



Gas filled Thermometers TSF Ø 63 - 80 - 100 - 160

Application	Industrial thermometer for remote measurement
Temperature Range	-200 ... 800°C
Accuracy	according DIN 16 203 Class 1
Dial	White, graduation black DIN 16 109, 16 128 For graduation marking and layout see T0.305
Pointer	Aluminium, alloy black, DIN 16 099
Zero point correction device	At the back or at the side of the case
Window	Normal glass Polycarbonate for auxiliary units with adjusting device
Protection	IP 67 according DIN 40 050
Accessories	For screw connections and protection pipes see T6.115, T6.215 (Ø 8) or T6.120 resp. T6.220 (Ø 14)



Selection chart

Ordering TSFE xxx / xxx.xxx

System design				
with electrical contact	TSFE			
Nominal size²⁾				
NS 63 ¹⁾	63			
NS 80 ¹⁾	80			
NS 100	100			
NS 160	160			
Case and Ring				
Stainless steel 1.4301, bright drawn	2			
Structural shape				
Panel mounting A, front flange	2			
Wall mounting, flange at rear	3			
Wall mounting with gauge clamp	6			
Capillary tube outlet³⁾				
Bottom	1			
Center back (only with structural shape 2)	2			
Indicator / Immersion tube				
Standard / Ø 8, stainless steel 1.4541	1			
Standard / Ø 14, stainless steel 1.4541	7			
Capillary tube				
Ø 2.5 Cu alloy up to 250°C	4			
Ø 2.5, 4 Cu alloy, PVC up to 250°C	5			
Ø 2.5 stainless steel 1.4541	6			
Ø 2.5, 4 stainless steel 1.4541, PVC	7			
Ø 2.5 steel	8			
Ø 2.5, 4 steel, PVC	9			
Immersion tube / Installed length I				
100 mm (Ø 8 I _r = 144, Ø 14 I _r = 152)	2			
160 mm (Ø 8 I _r = 204, Ø 14 I _r = 212)	4			
250 mm (Ø 8 I _r = 294, Ø 14 I _r = 302)	6			
400 mm (Ø 8 I _r = 444, Ø 14 I _r = 452)	7			
600 mm (Ø 8 I _r = 644, Ø 14 I _r = 652)	8			
1000 mm (Ø 8 I _r = 1044, Ø 14 I _r = 1052)	9			

Range

Order No.	Range °C	Order No.	Range °C
69T	-200 ... 50	27T	0 ... 80
77T	-120 ... 40	12T	0 ... 100
76T	-100 ... 60	20T	0 ... 120
74T	-80 ... 40	13T	0 ... 160
50T	-60 ... 40	22T	0 ... 200
65T	-40 ... 40	14T	0 ... 250
61T	-30 ... 30	23T	0 ... 300
51T	-30 ... 70	15T	0 ... 400
54T	-20 ... 60	25T	0 ... 500
52T	-20 ... 40	16T	0 ... 600
11T	0 ... 60	82T	0 ... 800

Capillary tube length CT 9000 / xxxx

1 2 3 4 6 10 16 25 m
Length in cm (example: CT 1 m = 0100)

