INDUSTRIAL BIMETAL THERMOMETER

T503

FEATURES

- Bimetal helix system
- Hermetically sealed
- Elbow mounting
- External zero adjustment

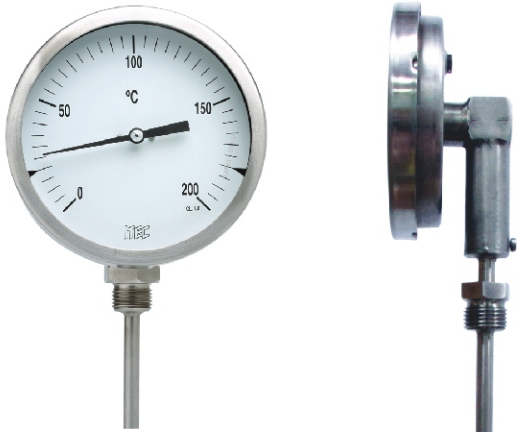
APPLICATION

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

REFERENCE

EN 13190

Elbow mounting



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

MATERIAL OF CONSTRUCTION

Sensing element	:	Coiled bimetal strip
Case & Ring material	:	AISI 304 SS
Stem & Process connection material	:	AISI 316 SS
Dial	:	Aluminum, black graduation on white background
Pointer	:	Slotted zero adjustable, aluminum, black powder coated
Gaskets	:	NBR
Window	:	Sheet glass

STANDARD SPECIFICATIONS

Dial size	:	DN100 / DN125 / DN150
Range	:	-80...0...600°C / -110...0...1100°F
Mounting pattern	:	Elbow mounting, Bottom connection
Stem size	:	6.0 mm
Ingress protection	:	IP 65
Zero adjustment	:	External
Stem length	:	25 mm to 1500 mm*
Process connection type	:	Adjustable connection
Process connection	:	½" NPT (M) / ½" BSP (M)

STANDARD SPECIFICATIONS : DAMPENING LIQUID FILLED, GLYCERIN

Gaskets & Filling plugs	:	NBR
Dampening liquids	:	Glycerin 99.7% (-20°C to 65°C) [Up to range 100°C]
Window	:	Shatterproof safety glass

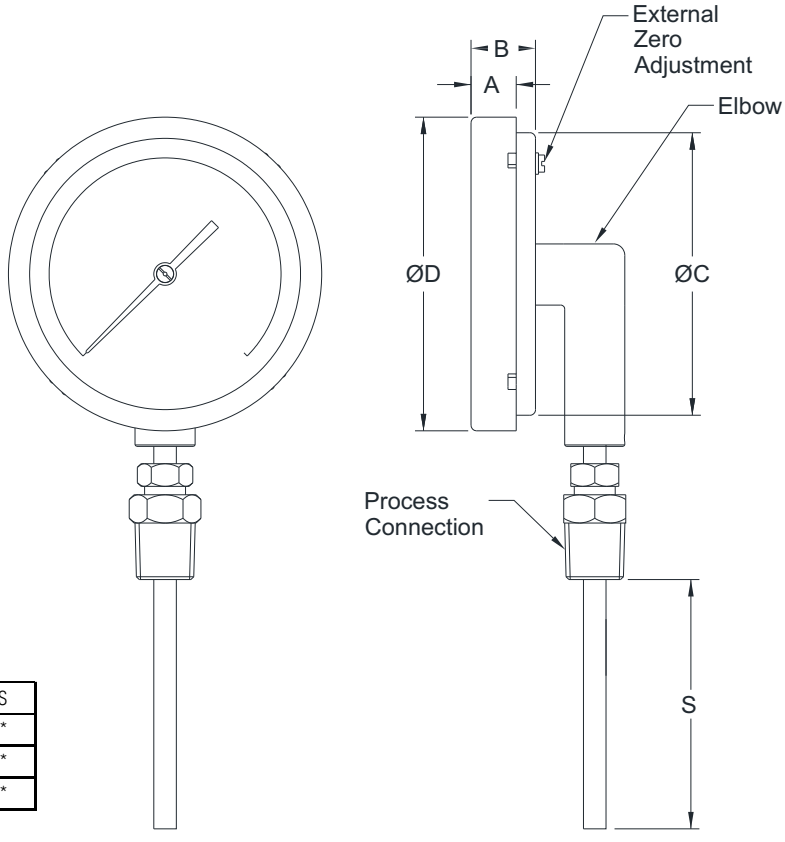
STANDARD SPECIFICATIONS : DAMPENING LIQUID FILLED, SILICON

Gaskets & Filling plugs	:	NBR
Dampening liquids	:	Silicon oil [Up to range 200°C]
Window	:	Shatterproof safety glass

