

Thermometer

stainless steel type

with outside mounted contact device

E 10.03.07

Ed.17.01

Design	Thermometer in stainless steel with outside mounted electrical contact device
Type	5500 = vertical stem with male thread 5502 = radial stem with male thread 5500/4 = vertical stem with compression fitting 5502/4 = radial stem with compression fitting
Case diameter	Dim 100 mm
Accuracy Class	1,0%
Case	Stainless steel with bayonet type bezel
Temperature element	Coiled bimetal
Working temperature	90% of range by permanent measuring 100% by short time measuring
Weather protection	IP 65 acc.to EN 60529 On special request IP 66 or IP 67
Location of stem	Radial or vertical stem
Stem	Ø 6, 8, 10 or 12 mm of stainless steel 1.4571
Length of stem	Immersion length from 50 to 1000 mm
Connection	G 1/2" male thread or compressions fitting G1/2", 1/2"NPT orM18x1,5
Working pressure	Max pressure rating without thermowell = 25 bar
Ambient temperature	Max -20+60°C
Mounting	The contact device is placed in a transparent hood which is mounted on the front of the gauge.
Contacts	The contact values are set from the outside through the hood by means of a key and they can be set optionally all over the scale.
Functions	Max- and/or minfunction, se table next side
Electrical connection	1 m cable is connected to a socket on the hood front
Thermowell	Fabricated or solid machined thermowell as accessorie. See page 4.
Certificate	Certificate EN 10204 as option Test report material EN 10204-2.2 Material certificate EN 10204-3.1 Test certificate EN 10204-3.1 with 3 measuring points
Optional extras	Option with Ex acc.to ATEX protection Cat 2G and 2D



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E 10.03.07

Scale range	Measuring range	Scale space	Error
-70 + 30°C	-60 + 20°C	100 divisions	+/- 1°C
-50 + 50°C	-40 + 40°C	100 divisions	+/- 1°C
-30 + 50°C	-20 + 40°C	80 divisions	+/- 1°C
-20 + 60°C	-10 + 50°C	80 divisions	+/- 1°C
0 + 60°C	+10 + 50°C	60 divisions	+/- 1°C
0 + 80°C	+10 + 70°C	80 divisions	+/- 1°C
0 + 100°C	+10 + 90°C	100 divisions	+/- 1°C
0 + 120°C	+10 + 100°C	60 divisions	+/- 2°C
0 + 160°C	+20 + 140°C	80 divisions	+/- 2°C
0 + 200°C	+20 + 180°C	100 divisions	+/- 2°C
0 + 250°C	+30 + 220°C	50 divisions	+/- 2,5°C
0 + 300°C	+30 + 270°C	60 divisions	+/- 5°C
0 + 400°C	+50 + 350°C	80 divisions	+/- 5°C
0 + 500°C	+50 + 450°C	100 divisions	+/- 5°C
0 + 600°C	+100 + 500°C	60 divisions	+/- 10°C

The measuring range is indicated on the dial by two triangular marks.
Only within this range is the stated error limit valid per EN 13190.

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Magnetic snap-action contact type 821

Electrical adjustable contacts

Voltage max 250 VAC, maximum load 30W, 50 VA

Contact material silver-nickel alloy(80/20) Hysteresis 2-4% of full scale range

Option extra also Gold-silver or Platinum-Iridium

1 meter cable

Dual contacts				
	821.11	821.12	821.21	821.22
	2 x max	min - max	max - min	2 x min
	contact makes by rising temp	contact breaks by falling and rising	contact makes by falling and rising	contact breaks by rising temp
Dim 100	98300001	98300002	98300003	98300004
Dim 160	98300501	98300502	98300503	98300504



Inductive contact type 831

Electrical adjustable contacts

The inductive contact is well suited to severe operating conditions, such as extremely swift changes or when an explosion safe design is necessary. The contacts are completely protected from touch and the hysteresis is less than 0,5%

1 meter cable

Dual contacts				
	831.21	831.11	831.12	831.22
	max - min	2 x max	min - max	2 x min
	contact makes by falling and rising	contact makes by rising temp	contact breaks by falling and rising	contact breaks by rising temp
Dim 100	98301003	Base design type 831.21 Other functions possible with control unit		
Dim 160	98301503			



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Thermowell

Thermowell TW50-H

Solid machined in stainless steel 1.4571. Working pressure max 150 bar.
Process connection G1/2" male, female G1/2" for thermometer
Inside dim Ø 10,5 mm for thermometer with immersion tube Ø 10 mm
Insertion lengths U1 = 50, 100, 180 or 280 mm
for thermometer with compression fitting G1/2" L1- 65, 120, 200 or 300 mm
Datasheet E11.01.01

