



## Features & Options

- Waterproof, Copper-Cased Element
- Continuous Averaging (RTD models only)
- Averaging Lengths: 2', 4' and 8'

Submersible Averaging Units feature closed cell foam to seal the probe insertion hole and absorb vibration and mounting tabs allow for easy installation. All Units have etched Teflon leadwires and encapsulated sensors to create a watertight package that can withstand high humidity and perform in the real world.

Averaging probes should be used wherever there is a chance for stratified layers of hot and cold water. Averaging probes are made of bendable copper tubing and measure temperature along their entire length.

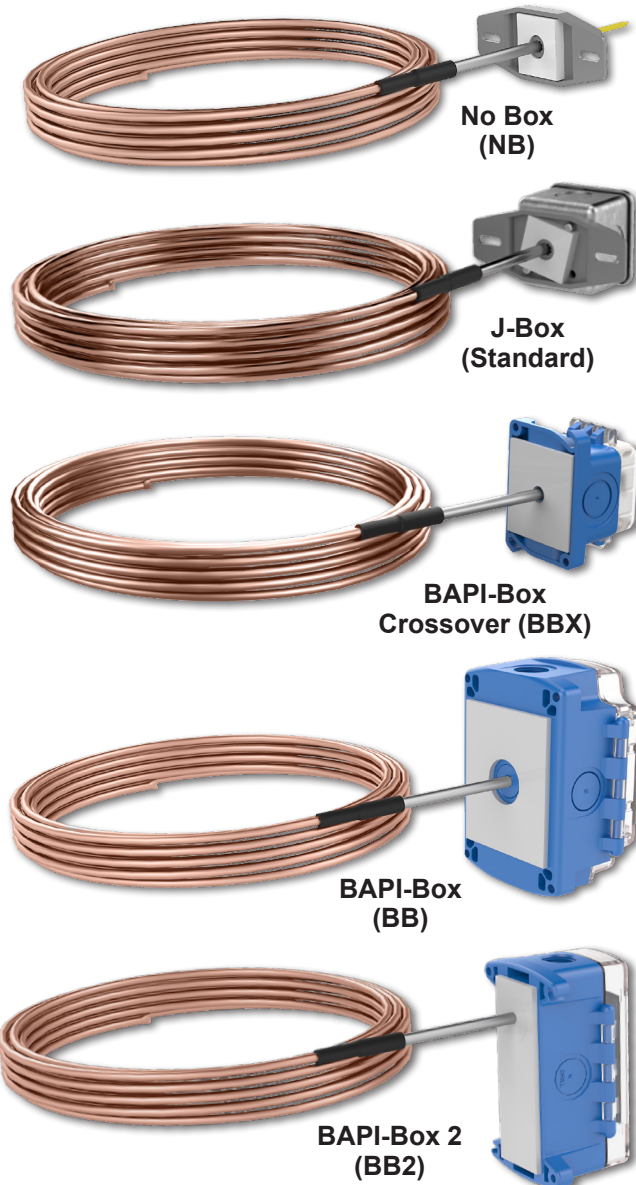
These units come standard with a 2"x2" steel J-Box but are also available with no box, the BAPI-Box, the BAPI-Box 2 or the BAPI-Box Crossover enclosures.

### Flexible Probe Bracket

The Flexible Probe Bracket (FPB) simplifies the mounting of averaging sensors. The bracket is used to reverse the direction of the probe with a smooth arc to eliminate the risk of kinking.



(See the Accessories Section for more info.)



## Specifications

### Environmental Operation Range:

Temperature:

BBX: -40 to 185°F (-40 to 85°C)

Other Enclosures: -40 to 212°F (-40 to 100°C)

Humidity: 0 to 100%, non-condensing

### Sensing Element:

Thermistor or RTD (See Sensors Section for Specs.)

