

Electric Contact, Deep Case Version

Electric Contact Gas Filled Temperature Gauge overcomes most of the limitations of other members of family. It is offered in a vary wide temperature range i.e. (-) 200 to 700 deg cent. Practically any stem length can be offered and capillary length as long as 25 meter, without any loss of accuracy. Inert, non hazardous, non toxic nature of the filled system makes it virtually ideal choice of cross section of industries. This TG have Electric contact NO/NC user can set desired set point externally.



FEATURES

- Inert gas filled expansion
- Filled versions
- Bi-metal Case compensation

APPLICATION

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

REFERENCE

- EN 13190

STANDARD SPECIFICATIONS

Dial size	: DN100
Range	: 0...100°C
Mounting pattern	: Direct, Bottom connection
Stem size	: 6.0 mm
Ingress protection	: IP 65
Stem length	: 300 mm
Assembly	: Direct
Process connection type	: Adjustable connection
Process connection	: ½" NPT (M)
Electric contact	: Double; Break contact + Make contact
Electrical termination	: 4 pin connector

STANDARD PARAMETERS

Accuracy	: CL 1.0 (Class 1)
Ambient temperature	: 0...40°C max el case
Storage & Transport temperature	: -50...+70°C without liquid dampening
Over range limits	: -20...+60°C with liquid dampening
Stem pressure rating	: 25 bar (Without thermowell)
Weld joints	: TIG argon arc welding

MATERIAL OF CONSTRUCTION

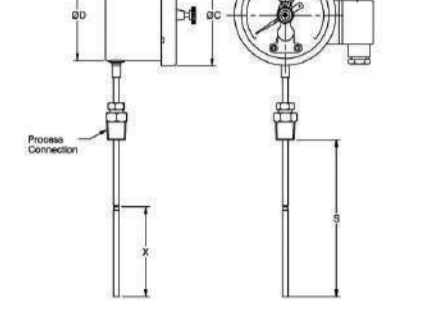
Sensing Element	: Inert Gas Filled bulb
Case & Ring Material	: AISI304 SS
Stem & Process connection material	: AISI316 SS
Dial	: Aluminum, black graduation on white background
Pointer	: Micrometer zero adjustable, aluminum, black powder coated
Gaskets	: Neoprene
Window	: Shatterproof safety glass

STAND. SPEC.: DAMPENING LIQUID FILLED, DIELECTRIC OIL

Gaskets & Filling plugs	: NBR
Dampening liquids	: Dielectric Oil

DRAWING

DIMENSIONAL DRAWING

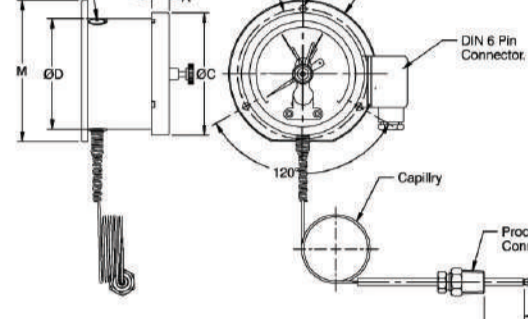


Mounting Pattern: 1A, Deep Case Version

DN	100	150
A	12	15
B	91	91
OC	111	161
OD	100	149
S	*	*
X	**	**

\* As per customer requirement.  
\*\* Refer technical sheet - Temperature Gauges.

DIMENSIONAL DRAWING

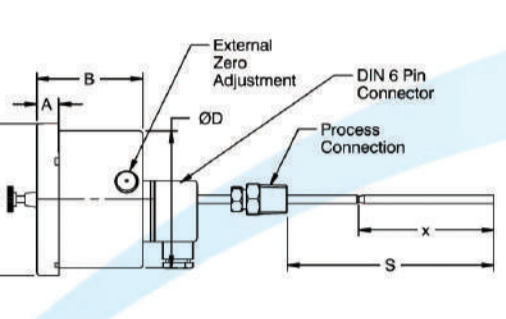


Mounting Pattern: 1B, Deep Case Version

DN	100	150
A	12	15
B	52	52
OC	111	161
OD	100	149
OI	6	6
ON	134	186
M	126	172.4
S1	6	6
SU	118	168
S	*	*
X	**	**

\* As per customer requirement.  
\*\* Refer technical sheet - Temperature Gauges.

