

# Slim type temperature transmitter

**Model : BTT3000**

Spec. sheet no. **BT03-01**

## Service intended

BTT3000 is the high performance temperature transmitter that accepts RTD inputs and converts it to a 4 to 20 mA DC signal for transmission. BTT3000 is specially designed to be used for the situation where corrosive, contaminated and hot are present, and it could be used for a chemical, food, beverage, biochemical, and pharmaceutical industry. The BTT3000 supports HART protocol.



## Special features

- 3-A Grade
- Fast response time
- High Resolution
- High EMS
- Slim Design
- HART Protocol
- Surge Protection

## Degrees of protection

IP67 / IP69K



## Standard features

### Process connection

G 3/8"(F) (With well type)

### Material

316L SS

### Working temperature

Ambient temperature : - 40 to 75 °C  
Process temperature : - 50 to 200 °C (With well type)

### Power supply

DC 10~30 V

### Input

RTD : Pt100Ω at 0°C (A Class)  
RTD : Pt100Ω at 0°C (B Class)

### Output

4~20 mA  
DC 2-wire loop powered technique

### Cable connection

M12 Connection

### Response time (10~90 %)

≤ 2 seconds

### Burnout mode (Failure signal)

Upscale burnout : 21 mA  
Downscale burnout : 3.8 mA  
According to NAMUR NE43

### Tolerance value

RTD signal (A Class) :  $\pm 0.15 + (0.002 \times |t|)$   
RTD signal (B Class) :  $\pm 0.3 + (0.005 \times |t|)$   
Analog signal : 0.05%  
\* |t| = modulus of temperature in °C  
without regard to sign.

## Main order

## Ordering information

### 1. Base model

**BTT3000** Silm type temperature transmitter

### 2. Type

- W** With well type (A7100 series)
- C** Clamp type
- Z** Other

### 3. Element (Tolerance)

- A** Pt100Ω (A Class)
- B** Pt100Ω (B Class)

### 4. Tube outer diameter

- H9** ø3.0 (Only with well type)
- F9** ø6.4 (Only clamp type)
- ZZ** Other

### 5. Material

- L** 316L SS
- Z** Other

### 6. Output

- A** 4~20 mA
- Z** Other

### 7. Process connection

- G3** G 3/8"(F)
- C1** 3/4S (ASME BPE)
- C2** 1S (ASME BPE)
- C3** 1&1.5S (ASME BPE)
- C4** 2S (ASME BPE)
- ZZ** Other

### 8. Surface roughness of wetted part

- N** None (With well type)
- A** Ra ≤ 0.8 um
- B** Ra ≤ 0.64 um
- E** Ra ≤ 0.64 um with E.P

### 9. Neck Length ("A") (mm)

- 1** 45 (Standard)
- 2** 80
- 3** 100
- Z** Other

### 10. Burnout mode (Failure signal)

- U** Upscale burnout : 21 mA
- D** Downscale burnout : 3.8 mA

### 11. Insert length ("L") (mm)

- A** 85 (Standard of with well type)
- B** 100
- C** 200
- Z** Other

### 12. Option

- N** None
- Z** Other

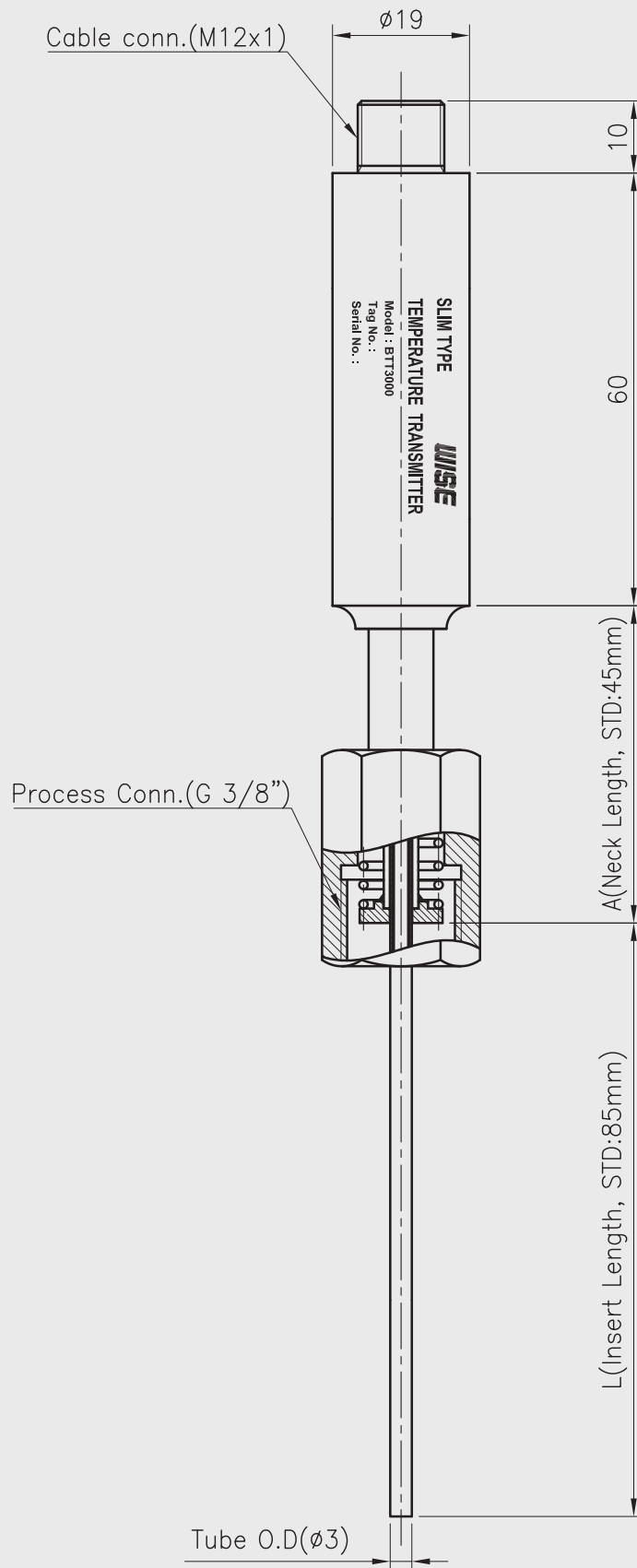
### Sample ordering code

1	2	3	4	5	6	7	8	9	10	11	12
BTT3000	W	A	H9	L	A	G3	N	1	U	A	N



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# BTT3000 : Standard product drawing (1/2)



**BTT3000 : Standard product drawing (2/2)**

