

Special Features :

- Inter Gas Filled Expansion System
- Stainless Steel Case & Stem
- With or Without Thermowell
- Standard Followed in general EN 13190.

Applications :

- All SS Gas Filled Thermometers are suitable for Corrosive Media in Process Industries. i.e. Pulp & Paper, Pharmaceutical, Chemical, Food, Cement, Refinery etc.



Specifications

STANDARD VERSION : 100mm, 125mm & 150mm

Accuracy	: Class 1 as per EN 13190 .
Ambient temperature	: -25°C to +65°C
Over Range Limit	: 120% of Full Scale
Stem Diameter	: 8mm
Process Connection	: ½" BSP (M)

Case & Bezel	: AISI 304 SS (Bayonet Type)
Stem & Connection	: AISI 316 SS
Joints	: Tig Argon Arc Welding

Protection	: IP 65
Dial	: Aluminum, black graduation on white background
Pointer	: Aluminum, black coloured Micrometer Zero Adjustable
Window	: Safety Glass
Gasket & Filling Plug	: Neoprene

STANDARD FILLED VERSION (ELECTRICAL CONTACTS)

Accuracy	: Class 1 as per EN 13190 .
Ambient temperature	: Maximum 65°C
Window	: Polycarbonate Dome
Dampening Liquids	: Dielectric Oil (Option DF)
Other Features	: Refer Specification of Standard Version

STANDARD FILLED VERSION (OPTION SF)

Accuracy	: Class 1 as per EN 13190 .
Ambient temperature	: -25°C to +65°C
Window	: Safety Glass
Dampening Liquids	: Silicon Oil
Gasket & Filling Plug*	: Viton
Other Features	: Refer Specification of Standard Version

Nominal Ranges, Measuring Ranges & Limits of Error as per EN 13190

Nominal Range (In °C)	Measuring Range (In °C)	Limits of Error (± °C)
-20 to + 40	-10 to + 30	1
-20 to + 60	-10 to + 50	1
-20 to + 120	-10 to + 110	2
-30 to + 30	-20 to + 20	1
-30 to + 50	-20 to + 40	1
-30 to + 70	-20 to + 60	1
-40 to + 40	-30 to + 30	1
-40 to + 60	-30 to + 50	1
-100 to + 60	-80 to + 40	2
0 to 60	10 to 50	1
0 to 80	10 to 70	1
0 to 100	10 to 90	1
0 to 120	10 to 110	2
0 to 160	20 to 140	2
0 to 200	20 to 180	2
0 to 250	30 to 220	2.5
0 to 300	30 to 270	5
0 to 400	50 to 350	5
0 to 500	50 to 450	5
0 to 600	100 to 500	10

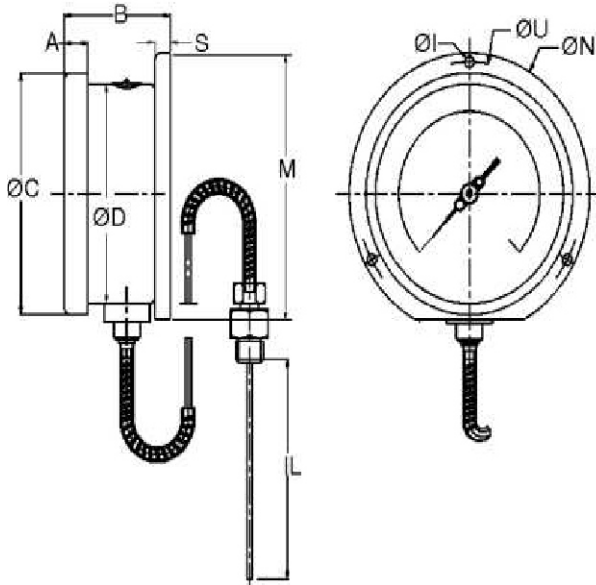
*For Pricing of Gasket & Filling plug of NBR, consult factory..

