



Features & Options

- Fluid-Filled Chamber Tracks Temperature of Freezer or Cooler Contents, Not Air Temperature, Decreasing False Alarms
- Easy Wall Mount or Wire Shelf Hanger
- Available in Stainless Steel or Aluminum

The BAPI Thermobuffer Temperature Sensor is used to simulate more closely the refrigerator contents rather than the refrigerator air temperature. The fluid-filled chamber allows for slower reaction to abrupt temperature changes, yet still maintains long-term accuracy if the change remains permanent. It eliminates the temperature spikes due to frequent refrigerator or freezer door opening and decreases false alarms.

The Thermobuffer comes in three buffer sizes 1", 2" and 4" and is designed to save valuable shelf space by mounting to the wall or by hanger in a refrigerator or freezer. The buffer chamber is machined in 304 Stainless Steel or aluminum and accommodates a variety of temperature sensors or transmitters to interface with all BAS systems.



Refrigerator
(1" Hanging
Bracket)



Walk-in Freezer
(BAPI-Box w/ 2"
Cylinder)



The BAPI-Box Crossover

The new BAPI-Box Crossover features a hinged cover with thumb latch for easy termination. It is available with a pierceable knockout plug for any open ports and a watertight gasket for the cover.

(Shown with optional plug and gasketed cover.)

Specifications

Sensor: Thermistor, RTD or Transmitter

Probe: Stainless steel

Wire: 22 awg stranded, 2 or 3 wires

Insulation:

Etched Teflon, PVC or FEP Jacketed

Buffer Chamber Construction:

M304.....Bar stock 304 Stainless Steel

MAL.....Bar stock Aluminum

Chamber Fluid: Customer supplied

Glycol mix..... Food grade required

1" Chamber..... ~7 ml of fluid

2" Chamber..... ~24 ml of fluid

4" Chamber..... ~32 ml of fluid

Sensing Element:

Thermistor or RTD (See Sensors Section for Specs.)

Enclosure Rating:

BAPI-Box Crossover (BBX): IP10, NEMA 1

BAPI-Box Crossover (BBX6): IP66, NEMA 4X

Enclosure Material:

BAPI-Box Crossover..... Polycarb., UV rated, UL94 V-0

Hanging Bracket..... SS Bracket with Steel Clip

Environmental Operating Range:

Temp. Sensor -40 to 185°F (-40 to 85°C)

Temp. Transmitter.... -4 to 158°F (-20 to 70°C)

Humidity..... 0-100%RH, Condensing

Agency: CE, RoHS

Encl. Dimensions: H x W x D

BAPI-Box Crossover... 3.1 x 2.2 x 1.9" (79 x 56 x 49mm)

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

Note: Unit requires food grade glycol antifreeze for proper operation.



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.



Thermobuffer Freezer/Cooler Sensor Option Selection Guide

BA/ (#1) - (#2) - (#3) - (#4) - (#5) - (#6)

#1: Temp Sensor (required)

- 1.8K 1.8K Thermistor
- 3K 3K Thermistor
- 10K-2 10K-2 Thermistor
- 10K-3 10K-3 Thermistor
- 10K-3[11K] 10K-3[11K] Thermistor
- 20K 20K Thermistor
- 1K[375] 1K Plat. RTD (375 curve)
- 1K[Ni] 1K Ω Nickel RTD
- 1K 1K Plat. RTD (385 curve)

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: Buffer Material and Length (required)

- TB-M304-1 1" 304 SS Buffer
(Overall length 1.9")
- TB-M304-2 2" 304 SS Buffer
(Overall length 4.3")
- TB-M304-4 4" 304 SS Buffer
(Overall length 6.3")
- TB-MAL-2 2" Aluminum Buffer
(Overall length 4.3")
- TB-MAL-4 4" Aluminum Buffer
(Overall length 6.3")

#3: Hanging Bracket Mounting (optional)

- HB Hanging Bracket
(30" FEP cable)

#4: Enclosure Style (required)

- BBX BAPI-Box Crossover
(IP10, NEMA 1)
- BBX6 BAPI-Box Crossover w/ Gasket
(IP66, NEMA 4X)
- NB No Box.... \$0

#5: Custom Lead Length

(for HB and No Box units)

- 5 5' of FEP Jacketed Cable
- 10 10' of FEP Jacketed Cable
- 25 25' of FEP Jacketed Cable

#6: Test & Bal. or Terminal Strip (optional)

- TB Test & Balance Switch
- TS Terminal Strip Connection

Temperature Transmitters and other 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

Example Number:

BA/ (**10K-2**) - (**TB-M304-1**) - () - (**BBX6**) - () - () = BA/10K-2-TB-M304-1-BBX6

Description: 10K-2 Thermistor, Thermobuffer, 1" 304SS Buffer, BAPI-Box Crossover Enclosure.

Your Number: BA/