DIMENSIONAL DRAWING



Mounting Pattern: 2A, Deep Case Version

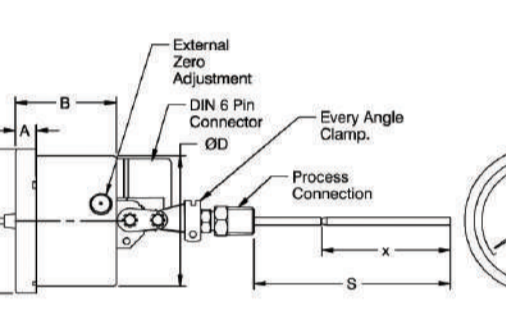
DN	150
A	15
B	91
OC	161
OD	149
S	*
X	**

\* As per customer requirement.  
\*\* Refer technical sheet - Temperature Gauges.

All dimensions are in mm.

DRAWING

DIMENSIONAL DRAWING

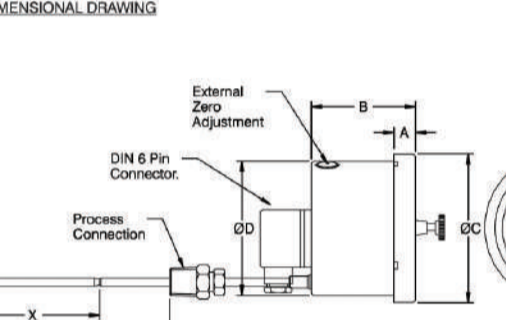


Mounting Pattern: 2B, Deep Case Version

DN	150
A	15
B	91
OC	161
OD	149
S	*
X	**

\* As per customer requirement.  
\*\* Refer technical sheet - Temperature Gauges.

DIMENSIONAL DRAWING

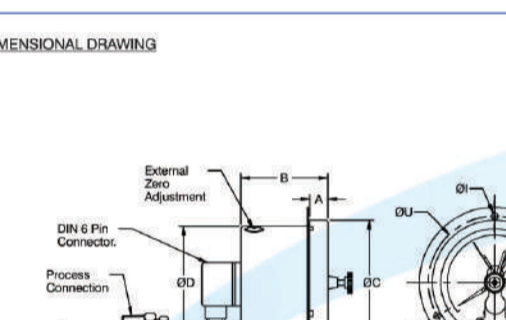


Mounting Pattern: 2E, Deep Case Version

DN	150
A	15
B	91
OC	161
OD	149
S	*
X	**

\* As per customer requirement.  
\*\* Refer technical sheet - Temperature Gauges.

DIMENSIONAL DRAWING



Mounting Pattern: 2F, Deep Case Version

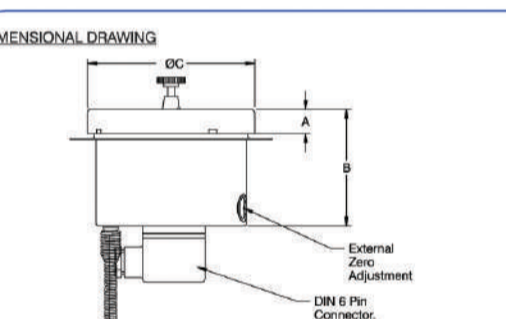
DN	150
A	15
B	48
OC	161
OD	149
OI	6
ON	186
OU	168
S	*
X	**

\* As per customer requirement.  
\*\* Refer technical sheet - Temperature Gauges.

All dimensions are in mm.

DRAWING

DIMENSIONAL DRAWING



Mounting Pattern: 2F, Deep Case Version

DN	150
A	15
B	48
OC	161
OD	149
OI	6
ON	186
OU	168
S	*
X	**

\* As per customer requirement.  
\*\* Refer technical sheet - Temperature Gauges.

All dimensions are in mm.

RANGE TABLE

STANDARD RANGE	CODE	STANDARD RANGE	CODE	STANDARD RANGE	CODE
-20...+40	XXX	-50...+100	XXX	0...250	XXX
-20...+60	XXX	-100...+60	XXX	0...300	XXX
-20...+80	XXX	0...50	XXX	0...400	XXX
-20...+100	XXX	0...60	XXX	0...500	XXX
-20...+120	XXX	0...80	XXX	0...600	XXX
-20...+180	XXX	0...100	XXX	0...650	XXX
-30...+50	XXX	0...120	XXX	50...650	XXX
-30...+70	XXX	0...150	XXX	100...600	XXX
-40...+40	XXX	0...160	XXX	100...700	XXX
-40...+60	XXX	0...200	XXX		

NOTES:  
1. For other scales, please contact factory.  
2. Equivalent ranges available in °F, °C/F, °F/C.

