# 4 to 20 mA Temperature Transmitters

**Temperature Sensors** 

Rev. 03/15/22



## Features & Options

BAPI's loop powered 4 to 20mA temperature transmitters feature a  $1,000\Omega$  Platinum RTD (385 curve) and are available in a wide selection of temperature ranges or custom ranges.

They mount in a variety of enclosures to accommodate any application and terminate with flying leads or terminal screws. The unit is fully encapsulated (ruggedized) with a high thermal conductivity material to prevent circuit overheating and is water resistant. It is available with a BAPI-Box Crossover or BAPI-Box 2 enclosure.



### Specifications

#### **Power Required:**

7 to 40VDC (All units except XOR-BBX) 10 to 40VDC (XOR-BBX units)

Transmitter Output: 4 to 20mA, 850Ω@24VDC

Output Wiring: 2 Wire Loop Flying Leads (4 to 22 AWG) or 4 Terminal Block (24 to 12 AWG)

#### **Calibration Span:**

Min. 30°F (16.6°C), Max 1000°F (555°C)

#### **Calibration Zero:**

Min. -148°F (-100°C), Max 900°F (482°C)

Accuracy: ±0.065% of Span Linearity: ±0.125% of Span RTD Sensor (2 Wire):

1KΩ, 2 Wire Platinum, 385 Curve Matched (M): 13 to 302°F (-25 to 150°C) with 3-point certificate (25%, 50% & 75%)

Mounting Shell: ABS w/ waterproof urethane fill

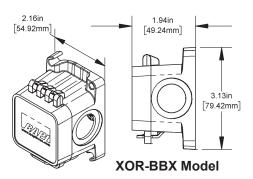
**Transmitter Ambient:**-4 to 158°F, (-20 to 70°C)
0 to 95% RH, Non-condensing

#### **Enclosure Material:**

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

**BAPI-Box Crossover:** 

Polycarbonate (UL94 V-0) & Nylon, (UL94 HB)

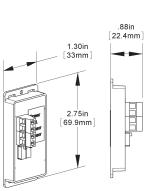


#### **Enclosure Rating:**

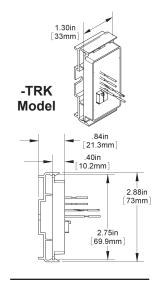
BAPI-Box 2: IP66, NEMA 4X BAPI-Box Crossover:

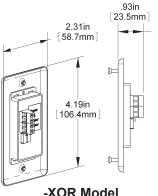
IP10, NEMA 1 (IP44 w/ knockout plug in open port)

Agency: RoHS

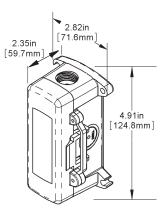


-STM Model (shown with optional Terminal Strip)





-XOR Model (shown with optional Terminal Strip)



**XOR-BB2 Model** 





## 4 to 20 mA Temperature Transmitters

**Temperature Sensors** 

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.

## 4 to 20 mA Transmitter Option Selection Guide

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

#### #1: Temperature Transmitter Type (required)

T1K ......1K Platinum ŘTD, 1KΩ @ 0°C with 4 to 20 mA Output

T1KM ......1K Platinum RTD, 1KΩ @ 0°C with 4 to 20mA Output and NIST certification

#### #2: Temperature Transmitter 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: Configuration and Optional Enclosure (required)

### #4: Screw Terminals (optional)

TS.....Terminal Strip terminals for RTD, power and signal

Additional options and custom ranges 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/( T1K )( [0 to 100F] ) - ( XOR-BBX ) - ( )

Actual Number (with parenthesis removed): BA/T1K[0 to 100F]-XOR-BBX

**Description:** T1K Transmitter, 0 to 100°F Range in a BAPI-Box Crossover Enclosure.

Your Number: BA/

