

Thermometer

type F73 stainless steel
with capillary

E 10.08.01

Ed.19.02

| | |
|----------------------------|--|
| Design | Thermometer in stainless steel with capillary for mounting in thermowell or for direct mounting |
| Type | F73 |
| Case diameter | Dim 100 mm or 160 mm |
| Accuracy | Class 1,0% DIN EN 13190 |
| Case | Stainless steel with bayonet type bezel Option with liquid filled case Option with liquid filled case (Food compatible) |
| Glass | Laminated safety glass |
| Dial | White dial of aluminium with unit Celsius °C Option dial with unit °F or unit °C+F |
| Mounting | Back flange for wall mounting Mounting bracket for wall mounting Frontflange for panel mounting Panel ring and clamp for panel mounting |
| Temperature element | Inert gas expansion system |
| Working temperature | 100% of range by permanent measuring The endvalue can be exceeded 20% by short time |
| Capillary | Capillary of stainless steel (dim Ø2 mm) Length 1 meter to max 15 meter |
| Stem | Ø 6, 8, 10 or 12 mm of stainless steel |
| Length of stem | Stem length from 60 mm to 300 mm |
| Connection | Type 1 = Plain stem without thread Type 2 = Male nut Type 3 = Union nut Type 4 = Compression fitting on stem Type 6 = Compression fitting on capillary |
| Connection thread | G1/2", G3/4", 1/2"NPT, 3/4"NPT or M18x1,5 |
| Working pressure | Max pressure rating without thermowell = 25 bar |
| Ingress protection | IP 65 per EN 60529. Option IP 66 |
| Ambient temperature | Max 40+60°C |
| Electrical switch | Switch contacts, see datasheet E10.08.03 |
| Thermowell | Fabricated or solid machined thermowell as accessorie. See page 5. |
| ATEX | Option with Ex acc.to ATEX protection Cat 2G and 2D |
| 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 |



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| Scale range | Measuring range | Scale spacing | Error |
|--------------|-----------------|---------------|-----------|
| -200 + 100°C | -170 + 70°C | 60 divisions | +/- 5°C |
| -80 + 60°C | -60 + 40°C | 70 divisions | +/- 2°C |
| -40 + 60°C | -30 + 50°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 |
| -20 + 80°C | -10 + 70°C | 100 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 |
| 0 + 700°C | +100 + 600°C | 70 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.

Mounting



F73 backflange
for wall mounting



F73 frontflange
for panel mounting



F73 panel ring
for panel mounting



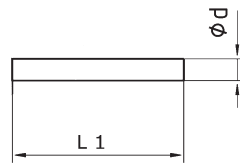
F73 mounting bracket
for wall mounting

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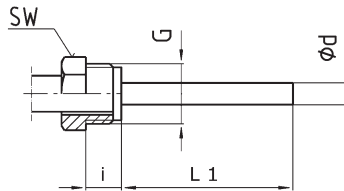
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Connection and stem



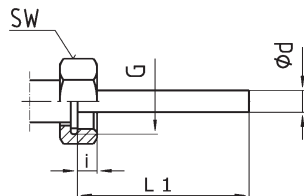
Connection typ 1

Plain stem without thread
Immersion length L1 and
stem diameter d must be stated



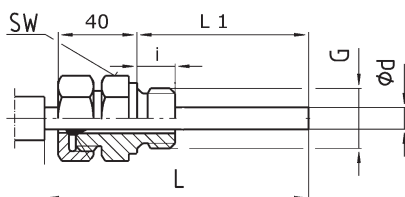
Connection typ 2

Male nut
Connection G, immersion length L1 and
stem diameter d must be stated



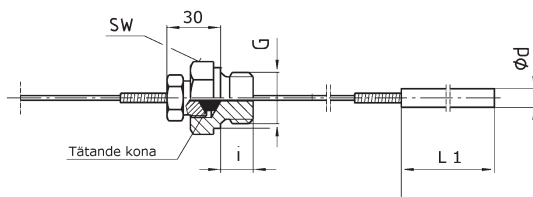
Connection typ 3

Union nut
Connection G, immersion length L1 and
stem diameter d must be stated



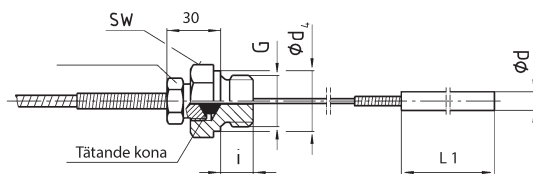
Connection typ 4

Compression fitting on stem
Connection G, immersion length L1 and
stem diameter d must be stated



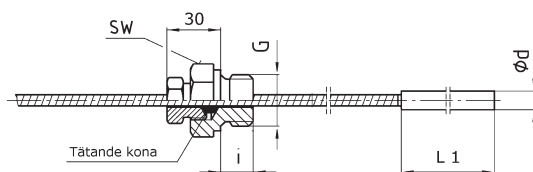
Connection typ 6.1

Compression fitting on capillary
Connection G, immersion length L1 and
stem diameter d must be stated