DIMENSIONS : - FOR STANDARD MODEL

TYPE 14 TYPE 22 TYPE 23

DRAWING OF MODEL (TYPE WISE)

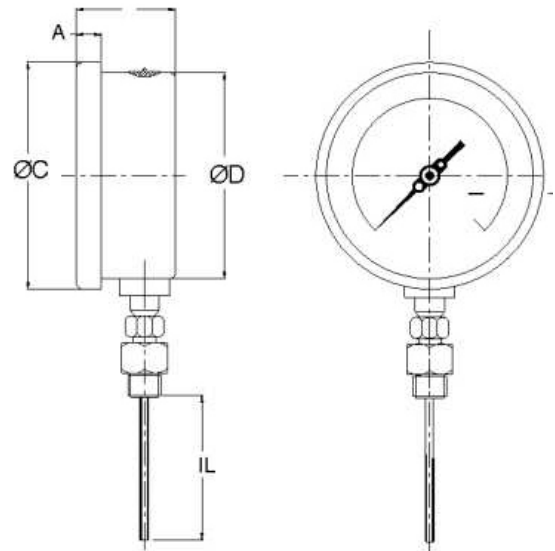
TYPE 14 - WALL / SURFACE / PROJECTION MOUNTING WITH BOTTOM ENTRY



Size	A	B	ØC	ØD	S	M	IL	ØU	ØN	ØN
100	12.5	48	111	100	6	128	*	118	134	6
125	15	49	129	119	4	-	*	137	150	6
150	15	49	161	149	6	174.5	*	168	186	6

*As per customer requirement.

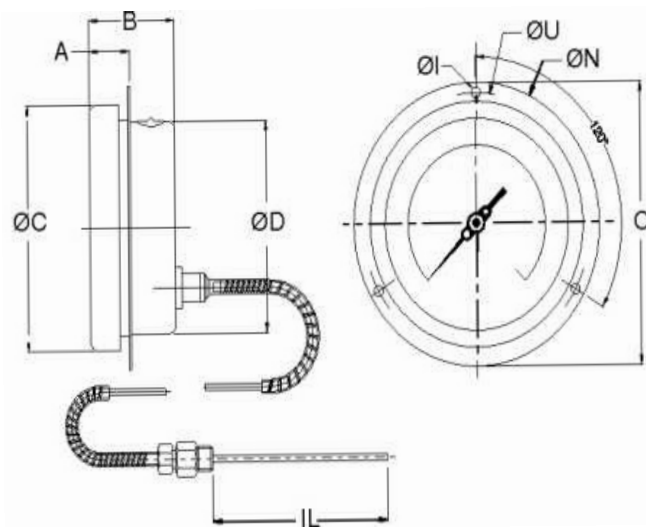
TYPE 11 - DIRECT BOTTOM ENTRY



Size	A	B	ØC	ØD	IL
100	12.5	48	111	100	*
125	15	49	129	119	*
150	15	49	161	149	*

*As per customer requirement.

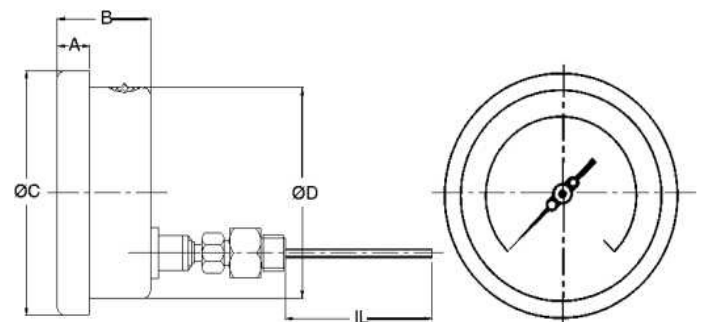
TYPE 22 - LOWER BACK ENTRY WITH FRONT FLANGE



Size	A	B	ØC	ØD	S	IL	ØU	ØN	ØN
100	12.5	48	111	100	1	*	118	134	6
125	15	49	129	119	4	*	137	150	6
150	15	49	161	149	1	*	168	186	6

*As per customer requirement.

