



Special Features

- C & Atex approved electrical contacts.
- Inert gas filled expansion system.
- Stainless steel case & stem
- With or without thermowell
- Silicon oil filled (optional)
- 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, 125 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 65
Dial	: Aluminium, black graduation on white background
Pointer	: Aluminium, black Coloured Micrometer Zero adjustable
Window	: Plexi Glass
Gasket	: Neoprene

Standard version : Electrical contacts (100 mm & 150 mm only)

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

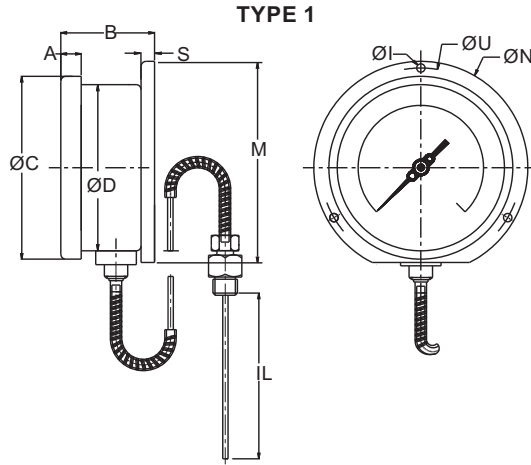
Accuracy	: Class 1 as per EN 13190
Ambient Temperature	: Maximum 65°C
Window	: Plexi Glass
Dampening Liquids	: Silicon Oil (Option QA)
Gasket	: Viton
Filling Plug	: EPDM
Other Features	: Refer Specification of Standard Version

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

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 can't be added within the ±5% of setting point.)

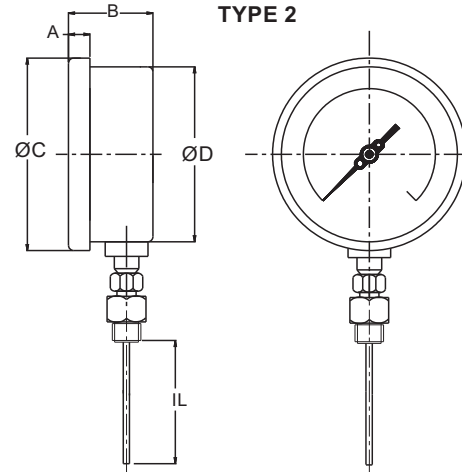
Dimensions - Standard Version



NS	A	B	ØC	ØD	S	M	IL	ØU	ØN	ØI	Approx. Wt.#
100	12.5	45	111	100	6	128	*	118	134	6	1000.0
125	15	46	129	119	4	143	*	137	150	6	1250.0
150	15	46.5	161	149	6	174.5	*	168	186	6	1550.0
200	18	49	216.5	201.5	1.5	229	*	230	245	7	2000.0
250	18	52	263	250	1.5	286.5	*	276	290	7	2250.0

(* As per customer requirement.)

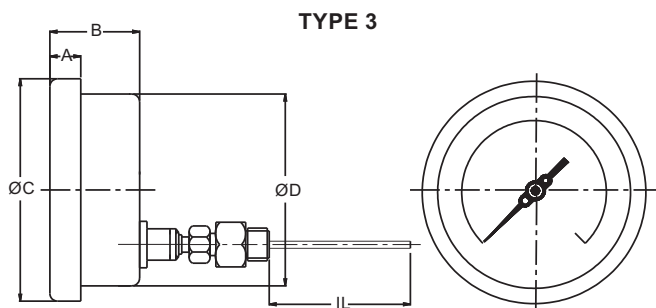
(# Weight in grams with box for 300 mm stem length & 3 meter capillary.)



NS	A	B	ØC	ØD	IL	Approx. Wt.#
100	12.5	47	111	100	*	750.0
125	15	48	129	119	*	1000.0
150	15	49	161	149	*	1250.0
200	18	49	216.5	201.5	*	1500.0
250	18	52	263	250	*	2000.0

(* As per customer requirement.)