Connection typ 6.2

Compression fitting on capillary with spiral protection hose
Connection G, immersion length L1 and
stem diameter d must be stated



Connection typ 6.3

Compression fitting on capillary on spiral protection hose
Connection G, immersion length L1 and
stem diameter d must be stated

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Standard products F73.100

Case dim 100 mm

| Mounting | Connection | Range | Införing | Stem | Code |
|--------------|---------------------------|------------|-----------|---------|------------|
| back flange | plain stem | -40 + 60°C | L1-100x10 | 1 meter | 58454314 |
| | | -40 + 60°C | L1-100x10 | 3 meter | 58454334 |
| | | 0 + 120°C | L1-100x10 | 3 meter | 58454734 |
| back flange | male nut G1/2" | 0 + 60°C | L1-100x10 | 3 meter | 58452434 |
| | | 0 + 120°C | L1-100x10 | 1 meter | 58452714 |
| | | 0 + 120°C | L1-100x10 | 3 meter | 58452734 |
| | | 0 + 120°C | L1-100x10 | 5 meter | 58452754 |
| | | 0 + 120°C | L1-100x10 | 7 meter | 58452774 |
| | | 0 + 200°C | L1-100x10 | 1 meter | 58452914 |
| | | 0 + 200°C | L1-100x10 | 3 meter | 58452934 |
| | | 0 + 200°C | L1-100x10 | 5 meter | 58452954 |
| | | 0 + 200°C | L1-100x10 | 7 meter | 58452974 |
| | | 0 + 400°C | L1-100x10 | 3 meter | 58453434 |
| | | 0 + 400°C | L1-100x10 | 7 meter | 58453474 |
| back flange | compression fitting G1/2" | 0 + 60°C | L1-100x10 | 1 meter | 58458414 |
| | | 0 + 60°C | L1-100x10 | 3 meter | 58458434 |
| | | 0 + 120°C | L1-100x10 | 1 meter | 58458714 |
| | | 0 + 120°C | L1-100x10 | 3 meter | 58458734 |
| | | 0 + 600°C | L1-160x10 | 1 meter | 58453518 |
| | | 0 + 600°C | L1-160x10 | 5 meter | 58453558 |
| | | 0 + 600°C | L1-160x10 | 8 meter | 58453579 |
| | | 0 + 600°C | L1-160x12 | 3 meter | 58453538 |
| front flange | male nut G1/2" | 0 + 120°C | L1-100x10 | 1 meter | 58472714 |
| | | 0 + 120°C | L1-100x10 | 3 meter | 58472734 |
| clamp | male nut G1/2" | 0 + 120°C | L1-100x10 | 3 meter | 58482734 |
| | | 0 + 120°C | L1-100x10 | 3 meter | 58482834 * |

* with liquid filled case

Thermowell TW50-H

Solid machined in stainless steel 1.4571. Process connection G1/2" male
L1-100 mm for thermometer with immersion length L1-100x10 mm
with male nut G1/2" or compression fitting G1/2"

Code = 72700310



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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 \varnothing 10,5 mm for thermometer with immersion tube \varnothing 10 mm
Insertion lengths U1 = 50, 100, 180 or 280 mm
for thermometer with male nut G1/2" L1- 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 \varnothing 6,2 mm, \varnothing 8,2 mm or \varnothing 10,2 mm
for thermometer with immersion tube \varnothing 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 \varnothing 6,6 mm, \varnothing 8,6 mm or \varnothing 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 L1-135 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 \varnothing 7 mm for immersion tube \varnothing 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 \varnothing 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 E11.05.02](#)

