

Thermometers With Capillary Line

All Stainless Steel, Case with Bayonet Ring

Ø 63 mm (2 ½"), Ø 80 mm (3"), Ø 100 mm (4") and Ø 160 mm (6")

Standard or Liquid Filled (L)

Models :
TC 63/80/100/160

APPLICATIONS

These thermometers are designed to meet the requirements of industrial temperature measurement, for fluid or gaseous media. They are suitable also for aggressive media as to find in chemical industries, petrochemistry, process technology, apparatus engineering and food and beverage industries.

NOMINAL HEAD DIAMETERS

Ø 63 mm (2 ½"), Ø 80 mm (3"), Ø 100 mm (4") and Ø 160 mm (6")

ACCURACY CLASS (DIN EN 13 190)

1,0% of full span

MAX. ALLOWED STATIC PRESSURE

25 bar (350 psi) at the stem

PROTECTION TYPE (EN 60529 / IEC 529)

Model standard : IP 55

Model liquid filled : IP 65

STANDARD CONFIGURATION

CASE AND BAYONET RING

Stainless steel 304 1.4301

CONNECTION

Bottom connection and lower back

CAPILLARY LINE

Stainless steel, Ø 2 mm, optional with flexible armored in
Stainless steel up to 1 m (standard) or up to 15 m at option

STEM MATERIAL

Stainless steel AISI 316 L

Ø 6, 8, 10 and 12 mm

PRINCIPLE OF MEASUREMENT

Inert gas expansion system (measuring system nitrogen-filled, non-toxic and environmentally safe)

ADJUSTMENT

± 6 % with adjustment screw from outside

STANDARD RANGES

Nominal Range (°C)	Measuring Range (°C)	Scale Interval (°C)	Temperature Difference ΔT (K)
-50 / 50	-40 / 40	1	100
-30 / 50	-20 / 40	1	80
-30 / 120	-10 / 100	2	150
-30 / 170	-10 / 150	5	200
-20 / 60	-10 / 50	1	80
-20 / 80	-10 / 70	1	100
0 / 80	10 / 70	1	80
0 / 100	10 / 90	1	100
0 / 120	20 / 100	2	120
0 / 150	20 / 130	2	150
0 / 160	20 / 140	2	160
0 / 200	20 / 180	5	200
0 / 300	30 / 270	5	300
0 / 350	50 / 300	5	350
0 / 400	50 / 350	10	400
0 / 500	50 / 450	10	500
0 / 600	100 / 500	10	600
50 / 300	80 / 270	5	250
50 / 400	100 / 350	5	350
100 / 500	150 / 450	10	400
100 / 600	150 / 550	10	500



HOW TO ORDER :

Please select :

- Model Code : TC TC
- Nominal head diameter : 63, 80, 100 or 160 100
- Code letter for case configuration : A, B, K, J and H (see page 33) B
- STEM TYPE (see page 39) B1
 B1 : Plain Stem,
 B2 : Rigid Male Stem Connection thread
 B3 : Male Connection thread, adjustable on the Stem
- If liquid filled, code letter : L —

EXAMPLE OF ORDER NUMBER

Thermometer with capillary line, rear flange for panel mounting

Dial size 160 mm, Range : 0-200 °C

Stem diameter : 6 mm, Stem length : 100 mm

Connection ½" NPT adjustable on the stem

Capillary length : 3 m with armored in SS 316, liquid filled

order number : TC 160 B, B3 L, 0-200 °C,

3 m capillary with armored, Ø 6 mm, L = 100 mm, ½" NPT

Thermometers With Capillary Line

All Stainless Steel, Case with Bayonet Ring

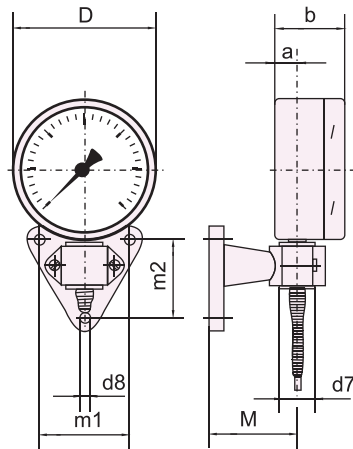
Ø 63 mm (2 ½"), Ø 80 mm (3"), Ø 100 mm (4") and Ø 160 mm (6")