* Depending on range & stem diameter

DIMENSIONAL DRAWING

Mounting Pattern: B5

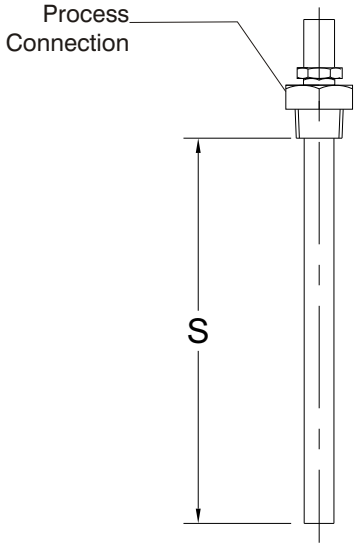


NS	A	B	ØC	ØD	S
100	12	23	100	111	*
125	15	23	118.5	129	*
150	15	23	149	161	*

* As per customer requirement.

All dimensions are in mm.

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

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

NOTES

1. For other ranges, please contact factory.
2. Equivalent scales available in °F, °C/°F, °F/°C. Please contact factory for details.

ORDERING CODES

1. DIAL SIZE — 04

04	100 mm / 4"
05	125 mm / 4½"
06	150 mm / 6"

2. RANGE — C16

XXX	Refer "Range Table"

3. MOUNTING PATTERN — B5

B5	Elbow mounting (Bottom connection)

4. STEM DIAMETER — M60

M60	6.0 mm
I14	¼" (6.35 mm)
M80	8.0 mm
M95	9.5 mm
M10	10 mm
M12	12 mm

5. INGRESS PROTECTION — ER

ER	IP 65
ES	IP 66
ET	IP 67
EU	Hermetically sealed

6. STEM LENGTH — 150

XXXX	Up to 1,500 mm

7. PROCESS CONNECTION TYPE — KW

KX	Fixed connection
KW	Adjustable connection
BW	Swivel / Revolving connection

8. PROCESS CONNECTION — 14N

14N	½" NPT (M)
14B	½" BSP (M)
12N	¼" NPT (M)[3]
12B	¼" BSP (M)[3]
14M	M20 X 1.5 mm (M)
13B	3/8" BSP (M)[4]
T15	1.5" Triclover
15N	¾" NPT (M)
15B	¾" BSP (M)
04N	½" NPT (F)
05N	¾" NPT (F)
16M	M27 X 2.0 mm (M)

9. OTHER OPTIONS — XX

BF	Case & Ring in AISI 316 SS (B5)
GC	Shatterproof safety glass
TA	5 - point factory calibration certificate
TM	Material test certificate 2.2
XF	SS tag plate, AISI 304 SS
XG	SS tag plate, AISI 316 SS
XT	Dial tag marking
XR	Custom designed dial

Rev 01

Ordering Example : T503-04-C16-B5-M60-ER-150-KW-14N

RANGE TABLE

RANGE(°C)	CODE	RANGE(°C)	CODE	RANGE(°C)	CODE
-20…+40	C01	0…50	C13	0…200	C20
-20…+60	C02	0…60	C14	0…250	C21
-30…+70	C08	0…80	C15	0…300	C22
-30…+120	C05	0…100	C16	0…400	C23
-50…+100	C11	0…120	C17	0…500	C24
-80…+120	C12	0…150	C18	0…600	C25

NOTES

1. For other connections, please contact factory.
2. 1/4" connections are available up to 1/4" (6.35 mm) stem diameter only.
3. 3/8" connections are available up to 10 mm stem diameter only.

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