

The TMT501 Industrial Bimetal Thermometer offers a wide range of options and features for general purpose applications.



## Applications

- Liquid & gaseous mediums
- Corrosive environments
- Oil & Gas applications
- Chemical & Petrochemical
- Food & Beverages
- Nuclear power plants

## Features

- Bimetal helix system
- Hermetically sealed
- Stem length max 1.5 Mtr
- Optional External Zero adjustment

## Reference

- EN 13190
- ATEX 2014/34/UE

Standard parameters	
Accuracy	CL 1.0 (Class 1)
Ambient temperature	-20 ... +60°C
Over range limits	110% full scale
Stem pressure rating	25 bar (Without thermowell)
Weld joints	TIG argon arc welding
Measuring range	-80 ... 0 to 0 ... 600°C -110 ... 0 to 0 ... 1100°F

**Ordering code**

		TMT501 - XX - XXX - XX - XXX - XX - XXXX - XX - XX - XX									
<b>1. Dial size</b>	50 mm / 2" <sup>2</sup>			02							
	63 mm / 2½"			25							
	80 mm / 3"			03							
	100 mm / 4"			04							
	125 mm / 4½"			05							
	150 mm / 6"			06							
<b>2. Range</b>	Refer "Range Table"			XXX							
<b>3. Mounting pattern</b>	Direct, Bottom connection			B0							
	Centre, Back connection			R0							
<b>4. Stem diameter</b>	6,0 mm									M60	
	¼" (6,35 mm)									I14	
	8,0 mm									M80	
	9,5 mm									M95	
	10 mm									M10	
	12 mm									M12	
<b>5. Ingress protection</b>	IP 65									ER	
	IP 66									ES	
	IP 67									ET	
	Hermetically sealed									EU	
<b>6. Stem length</b>	Up to 1,500 mm									XXXX	
<b>7. Process connection type</b>	Fixed connection									KX	
	Adjustable connection									KW	
	Swivel / Revolving connection									BW	
	Without									99	
<b>8. Process connection<sup>1</sup></b>	½" NPT (M)	<b>14N</b>	3/8" BSP (M) <sup>4</sup>	<b>13B</b>	¾" NPT (F)	<b>05N</b>					
	½" BSP (M)	<b>14B</b>	1.5" Triclover	<b>T15</b>	M27 X 2.0 mm (M)	<b>16M</b>					
	¼" NPT (M) <sup>3</sup>	<b>12N</b>	¾" NPT (M)	<b>15N</b>	Without process connection	<b>099</b>					
	¼" BSP (M) <sup>3</sup>	<b>12B</b>	¾" BSP (M)	<b>15B</b>	Special process connection <sup>1</sup>	<b>ZZZ</b>					
	M20 X 1.5 mm (M)	<b>14M</b>	½" NPT (F)	<b>04N</b>							
<b>9. Other options</b>	Case & Ring in AISI 316 SS (B0)	<b>BA</b>	Material test certificate 2.2								<b>TM</b>
	Case & Ring in AISI 316 SS (R0)	<b>BG</b>	SS tag plate, AISI 304 SS								<b>XF</b>
	Shatterproof safety glass	<b>GC</b>	SS tag plate, AISI 316 SS								<b>XG</b>
	External zero adjustment	<b>GZ</b>	Dial tag marking								<b>XT</b>
	Dampening liquid, silicon oil (200°C)	<b>OA</b>	Custom designed dial								<b>XR</b>
	Rubber parts, Viton	<b>RA</b>	Dampening liquid, glycerin (65°C)								<b>EG</b>
	5 - point factory calibration certificate	<b>TA</b>	ATEX Version <sup>5</sup>								<b>AX</b>

Range table (°C)	Code
-20 ... +40	C01
-20 ... +60	C02
-30 ... +70	C08
-30 ... +120	C05
-50 ... +100	C11
-80 ... +120	C12

Range table (°C)	Code
0 ... 50	C13
0 ... 60	C14
0 ... 80	C15
0 ... 100	C16
0 ... 120	C17
0 ... 150	C18

Range table (°C)	Code
0 ... 200	C20
0 ... 250	C21
0 ... 300	C22
0 ... 400	C23
0 ... 500	C24
0 ... 600	C25

<sup>1</sup> For other connections, please contact factory.

<sup>2</sup> DN50 is available in Centre back connection (R0) only.

<sup>3</sup> ¼" connections are available up to ¼" (6.35 mm) stem diameter only.

<sup>4</sup> 3/8" connections are available up to 10 mm stem diameter only.

