\Omega$ Nickel @ 21°C, 5 $\Omega$ /°C temp. coeff.	
	<b>3K</b>	3K $\Omega$ @ 25 °C	<b>1K</b> 1K $\Omega$ Platinum @ 0 °C, 3.85 $\Omega$ /°C temp. coeff.	
	<b>3.25K</b>	3.25K $\Omega$ @ 25 °C (T30 type)	<b>2K</b> 2K $\Omega$ Silicon @ 20°C, 8 $\Omega$ /°C temp. coeff.	
	<b>3.3K</b>	3.3K $\Omega$ @ 25 °C		
	<b>10K-2</b>	10K $\Omega$ @ 25 °C	<b>SEMICONDUCTORS</b>	
	<b>10K-3</b>	10K $\Omega$ @ 25 °C	<b>334</b>	LM334 Semiconductor
	<b>10K-3[11K]</b>	5,238 $\Omega$ @ 25 °C	<b>592</b>	AD592 Semiconductor, 273 $\mu$ A @ 0C
	<b>20K</b>	20K $\Omega$ @ 25 °C	<b>592-10K</b>	AD592 Semicond. w/ 10 k $\Omega$ shunt resistor, 2.73 V @ 0C
	<b>47K</b>	47K $\Omega$ @ 25 °C		
	<b>50K</b>	50K $\Omega$ @ 25 °C		
	<b>100K</b>	100K $\Omega$ @ 25 °C		
		<b>TEMPERATURE TRANSMITTERS</b> <i>Must include a "range" figure. Requires an enclosure.</i>		
	<b>T1K[range]</b>	1K Platinum RTD, 1,000 $\Omega$ @ 0 °C with 4 to 20 mA Output		
	<b>T1KM[range]</b>	1K Platinum RTD, 1,000 $\Omega$ @ 0 °C with MATCHED 4 to 20 mA Output*		
	<b>T10K[range]</b>	10K Thermistor, 10,000 $\Omega$ @ 25 °C with 4 to 20 mA Output**		
	<b>T10K5[range]</b>	10K Thermistor, 10,000 $\Omega$ @ 25 °C with 0-5 VDC Output**		
	<b>T10K10[range]</b>	10K Thermistor, 10,000 $\Omega$ @ 25 °C with 0-10 VDC Output**		
		<b>TEMPERATURE TRANSMITTER RANGES</b>		
	Custom temperature transmitter ranges are available. Common ranges are listed below			
	<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 49C</b>	<b>30 TO 234F</b> <b>-1 TO 112C</b>	
	<b>32 TO 134F</b>	<b>0 TO 57C</b>		
	<b>Probe Length (Required)</b>			
	<b>-D-2"</b>	2" length of 1/4" Diameter, Stainless Steel Probe		
	<b>-D-4"</b>	4" length of 1/4" Diameter, Stainless Steel Probe		
	<b>-D-8"</b>	8" length of 1/4" Diameter, Stainless Steel Probe		
	<b>-D-12"</b>	12" length of 1/4" Diameter, Stainless Steel Probe		
	<b>-D-18"</b>	18" length of 1/4" Diameter, Stainless Steel Probe		
	<b>-D-XX"</b>	Custom lengths of 1/4" Dia, Stainless Steel Probe are available. <b>Call for details.</b>		
	<b>Optional Enclosure Type 2"x4" Steel J-Box comes standard</b>			
	<b>-BB</b>	BAPI-Box Enclosure - IP66 rated, UV-resistant polycarbonate		
	<b>-BB2</b>	BAPI-Box 2 Enclosure - IP66 rated, UV-resistant polycarbonate		
	<b>-BB4</b>	BAPI-Box 4 Enclosure - IP10 rated, nylon & plastic (Not for Transmitters) (IP44 rated if Pierceable Knockout Plug is installed in the open port.)		
	<b>-WP</b>	Weatherproof Enclosure - NEMA 3R rated, metal		
	<b>-NB-18"</b>	No Junction Box, 18" Lead Length, Plenum Rated Cable		
	<b>-NB-5'</b>	No Junction Box, 5' Lead Length, Plenum Rated Cable		
	<b>-NB-10'</b>	No Junction Box, 10' Lead Length, Plenum Rated Cable		
	<b>-NB-15'</b>	No Junction Box, 15' Lead Length, Plenum Rated Cable		
	<b>-NB-XX</b>	Custom lead lengths (Plenum Rated cable) are available. <b>Call for details.</b>		
		<b>Options An enclosure is required</b>		
	<b>-TB</b>	Test & Balance Switch (BB or BB2 required, includes a Terminal Strip Connection, not available with Temp. Transmitter)		
	<b>-TS</b>	Terminal Strip Connection (BB or BB2 required for units with a Thermistor, RTD or Semiconductor)***		
<b>EXAMPLE</b>				
<b>BA/</b>	<b>10K-2</b>	<b>-D-8"</b>	<b>-NB-5'</b>	
Example Part Number: BA/10K-2-D-8"-NB-5				
<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.

\*\*Range is limited to -40 to 185°F (-40 to 85°C)

\*\*\*TS option is not available with the 592-10K Semiconductor sensor or the T10K transmitters.