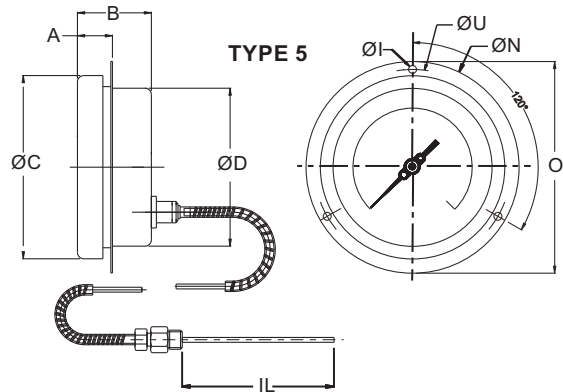
(# Weight in grams with box for 300 mm stem length.)



NS	A	B	ØC	ØD	IL	Approx. Wt.#
100	12.5	47	111	100	*	750.0
125	15	49	129	119	*	1000.0
150	15	49	161	149	*	1250.0
200	18	49	216.5	201.5	*	1500.0
250	18	52	263	250	*	2000.0

(* As per customer requirement.)

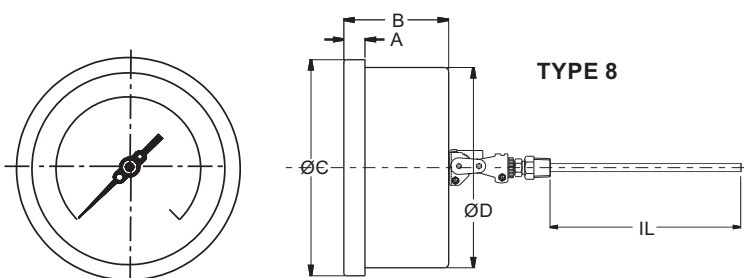
(# Weight in grams with box for 300 mm stem length.)



NS	A	B	ØC	ØD	S	IL	ØU	ØN	ØI	Approx. Wt.#
100	12.5	47	111	100	1	*	118	134	6	1000.0
125	15	49	129	119	4	*	137	150	6	1250.0
150	15	49	161	149	1	*	168	186	6	1550.0
200	18	49	216.5	201.5	1.5	*	230	245	7	2000.0
250	18	52	263	250	1.5	*	276	290	7	2250.0

(* As per customer requirement.)

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



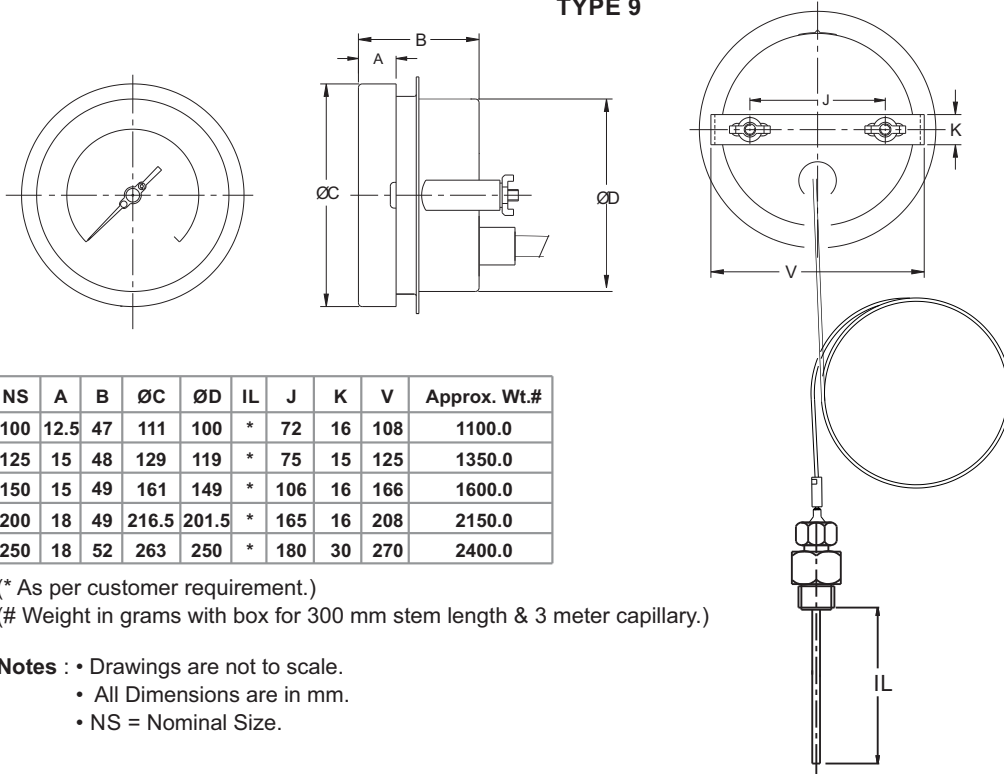
NS	A	B	ØC	ØD	IL	Approx. Wt.#
100	12.5	48	111	100	*	750.0
125	15	49	129	119	*	1000.0
150	15	49	161	149	*	1250.0
200	18	49	216.5	201.5	*	1500.0
250	18	49.5	263	250	*	2000.0

(* As per customer requirement.)