Thermowell TW45-F

Fabricated in stainless steel 1.4571. Working pressure max 25 bar.
Process connection G1/2", G3/4" or 1/2"NPT male, female G1/2" for thermometer
Inside dim Ø 6,2 mm, Ø 8,2 mm or Ø 10,2 mm
for thermometer with compression fitting and immersion tube Ø 6, 8 or 10 mm
Insertion lengths U1- 32, 82, 132, 142, 182, 282 or 382 mm
U1 + 18 mm = Immersion L1- for thermometer
Thermowell with U1-82 mm is suitable for thermometer with L1-100 mm
Datasheet E11.01.03

Thermowell TW15-H

Solid machined in stainless steel 1.4571. Working pressure max 150 bar.
Special tapered design for process industry
Process connection male 1/2"NPT, 3/4"NPT or 1"NPT
Inside dim Ø 6,6 mm, Ø 8,6 mm or Ø 10,6 mm
Insertion lengths U1 = from 40 to 300 mm
U1 + (H) 45 mm - 10 mm = immersion length L1-for thermometer
Thermowell with U1-100 mm is suitable for thermometer with compression fitting
with immersion length L1-153 mm
Datasheet E11.01.02

Weld-in thermowell

Weld-in thermowell, solid machined acc.to DIN 43772 Form 4 for high process loads
Steel 1.0460 (C.22.8) DIN 17243, Stainless steel 1.4571 (SS2350) EN 10272
or 1.7335 (13CrMo44) DIN 17243
Female connection M18x1,5 for thermometer.
Inside dim Ø 7 mm for immersion tube Ø 6 mm
Material certificate EN 10204-3.1 with chemical analysis
Permanent marking with charge number and material designation
Thermometer with immersion tube L1-130x6 mm för weld-in thermowell type D 1
Thermometer with immersion tube L1-195x6 mm för weld-in thermowell type D 2 and D 4
Thermometer with immersion tube L1-255x6 mm för weld-in thermowell type D 5
Datasheet E11.03.01

Thermowell with flange connection

Thermowell with flange connection acc.to DIN, EN or ASME
DIN 1092 or EN 1092 from DN 25 to DN 100
ASME B16,5 from DN 1" to DN 2"
Pressure rating PN 16 to PN 100
Immersion length U = 100, 160, 250, 300, 400 or 500 mm
for thermometer with immersion tube Ø 6, 8 or 10 mm
Standard material stainless steel 1.4571
Special material as Duplex, Hastelloy, Monel, Tantal, Titan
Female G1/2" or 1/2"NPT for thermometer
Material certificate EN 10204-3.1 with chemical analysis
Datasheet E11.05.01, E11.05.02 or E11.05.04