Standard or Liquid Filled (L)

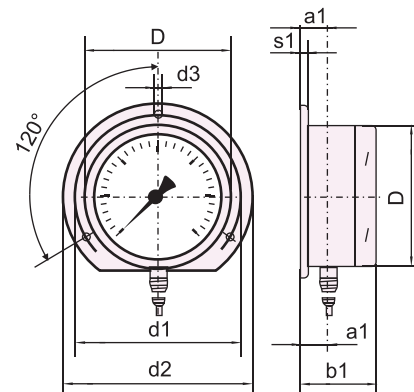
Models :
TC 63/80/100/160

CASE CONFIGURATIONS AND DIMENSIONAL DATA

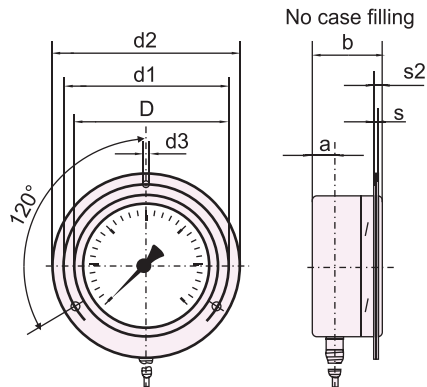
Bottom connection,
for mounting with gauge
holder bracket,
code letter : **A**



Bottom connection,
Rear flange
for Panel Mounting
code letter : **B**

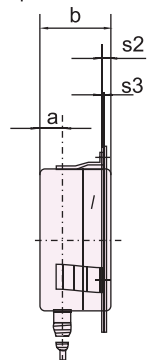


Bottom connection,
Front flange for Panel Mounting,
Code letter : **K**



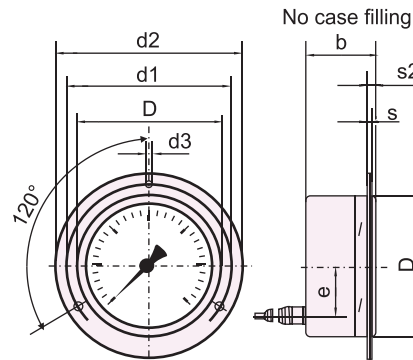
Front flange with longholes
attached to the case and a
separate cover front flange

Liquid filled case



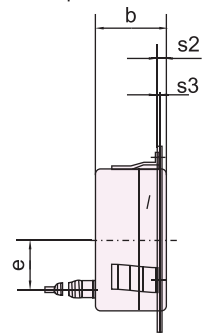
Mounting brackets welded to
the case and separate cover
front flange

Lower back connection,
Front flange for Panel Mounting
code letter : **J**



Front flange with longholes
attached to the case and a
separate cover front flange

Liquid filled case

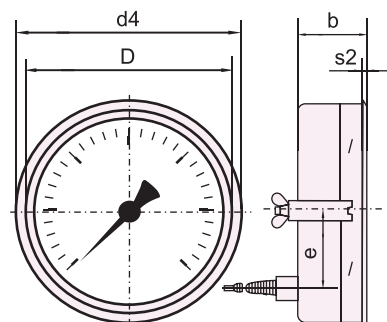


Mounting brackets welded to
the case and separate cover
front flange

For Ø 160 mm (no case filling)

Lower back connection,
U-clamp for Panel Mounting

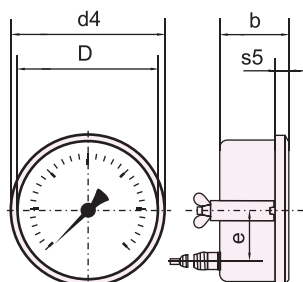
Code letter : **H**



For Ø 100 mm (4"), Standard or liquid filled only

Lower back connection,
U-clamp for Panel Mounting, crimped-on ring,

Code letter : **H**



Dimensional Data (mm) and Weight (kg)