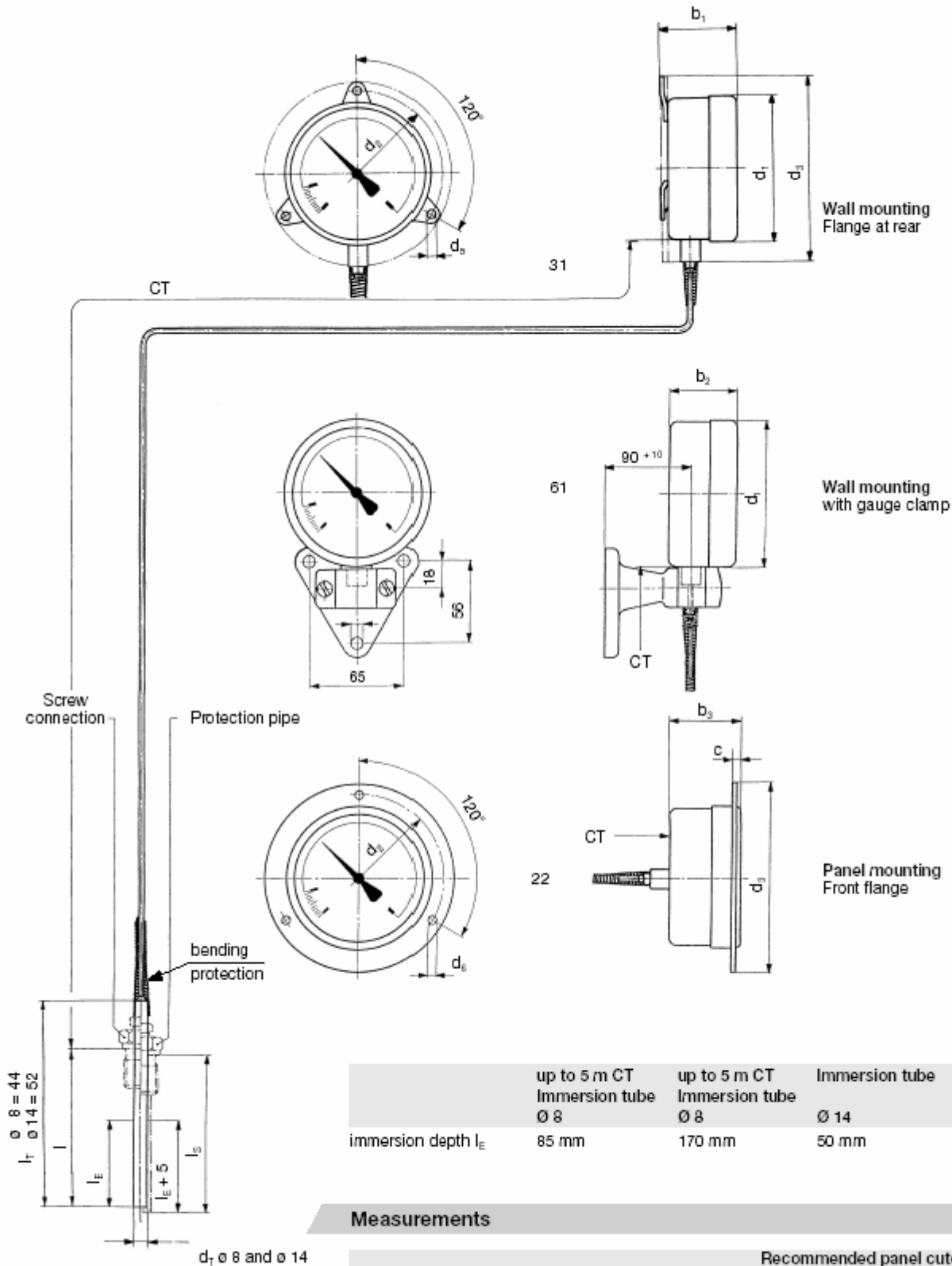
Special designs and electrical auxiliary units

For special designs see T2.905
Electrical contacts and connections see section T4

Notes:
1) Electrical contacts not available.
2) Other sizes on request.
3) Kink prevention standard.



Dimensions



	up to 5 m CT Immersion tube Ø 8	up to 5 m CT Immersion tube Ø 8	Immersion tube Ø 14
immersion depth I_E	85 mm	170 mm	50 mm

Measurements

NS	b_1	b_2	b_3	c	d_1	d_2	d_3	d_5	d_6	Recommended panel cutout for structural shape Capillary tube outlet
										23
63	41	38	38	16	64	75	85	4	4	64
80	42	38	38	22	82	94	110	5	5	84
100	53 ⁺³	48 ⁺²	48 ⁺²	6	101	116	132	4,8	4,8	105
160	53 ⁺³	48 ⁺²	48 ⁺²	6	161	178	196	5,8	5,8	164

Application Notes

The instruments operate within the specified accuracy only if the minimal immersion depth I_E is adhered to.