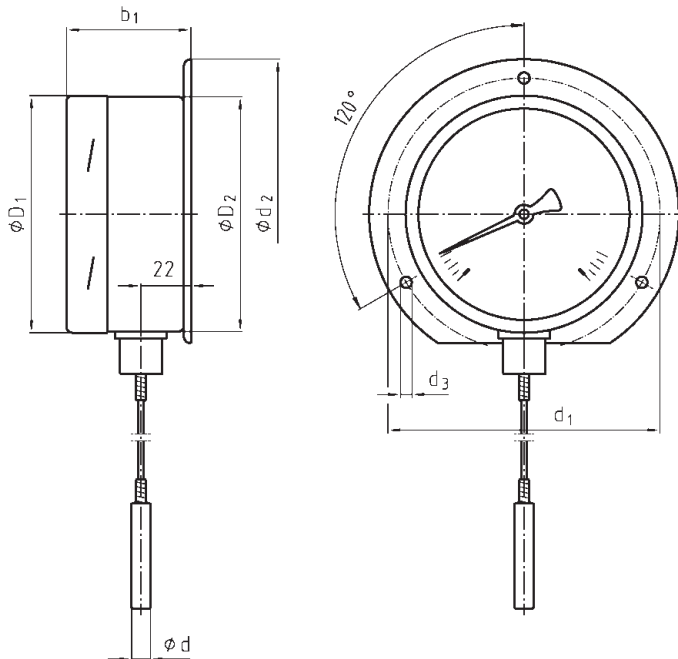


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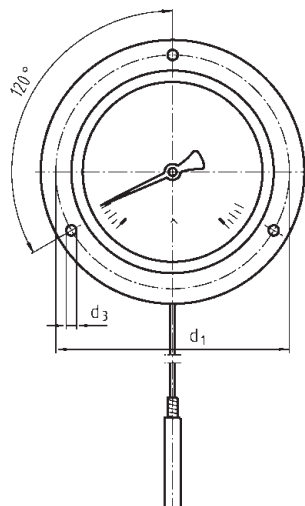
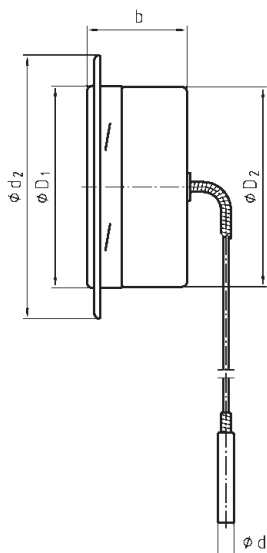
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F73 with back flange

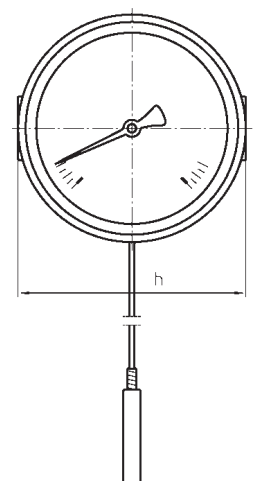
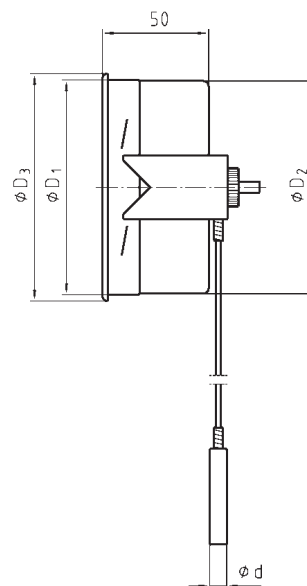


| Case | b | b ₁ | d | d ₁ | d ₂ | d ₃ | D ₁ | D ₂ | D ₃ | h | Weight |
|------|----|----------------|-----------|----------------|----------------|----------------|----------------|----------------|----------------|-----|--------|
| 100 | 50 | 53 | 8, 10, 12 | 116 | 132 | 4,8 | 101 | 99 | 107 | 107 | 1,4 |
| 160 | 50 | 53 | 8, 10, 12 | 178 | 196 | 4,8 | 161 | 159 | 166 | 172 | 1,8 |

F73 with front flange



F73 with panel ring and clamp

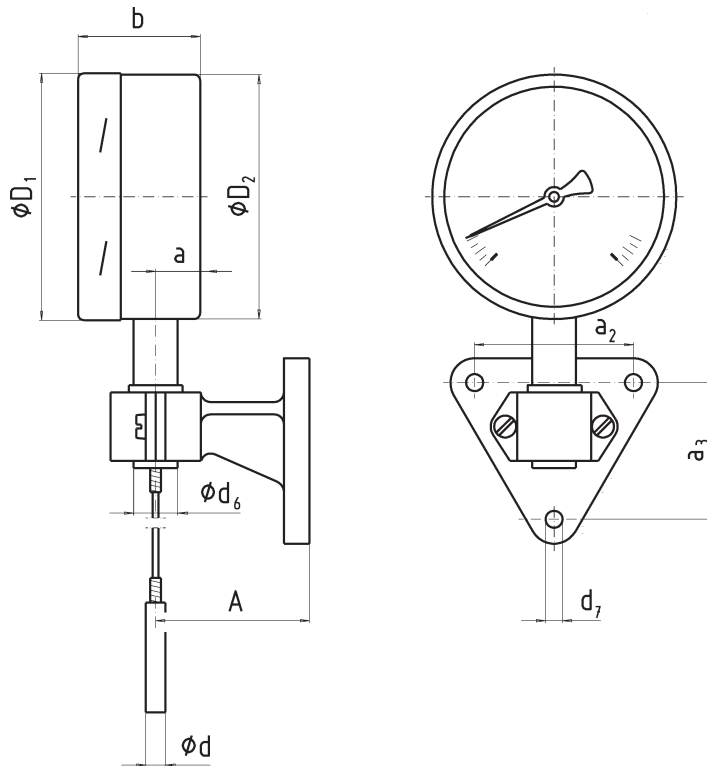


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F73 with mounting bracket



| Case | a | b | d | A | D1 | D2 | a2 | a3 | d6 |
|------|----|----|-----------|-----|-----|-----|----|----|----|
| 100 | 19 | 50 | 8, 10, 12 | 100 | 101 | 99 | 65 | 56 | 18 |
| 160 | 19 | 50 | 8, 10, 12 | 100 | 161 | 159 | 65 | 56 | 18 |