

Gas filled // Version for diesel engines




Type 1312

Your advantages

| Series | 6312 / 8312 / 1312 / 6372 / 8372 / 1372 |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <ul style="list-style-type: none"> • Vibration-resistant due to highly viscous silicone filling • Suitable for outdoor use - closed system (IP65) • Without electrical auxiliary power |

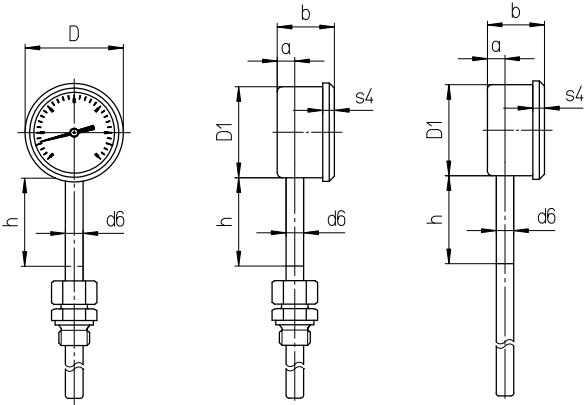
Technical data

| Type | 6312 | 8312 | 1312 | 6372 | 8372 | 1372 |
|--------------------------------------------|-------------------------------------------------------------------------------------|---------|----------|--------------|---------|----------|
| Version | Rigid connection with neck tube | | | | | |
| Nominal size | Ø 63 mm | Ø 80 mm | Ø 100 mm | Ø 63 mm | Ø 80 mm | Ø 100 mm |
| Display ranges according to EN 13190 | 0...100 °C 0...120 °C 0...160 °C 0...250 °C 50...650 °C | | | | | |
| Accuracy according to EN 13190 | Class 1 | | | | | |
| Medium / Application area | Liquid and gaseous media | | | | | |
| Immersion tube connection | Bottom | | | Central back | | |
| Immersion tube length | Between 63...400 mm | | | | | |
| Immersion tube diameter | Ø 10 (not NS 100 mm), 12 or 13 mm | | | | | |
| Process connection | Connection types: A, AK | | | | | |
| Nominal pressure | Max. 25 bar | | | | | |
| Measuring system | Nitrogen filled | | | | | |
| Degree of protection according to EN 60529 | IP65 | | | | | |
| Medium temperature | See selected display range | | | | | |
| Ambient temperature | -20...60 °C (only indoors) | | | | | |
| Storage temperature | -40...60 °C | | | | | |
| Nominal service temperature (EN 13190) | 23 °C ±2 °C | | | | | |
| Approvals |  | | | | | |

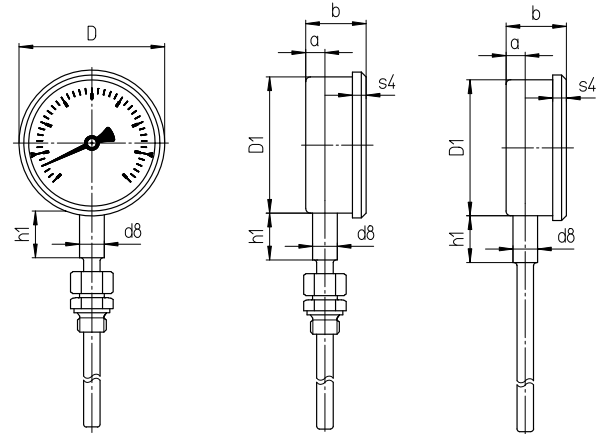
Options

| For type | On request |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 6312 / 8312 / 1312 / 6372 / 8372 / 1372 | Other display ranges and / or special scales, e.g. double scale °C / °F. Versions with union nut |

