

T700



INERT GAS PRESSURE THERMOMETERS

REMOTE MOUNTING – MODEL 701

DIRECT MOUNTING – MODEL 702

Same bulb size for all ranges

Wide temperature range
(from -200 °C up to 600 °C)

Protect personnel and process
from accidental contamination

Non toxic

Suitable in the food,
pharmaceutical, chemical and
petrochemical industries

CASE DIAMETER

100 and 150 mm

ACCURACY CLASS : IEN 13190

At 20 °C

SCALE RANGES

From - 200 °C to + 600 °C

OVER-RANGE

Short time 20% full scale up to 500°C
10% full scales for ranges > 500°C

STEM PRESSURE RATING

25 bar max (without thermowell)

STANDARD FEATURES

CASE AND RING

Material: AISI 304 ss
Style: bayonet ring
Protection class: IP 55 (EN 60 529)

TEMPERATURE ELEMENT

Inert gas pressure system (non toxic)
consisting of: bourdon tube,
helical type, bulb in AISI 316,
seamless capillary in AISI 316

POINTER

Adjustable Black aluminium

MOVEMENT

Stainless steel AISI 304

DIAL

Aluminium with black markings
on white background

WINDOW

Glass 4 mm

BULB

Bulb size : see next page table
Sensitive portion and its extension
with same rigid diameter

OPERATING TEMPERATURE

Middle 2/3 of the dial scales

CONNECTIONS

Compression fitting (sliding on stem)

THREAD SIZES

½" BSP or NPT-M

UNIT OF MEASUREMENT

Degree Celsius or Fahrenheit

AMBIENT TEMPERATURE AT CASE

0...40 °C max

AMBIENT ERROR

Ambient error is a function of line
length and ambient temperature
(0,25% at midscale of span per
10 °C change in ambient temperature)
Bi-metallic link to minimize errors due
to ambient temperature variations

LINE LENGTH

30 mt max

CAPILLARY MATERIAL

Stainless steel AISI 316 with stainless
steel flexible armor \varnothing 7 mm

TEMPERATURE LIMITS FOR STORAGE AND TRANSPORT

- 50... + 70 °C without liquid damping
- 20... + 60 °C with liquid damping

TEMPERATURE RANGES

See table in next page



Calle Pirita 12450 Galpón 22

La Chimba Alto Antofagasta - Fono (55) 261 8313

www.promid.cl

T700

INERT GAS PRESSURE THERMOMETERS

REMOTE MOUNTING – MODEL 701

DIRECT MOUNTING – MODEL 702

OPTIONAL EXTRAS

Glycerine filled case
(+15 to +160 °C)
Silicon oil filled case
(- 45 to + 250 °C)
Fluorolube filled case max 200 °C
Case and ring material AISI 316
Back and front flange material AISI 316
Electrical switch contacts dimension
(for further information see
data sheet CE)
Safety glass
Dual scales °C / °F
Other thread sizes
Other bulb sizes (6, 8, 10 or 14 mm)
Protection class: IP65 – EN 60 529
ATEX version with inductive contact



II 2 GD c

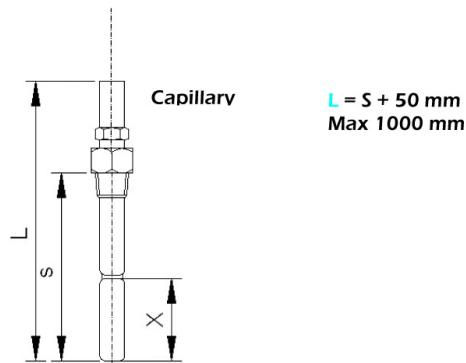
PTB 99 ATEX 2219X /
PTB00 ATEX 2049B
ZELM 63 ATEX 0128X

THERMOWELLS

Protection wells are recommended for applications where the stem may be exposed to pressure, corrosive or high velocity fluids. The use of thermowell also permits instrument interchange or calibration check without disturbing or shutting down the process stream

BULB TYPE AND DIMENSIONS

The bulb is manufactured in AISI 316 seamless pipe and it's made in two parts: sensitive portion (length depending on bulb diameter) and rigid extension (same diameter of sensitive part). Bulb can also be in electrowelded AISI 316 pipe.



