

INDUSTRIAL BIMETAL THERMOMETER

The label *Trafag Industrial Components* extends the Trafag brand name to instruments manufactured by qualified partner companies.

Trafag Industrial Components complement the genuine Trafag product range to offer customers a complete portfolio from one single source.

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

07/2020

Data sheet H20017c

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									
1. Dial size	50 mm / 2" ²			02							
	63 mm / 2½"			25							
	80 mm / 3"			03							
	100 mm / 4"			04							
	125 mm / 4½"			05							
	150 mm / 6"			06							
2. Range	Refer "Range Table"			XXX							
3. Mounting pattern	Direct, Bottom connection			B0							
	Centre, Back connection			R0							
4. Stem diameter	6,0 mm			M60							
	¼" (6,35 mm)			I14							
	8,0 mm			M80							
	9,5 mm			M95							
	10 mm			M10							
	12 mm			M12							
5. Ingress protection	IP 65							ER			
	IP 66							ES			
	IP 67							ET			
	Hermetically sealed							EU			
6. Stem length	Up to 1,500 mm							XXXX			
7. Process connection type	Fixed connection									KX	
	Adjustable connection									KW	
	Swivel / Revolving connection									BW	
	Without									99	
8. Process connection¹	½" NPT (M)	14N	3/8" BSP (M) ⁴	13B	¾" NPT (F)	05N					
	½" BSP (M)	14B	1.5" Triclover	T15	M27 X 2.0 mm (M)	16M					
	¼" NPT (M) ³	12N	¾" NPT (M)	15N	Without process connection	099					
	¼" BSP (M) ³	12B	¾" BSP (M)	15B	Special process connection ¹	ZZZ					
	M20 X 1.5 mm (M)	14M	½" NPT (F)	04N							
9. Other options	Case & Ring in AISI 316 SS (B0)	BA	Material test certificate 2.2								TM
	Case & Ring in AISI 316 SS (R0)	BG	SS tag plate, AISI 304 SS								XF
	Shatterproof safety glass	GC	SS tag plate, AISI 316 SS								XG
	External zero adjustment	GZ	Dial tag marking								XT
	Dampening liquid, silicon oil (200°C)	OA	Custom designed dial								XR
	Rubber parts, Viton	RA	Dampening liquid, glycerin (65°C)								EG
	5 - point factory calibration certificate	TA	ATEX Version ⁵								AX

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

¹⁾ For other connections, please contact factory.

²⁾ DN50 is available in Centre back connection (R0) only.

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

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

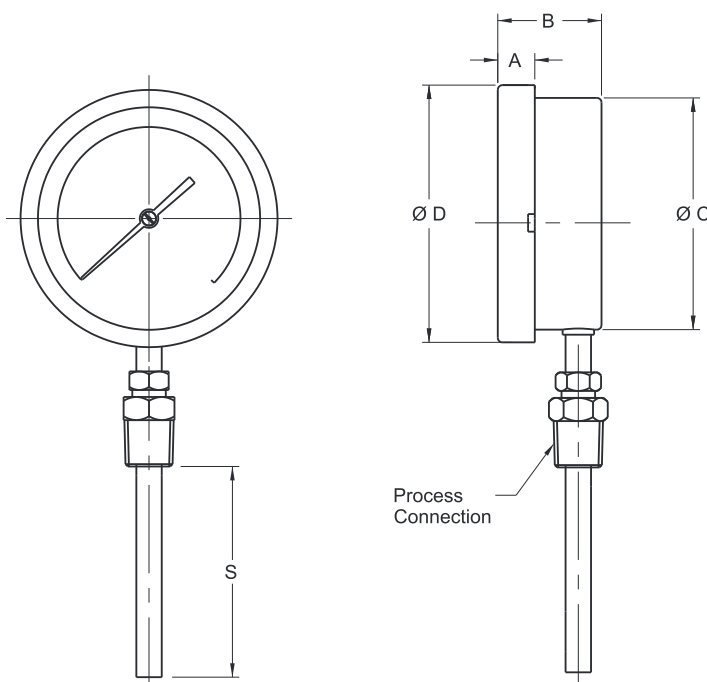
⁵⁾  II 2 G Ex h IIC T6÷T1 Gb X

II 2 D Ex h IIIC T85°C÷T450°C Db

Specifications		
Material of construction	Sensing element	Coiled bimetal strip
	Case & Ring material	AISI 304 SS
	Stem & Process connection material	AISI 316LSS
	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
	Standard specifications	Dial size
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)
Standard specifications : dampening liquid filled, glycerin	Gaskets & Filling plugs	NBR
	Dampening liquid	Glycerin 99.7% (-20°C to 65°C) [Up to range 100°C]
	Window	Shatterproof safety glass
Standard specifications : dampening liquid filled, silicon	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

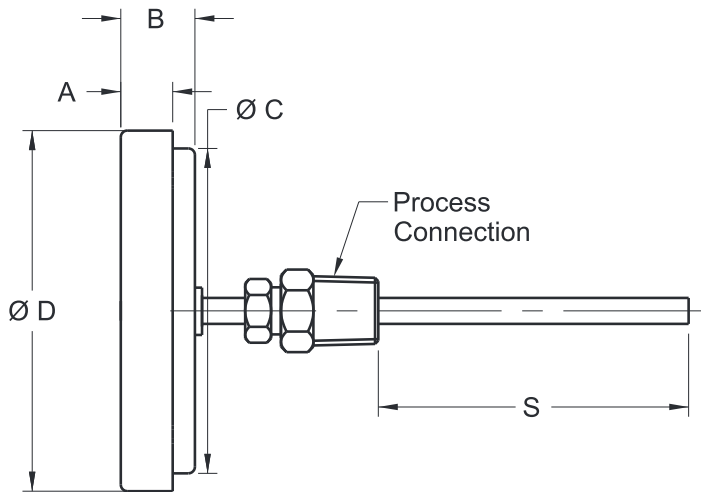
Mounting pattern: B0



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



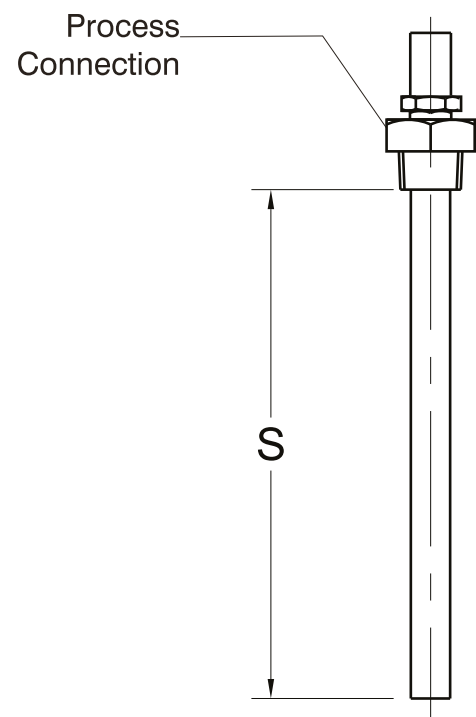
NS	A	B	ØC	ØD	S	Weight (grams)
50	6,5	23	51,5	57,5	*	108
63	10	23	62,5	70	*	156
80	9,5	23	80	89,5	*	244
100	12	23	100	111	*	518
125	15	23	118,5	129	*	585
150	15	23	149	161	*	625

* 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.



Additional information

Documents	Data sheet	H20017	www.trafag.com/H20017
	Instructions	H21017	www.trafag.com/H21017