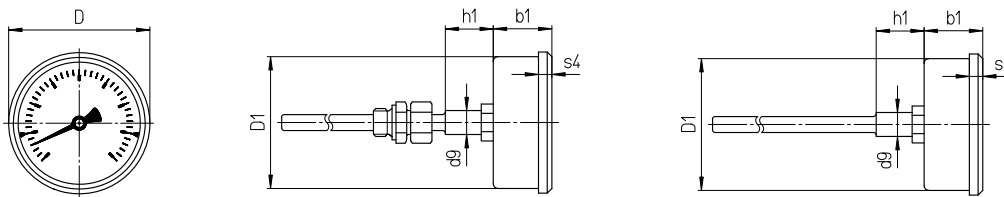
Type 6312



Type 8312 and 1312



Type 6372, 8372 and 1372



| Dimensions [mm] | | | | | | | | | | | Weight [kg] |
|-----------------|----|----|-----|----|----|----|----|----|----|----|-------------|
| NS | a | b | D | D1 | d6 | d8 | d9 | h | h1 | s4 | |
| 63 | 12 | 39 | 67 | 62 | 12 | 18 | 18 | 60 | 34 | 8 | 0.33 |
| 80 | 15 | 42 | 86 | 79 | 12 | 18 | 18 | 60 | 34 | 8 | 0.50 |
| 100 | 15 | 43 | 106 | 99 | 12 | 18 | 18 | 60 | 34 | 10 | 0.70 |

This information is provided as an example and relates to the version with connection type A Ø 10 mm and immersion tube length 200 mm.

| Material | |
|--------------------------------|-----------------------------------------------------------------------------------|
| Housing | Crimped-on ring, Stainless steel 1.4301 filled with silicone oil (highly viscous) |
| Window | Instrument glass |
| Pointer movement | German silver / brass |
| Dial | Aluminium white with black scale markings |
| Pointer | Aluminium black |
| Material in contact with media | |
| Process connection | Steel |
| Immersion tube | Stainless steel 1.4571 |

Standard connection types // Immersion tube // for type 6312 - 1372

Connection type A

Plain immersion tube, universally usable

Connection type AK [mm]

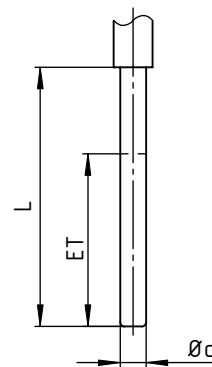
With adjustable compression fitting

| G | SW1 | i | Lk |
|-----------|-----|----|----|
| G½ B | 27 | 14 | 35 |
| G¾ B | 32 | 16 | 37 |
| M20 x 1.5 | 27 | 14 | 35 |
| M27 x 2 | 32 | 16 | 37 |

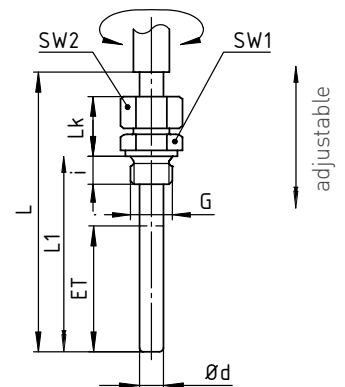
Stem diameter [mm]

| Ø d | SW2 |
|-----|-----|
| 10 | 19 |
| 12 | 22 |
| 13 | 24 |

Connection type A



Connection type AK



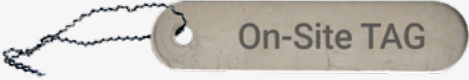
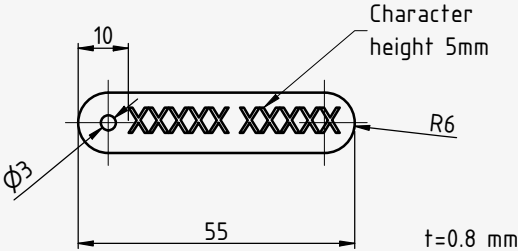
Active length (ET) and minimum feasible immersion tube length

| Connection type | Length [mm] | |
|-----------------|-------------|------|
| | ET | Lmin |
| A | 80 | 150 |
| AK | 80 | 150 |

