

Gas filled with electric contact thermometer



CE

Special Features

- C E approved electrical contacts.
- Inert gas filled expansion system.
- Stainless steel case & stem
- With or without thermowell
- 4 to 20 mA Out Put
- Standard followed EN 13190.

Application

- All stainless steel inert gas filled thermometers are suitable for corrosive media / environments in process industry chemical
- Food
- Pharmaceutical
- Pulp
- Paper
- Refinery
- Cement & many more.

Specifications

Standard Version : 100 mm, 150 mm, 200 mm & 250 mm

Accuracy	: Class 1 as per EN 13190
Ambient temperature	: -25°C to 65 °C
Operating pressure	: 15 kg/cm ² (without thermowell)
Over range limit	: 120% of Full Scale
Stem diameter	: 8 mm
Process connection	: ½ BSP (M) Adjustable
Case & bezel	: AISI 304 SS (Bayonet Type)
Stem & connection	: AISI 316 SS
Joints	: Tig Argon arc welding

Protection	: IP 68
Dial	: Aluminium, black graduation on white background
Pointer	: Aluminium, black Coloured Micrometer Zero adjustable
Window	: Toughened Glass
Gasket & Filling Plug	: Neoprene

Standard version : Electrical contacts

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

Standard version : Silicon oil filled

Accuracy	: Class 1 as per EN 13190
Ambient Temperature	: Maximum 65°C
Window	: Plexi Glass
Dampening Liquids	: Silicon Oil (Option QA)
Gasket & Filling Plug*	: Viton
Other Features	: Refer Specification of Standard Version

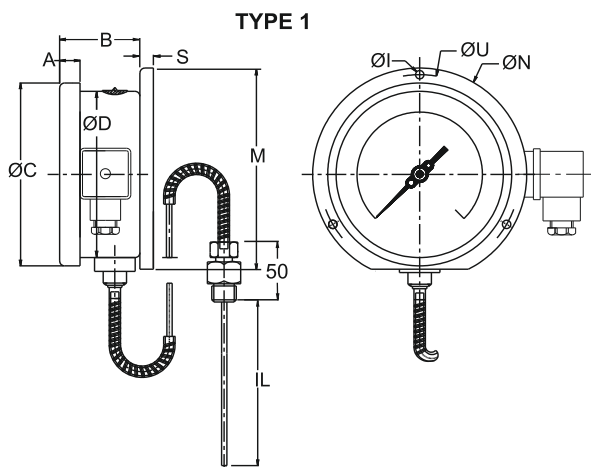
*Gasket & Filling plug of Viton.

Note : The addition of mechanical electric contacts affects the accuracy of instruments such that 1% becomes 1.5%, 1.6% becomes 2.4% etc. (Add the 50% of accuracy; If the contact is of the magnetically assisted type, this value cant be added within the ±5% of setting point.)

Nominal range, measuring ranges & limits of error as per EN 13190

Nominal Range (°C)	Measuring Range (°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

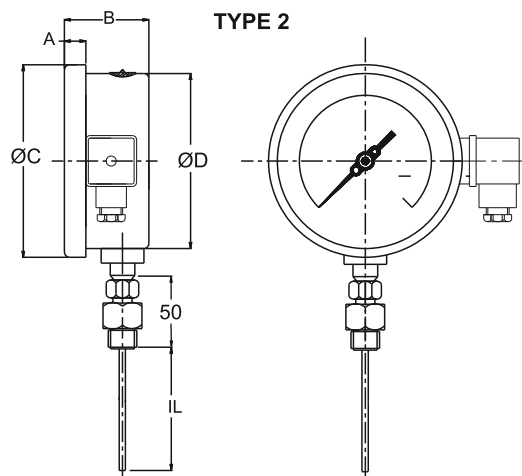
Dimensions - Standard Version



NS	A	B	ØC	ØD	S	M	IL	ØU	ØN	ØI	Approx. Wt.#
100	12.5	43	111	100	6	128	*	118	134	6	1000.0
150	15	43	161	149	6	174.5	*	168	186	6	1550.0
200	18	49	216	200	1.5	229	*	230	245	7	2000.0
250	18	55	262	247	1.5	286.5	*	276	290	7	2250.0

(* As per customer requirement.)