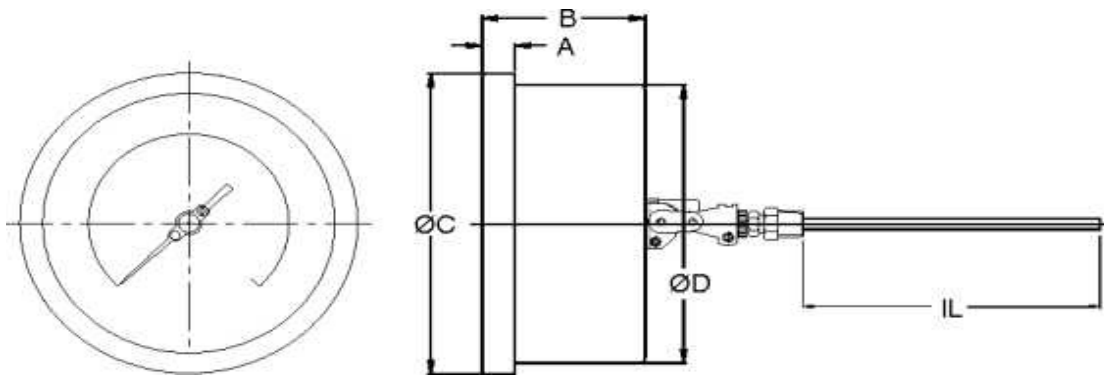
TYPE 22 -DIRECT LOWER BACK ENTRY



Size	A	B	ØC	ØD	IL
100	12.5	48	111	100	*
125	15	49	129	119	*
150	15	49	161	149	*

*As per customer requirement.

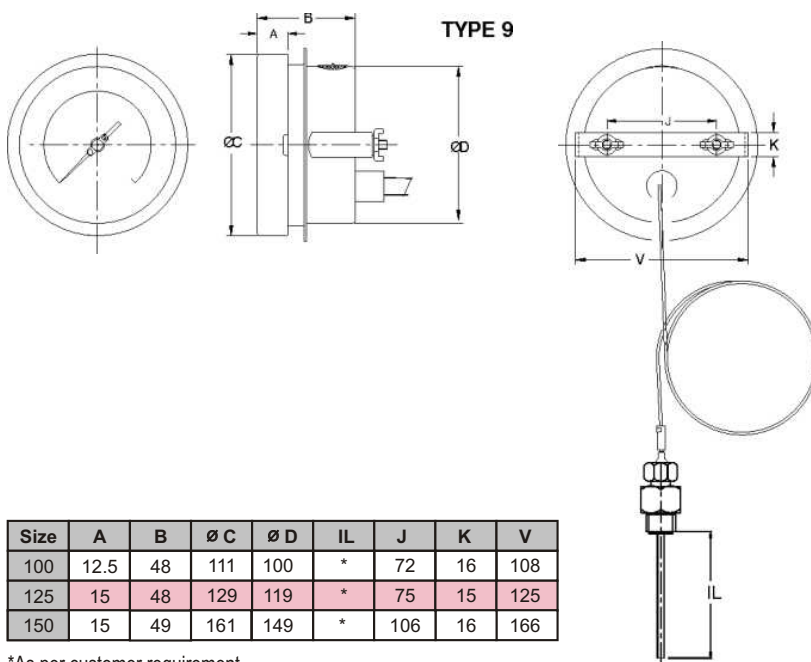
TYPE 23 - EVERY ANGLE BACK ENTRY



Size	A	B	Ø C	Ø D	IL
100	12.5	48	111	100	*
125	15	49	129	119	*
150	15	49	161	149	*

*As per customer requirement.

TYPE 23 - LOWER BACK ENTRY WITH MOUNTING BRACKET



Size	A	B	Ø C	Ø D	IL	J	K	V
100	12.5	48	111	100	*	72	16	108
125	15	48	129	119	*	75	15	125
150	15	49	161	149	*	106	16	166

*As per customer requirement.

Notes : Drawings are not to scale.(All Dimensions are in mm.)

