



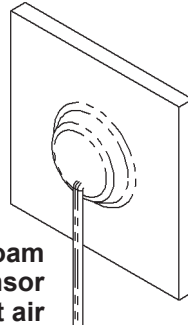
### Features & Options

- Copper Encapsulation Shell and Thermal Adhesive for Increased Temperature Transfer
- Easy to Install on Flat Surfaces
- Optional BAPI-Box 2 or Crossover
- FEP-Jacketed Cable

The Surface Sensor features a 0.75" diameter copper encapsulation shell with a thermally adhesive tape to mount on flat surfaces.

Surface Sensors are commonly used on glass windows and doors, solar panel modules, and other hard-to-access areas where a Remote Probe may be difficult to mount.

Surface Sensors are available with a BAPI-Box Crossover or BAPI-Box 2 enclosure. Unit includes a square closed-cell foam cover to isolate the sensor from the ambient air.



Includes square foam cover to insulate sensor from ambient air

Surface Sensor with FEP Cable  
(with white adhesive strip on sensing surface)



Surface Sensor with FEP Cable and BAPI-Box 2 Enclosure (right) and BAPI-Box Crossover Enclosure (below)



### Specifications

#### Environmental Operation Range:

Temperature Sensor:  
-40 to 221°F (-40 to 105°C)

Humidity: 0 to 100%, non-condensing

**Sensing Element:** Thermistor or RTD  
(See Sensors Sect. for Specifications)

**Surface Sensor Material:** Copper 110

#### Enclosure Material:

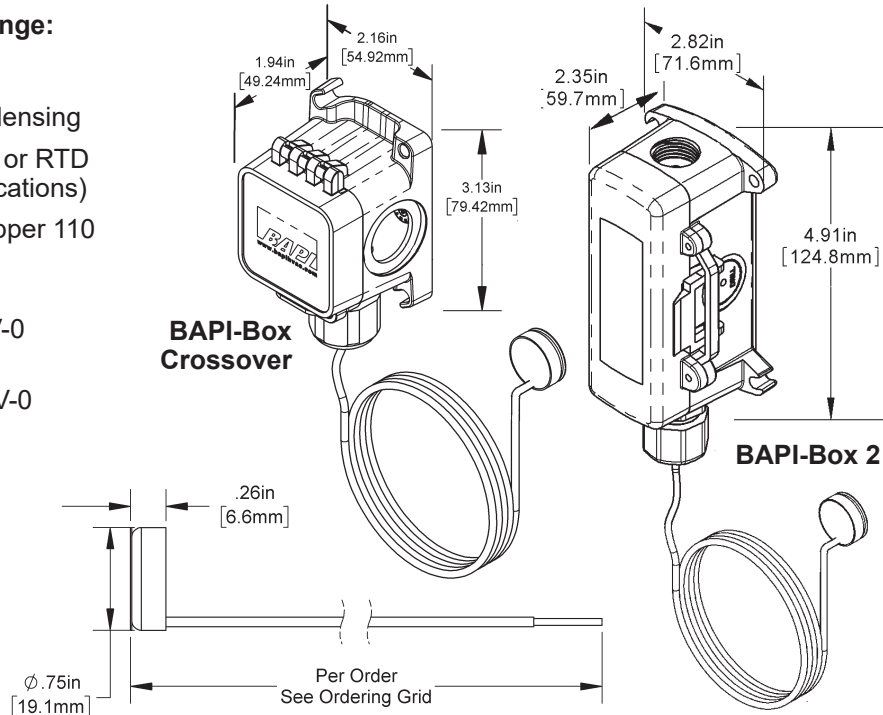
BAPI-Box 2:  
UV-resistant polycarb., UL94 V-0

BAPI-Box Crossover:  
Cover: Polycarbonate, UL94 V-0  
Base: Nylon, UL94 HB

#### Enclosure Rating:

BAPI-Box 2:  
IP66, NEMA 4X

BAPI-Box Crossover:  
IP10, NEMA 1  
(IP44 w/ plug in open port)





Use the Option Selection Guide 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.

### Surface Sensor Selection Guide:

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

**#1: Temperature Sensor** (required)

- 1K[375] ..... 1K Platinum RTD (375 curve)
- 1K[NI] ..... 1K  $\Omega$  Nickel RTD
- 1K ..... 1K Platinum RTD (385 curve)
- 1.8K ..... 1.8K Thermistor
- 3K ..... 3K Thermistor
- 10K-2 ..... 10K-2 Thermistor
- 10K-3 ..... 10K-3 Thermistor
- 20K ..... 20K Thermistor
- 1K Plat. RTD Transmitters below with 4 to 20 mA Output - require a BAPI-Box Crossover Enclosure
- T1K[32 TO 212F] ..... 32 to 212°F Range
- T1K[20 TO 120F] ..... 20 to 120°F Range
- T1K[0 TO 100F] ..... 0 to 100°F Range
- T1K[0 TO 100C] ..... 0 to 100°C Range
- T1K[-7 TO 49C] ..... -7 to 49°C Range
- T1K[-18 TO 38C] ..... -18 to 38°C Range

*Matched Transmitters are also available. Contact your BAPI representative for ordering.*

**#2: Probe Type** (required)

- SMFEP ..... Surface Sensor

**#3: FEP Cable Color & Length** (required)

- 18" ..... Gray Cable, 18" Length
- 5' ..... Gray Cable, 5' Length
- 10' ..... Gray Cable, 10' Length
- 15' ..... Gray Cable, 15' Length
- 20' ..... Gray Cable, 20' Length

**#4: Enclosure** (optional)

- BBX ..... BAPI-Box Crossover (IP10)
- BB2 ..... BAPI-Box 2 (IP66)

**#5: Test & Balance or Terminal Strip** (optional)

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

*Additional options are available for these units but not shown in this Selection Guide. Contact your BAPI representative for the complete list of options. Submittal sheets without List Prices can be downloaded from our website at [www.bapihvac.com](http://www.bapihvac.com)*

**Example Number:**

BA( 10K-2 ) - ( SMFEP ) - ( 5' ) - ( BBX ) - ( )

**Actual Number (with parenthesis removed):**

BA/10K-2-SMFEP-5'-BBX

**Description:**

10K-2 Thermistor, Surface Sensor, 5' of FEP-Jacketed Cable, BAPI-Box Crossover Enclosure, No Test and Balance Switch or Terminal Strip

**Your Number:** BA/