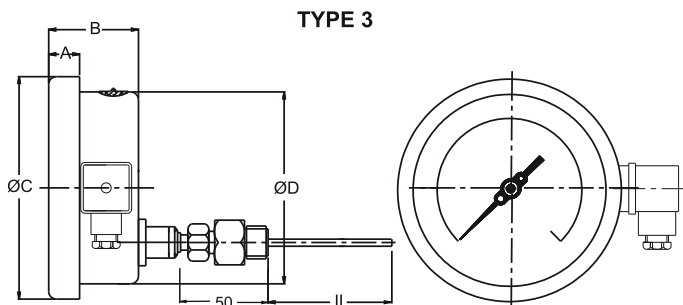
(# Weight in grams with box for 250 mm stem length & 3 meter capillary.)



NS	A	B	ØC	ØD	IL	Approx. Wt.#
100	12.5	45	111	100	*	750.0
150	15	45	161	149	*	1250.0
200	18	49	216	200	*	1500.0
250	18	55	262	247	*	2000.0

(* As per customer requirement.)

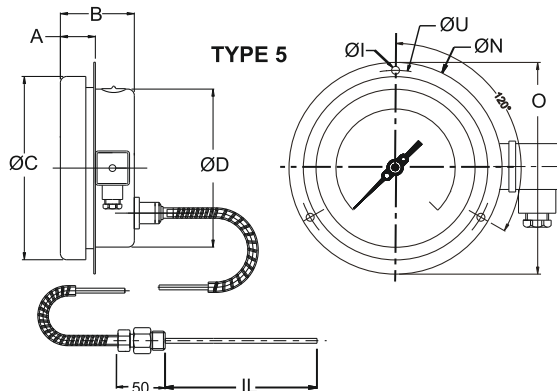
(# Weight in grams with box for 250 mm stem length.)



NS	A	B	ØC	ØD	IL	Approx. Wt.#
100	12.5	45	111	100	*	750.0
150	15	45	161	149	*	1250.0
200	18	49	216	200	*	1500.0
250	18	55	262	247	*	2000.0

(* As per customer requirement.)

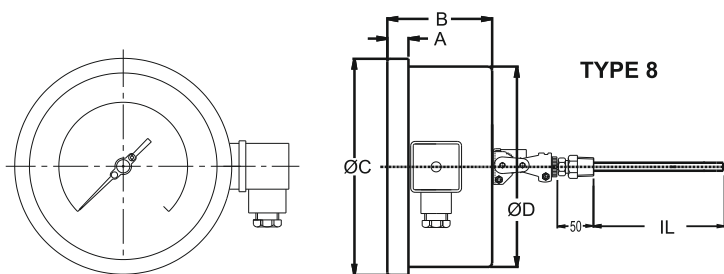
(# Weight in grams with box for 250 mm stem length.)



NS	A	B	ØC	ØD	S	IL	ØU	ØN	ØI	Approx. Wt.#
100	12.5	45	111	100	1	*	118	134	6	1000.0
150	15	45	161	149	1	*	168	186	6	1550.0
200	18	49	216	200	1.5	*	230	245	7	2000.0
250	18	55	262	247	1.5	*	276	290	7	2250.0

(* As per customer requirement.)

(# Weight in grams with box for 250 mm stem length & 3 meter capillary.)