### Probe Material:

Bendable Copper, 3/16" dia. with 4" sleeve

### Enclosure Material:

J-Box: Galvanized Steel

BBX: Polycarbonate (UL94 V-0) & Nylon (UL94 HB)

BB & BB2: UV-Resistant Polycarb. (UL94 V-0)

### Enclosure Rating:

J-Box: IP20, NEMA 1

BBX: IP10, NEMA 1

IP44 with knockout plug in open port

BB & BB2: IP66, NEMA 4

### Enclosure Dimensions: H x W x D

BBX: 3.1 x 2.2 x 1.9" (79 x 56 x 49mm)

J-Box: 2.1 x 2.1 x 1.94" (54.6 x 54.6 x 49mm)

BB: 5 x 4.1 x 2.5" (127 x 104 x 63.5mm)

BB2: 4.9 x 2.8 x 2.35" (125 x 71.6 x 60mm)

(For enclosure dimension drawings, see the end of the section.)





Use the Option Selection Guides below to create your custom part number. Replace the number and parenthesis with the designator for each selection. Skip the designator and dashes for optional selections that are not required in your configuration. Additional options are available but not shown above. Contact BAPI for the complete list of options.



**Option Selection Guide**  
**Submersible Averaging  
Temperature Sensors**

BA/ ( #1 ) - ( #2 ) - ( #3 ) - ( #4 )

**#1: Temp Sensor (Required)**

1.8K .....	1.8K Thermistor	<b>Call for price.</b>
3K .....	3K Thermistor	
10K-2 .....	10K-2 Thermistor	
10K-3 .....	10K-3 Thermistor	
10K-3[11K]...	10K-3[11K] Thermistor	
20K .....	20K Thermistor	
1K .....	1K Plat. RTD (385 curve)	

**#2: Probe Length (Required)**

SA-2' .....	8' (0.6m) length
SA-4' .....	12' (1.2m) length
SA-8' .....	24' (2.4m) length

**#3: Enclosure (Optional)**  
(J-Box comes standard if nothing selected)

BBX .....	BAPI-Box Crossover (IP10, NEMA 1)
BB .....	BAPI-Box (IP66, NEMA 4)
BB2 .....	BAPI-Box 2 (IP66, NEMA 4)
NB .....	No Box, 6" Etched Teflon Leads

**#4: Test & Balance  
or Terminal Strip (Optional)**  
(requires a BBX, BB or BB2 enclosure above)

TB .....	Test & Balance Switch
TS .....	Terminal Strip Connection

**Option Selection Guide**  
**Submersible Averaging  
Temperature Transmitters**

BA/ ( #1 ) ( #2 ) - ( #3 ) - ( #4 ) - ( #5 )

**#1: Output (Required)**

T1K .....	4 to 20mA Output	<b>Call for price.</b>
TXS05 .....	0 to 5V Output*	
TXS10 .....	0 to 10V Output*	
TXS12 .....	2 to 10V Output*	
TXS15 .....	1 to 5V Output*	

**#2: Temperature Range (Required)**

[32 TO 212F] ...	32 to 212°F Range
[20 TO 120F] ...	20 to 120°F Range
[0 TO 100F] .....	0 to 100°F Range
[0 TO 100C] .....	0 to 100°C Range
[-7 TO 49C] .....	-7 to 49°C Range
[-18 TO 38C] .....	-18 to 38°C Range

**#3: Probe Length (Required)**

SA-2' .....	8' (0.6m) length
SA-4' .....	12' (1.2m) length
SA-8' .....	24' (2.4m) length

**#4: Enclosure (Required)**

BBX .....	BAPI-Box Crossover (IP10, NEMA 1)
BB .....	BAPI-Box (IP66, NEMA 4)
BB2 .....	BAPI-Box 2 (IP66, NEMA 4)

**#5: Terminal Strip (Optional)**

TS .....	Terminal Strip Connection
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\*Voltage outputs are field selectable

**Example Number:**

BA/(10K-2) - (SA-4') - (NB) - ( )  
BA/10K-2-SA-4'-NB (no parenthesis)

**Description:** 10K-2 Thermistor, 4' Probe,  
No Box Enclosure with 6" Etched Teflon Leads

**Example Number:**

BA/(T1K)([32 TO 212F]) - (SA-4') - (BBX) - ( )  
BA/T1K[32 TO 212F]-SA-4'-BBX (no parenthesis)

**Description:** 4 to 20mA Transmitter, 32 to  
212°F Range, 4' Probe, BAPI-Box Crossover  
Enclosure

**Your Number:** BA/

Gray shaded items follow the Buy and Resale Multiplier.