MINIMUM LENGTH OF SENSING PORTION (see below table)

Valid for direct mounting or with capillary ≤ 10 m

Ø Bulb	X mm	S
6 x 1	180	220
8 x 1	120	160
10 x 1	90	130
12 x 1	70	110
14 x 2	70	110

CAPILLARY TYPES

- Capillary AISI 316 stainless steel Ø 2,5 mm
- Capillary AISI 316 stainless steel covered with AISI 316 armour Ø 7 mm
- Capillary AISI 316 stainless steel covered with AISI 304 armour PVC coated

TEMPERATURE RANGES

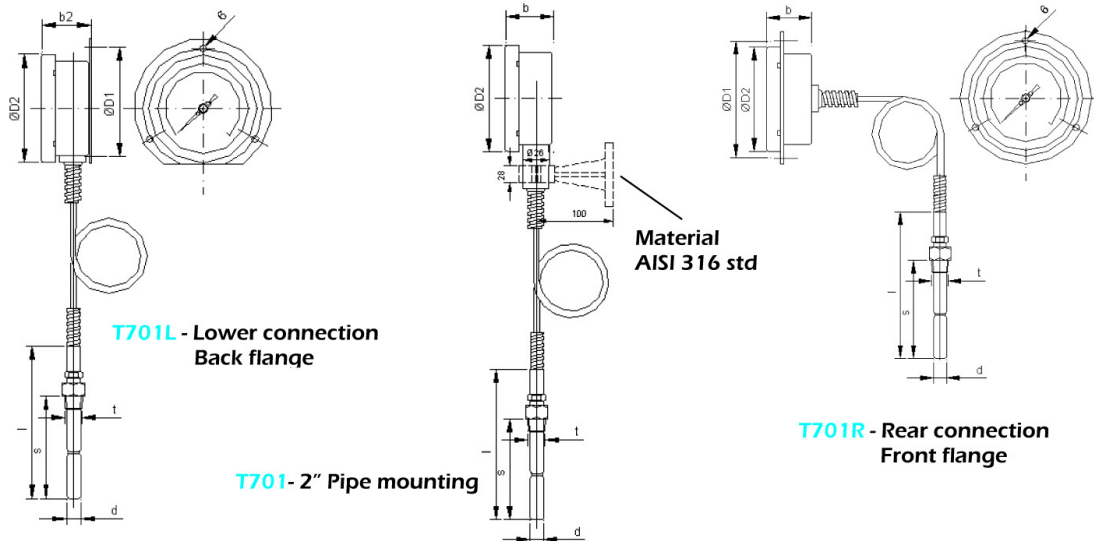
Scale range °C	Measuring Range °C (*)	Limits error ±°C	
		Without CE	With CE
-80 to +60	-10 to +30	1	1,5
-60 to +40	-10 to +50	1	1,5
-40 to +60	-10 to +110	2	1,5
-30 to +50	-20 to +40	1	
-30 to +70	-20 to +60	1	
-20 to +60	-10 to +50	1	1,5
-100 to +60	-30 to +50	1	1,5
0 to 60	10 to 50	1	1,5
0 to 80	10 to 70	1	1,5
0 to 100	10 to 90	1	1,5
0 to 120	10 to 110	2	3
0 to 160	20 to 140	2	3
0 to 200	20 to 180	2	3
0 to 250	30 to 220	2,5	3,75
0 to 300	30 to 270	5	7,5
0 to 400	50 to 350	5	7,5
0 to 500	50 to 450	5	
0 to 600	100 to 500	10	15
0 to 700	100 to 600	10	15