(# Weight in grams with box for 300 mm stem length.)

Dimensions - Standard Version

TYPE 9



NS	A	B	ØC	ØD	IL	J	K	V	Approx. Wt.#
100	12.5	47	111	100	*	72	16	108	1100.0
125	15	48	129	119	*	75	15	125	1350.0
150	15	49	161	149	*	106	16	166	1600.0
200	18	49	216.5	201.5	*	165	16	208	2150.0
250	18	52	263	250	*	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 front page of CA)

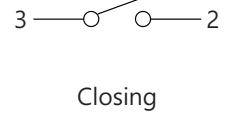
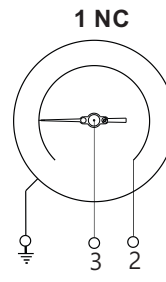
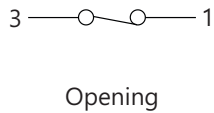
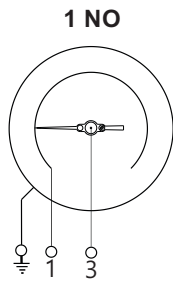
ACCESSORIES (* Refer datasheet for Thermowells)

- * **Thermowell**

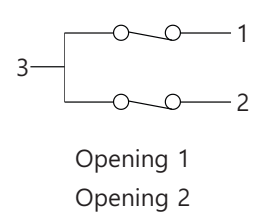
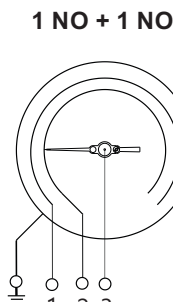
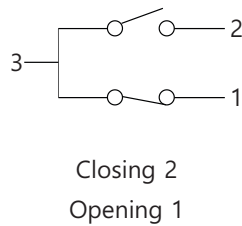
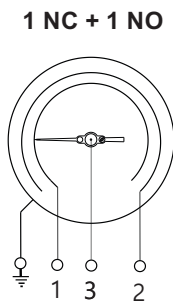
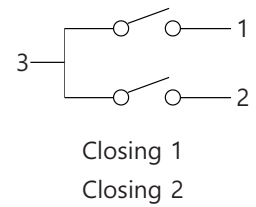
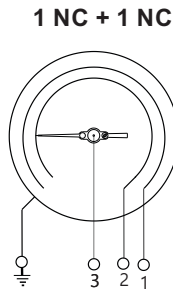
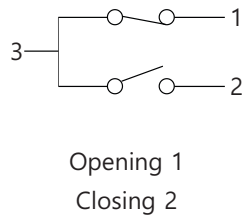
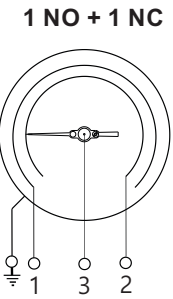
Wiring Diagrams

Wiring diagrams for electric contacts

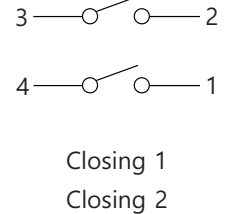
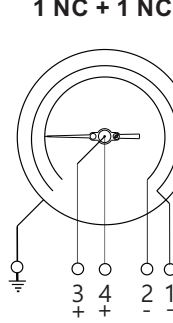
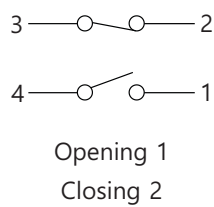
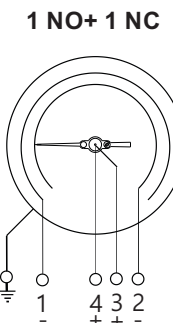
Single Contact