Standard Range Table

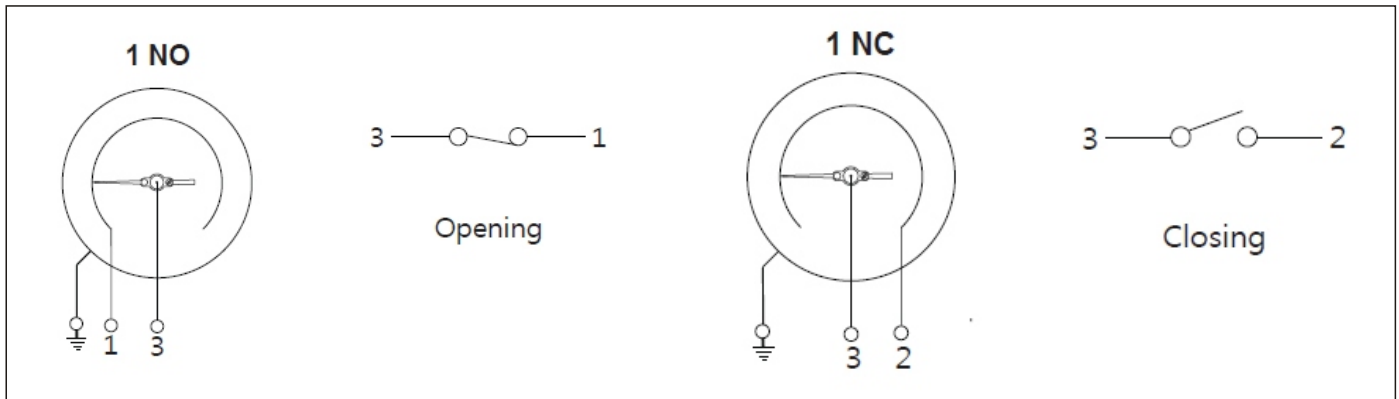
POSITIVE RANGE SINGLE SCALE IN °C			
RANGE	RANGE	RANGE	RANGE
0/60	0/120	0/250	0/500
0/80	0/160	0/300	0/600
0/100	0/200	0/400	50/650
COMPOUND RANGE SINGLE SCALE IN °C			
RANGE	RANGE	RANGE	RANGE
- 80 / 60	- 20 / 60	- 40 / 60	- 20 / 180
- 60 / 40	- 20 / 80	- 30 / 50	- 20 / 100

Stem Length (Below Thread Max.600mm)