(*) between two triangular marks

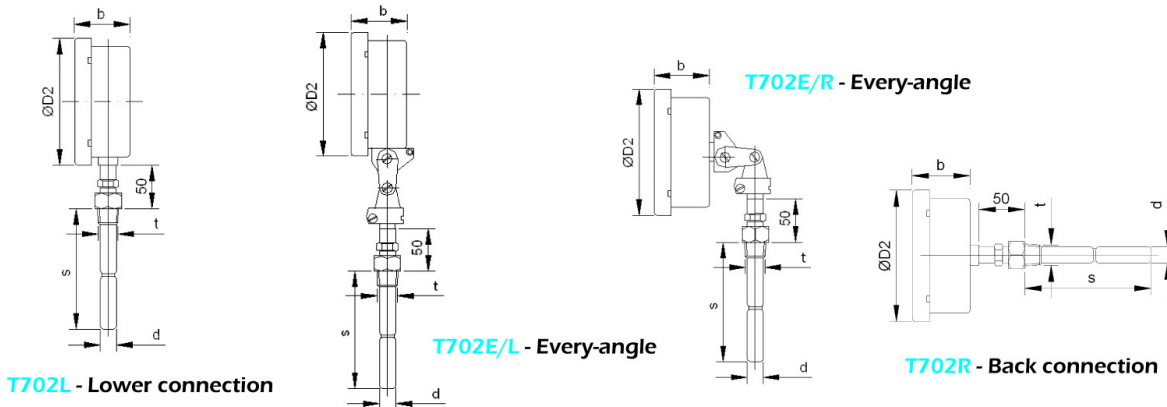
T700

INERT GAS PRESSURE THERMOMETERS

REMOTE MOUNTING – MODEL 701



DIRECT MOUNTING – MODEL 702



Dimensions in mm

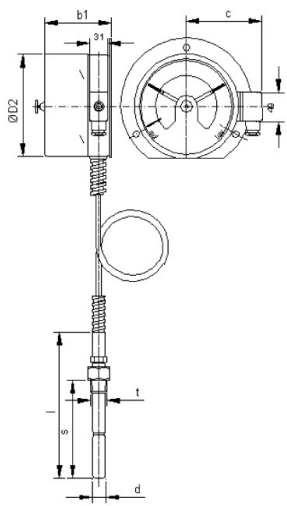
MODEL	DN	b2	b	d	D2	t
702 L	100	-	50,5	12	100	½" BSP or NPT
702R	100	-	50,5	12	100	½" BSP or NPT
702E	100	-	50,5	12	100	½" BSP or NPT
701L	100	55	-	12	100	½" BSP or NPT
701L / 2" Pipe	100	-	50,5	12	100	½" BSP or NPT
701R	100	-	50,5	12	100	½" BSP or NPT
702L	150	-	53,5	12	160	½" BSP or NPT
702R	150	-	53,5	12	160	½" BSP or NPT
702E	150	-	53,5	12	160	½" BSP or NPT
701L	150	58	-	12	160	½" BSP or NPT
701L / 2" Pipe	150	-	53,5	12	160	½" BSP or NPT
701R	150	-	53,5	12	160	½" BSP or NPT