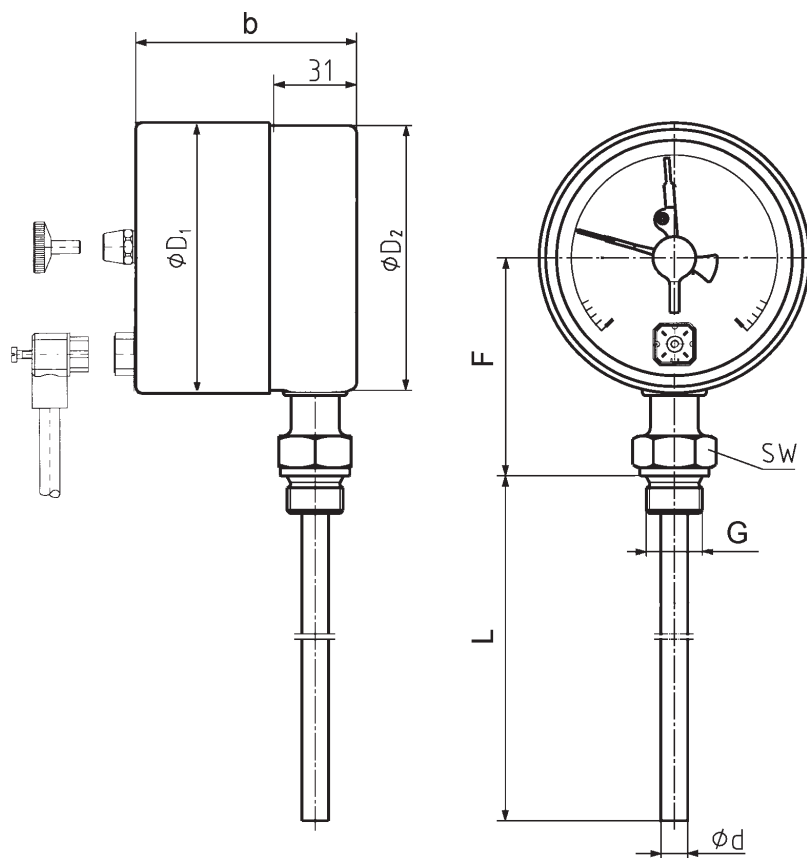
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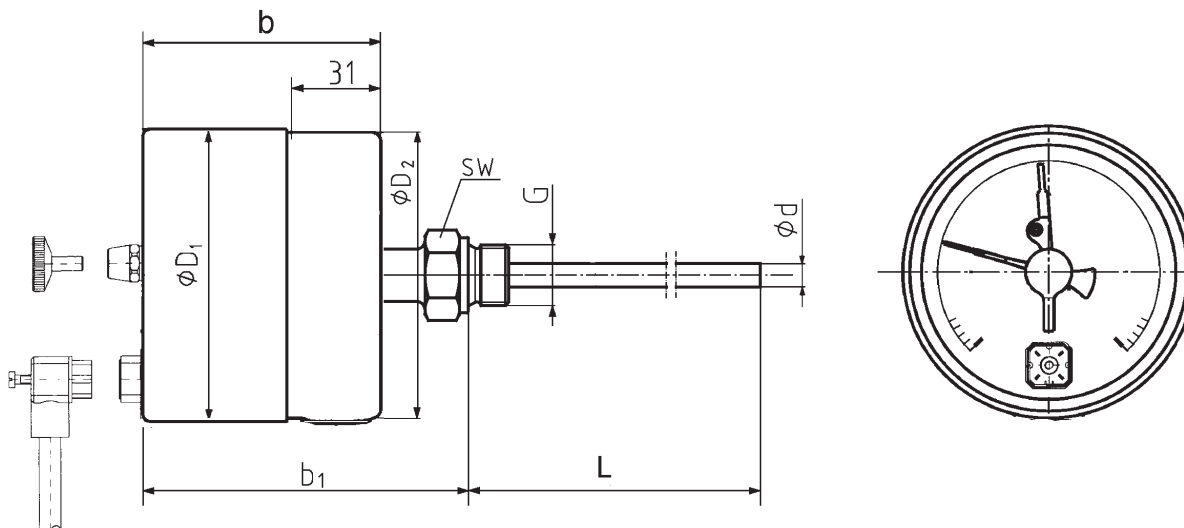
E 10.03.07

Type 5502 (dim 100) and 5503 (dim 160 mm) with male thread



Case	b	b1	d	D1	D2	F	G	L
100	90	118	6, 8, 10	101	99	83	G1/2"-1/2"NPT	65 - 500
160	199	130	6, 8, 10	161	159	113	G1/2"-1/2"NPT	65 - 500