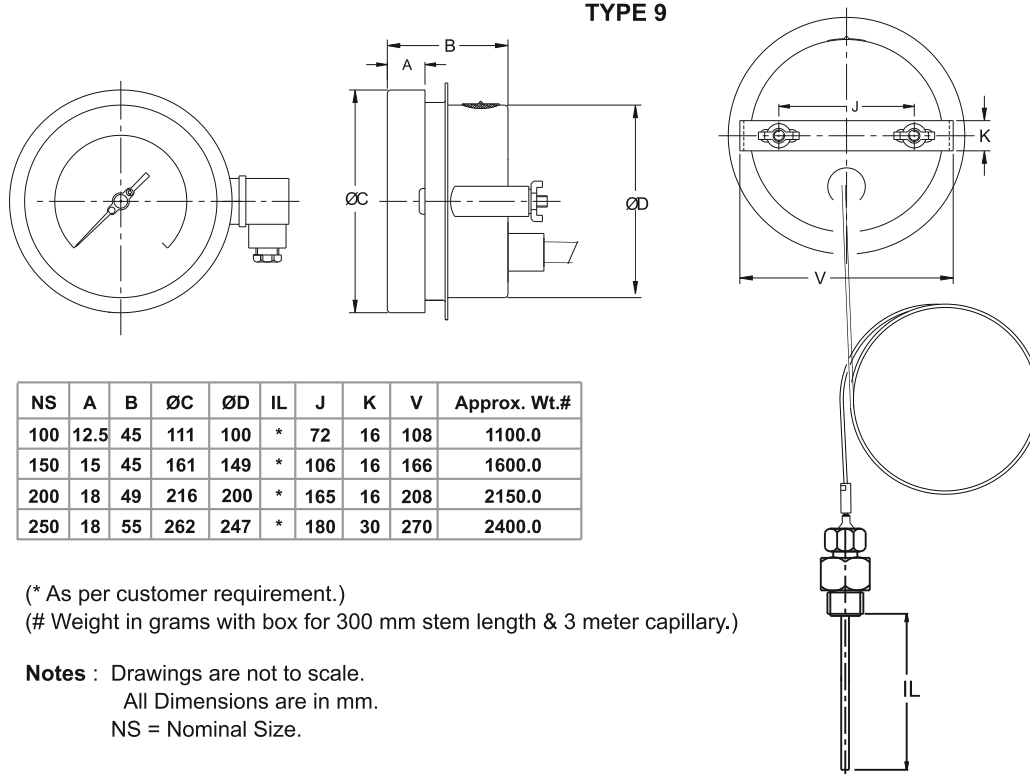
NS	A	B	ØC	ØD	IL	Approx. Wt.#
100	12.5	45	111	100	*	750.0
150	15	45	161	149	*	1250.0
200	18	49	216	200	*	1500.0
250	18	55	262	247	*	2000.0

(* As per customer requirement.)

(# Weight in grams with box for 250 mm stem length.)

Dimensions - Standard Version

TYPE 9



NS	A	B	ØC	ØD	IL	J	K	V	Approx. Wt.#
100	12.5	45	111	100	*	72	16	108	1100.0
150	15	45	161	149	*	106	16	166	1600.0
200	18	49	216	200	*	165	16	208	2150.0
250	18	55	262	247	*	180	30	270	2400.0

(* As per customer requirement.)

(# Weight in grams with box for 300 mm stem length & 3 meter capillary.)

Notes : Drawings are not to scale.
All Dimensions are in mm.
NS = Nominal Size.

Range Table

Note : We offer National / International Scales like C, F & Dual scale in C, F & scales as per the requirement can be provided on request. following are the example tables for C

Standard Ranges

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

Note: *Compound ranges are not recommended for electrical contact option. Refer table for limits of error as per EN13190 (On First Page)

ACCESSORIES (* Refer datasheet for Thermowells)

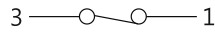
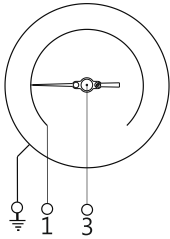
* Thermowell

Electrical Contact Wiring Information

Wiring diagrams for electric contacts

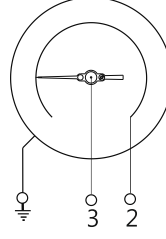
Single Contact

1 NO



Opening

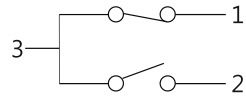
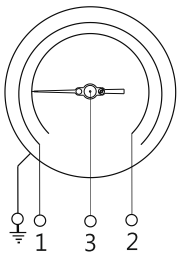
1 NC