ORDERING CODE

ORDERING CODE	MTG03	D	XXX	1A	MF	IP2	XXXX	AC	4NM	B8
1. DIAL SIZE	100 mm / 4"	D								
	150 mm / 6"	F								
2. RANGE	Refer "Range Table"		XXX							
3. MOUNTING PATTERN	Direct, Bottom connection			1A						
	Wall/Surface/Projection mounting, Bottom connection			1B						
	2" Pipe/Yoke mounting, Bottom connection			1C						
	Centre Back connection			2A						
	Every Angle mounting, Centre Back connection			2B						
	Lower, Back connection			2E						
	Panel/Front flange mounting, Lower Back connection			2F						
	Panel/bracket mounting, Lower Back connection			2G						
4. STEM DIAMETER	6.0 mm				MF					
	8.0 mm				MH					
	10 mm				MJ					
	1/4" (6.35 mm)				IR					
	9.5 mm				MI					
	12 mm				ML					
5. INGRESS PROTECTION	IP 65					IP2				
	IP 66					IP3				
	IP 67					IP4				
6. STEM LENGTH	Up to 2000 mm						XXXX			
	(Confirm factory before ordering)									
7. PROCESS CONNECTION TYPE	Fixed connection							FC		
	Adjustable connection							AC		
	Swivel / Remote connection							SC		
8. PROCESS CONNECTION	½" NPT (M)								4NM	
	Case & Ring in AISI 316 SS (1A)	AA							2NM	
	Case & Ring in AISI 316 SS (1B)	AB							4MM	
	Case & Ring in AISI 316 SS (1C)	AC							4BM	
	Case & Ring in AISI 316 SS (2A)	AG							2BM	
	Case & Ring in AISI 316 SS (2B)	AH							3BM	
9. ASSEMBLY	Direct (Stem type)									B8
	Remote (Capillary type)									B9

ORDERING CODE

ORDERING CODE	AISI 304SS	AISI 316 SS	XXXXX	XX	ECD1	
10. CAPILLARY	AISI 304SS	OU				
	AISI 316 SS	OV				
11. ARMOUR	AISI 304SS	OX				
	PVC (Ambient max. 60°C)	OZ				
	AISI 316 SS	OY				
12. REMOTE MOUNTING LENGTH	250 mm up to 10,000 mm		XXXXX			
	10,000 mm up to 25,000 mm		XXXXX			
13. SWITCH CATEGORY	ATEX/CE approved contacts			XX		
	ATEX/CE approved contacts			XX		
14. ELECTRIC CONTACT	Break contact (1NC)				ECD1	
	Make contact (1NO)				ECD2	
	2 x Break contact (2NC)				ECD3	
	2 x Make contact (2NO)				ECD4	
	1 Break + 1 Make (1NC+1NO)				ECD5	
	1 Make + 1 Break (1NO+1NC)				ECD6	
	SPDT				ECD7	
	DPDT				ECD8	
	Break contact (1NC)				EC11	
	Make contact (1NO)				EC12	
	2 x Break contact (2NC)				EC13	
	2 x Make contact (2NO)				EC14	
	1 Break + 1 Make (1NC+1NO)				EC15	
	1 Make + 1 Break (1NO+1NC)				EC16	
	Booster relay for current up to 5A				EC19	
15. OTHER OPTIONS	Case & Ring in AISI 316 SS (1A)	AA	Case & Ring in AISI 316 SS (2F)	AL	Material test certificate 2.2	SM
	Case & Ring in AISI 316 SS (1B)	AB	Case & Ring in AISI 316 SS (2G)	AM	SS tag plate, AISI 304 SS	WF
	Case & Ring in AISI 316 SS (1C)	AC	Helium gas filled system	A9	SS tag plate, AISI 316 SS	WG
	Case & Ring in AISI 316 SS (2A)	AG	Rubber parts, Viton	QA	Dial tag marking	WT
	Case & Ring in AISI 316 SS (2B)	AH	Rubber parts, NBR	QN	Custom designed dial	WR
	Case & Ring in AISI 316 SS (2E)	AK	5 - point factory calibration certificate	SA	6 pin, M20x1.5mm connector	F6

Ordering Example: MTG03 - D - XXX - 1A - MF - IP2 - XXXX - AC - 4NM - B8 - XXXXX - XX - ECD1

NOTES:  
1. 1/4" connections are available up to 1/4" (6.35 mm) stem diameters only.  
2. 3/8" connections are available up to 10 mm stem diameters only.  
3. Economic contacts & Precision contact are available in Electric contact types ECS1...ECS6 & ECD1...ECD6 respectively.  
4. ATEX / CE approved contacts are available in Electric contact type EC1...EC16.