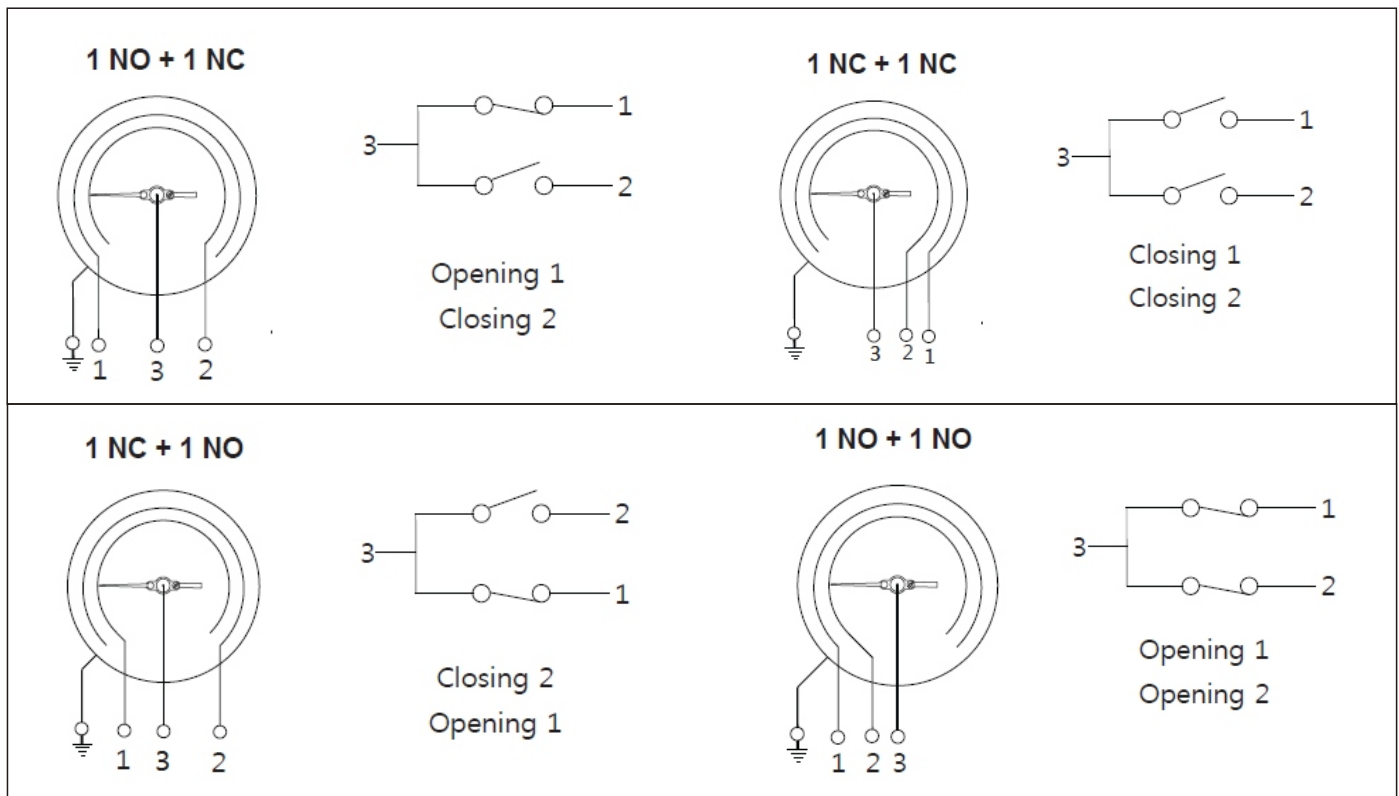
Minimum stem Length (Below Thread)	130 mm	120 mm	120 mm	110 mm
Stem OD	6mm	8 mm	10 mm	12 mm

WIRING DIAGRAMS FOR ELECTRIC CONTACTS

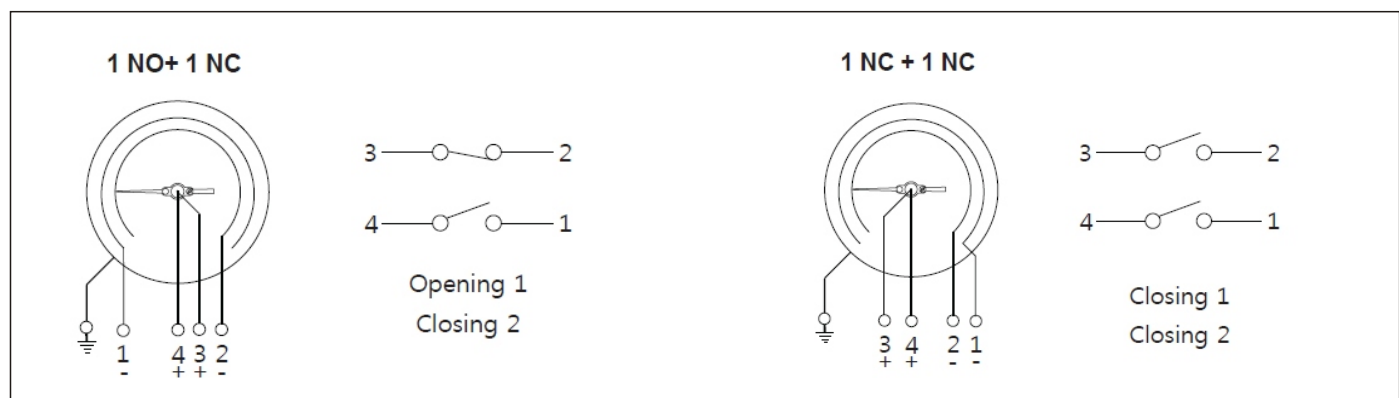
SINGLE CONTACT



DOUBLE CONTACT



INDEPENDENT DOUBLE CONTACT



SELECTION OF MODEL

(1) MODEL CODE

(2) DIAL SIZE

Dial Size	Code
100	4
125	5
150	6



(3) MOUNTING TYPE

Mounting Type	Code
DIRECT BOTTOM ENTRY*	11
WALL / SURFACE / PROJECTION MOUNTING WITH BOTTOM ENTRY	14
DIRECT LOWER BACK ENTRY*	21
LOWER BACK ENTRY WITH FRONT FLANGE	22
LOWER BACK ENTRY WITH MOUNTING BRACKET	23
EVERY ANGLE BACK ENTRY*	51

* Without Capillary Option.

