

Features & Options

- Probe Lengths: 2", 4" & 8" (fit standard BAPI Thermowell lengths)
- Series 304 Stainless Steel Probes and Six Enclosure Styles
- Double Encapsulated Sensors & Etched Teflon Leadwires

Immersion Units are available in 2", 4" and 8" probe lengths. The sensor is potted inside a 1/4" stainless steel probe with thermally conductive compound. All Immersion Units have etched Teflon leadwires and double encapsulated sensors to create a watertight package that can withstand high humidity and condensation.

Immersion Units come standard with a 2"x4" steel J-Box but are also available with a BAPI-Box 4 or three styles of watertight enclosure: Weatherproof, BAPI-Box or BAPI-Box 2. BAPI also offers optional liquid-tight fittings.



BAPI Thermowells

Immersion Unit Probes are designed to be inserted into a Thermowell. For more info on Thermowells, see page A48.

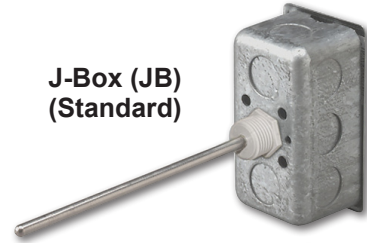
Pierceable Knockout Plug

A Pierceable Knockout Plug is available for the open port in the BAPI-Box 4 enclosure. With the plug installed, the BAPI-Box 4 carries an IP44 rating. See "Accessories" for more info.

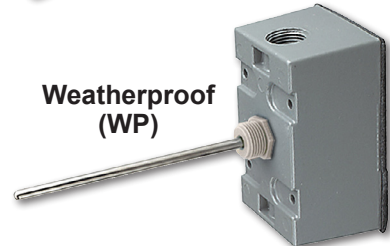
BAPI-Box 4 Immersion Sensor with Plug Installed



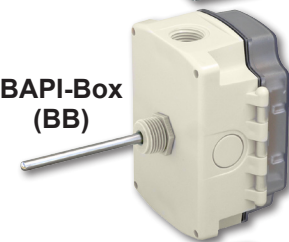
J-Box (JB)
(Standard)



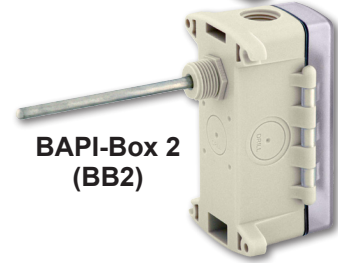
Weatherproof
(WP)



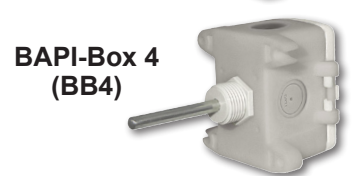
BAPI-Box
(BB)



BAPI-Box 2
(BB2)



BAPI-Box 4
(BB4)



Specifications

Environmental Operation Range:

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

Enclosure Rating:

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

Enclosure Material:

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

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.

Immersion Probes w/ nylon fitting

Temperature Sensors

A45

Rev. 01/04/16



Ordering Information		Immersion Units - Temperature		
BA/	Sensor Type	Required selection	Use the designator number (shown to the left in bold) to indicate the sensor	
#	THERMISTORS		RTDs	
	1.8K	1.8K Ω @ 25 °C	1K[375] 1K Ω Platinum @ 0 °C, 3.75 Ω /°C temp. coeff.	
	2.2K	2.2K Ω @ 25 °C	1K[Ni] 1K Ω Nickel @ 21°C, 5 Ω /°C temp. coeff.	
	3K	3K Ω @ 25 °C	1K 1K Ω Platinum @ 0 °C, 3.85 Ω /°C temp. coeff.	
	3.25K	3.25K Ω @ 25 °C (T30 type)	2K 2K Ω Silicon @ 20 °C, 8 Ω /°C temp. coeff.	
	3.3K	3.3K Ω @ 25 °C		
	10K-2	10K Ω @ 25 °C		
	10K-3	10K Ω @ 25 °C		
	10K-3[11K]	5,238 Ω @ 25 °C	SEMICONDUCTORS	
	20K	20K Ω @ 25 °C	334 LM334 Semiconductor	
	47K	47K Ω @ 25 °C	592 AD592 Semiconductor, 273 μ A @ 0 °C	
	50K	50K Ω @ 25 °C	592-10K AD592 Semicond. w/ 10 k Ω shunt resistor, 2.73 V @ 0 °C	
	100K	100K Ω @ 25 °C		
		TEMPERATURE TRANSMITTERS <i>Must include a "range" figure. Requires an enclosure.</i>		
	T1K[range]	1K Platinum RTD, 1,000 Ω @ 0 °C with 4 to 20 mA Output		
T1KM[range]	1K Platinum RTD, 1,000 Ω @ 0 °C with MATCHED* 4 to 20 mA Output			
T10K[range]	10K Thermistor, 10,000 Ω @ 25 °C with 4 to 20 mA Output**			
T10K5[range]	10K Thermistor, 10,000 Ω @ 25 °C with 0-5 VDC Output**			
T10K10[range]	10K Thermistor, 10,000 Ω @ 25 °C with 0-10 VDC Output**			
	TEMPERATURE TRANSMITTER RANGES			
	Custom temperature transmitter ranges are available. Common ranges are listed below			
	30 TO 81F	-1 TO 27C	32 TO 212F	
	0 TO 100F	-18 TO 38C	40 TO 240F	
	20 TO 120F	-7 TO 49C	50 TO 250F	
	32 TO 134F	0 TO 57C	0 TO 100C	
			4 TO 116C	
			10 TO 121C	
Configuration	Required selection			
-I-2"	2" length of 1/4" Diameter, Stainless Steel Probe (Use 2" BAPI Well)			
-I-4"	4" length of 1/4" Diameter, Stainless Steel Probe (Use 4" BAPI Well)			
-I-8"	8" length of 1/4" Diameter, Stainless Steel Probe (Use 8" BAPI Well)			
-I-XX	Custom lengths of 1/4" Diameter, Stainless Steel Probe are available. Call for Details (Custom well required)			
	Enclosure Options <i>2"x4" J-Box comes standard</i>			
	-BB	BAPI-Box Enclosure - IP66 rated, UV-resistant polycarbonate		
	-BB2	BAPI-Box 2 Enclosure - IP66 rated, UV-resistant polycarbonate		
	-BB4	BAPI-Box 4 Enclosure - IP10 rated, nylon & plastic (Not for Transmitters) (IP44 rated if Pierceable Knockout Plug is installed in the open port.)		
	-WP	Weatherproof Enclosure - NEMA 3R rated, cast aluminum		
		Optional Terminal Block An enclosure is required		
	-TS	Terminal Strip Connection (BB or BB2 required for units with a Thermistor, RTD or Semiconductor)***		
EXAMPLE				
BA/	10K-2	-I-8"	-BB	
Part Number: BA/10K-2-I-8"-BB				
Your Part Number:				

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.