

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 - XX											
1. Dial size	50 mm / 2"²		02	XXX	XX	XXX	XX	XXXX	XX	XX	XX
	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 connection¹	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 Version⁵							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.

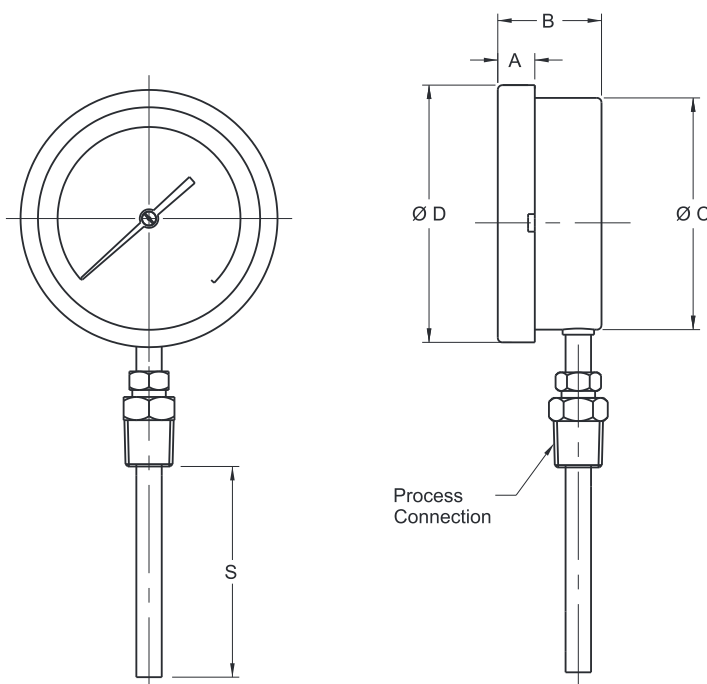
⁴⁾ 3/8" connections are available up to 10 mm stem diameter only.

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	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
Standard specifications : dampening liquid filled, glycerin	Process connection	½" NPT (M) / ½" BSP (M)
	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

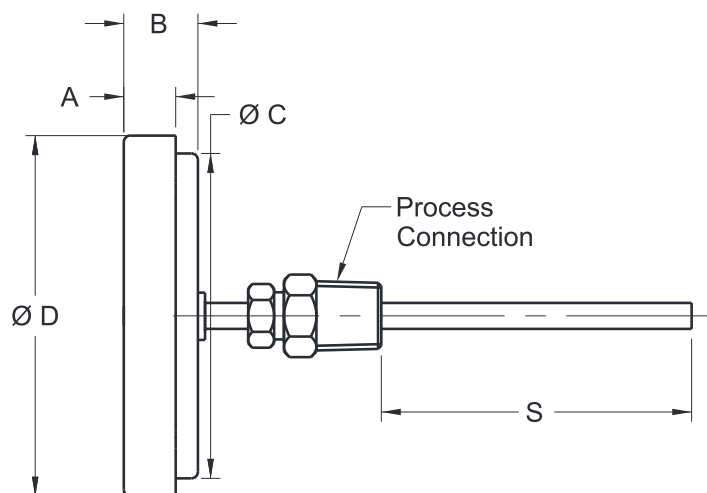
Mounting pattern: B0



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



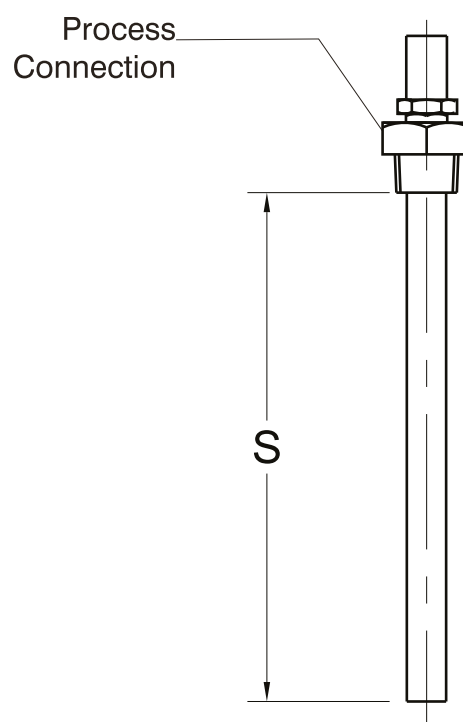
NS	A	B	ØC	ØD	S	Weight (grams)
50	6,5	23	51,5	57,5	*	108
63	10	23	62,5	70	*	156
80	9,5	23	80	89,5	*	244
100	12	23	100	111	*	518
125	15	23	118,5	129	*	585
150	15	23	149	161	*	625

* As per customer requirement.

Stem length chart

Stem diameter	6 mm & 1/4"	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