(4) GAUGE CONNECTION SIZE

3/8" BSP (M)*	3BM	1/2" NPT (M)*#	4NM
3/8" NPT (M)*#	3NM	1/2" BSPT (M)*#	4TM
3/8" BSPT (M)*#	3TM	3/4" BSP (M)	6BM
1/2" BSP (M) (STD)	4BM	M20 x 1.5 (M)	4MM

* Suitable for Stem diameter 6mm to 10mm.

Not recommended for Revolving / Swivel Connections.

Note :- Other Options will be provided on Request. Consult Factory for more Details.

(5) RANGE

REFER TO THE RANGE TABLE

(6) PROCESS CONNECTION TYPE

AD	ADJUSTABLE TYPE (STD)
FX	FIXED
RV	REVOLVING / SWIVEL

(7) STEM DIAMETER

6	6mm	10	10mm
8	8mm (STD)	12	12mm

(8) STEM LENGTH (Below thread) in mm.

PLEASE SPECIFY IN MM (Refer Scale for Minimum & Maximum Stem Lengths)

(9) CAPILLARY LENGTH (Max. Up to 15 Mtrs.)

IN METERS (e.g. 1 = 1 METER, 2.5 = 2.5 METERS)

(10) CAPILLARY MATERIAL

S4	AISI 304 SS	S6	AISI 316 SS
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(11) CAPILLARY COVERED WITH ARMOUR (Applicable with Capillary if selected.)

S4	AISI 304 SS	S6	AISI 316 SS
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(12) ELECTRICAL CONTACTS (CE & Atex Approved)

1) Single insulated magnetic snap action type
(230 V AC, 1 Amp.)(48 V DC, 0.5 Amp.)*#

SJ Single: Normally Closed (1NC)
SK Double: Normally Closed + Normally Open (1NC + 1NO)
SL Single: Normally Open (1 NO)
SM Double: Normally Open + Normally Closed (1NO + 1NC)
SN Double: Normally Closed (both NC)
SO Double: Normally Open (both NO)
SU Booster with relay for Current upto 5 Amp.

2) Inductive type
(230 V AC, 0.4 Amp.)#

IW Single: Normally Open (1 NO)
IV Single: Normally Closed (1NC)
IX Double: Normally Closed + Normally Open (1NC + 1NO)
IY Double: Normally Open (both NO)
IZ Double: Normally Closed (both NC)
IA Double: Normally Open + Normally Closed (1NO + 1NC)

*For double insulated electric contacts, consult factory for price & delivery. # Compound ranges are not recommended.

TG2
4

11

4BM

0-100°C

AD

8

100mm

XX

XX

XX

XX

SELECTION OF MODEL

(13) OPTIONS

CF	AISI 316 SS CASE & BEZEL*
GF	DAMPENING LIQUID GLYCERINE FILLED (Ambient Temp. Max. 65°C)*
SF	DAMPENING LIQUID SILICON FILLED (Ambient Temp. Above 65°C)
MC	MATERIAL TEST CERTIFICATE#
CC	FIVE POINT CALIBRATION CERTIFICATE
TS	SS TAG PLATE
DF	DIELECTRIC OIL FILLED**

*Dry Version & except electric contacts. ** Gasket & Filling plug of Viton.

Material Test certificates will be provided for wetted parts only with chemical composition testing. For others, please consult factory.

Example	1	2	3	4	5	6	7	8
SELECTION OF MODEL	TG2	4	11	4BM	0-100°C	AD	8	100mm

Example	9	10	11	12	13
SELECTION OF MODEL	XX	XX	XX	XX	XX

XX

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