

ALL Angle, External Zero Adjustable

MIEPL make All Angle bimetallic thermometers for process Industries. Bimetal thermometers use two strips of different metals to convert temperature into mechanical displacement. Models MTB02 are manufactured in accordance with EN 13190 and offer a stainless steel case and accuracy class 1. These are available in large number of stem lengths and nominal sizes. This also have external zero adjustment feature. This also have external zero adjustment feature and angle of dial can change any direction.



FEATURES

- Bimetal helix system
- Hermetically sealed
- All Angle Type
- External zero adjustment
- ATEX approved

APPLICATION

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

REFERENCE

- EN 13190
- * Depending on range & stem diameter

STANDARD SPECIFICATIONS

Dial size	: DN80 / DN100 / DN125 / DN150
Range	: -80...+600°C / -110...+1100°F
Mounting pattern	: All Angle mounting, Centre Back 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 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

STAND. SPECIFICATIONS : DAMPENING LIQUID FILLED, GLYCERIN

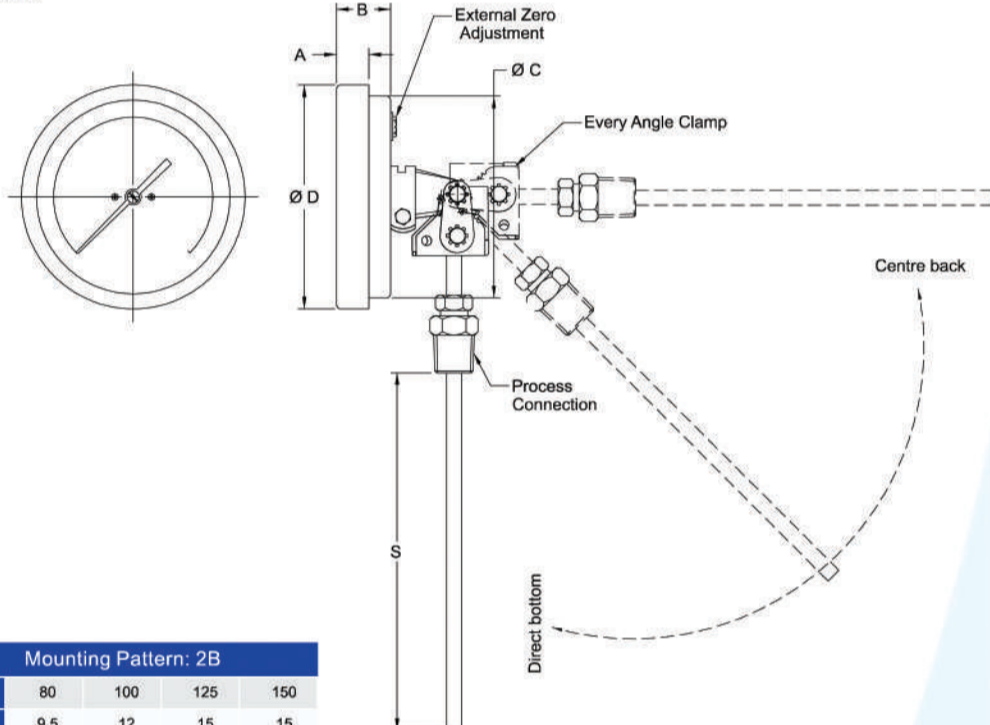
Gaskets & Filling plugs	: NBR
Dampening liquids	: Glycerin 99.7% (-20°C to 65°C) [Up to range 100°C]
Window	: Shatterproof safety glass

STAND. SPECIFICATIONS : DAMPENING LIQUID FILLED, SILICON

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

DRAWING

DIMENSIONAL DRAWING



Mounting Pattern: 2B				
NS	80	100	125	150
A	9.5	12	15	15
B	23	23	23	23
ØC	80	100	118.5	149
ØD	89.5	111	129	161
S	*	*	*	*

* As per customer requirement.

All dimensions are in mm.

RANGE TABLE

STANDARD RANGE	-20...+40	-20...+60	-30...+70	-30...+120	-50...+100	-80...+120
CODE	XXX	XXX	XXX	XXX	XXX	XXX
STANDARD RANGE	0...50	0...60	0...80	0...100	0...120	0...150
CODE	XXX	XXX	XXX	XXX	XXX	XXX
STANDARD RANGE	0...200	0...250	0...300	0...400	0...500	0...600
CODE	XXX	XXX	XXX	XXX	XXX	XXX

NOTES

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

ORDERING CODE

MTB02 - D - XXX - 2B - MF - IP2 - XXXX - AC - 4NM

1. DIAL SIZE	80 mm / 3"	I						
	100 mm / 4"	D						
	125 mm / 4½"	E						
	150 mm / 6"	F						
2. RANGE	Refer "Range Table"		XXX					
	Every Angle mounting,			2B				
3. MOUNTING PATTERN	Centre back connection			2A				
	6.0 mm				MF			
4. STEM DIAMETER	¼" (6.35 mm)				IR			
	8.0 mm				MH			
	9.5 mm				MI			
	10 mm				MJ			
	12 mm				ML			
	5. INGRESS PROTECTION	IP 65					IP2	
IP 66						IP3		
IP 67						IP4		
Hermetically sealed						IP5		
6. STEM LENGTH	Up to 1,500 mm						XXXX	
	Fixed connection							FC
	Adjustable connection							AC
7. PROCESS CONNECTION TYPE	Swivel / Revolving connection							SC
	½" NPT (M)	4NM	M20 X 1.5 mm (M)	4MM	¾" BSP (M)			5BM
	½" BSP (M)	4BM	3/8" BSP (M) ³	3BM	M27 X 2 mm (M)			6MM
7. PROCESS CONNECTION	¼" NPT (M) ²	2NM	1.5" Triclover	T15	½" NPT (F)			4NF
	¼" BSP (M) ²	2BM	¾" NPT (M)	5NM	¾" NPT (F)			5NF
	Other thread size and standards available on request. ¹							
	9. OTHER OPTION	Case & Ring in AISI 316 SS (2B)	AH	Material test certificate 2.2	SM	Dampening liquid, glycerin (65°C)	DG	
Shatterproof safety glass		FC	SS tag plate, AISI 304 SS	WF				
Dampening liquid, silicon oil (200°C)		NA	SS tag plate, AISI 316 SS	WG				
Rubber parts, Viton		QA	Dial tag marking	WT				
5 - point factory calibration certificate		SA	Custom designed dial	WR				

Ordering Example: **MTB02 - D - XXX - 2B - MF - IP2 - XXXX - AC - 4NM**

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.