



### SPECIAL FEATURES

CE APPROVED ELECTRICAL CONTACTS.  
INERT GAS FILLED EXPANSION SYSTEM.  
STAINLESS STEEL CASE & STEM  
WITH OR WITHOUT THERMOWELL  
STANDARD FOLLOWED EN 13190.

### APPLICATIONS

ALL STAINLESS STEEL INERT GAS FILLED THERMOMETERS ARE SUITABLE FOR CORROSIVE MEDIA / ENVIRONMENTS IN PROCESS INDUSTRY LIKE CHEMICAL, FOOD & PHARMACEUTICAL, PULP & PAPER, REFINERY, CEMENT & MANY MORE.

### STANDARD VERSION

**NOMINAL SIZE : 100, 125, 150, 200 & 250 mm**

Accuracy class	1 as per EN 13190
Ambient temperature	-25° C to 65° C
Operating pressure	25 bar ( without thermowell )
Over range limit	120 % of measuring range for short time (110 % > 500 °C)
Stem diameter <sup>2</sup>	12 mm
Process connection	½" BSP (M) Adjustable ½" NPT (M)
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	Instrument glass
Gasket	Neoprene

### SILICON FILLED VERSION (OPTION QA)

Accuracy class	1 as per EN 13190
Ambient temperature	Maximum 65°C
Window	Plexi glass
Dampening liquids	Silicon oil (others available as option)
Gasket & filling plug*	NBR
Other features	Refer specification of standard version

\*Gasket & Filling plug of NBR. Consult factory for Viton.

1 the measuring range is limited on the dial by two triangle marks  
The limit error is valid within this range.

2 The active length of the stem (bulb) depends on the diameter, the scale, range and the length of the capillary. (See drawings page 2)

Nominal Range, Measuring Ranges & Limits of Error as per EN 13190<sup>1</sup>

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

Optional extras : see page 5

**HOW TO ORDER  
BASIC MODEL****CODE****NOMINAL SIZE**

F	G	H	I	J
100 mm	125 mm	150 mm	200 mm	250 mm

**TYPE OF MOUNTING**

1 WALL / SURFACE / PROJECTION MOUNTING WITH BOTTOM ENTRY	5 LOWER BACK ENTRY WITH FRONT FLANGE
2 DIRECT BOTTOM ENTRY	8 EVERY ANGLE BACK ENTRY
3 DIRECT LOWER BACK ENTRY	9 LOWER BACK ENTRY WITH MOUNTING BRACKET

**PROCESS CONNECTION**

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

Note : Connections like Metric/ PT/ PF/ Flaired/ UNF/ G/ R etc can be provided on request.

**PROCESS CONNECTION TYPE**

ZI ADJUSTABLE	ZJ FIXED	KJ REVOLVING / SWIVEL
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**STEM DIAMETER**

1U 6 mm	2M 1/4" (6.35 mm)	2C 8 mm	2I 9.5 mm	2J 10 mm	2K 12 mm
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**STEM LENGTH (BELOW THREAD)**

PLEASE SPECIFY IN mm

Minimum stem Length (Below Thread)	130 mm	120 mm	120 mm	120 mm	100 mm
Stem OD	6/6.35 mm	8 mm	9.5 mm	10 mm	

**RANGE**

REFER RANGE TABLE

**TYPE**

A1 WITH RIGID STEM
A2 WITH CAPILLARY

**CAPILLARY LENGTH (Max up to 25Mtrs.)**

IN METERS (e.g. 1.5 = 1.5 METERS 2.0 = 2 METERS)

**CAPILLARY (Minimum curve radius 50 m/m)**

PE AISI 304 SS

**CAPILLARY COVERED WITH ARMOUR (Applicable with PE or PG if selected)**

PF AISI 304 SS	PH AISI 316 SS	PI PVC
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**OPTIONAL EXTRAS**

PS AISI 316 SS CASE & BEZEL**	RH CUSTOM DESIGNED DIAL
PW FIVE POINT CALIBRATION CERTIFICATE	RX SHATTERPROOF/SAFETY GLASS
QA DAMPENING LIQUID SILICON OIL (-45 / 200°C)	RZ TOUGHENED GLASS
PY DAMPENING LIQUID GLYCERINE (UP TO 100°C)(EXCEPT ELECTRIC CONTACT)	SW DIAL TAG MARKING
SJ MAXIMUM READING POINTER WITH PLEXI GLASS (FOR DRY VERSION OF NS 100 mm to 150 mm)	SX SS TAG PLATE THERMOWELL

GH MATERIAL TEST CERTIFICATES

\*Gasket & Filling plug of NBR. Consult factory for Viton.

\*\* Available for NS 100 mm to 150 mm. Consult factory for minimum order quantity & delivery.

Material Certificate according EN 10204 3.1 B

**ELECTRIC CONTACTS (FOR NS 100 & 150 mm Only) (C € APPROVED)**

(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)
RK Double; NORMALLY CLOSED + NORMALLY OPEN (1 NC + 1 NO)
RL Single; NORMALLY OPEN (1 NO)
RM Double; NORMALLY OPEN + NORMALLY CLOSED (1 NO + 1 NC)
RN Double; NORMALLY CLOSED (BOTH NC)
RO Double; NORMALLY OPEN (BOTH NO)
RU BOOSTER WITH RELAY FOR CURRENT UPTO 5 Amp.

YW Single; NORMALLY OPEN (1 NO)
YV Single; NORMALLY CLOSED (1 NC)
YX Double; NORMALLY CLOSED + NORMALLY OPEN (1 NC + 1 NO)
YY Double; NORMALLY OPEN (BOTH NO)
YZ Double; NORMALLY CLOSED (BOTH NC)
ZA Double; NORMALLY OPEN + NORMALLY CLOSED (1 NO + 1 NC)

\* FOR DOUBLE INSULATED ELECTRICAL CONTACTS, CONSULT FACTORY FOR PRICE & DELIVERY.

Ordering Example: T-01 - 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.

Example

T-01

X

X

XXX

XX

XX

100 mm

0/100 °C

XX

3Mtr.

XX

XX

XX

XX