Differential Pressure Gauges
Stainless Steel Series
Type 736.51, with Capsule Element for Electrical Accessories

Applications
- Differential pressure measurement at measuring points with very low differential pressures, for transparent, gaseous, dry, clean, oil and grease free media, also in aggressive ambience
- Especially for fitting with alarm contacts or transmitters
- Media chamber also suitable for corrosive media
- Filter monitoring in ventilation and heating systems or in overpressure and clean rooms
- Differential pressure controlled monitoring of ventilator and blast pressures

Product Features
- Differential pressure measuring ranges from 0 ... 1" H₂O (2.5 mbar)
- As a standard zero adjustment from the front
- Ingress protection NEMA 4 (IP 66)
- Case of stainless steel

Specifications
Design
- High overpressure safety, media chamber protected against unauthorised intervention, zero adjustment under pressure load
- WIKA trade pattern DT - GM 86 08 176

Nominal size
4" & 6" (100 mm & 160 mm)

Accuracy
(±/-) 1.6% of full scale value

Scale ranges
0 ... 1" H₂O (2.5 mbar) to 0 ... 60" H₂O (160 mbar)
or all other equivalent vacuum or compound ranges

Pressure limitation
- Steady: full scale value
- Fluctuating: 0.9 x full scale value

Differential overpressure safety
- Side: 80" H₂O (200 mbar)

Max. working pressure (static pressure)
80" H₂O (200 mbar)

Operating temperature
- Ambient: -4 °F ... +140 °F (-20 °C ... +60 °C)
- Medium: +140 °F (+60 °C) maximum

Ingress protection
- NEMA 4 (IP 66 per EN 60 529 / IEC 529)
**Illustration of the principle**

![Diagram](image)

**Design and operating principle**

- Pressure-sealed indication case (1) with capsule pressure element in pressure-sealed media chamber (2).
- Capsule element (3) is pressurised inside and outside ○ pressure is retained in media chamber (2), ○ pressure is retained in capsule element (3) and indication case (1)
- Pressure differential between ○- and ○-side deflects the capsule element
- The deflection is transmitted via the movement (4) and indicated

**Note:**
Electrical accessories include plastic components and copper alloys. They are incorporated in the pressure-sealed indication case (1), i.e. they are wetted. Therefore we recommend a feasibility test (particularly with flammable, explosive gases).

**Process connection (wetted)**
316 Stainless steel, 1/2" NPT (male), 22 mm wrench flat

**Pressure element (wetted)**
316 Stainless steel

**Measuring cell (wetted)**
316 Stainless steel

**Movement (wetted)**
Stainless steel

**Dial (wetted)**
Aluminium, white, black lettering

**Pointer (wetted)**
Aluminium, black

**Zero adjustment (wetted)**
via adjusting device at case circumference, stainless steel

**Case (wetted)**
Stainless steel, with pressure relief of PUR (Lupolene)

**Window (wetted)**
Laminated safety glass

**Sealings (wetted)**
PTFE and NBR (buna rubber)

**Bezel ring (wetted)**
Cam ring (bayonet type), stainless steel

**Mounting**
according to affixed symbols ○ and ○, ○ high pressure, ○ low pressure

**Mounting by means of:**
- Rigid tailpipes
- Panel or surface mounting flange (option)
- Instrument mounting brackets for wall or pipe mounting (option)

**Options**

- Other process connection
- Panel or surface mounting flange (observe media chamber!)
- Alarm contacts (plastics, Cu-alloy) - wetted 1)
- Transmitters (plastics, Cu-alloy) - wetted 1)
- Instrument mounting brackets for wall or pipe mounting
- Pressure equalising valve - wetted
- ○-side overpressure safe up to 80” H₂O (200 mbar)
- Max. total pressure applied (static pressure) > 80” H₂O (200 mbar) 1)
- Indication accuracy class 1.0 1)

1) After feasibility test
Dimensions in mm

<table>
<thead>
<tr>
<th>NS</th>
<th>Dimensions in mm</th>
<th>Weight in kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>a: 15.5, b: 49.5, D1: 101, D2: 99, d: 133, e: 17.5, G: G ½ B, h ± 1: 170, X: 37, SW: 22</td>
<td>1.70</td>
</tr>
<tr>
<td>160</td>
<td>a: 15.5, b: 49.5, D1: 161, D2: 159, d: 133, e: 17.5, G: G ½ B, h ± 1: 200, X: 37, SW: 22</td>
<td>2.20</td>
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Process connection per EN 837-1 / 7.3