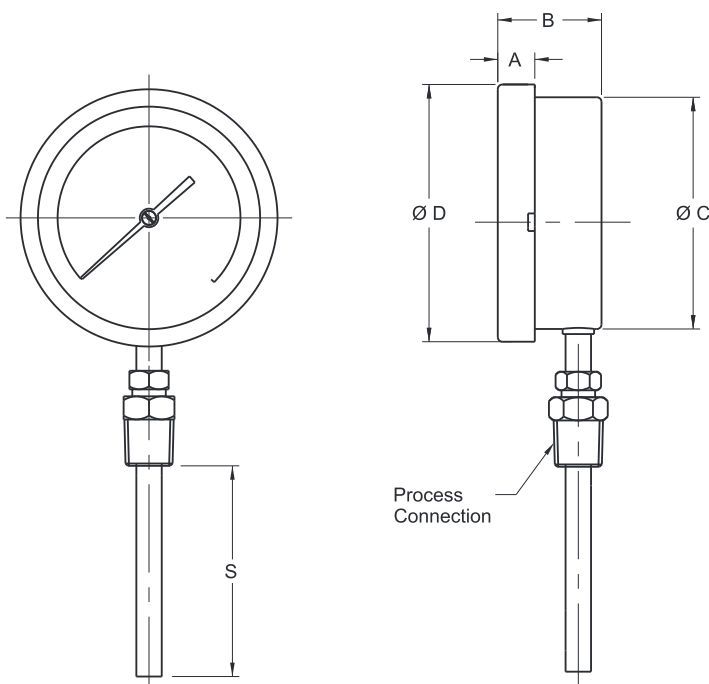
<sup>5</sup> II 2 G Ex h IIC T6÷T1 Gb X

II 2 D Ex h IIIC T85°C÷T450°C Db

Specifications		
<b>Material of construction</b>	Sensing element	Coiled bimetal strip
	Case & Ring material	AISI 304 SS
	Stem & Process connection material	AISI 316L SS
	Dial	Aluminum, black graduation on white background
	Pointer	Slotted zero adjustable, aluminum, black powder coated (Fix pointer for DN50)
	Gaskets, Blow off disc & filling plug	NBR
	Window	Sheet glass
<b>Standard specifications</b>	Dial size	DN50 / DN 63 / DN80 / DN100 / DN125 / DN150
	Range	-80 ... 0 to 0 ... 600°C / -110 ... 0 to 0 ... 1100°F
	Mounting pattern	Direct Bottom connection
	Stem size	6,0 mm
	Ingress protection	IP 65
	Stem length	25 mm to 1500 mm*
	Process connection type	Adjustable connection
	Process connection	1/2" NPT (M) / 1/2" BSP (M)
	<b>Standard specifications : dampening liquid filled, glycerin</b>	Gaskets & Filling plugs
Dampening liquid		Glycerin 99.7% (-20°C to 65°C) [Up to range 100°C]
Window		Shatterproof safety glass
<b>Standard specifications : dampening liquid filled, silicon</b>	Gaskets & Filling plugs	NBR
	Dampening liquid	Silicon oil [Up to range 200°C]
	Window	Shatterproof safety glass
* Depending on range & stem diameter		

## Dimensions - All dimensions are in mm

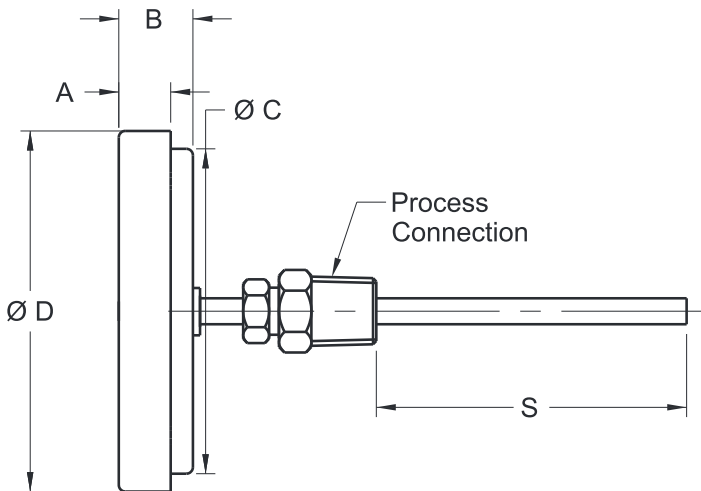
Mounting pattern: B0



NS	A	B	ØC	ØD	S	Weight (grams)
63	12	48	62,5	70	*	280
80	9,5	48	80	89,5	*	350
100	12	48	100	111	*	500
125	15	48	118,5	129	*	580
150	15	48	149	161	*	800

\* As per customer requirement.

Mounting pattern: R0

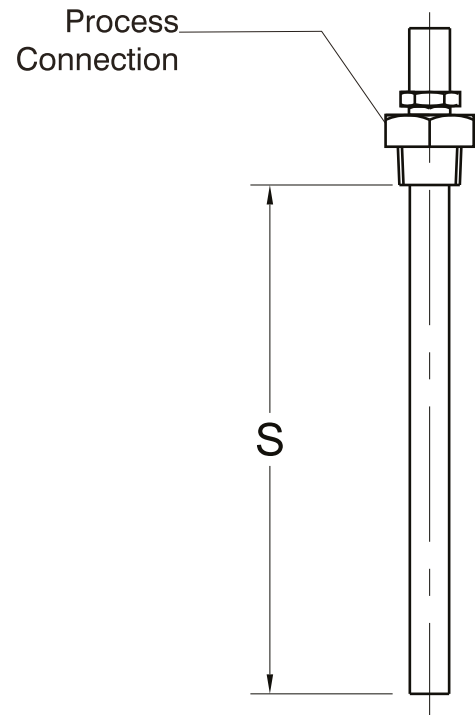


NS	A	B	ØC	ØD	S	Weight (grams)
50	6,5	23	51,5	57,5	*	108
63	10	23	62,5	70	*	156
80	9,5	23	80	89,5	*	244
100	12	23	100	111	*	518
125	15	23	118,5	129	*	585
150	15	23	149	161	*	625

\* As per customer requirement.

Stem length chart

Stem diameter	6 mm & ¼"	8 mm	10 mm	12 mm
Range (°C)	Min. Stem Length			
	(mm)	(mm)	(mm)	(mm)
0 ... 50	130	110	110	110
0 ... 60	110	95	95	95
0 ... 80	95	70	70	70
0 ... 100	75	70	70	70
0 ... 120	70	60	60	60
0 ... 150	60	50	50	50
0 ... 200	50	45	45	45
0 ... 250	40	35	35	35
0 ... 300	60	50	50	50
0 ... 400	50	45	45	45
0 ... 500	45	40	40	40
0 ... 600	40	35	35	35



- All length mentioned above are to be considered below thread only.
- For other reduced length, contact factory before ordering.