

**TXA3 - TXA4  
TXA5 - TXA7 - TXA8**

Ø 63 - 80 - 100 - 150 - 160 mm

- **Stainless steel thermometers**
- **Principle : based on the expansion of an inert gas (non-toxic)**
- **Accuracy : ± 1,6% (Ø 63-80)  
± 1% (Ø 100-150-160)**
- **Scales in °C and °F**
- **Watertight, fillable with dampening liquid**
- **Withstand corrosive fluids**
- **Designed for process industries :  
Oil, Chemical, Energy, Food, Biotechnology,  
Pharmaceutical.**



**Specifications (20°C)**

**Range:**

From -200°C to +600°C (see standard graduations overleaf).  
Permissible overload of +30%

**Accuracy:**

± 1% full scale (Ø 100 - 150 - 160)  
± 1.6% full scale (Ø 63-80)

**Degree of protection :**

IP 65 according to NF EN 60529

**Sensing element:**

Low volume spiral having undergone a heat treatment.

**Ambient temperature of the indicator and transmission :**

-10°C to +50°C  
Other ambient temperatures : consult us.

**Case and bezel ring:**

304 stainless steel.  
Bayonet type fastening 80 - 100 - 150 - 160 dia. Removable crimped bezelring for 63 dia (except type G).

**Window:**

Glass 2 mm thick for 63 dia.  
Glass 3 mm thick for 80 - 100 - 150 dia.  
Glass 4 mm thick for 160 dia.

**Window gasket:**

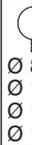
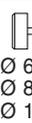
In elastomer. Provides sealing between window and case.

**Movement:**

Brass (Ø 63 - 80)  
Stainless steel 304 (Ø 100 - 150 - 160).

**Mounting :**

**Type**

	 Ø 63	 Ø 80 Ø 100 Ø 150 Ø 160	 All Ø	 Ø 63 Ø 80 Ø 100
Direct	D	D	F	-
Surface mounting by means of back flange (ø 63) or 3 back lugs fixing	A	A	E	-
Flush mounting with front flange welded on to case	-	C	B	-
Flush mounting by means of back clamp	-	-	-	G
With a base conform to DIN 16203	-	H	-	-

**Dial:**

Aluminium alloy.  
Black graduations and figures on white background.  
Graduation conforms to DIN 16 203 standard.

**Pointer:**

Aluminium alloy, balanced, black painted.

**Blow out disc:**

In elastomer. It is positioned at the top of thermometer and vents the inside of the case to the atmosphere.

**Zero setting (Ø 100 - 150 - 160) :**

After removing an elastomer plug, the zero setting screws enables to adjust the instrument.



