



## Features & Options

- Clamp-On, Strap On or Remote Probe Options
- Double Encapsulated Sensors
- Wide Selection of Temperature Sensing Elements

These units are designed to monitor water temperature in retrofit or filled pipe applications. The strap units fit around the outside of a pipe, greatly reducing installation cost, while the remote probes are strapped directly onto the pipe.

All three units measure the water temperature by sensing the surface temperature of the pipe. The Strap Units have etched Teflon leadwires and come standard with a Junction Box enclosure. The Clamp-On Unit and the Remote Probes are available with an optional BAPI-Box 4 or a watertight BAPI-Box or BAPI-Box 2 enclosure. The Spring-Loaded Unit is available with an optional BAPI-Box 4 or BAPI-Box 2 enclosure.

**Clamp-On Strap** – This unit has a bendable copper sensing plate which forms to the curvature of the pipe. An adjustable hose clamp holds the unit in place around the pipes up to 4.5”.

**Spring-Loaded Strap** – Instead of removing the pipe insulation, the spring loaded sensing pad is held against the pipe through a hole cut in the insulation. It can be used with pipes up to 14.5” with up to 2” of insulation.

**Remote Probes** - These units have a 1.75” long stainless steel probe with either Plenum-Rated Cable or FEP-Jacketed Cable with a lead length of 18” (Other lengths are available by calling BAPI). Remote Probes are ideal for strap-on applications on any size pipe, or hard-to-access areas.

(See pg A56 for more Remote Probe Options.)



Clamp-On Straps with BAPI-Box 4, J-Box, BAPI-Box 2 & BAPI-Box (from left)



Spring Loaded Strap Units with BAPI-Box 4, J-Box & BAPI-Box 2 (from left)



Remote Probes with BAPI-Box 4, BAPI-Box 2 & BAPI-Box (from left)

## Specifications

### Enclosure Material:

BB or BB2 Models: Polycarbonate  
J-Box: Galvanized Steel (J-Box)  
BB4: Nylon & Plastic, UL94, V-0

### Environmental Operation Range:

Temperature Sensor:  
Clamp On: -65 to 100 °C,  
Spring Loaded: -40 to 85 °C  
Remote Probe: -40 to 105 °C  
Temperature Transmitter: -20 to 70 °C  
Humidity: 0 to 95%, non-condensing

### Enclosure Rating:

J-Box: NEMA 1  
BB & BB2 Models: IP66, NEMA 4  
BB4: IP10 (IP44 with BAPI Knockout Plug installed.)

### 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)

(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.





Ordering Information		Clamp-On Strap, Spring-Loaded Strap and Remote Probe Units		
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>10K-3</b>	10K $\Omega$ @ 25 °C		
	<b>10K-3[11K]</b>	5,238 $\Omega$ @ 25 °C	<b>SEMICONDUCTORS</b>	
	<b>20K</b>	20K $\Omega$ @ 25 °C	<b>334</b> LM334 Semiconductor	
	<b>47K</b>	47K $\Omega$ @ 25 °C	<b>592</b> AD592 Semiconductor, 273 $\mu$ A @ 0 °C	
	<b>50K</b>	50K $\Omega$ @ 25 °C <sup>1</sup>	<b>592-10K</b> AD592 Semicond. with 10 k $\Omega$ shunt resistor, 2.73 V @ 0 °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 listed below			
	30 TO 81F	-1 TO 27C	32 TO 134F 0 TO 57C	
	0 TO 100F	-18 TO 38C	32 TO 212F 0 TO 100C	
	20 TO 120F	-7 TO 49C		
	<b>Configuration (Required)</b>			
	<b>-S</b>	Clamp-On Strap - Fits 2" to 4.5" (5.08 to 11.4 cm) pipe with adjustable SS hose clamp.		
	<b>-STP</b>	Spring-Loaded Strap - Fits 5" to 14.5" (12.7 to 36.8 cm) pipe with adjustable nylon straps.		
	<b>-RPP-18"</b>	Remote Probe with Plenum Rated Cable - 18" Leads		
	<b>-RPFEP-18"</b>	Remote Probe with FEP Jacketed Cable - 18" Leads		
	<b>-RPFEP2-18"</b>	Remote Probe w/ FEP Jacketed Cable (suitable for extended submersion) - 18" Leads		
		<b>Optional BAPI-Box Enclosure J-Box comes standard on Strap Units</b>		
	<b>-BB</b>	BAPI-Box Enclosure - IP66 rated, UV-resistant polycarbonate (Not available on the Spring-Loaded Strap Units)		
	<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>Optional Terminal Block BB or BB2 enclosure required</b>		
	<b>-TS</b>	Terminal Strip Connection (BB or BB2 required)***		
<b>EXAMPLE</b>				
<b>BA/</b>	<b>10K-2</b>	<b>-S</b>		
Example Part Number: BA/10K-2-S				
<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.

\*Transmitters with matched outputs require a Class A sensor.

\*\*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.

<sup>1</sup>The 50K $\Omega$  Thermistor is not available in the Clamp-On Strap (-S) and the Spring-Loaded Strap (-STP) units.