Type 5500 (dim 100) and 5501 (dim 160 mm) with male thread



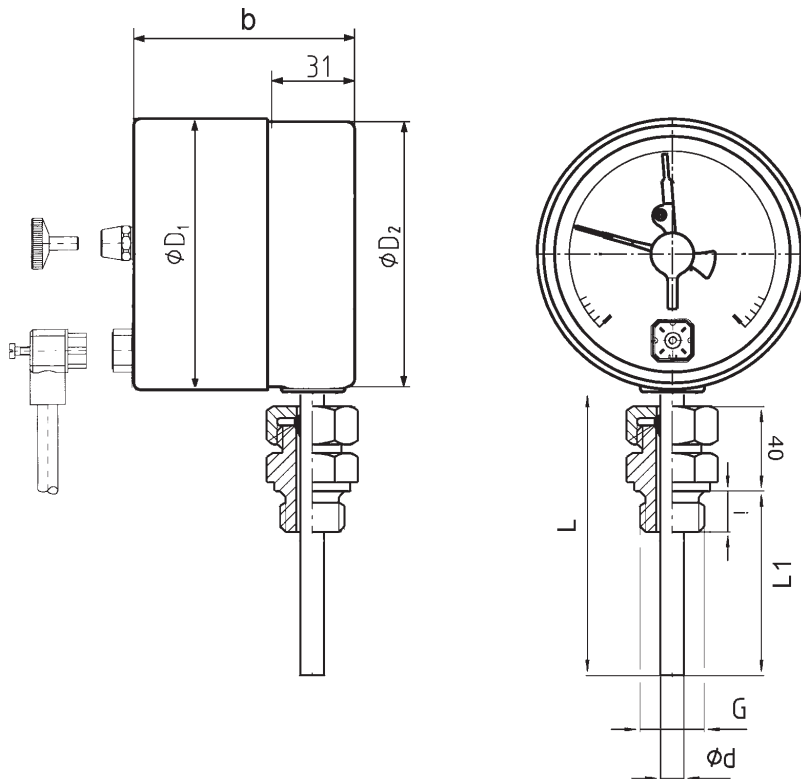
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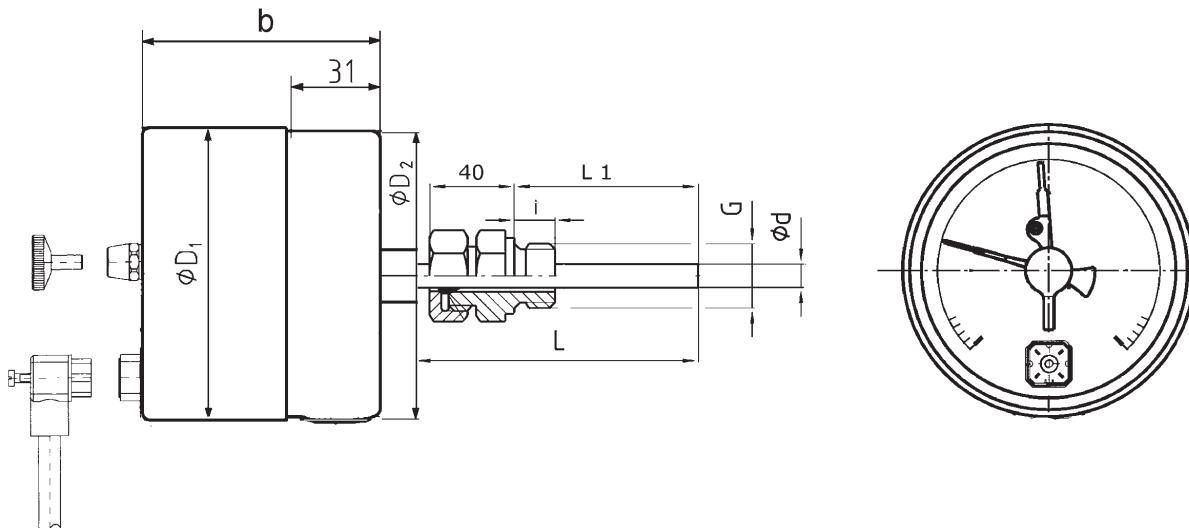
Type 5502/4 (dim 100) and 5503/4 (dim 160 mm) with compression fitting



G	i	SW
G1/2"	14	27
1/2"NPT	19	22
M18x1,5	12	24

Case	b	b1	d	D1	D2	G	L1
100	90	118	6, 8, 10, 12	101	99	G1/2"-1/2"NPT-M18x1,5	65 - 500
160	99	130	6, 8, 10, 12	161	159	G1/2"-1/2"NPT-M18x1,5	65 - 500

Type 5500/4 (dim 100) and 5501/4 (dim 160 mm) with compression fitting



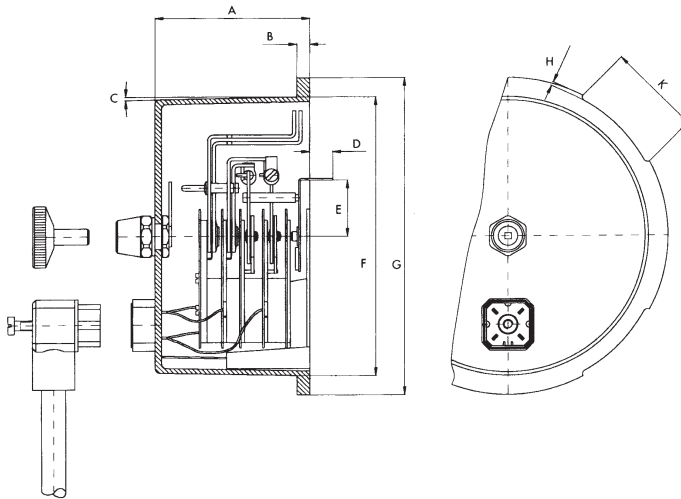
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E 10.03.07

Contact device with electrical contact and cable



Case	A	B	C	D	E	F	G	H	K
100	47,5	4,0	1,0	6,0	17,5	86,5	98,5	1,25	29,0
160	56,2	4,0	1,0	6,0	22,5	146,5	158,0	1,25	29,0