Nominal Case Size	a	a1	b	b1	D	d1	d2	d3	d4	e	s	s1	s2	s3	s5	Weight approx	
																Dry	Liquid filled
63 mm (2 ½")	16	18	41	44.5	64	75	85	3.7	-	-	5	5	-	-	-	0.40	0.50
80 mm (3")	15	17.5	45	47.5	86	95	110	4.8	-	-	-	5	-	-	10	0.45	0.60
100 mm (4")	16	19.5	50	54	101	116	132	4.8	106	36	2	6	6	1	10	0.50	0.80
160 mm (6")					161	178	196	5.8	167	53					-	1.00	1.90

Thermometers Capillary Line, With Limit Switch Contact

All Stainless Steel, Case with Bayonet Ring

Ø 100 mm (4") and Ø 160 mm (6")

Standard or Liquid Filled (L)

Models :
TCE 100/160

APPLICATIONS

Models of limit-switch contact assemblies (see page 15)

- ⇒ Mechanical (Standard and magnetic contacts)
- ⇒ Inductive
- ⇒ Electronic

WINDOW

Acrylic glass

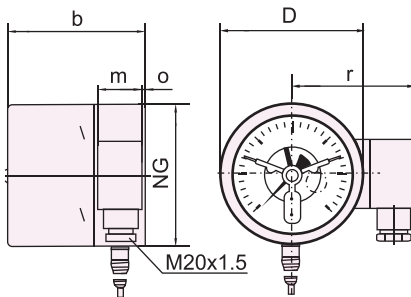
ELECTRICAL CONNECTION

Our models with built-in standard or magnetic contact are supplied with a universal plug connector. With built-in inductive and electronic limit-switch contact assembly they are supplied with a terminal box.

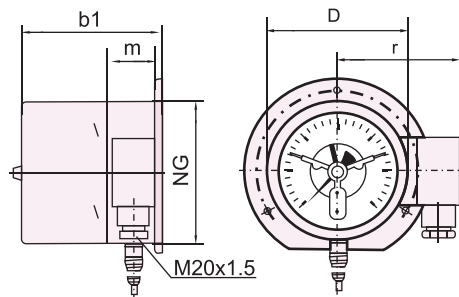
4-FOLD LIMIT-SWITCH CONTACT ASSEMBLIES

Can not be built into cases of nom. size 100 (4")

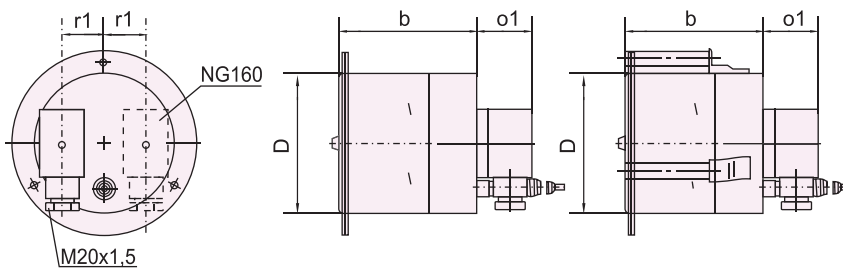
Bottom connection,
Version gauge holder bracket : A
Universal plug connector



Bottom connection,
Rear flange for Panel Mounting : B
Universal plug connector



Lower back connection,
Front flange for Panel Mounting : K
Universal plug connector



Front flange with longholes attached to the case and a separate cover front flange

Model Liquid Filled

Mounting brackets welded to the case and a separate cover front flange

Thermometer Capillary with Electrical Contact



Dimensional Data (mm) and Weight (kg)

NG	b	b1	D	m	o	o1	r	r1	Weight approx	
									Dry	Liquid Filled
100 mm (4")	98.5	101	101	31	3	40	88	30	0.70	1.50
160 mm (6")	105	109	161		6		119	55	1.30	2.70