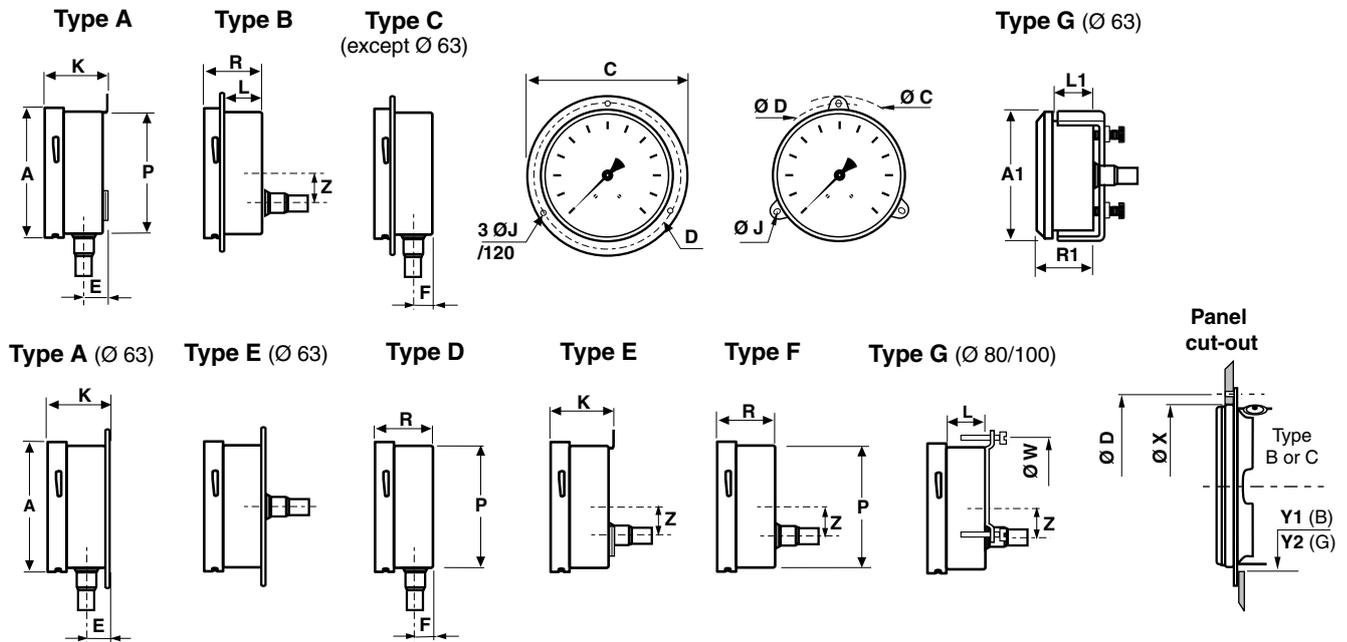
# Ranges

Standard versions of **DIRECT THERMOMETERS**  - Ø 8 mm dia bulb

Graduations				TXA3 (Ø63) - TXA4 (Ø80)				TXA5 (Ø100) - TXA7 (Ø150) TXA8 (Ø160)					
Coding	°C	Coding	°F	S	P				S	P			
					150	250	400	600		150	250	400	600
03	-200 + 50	03	-300 + 100	50					100	⊗	⊗	⊗	⊗
08	-120 + 40	06	-200 + 100	50					50				
11	-70 + 40	10	-100 + 100	50					50				
13	-40 + 60	15	-40 + 160	50					50				
22	-30 + 50	32	-20 + 100	50					50				
25	-20 + 40	40	0 + 100	50					50				
19	-30 + 170	21	-30 + 320	50					50				
16	-30 + 270	26	-30 + 520	50					100	⊗	⊗	⊗	⊗
47	0 + 60	49	+20 + 140	50					50				
51	0 + 100	52	+20 + 220	50					50				
53	0 + 120	56	+20 + 270	50					50				
57	0 + 160	60	+20 + 320	50					50				
61	0 + 200	65	+20 + 420	50					100	⊗	⊗	⊗	⊗
66	0 + 250	70	+20 + 520	50					100		⊗	⊗	⊗
71	0 + 300	80	+30 + 580	50					100		⊗	⊗	⊗
81	0 + 400	90	+30 + 730	50					100		⊗	⊗	⊗
99	0 + 600	99	+30 + 1130	100		⊗	⊗	⊗	100		⊗	⊗	⊗

 Standard     Optional bulb **S = 50**     Not possible    For length P > 600 : consult us

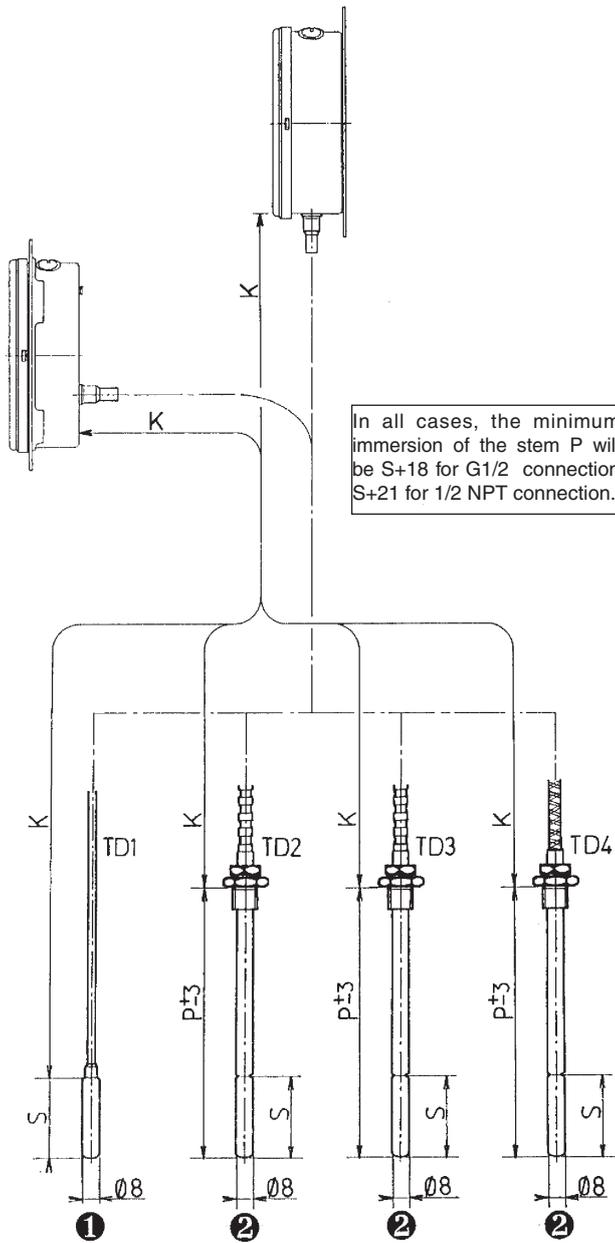
## Dimensions (mm)