Closing

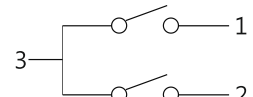
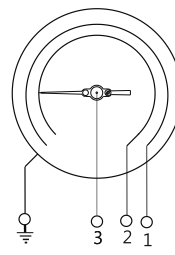
Double contact

1 NO + 1 NC



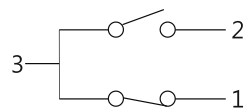
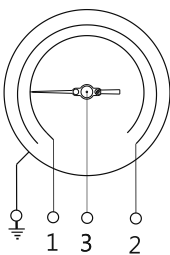
Opening 1
Closing 2

1 NC + 1 NC



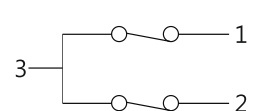
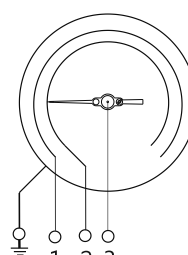
Closing 1
Closing 2

1 NC + 1 NO



Closing 2
Opening 1

1 NO + 1 NO



Opening 1
Opening 2



a unique innovation, with trust and quality...

Gas filled with electric contact thermometer

How To Order										Example						
Basic Model																
Code											GTMA XX or XXX X					
Nominal Size						60	80	100								
Type of Mounting(*without Capillary option)						150 mm	200 mm	250 mm								
1	Wall/surface/projection mounting			5	Lower back entry with front flange											
	With bottom entry			8	Every angle back entry*					X						
2	Direct bottom entry*			9	Lower back entry with mounting bracket											
3	Direct lower back entry*															
Process Connection (# Not recommended for Revolving/ Swivel connections.)																
3BM	3/8" BSP (M)*		4BM	½ BSP (M) (Standard)*		5BM	¾ BSP (M)				XXX					
3NM	3/8 NPT (M)*#		4NM	½ NPT (M)*#		4MM	M20 x 1.5 (M)*									
3TM	3/8 BSPT (M)*#		4TM	½ BSPT (M)*#												
* Suitable for stem diameter 6 to 10 mm																
Process Connection Type																
AD	Adjustable (Standard)			FX	Fixed		SL	Revolving / Swivel			XX					
Stem Diameter																
SD04	4 mm		SD06	6 mm (Standard)		SD08	8 mm		SD10	10 mm		SD12	12 mm		XXXX	
Stem Length (Below thread Max. 600 mm)																
Please specify in mm			Minimum stem Length (Below Thread)			120 mm	100 mm	100 mm	80 mm						100 mm	
			Stem OD			6 mm	8 mm	10 mm	12 mm							
Range																
Refer range table																0/100°C
Type	ST	With rigid stem			CP	With capillary									XX	
Capillary length (Max up to 15 Mtrs.)				In meters (e.g. 1.5 = 1.5 meters 2.0 = 2 meters)												3Mtr.
Capillary	S4	AISI 304 SS			S6	AISI 316 SS									XX	
Capillary covered with armour (Applicable with S4 or S6 if selected)																
S4	AISI 304 SS			S6	AISI 316 SS			PV	PVC (Ambient Temp. Max. 60°C)						XX	
Cable Connection																XXX
PG9 : PG 9																
DIN : 4 PIN DIN CONNECTOR																

* Dry version & except electrical contacts. ** Available for NS 100 mm to 150 mm. Consult factory for minimum order quantity & delivery.

*** Gasket & Filling plug of Viton. # Material test certificates will be provided for wetted parts only with chemical composition testing. For others, please consult factory. **Five Point Calibration Certificate Provided With Each Gauge For Measuring Range Only.**

Ordering Example: GTMA - XX or XXX - X - XXX - XX - XXXX - 100 mm - 0/100 C - XX - 3Mtr - XX - XX - XXX

For other optional items, please contact factory for delivery and minimum quantity of order. Note : Specifications and dimensions given in this product catalogue represents the state of engineering at the time of printing. Modifications may take place and materials specified may be replaced by others without prior notice.

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