Double contact



Independent double contact



How To Order										Example							
Basic Model										CA							
Code																	
Nominal Size				F	G	H	I	J	X								
Type of Mounting (*without Capillary option)				100 mm	125 mm	150 mm	200 mm	250 mm									
1	Wall / surface / projection mounting with bottom entry			5	Lower back entry with front flange					X							
2	Direct bottom entry*			8	Every angle back entry*												
3	Direct lower back entry*			9	Lower back entry with mounting bracket												
Process Connection (# Not recommended for Revolving/ Swivel connections.)										XXX							
3BM	3/8" BSP (M)*			4BM	½" BSP (M) (Standard)*			5BM	¾" BSP (M)								
3NM	3/8" NPT (M)*#			4NM	½" NPT (M)#*			4MM	M20 x 1.5 (M)*								
3TM	3/8" BSPT (M)*#			4TM	½" BSPT (M)*#			000	Without process connection								
* Suitable for stem diameter 6 to 10 mm, Note : Connections like Metric/ PT/ PF/ Flaired/ UNF/ G/ R etc can be provided on request																	
Process Connection Type										XX							
ZI	Adjustable (Standard)			ZJ	Fixed			KJ	Revolving / Swivel								
Stem Diameter										XX							
1U	6 mm		2M	6.35 mm		2C	8 mm (Standard)		2I		9.5 mm		2J	10 mm		2K	12 mm
Stem Length (Below thread Max. 600 mm)										100 mm							
Please specify in mm			Minimum stem Length (Below Thread)			130 mm		120 mm			120 mm		120 mm		110 mm		
			Stem OD			6 / 6.35mm		8 mm			9.5 mm		10 mm		12 mm		
Range										0/100 °C							
Refer range table																	
Type	A1 With rigid stem			A2 With capillary						XX							
Capillary length (Max up to 10 Mtrs.) In meters (e.g. 1.5 = 1.5 meters 2.0 = 2 meters)										3Mtr.							
Capillary	PE AISI 304 SS			PG AISI 316 SS						XX							
Capillary covered with armour (Applicable with PE or PG if selected)										XX							
PF	AISI 304 SS			PH AISI 316 SS			PI PVC (Ambient Temp. Max. 60°C)										
Electric Contacts (For NS 100 mm & 150 mm Only) (C € & Atex approved)										XX							
(With IP protection up to IP 55 & window polycarbonate dome type)																	
A) Single insulated magnetic snap action type*# (230 V AC, 1 Amp.)(48 V DC, 0.5 Amp.)					B) Inductive type (220 V AC, 0.4 Amp.)#												
RJ	Single; Normally Closed (1 NC)				YW	Single; Normally Open (1 NO)											
RK	Double; Normally Closed + Normally Open (1 NC +1 NO)				YV	Single; Normally Closed (1 NC)											
RL	Single; Normally Open (1 NO)				YX	Double; Normally Closed + Normally Open (1 NC +1 NO)											
RM	Double; Normally Open + Normally Closed (1 NO + 1 NC)				YY	Double; Normally Open (both NO)											
RN	Double; Normally Closed (both NC)				YZ	Double; Normally Closed (both NC)											
RO	Double; Normally Open (both NO)				ZA	Double; Normally Open + Normally Closed (1 NO + 1 NC)											
RU	Booster with relay for current upto 5 Amp.																
* For double insulated electrical contacts, consult factory for price & delivery. # compound ranges are not recommended.																	
Optional Extras										XX							
PS	AISI 316 SS case & bezel**				RH	Custom designed dial											
PY	Dampening liquid glycerin filled (ambient temp. Max. 65°C)				RX	Shatterproof/safety glass											
PW	Five point calibration certificate (for measuring range)				RZ	Toughened glass											
QA	Dampening liquid silicon oil (ambient temp. above 65°C)				SW	Dial tag marking											
SJ	Maximum reading pointer with plexi glass (for dry version)*				SX	SS tag plate											
GH	Material test certificates#				ZZ	Dielectric oil filled***											

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

*** Gasket of Viton & Filling plug of EPDM. # Material test certificates will be provided for wetted parts only with chemical composition testing. For others, please consult factory.

Ordering Example: CA . X . X . XXX . XX . XX . 100 mm . 0/100 °C . XX . 3Mtr . XX . XX . XX . XX

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.