Weight in Kg/Type D

Sizes in mm	A	A1	C	D	E	F	J	K	L	L1	P	R	R1	-	-	-	not filled	BH filled
Ø 63	64	67.6	81	73	13	9.8	3.6	37.2	19	22.2	63	29.5	28.5	-	-	-	0.130	0.180
	A	C	D	E	F	J	K	L	P	R	-	W	X	Y1	Y2	Z		
Ø 80	86.6	110	98	24.7	22.3	5.5	56.5	38	79.6	54.5	-	100	87.5	84	81	21	0.470	0.780
Ø 100	106.2	130	118	25.4	23	5.5	56.5	37.5	98	54.5	-	118	107	101	99	30	0.570	0.950
Ø 150	150.2	180	168	25.4	23	5.5	56.5	37.5	142	54.5	-	-	151	145	-	30	0.880	1.700
Ø 160	160.2	196	178	25.4	23	5.5	57.5	27.7	152	55.5	-	-	161	155	-	54	0.930	1.850

# Capillary thermometers ① ②

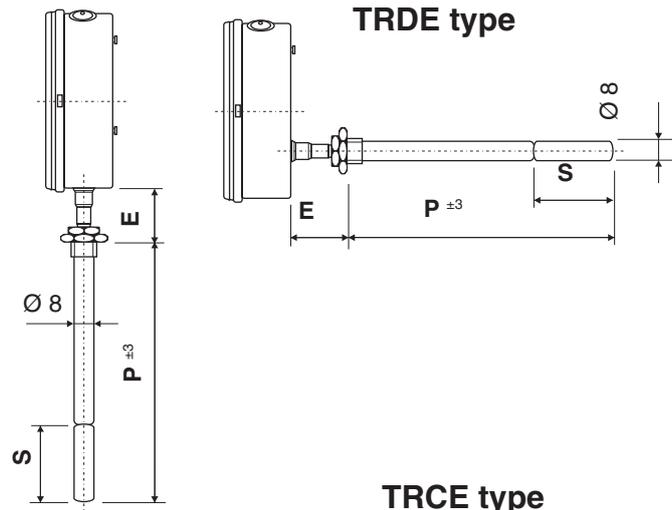


In all cases, the minimum immersion of the stem P will be S+18 for G1/2 connection S+21 for 1/2 NPT connection.

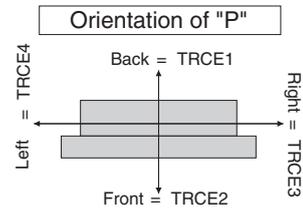
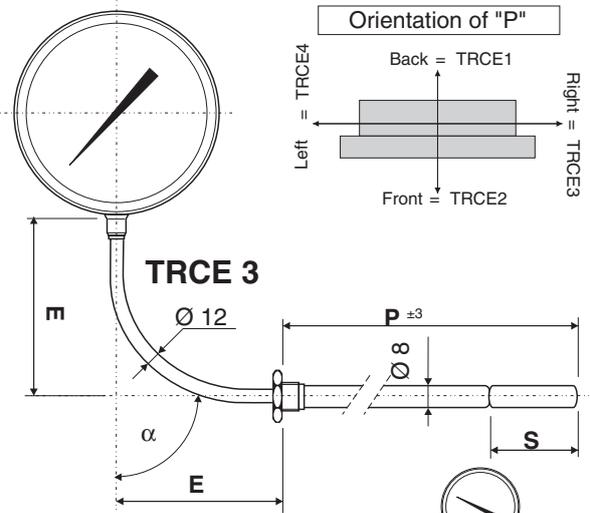
**S** = Bulb length (indicative value = see table)  
**K** =  $K \pm 2\%$

- TD 1** = stem transmission with bare stainless steel capillary (Max. L = 50 m).
- TD 2** = stem transmission with stainless steel capillary and stainless steel protection (Max. L = 50 m).
- TD 3** = stem transmission with st. steel capillary and PVC coated stainless steel protection (Max L = 35 m).
- TD 4** = stem transmission with stainless steel capillary reinforced stainless steel protection (Max. L = 35 m).