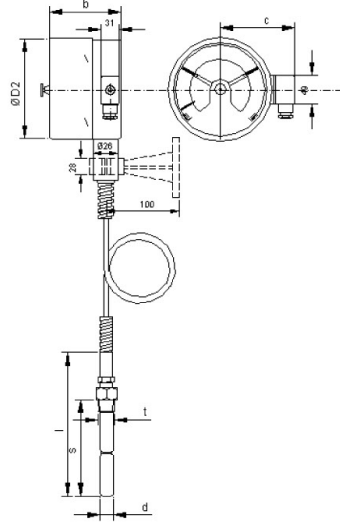
T700

INERT GAS PRESSURE THERMOMETERS WITH ELECTRIC CONTACTS ⁽¹⁾

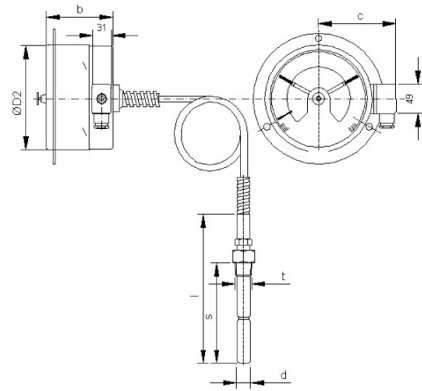
REMOTE MOUNTING – MODEL 701



T701L - Lower connection

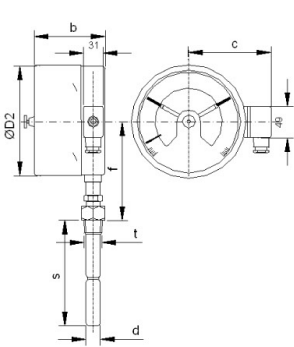


T701 - 2'' Pipe Mounting

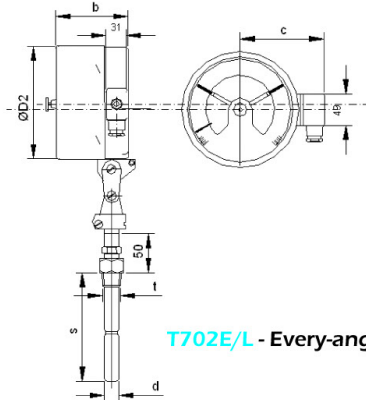


T701R - Rear connection

DIRECT MOUNTING – MODEL 702

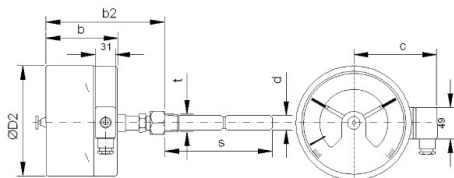
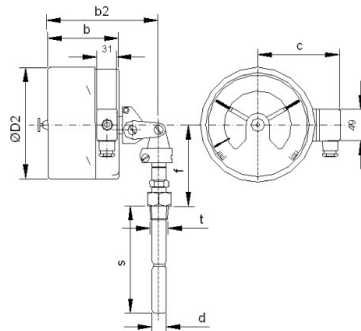


T702L - Lower connection



T702E/L - Every-angle

T702E/R - Every-angle



T702R - Back connection

Dimensions in mm

D2	b	b1	b2	C	F ⁽²⁾
100	96	99	140	90	85
160	96	99	140	120	115

(1) DIN Case + High Ring + Junction box 6 poles Wiebrock type

(2) with scale ranges ≥ 250 °C dimensions increase by 50 mm

T700

INERT GAS PRESSURE THERMOMETERS

REMOTE MOUNTING – MODEL 701

DIRECT MOUNTING – MODEL 702

HOW TO ORDER

1) NOMINAL SIZE

100 150

2) BASIC MODEL

T701 – REMOTE MOUNTING

T702 – DIRECT MOUNTING

3) GAUGE CONNECTION (*1)

7 1/2" NPT-M 8 1/2" BSP-M 12 3/4" NPT-M 13 3/4" BSP-M

4) TYPE OF MOUNTING

L BOTTOM ENTRY R DIRECT CENTER BACK ENTRY E EVERY ANGLE

LF SURFACE/WALL MOUNTING WITH BOTTOM ENTRY (model 701 only)

RF FLUSH PANEL FRONT FLANGE WITH BACK ENTRY (model 701 only)

5) SCALE RANGE

REFER TO LIST

6) BULB SIZE

B6 BULB Ø 6 mm B8 BULB Ø 8 mm B10 BULB Ø 10 mm B12 BULB Ø 12 mm

B14 BULB Ø 14 mm

7) BULB LENGTH

S STEM LENGTH IN mm (INCLUDING THREAD)

8) CAPILLARY

A PLAIN CAPILLARY SS 304 B PLAIN CAPILLARY SS 316

AA ARMoured CAPILLARY SS 304 BB ARMoured CAPILLARY SS 316

9) CAPILLARY LENGTH

L CAPILLARY LENGTH IN mm

10) OPTION

SF SAFETY GLASS CS AISI 316 CASE AND RING

IP IP 65 CASE PROTECTION CLASS FS SILICON OIL FILLABLE EXECUTION

FG GLYCERINE FILLABLE EXECUTION PG GLYCERINE FILLED DAMPENING LIQUID

PZ SILICON OIL FILLED DAMPENING LIQUID SJ MAXIMUM READING POINTER

SX STAINLESS STEEL TAG PLATE SW DIAL TAG MARKING

RH CUSTOMER DESIGNED DIAL

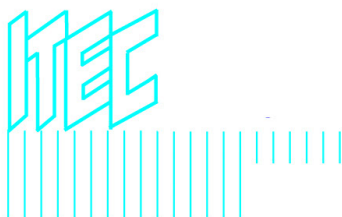
--- INDUCTIVE AND MECHANICAL ELECTRIC CONTACTS (*2)

(*1) Other connections available on request

(*2) Code and description on data sheet electric contact

EXAMPLE

1	2	3	4	5	6	7	8
160	T701	7	L	100 °C	B8	S 200	SJ-SX



Calle Pirita 12450 Galpón 22

La Chimba Alto Antofagasta - Fono (55) 261 8313

www.promid.cl