The minimum length L_{min} / $l1_{min}$ of the immersion tube is the shortest possible immersion tube length for a given active length ET (bulb) and connection type. The active length ET of the immersion tube (bulb) must be fully immersed in the substance to be measured in order to obtain measurements corresponding to the stated accuracy class. The maximum realisable stem length is 2.5 m.

| Order code | | | | | | | | | | |
|----------------------------------------------------|----------------------------------------------------|-----------|-----------|----------|-----------|----------|------------|----------|----------|----------|
| Nominal size | | | | | | | | | | |
| 63 mm | Z 63 | | | | | | | | | |
| 80 mm | Z 83 | | | | | | | | | |
| 100 mm | Z 13 | | | | | | | | | |
| Immersion tube connection | | | | | | | | | | |
| Bottom | | 12 | | | | | | | | |
| Central back | | 72 | | | | | | | | |
| Connection type | | | | | | | | | | |
| Connection type A, Plain immersion tube | | | | | | A | | | | |
| Connection type AK, adjustable compression fitting | | | | | | M | | | | |
| Display range | | | | | | | | | | |
| 0...100 °C | | | | | | 10 | | | | |
| 0...120 °C | | | | | | 12 | | | | |
| 0...160 °C | | | | | | 16 | | | | |
| 0...250 °C | | | | | | 25 | | | | |
| 50...650 °C | | | | | | 56 | | | | |
| Temperature unit | | | | | | | | | | |
| Celsius °C* | | | | | | | 1 | | | |
| Immersion tube length l_1 | Nominal length $L = l_1 + 45$ mm | | | | | | | | | |
| 100 mm | 145 mm | | | | | | 100 | | | |
| 135 mm | 180 mm | | | | | | 135 | | | |
| 160 mm | 205 mm | | | | | | 160 | | | |
| 200 mm | 245 mm | | | | | | 200 | | | |
| 250 mm | 295 mm | | | | | | 250 | | | |
| 300 mm | 345 mm | | | | | | 300 | | | |
| 400 mm | 445 mm | | | | | | 400 | | | |
| Process connection | | | | | | | | | | |
| Without - Plain immersion tube type A | | | | | | | | 0 | | |
| G $\frac{1}{2}$ | | | | | | | | 2 | | |
| G $\frac{3}{4}$ | | | | | | | | 3 | | |
| $\frac{1}{2}$ NPT | | | | | | | | B | | |
| $\frac{3}{4}$ NPT | | | | | | | | C | | |
| M20 x 1.5 | | | | | | | | 7 | | |
| Material process connection | | | | | | | | | | |
| Without - Plain immersion tube type A | | | | | | | | | 0 | |
| Steel | | | | | | | | | 2 | |
| Immersion tube diameter | | | | | | | | | | |
| 10 mm (only for NS 63 and NS 80 mm) | | | | | | | | | 3 | |
| 12 mm | | | | | | | | | 4 | |
| 13 mm | | | | | | | | | 6 | |
| Example order number | Z | 63 | 12 | A | 10 | 1 | 100 | 0 | 0 | 3 |

* Double scale °C and °F available on request.

| Accessories | Article number |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| <p>Measuring point designation Laser-inscribed stainless steel plate with fixing wire for easy attachment to measuring points</p> <ul style="list-style-type: none"> → Scope of delivery: Designation plate inscribed according to specification and enclosed fixing wire (sealing wire) → Fastening: Wire (included in delivery), alternatively sealing, cable ties or similar (not included in delivery) → Materials: Plate stainless steel 1.4571, wire stainless steel → Dimensions: Plate 55 x 10 x 0.8 mm, wire length 180 mm → Inscription: one-sided, single-line, max. 11 characters, character height 5 mm, designation width max. 40 mm, letters, numbers, symbols, barcodes, QR codes → Transmission of designations: digital list, file formats Excel, Word or CSV <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;">   </div> | <p>ONSITETAG</p> |