# Direct thermometers ③



## TRCE type



Type	Emm	°C
TRDE 1	65	≤120°C
TRDE 2	120	>120°C

**Stem:**  
 It is advisable to have a stem which is long enough to keep the temperature recording indicator at a sufficient distance after mounting.

- TRDE 1** = straight rigid transmission with extension E of 65 mm for fluid temperature ≤ 120°C. Fastening by sliding connection so that the indicator can be oriented as required.
- TRDE 2** = straight rigid transmission with extension E of 120 mm for fluid temperature > 120°C. Fastening : ditto TRDE 1.
- TRCE 1** } elbowed rigid transmission with extension  
**TRCE 2** } (indicate value of E, of angle α). Fastening  
**TRCE 3** } by G 1/2 connection enable to orient the  
**TRCE 4** } indicator as required.

# Connections - Accessories

## Reminder of different types of connection

**Figure 1**

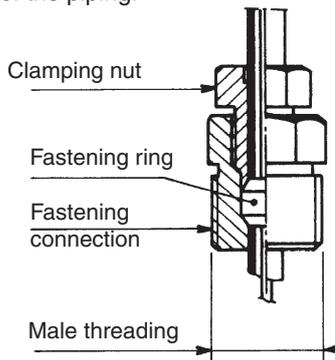
Sliding male connection (becomes revolving male connection after clamping)  
 G 1/2 - 1/2 NPT - G 3/4 - G 3/8 - 3/8 NPT - G 1/4 - 1/4 NPT  
 Female connection on request.  
 Maximum static pressure : 40 bar

**Figure 2**

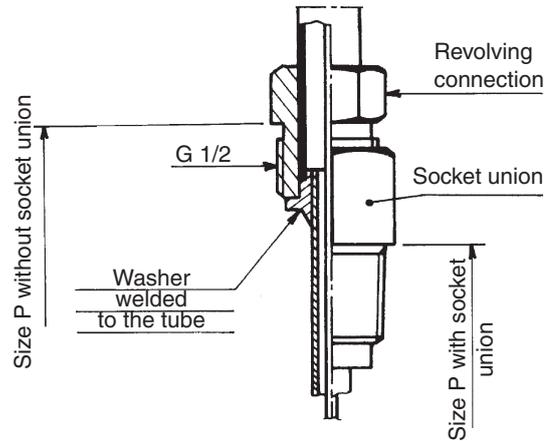
Revolving connection for TRCE. G 1/2 male connection only.  
 For fastening on other threads, please use a socket union.

**Figure 3**

**Socket union** : this term indicates female/male connections. Female side is parallel tapered, tightness is ensured by means of a gasket : it corresponds to the male connection in our fastening (G 1/2).  
 The male part corresponds to the "customer requirement". It provides sealing according to the principles of the piping.



**Figure 1**

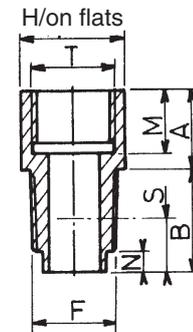


**Figure 2**

**Dimensions of socket union**

F	1/2 BSP-Tr	1/2 NPT	3/4 BSP-Tr	3/4 NPT
T	G 1/2			
B	26	26	32	32
max dia. of stem	14	14	16	16
H	26	26	35	35
A	20	20	20	20
M	16	16	16	16
N	5	5	5	5
S	11.4 to 15	13	12.7 to 16.3	13.5

### SOCKET UNION



**Figure 3**

## Options

### Uncoded options (have to be listed after the code number)

- 9.5, 11.5, 14 mm dia bulb.
- Case and bezel ring in 316 L stainless steel.
- Plexiglass, hardened or safety laminated glass window.
- Adjustable index with polycarbonate window (100 and 150 dia only).
- Special scales.
- Length of stem P limited to 1.2 m (TRDE1, TRDE2) in direct transmissions
- Length of stem P up to 2 m with K mini  $\geq 1,5$  P (TD2, TD3, TD4).
- Connection : other threads possible, except for TRCE (consult us).

### Derived versions from TXA (TIX)

- BH version:  
Thermometer filled with a BH6 dampening liquid.
- Electrical contacts version :  
Refer to separate T11, T12 and T13 data sheet :  
 - T11 (TIX/CES) :  $\varnothing \geq 100$  mm  
 - T13 (TIX/CEI) :  $\varnothing \geq 100$  mm
- Weatherproof version :  $\varnothing \geq 100$  mm.

