**Piezoresistive Pressure Transmitters**

**Absolute-, Gauge- and Differential Pressure**

These piezoresistive transmitters have been designed for precision applications in industrial environments for pressures ranging from 0.2 to 1000 bar, liquids or gas.

Series 23: Male pressure port  
Series 25: Flush diaphragm

**A Complete Range**

Absolute, barometric, gauge (over- and underpressure) and differential for wet/wet applications. 13 nominal pressure ranges. Current or voltage output.

**Flexibility**

A modular concept uses the selection of off-the-shelf capsules, allowing a customised production. Numerous options and variants are available, fully adapted to the customer’s requirements: Mechanical and electrical interface, ports, signal outputs, materials in media contact, oil filling, oxygen-compatibility, special features.

**Reliability / Quality**

These transmitters use the highly stable KELLER Series 10 capsules, proven in millions of applications throughout the world. Each capsule is subjected to severe tests and calibration procedures.

The type of the transmitter is defined according to the reference pressure:

- **PAA-23/25** Absolute Pressure Transmitter (Zero at 0 bar abs.)
- **PA-23/25** Sealed Gauge Pressure Transmitter (Zero at 1 bar abs.)
- **PR-23/25** Vented Gauge Pressure Transmitter (Zero at atmospheric)
- **PD-23** Differential Pressure Transmitter (wet / wet)
SPECIFICATIONS

Pressure Ranges (FS) in bar

<table>
<thead>
<tr>
<th>PR-23</th>
<th>-1, -0,5, -0,2, 0,2, 0,5, 1, 2, 5, 10, 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR-25</td>
<td>-1, -0,5, 0,2, 0,5, 1, 2, 5, 10, 20</td>
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<tr>
<td>PD-23</td>
<td>0,2, 0,5, 1, 2, 5, 10, 20</td>
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<tr>
<td>PAA-23</td>
<td>0,2, 0,5, 1, 2, 5, 10, 20</td>
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<tr>
<td>PA-23/25</td>
<td>0,5, 1, 2, 5, 10, 20</td>
</tr>
<tr>
<td>Overpressure</td>
<td>-1, -1, 2, 5, 10, 20</td>
</tr>
<tr>
<td>Overpressure Ref.-Side PD</td>
<td>1, 2, 4, 10, 20</td>
</tr>
<tr>
<td>PD, static line pressure</td>
<td>200 bar max.</td>
</tr>
</tbody>
</table>

Accuracy* ± 0,2 %FS typ. ± 0,5 %FS max.  
Storage-/Operating Temperature -40...100 °C
Compensated Temperature Range -10...80 °C
Temperature Coefficients...
- Range > 1 bar ± 0,005 typ. ± 0,01 max. ± 0,05 typ.
- Range 1 bar ± 0,01 typ. ± 0,02 max. ± 0,05 typ.
- Range 0,5 bar ± 0,015 typ. ± 0,03 max. ± 0,05 typ.
- Range 0,2 bar ± 0,025 typ. ± 0,05 max. ± 0,05 typ.
Long Term Stability
- Range > 2 bar ± 0,1 %FS typ. ± 0,2 %FS max.
- Range ≤ 2 bar ± 1 mbar typ. ± 2 mbar max.

Signal Output / Type 4...20 mA / 2-Wire 0...10 V / 3-Wire
Supply 8...32 VDC 13...32 VDC
Load Resistance (RΩ) (U - 8 V) / 0,02 A > 5 k

Electrical Connection
- GSP Plug EN 175 301-803-A (DIN 43650)
- Cable (with reference tube for gauge)

Volumetric Change < 0,1 mm³
Pressure Connection See drawings front page
Material in Media Contact Stainless steel 316L (DIN 1.4435), Viton®
Protection IP65
Weight PR/PA/PAA: ≈ 180 g PD: ≈ 440 g
Insulation > 100 MΩ @50 V
Endurance > 10 million cycles 0...100 %FS at 25 °C
Limiting frequency 1 kHz (5 kHz option)

Options
Pressure Connection, Electrical Out On request, many possibilities
Pressure Ranges Other pressure ranges between 0,2 and 1000 bar, different units
Accuracy (Linearity) ± 0,2 %FS max. or any customer requirement
Materials in Contact with Media Many possibilities
Oil Filling Fluorized oil (O2-compatible), olive-oil, low temperature oil
Protection IP67, IP68 (cable version)
Higher Static Line Pressure up to 600 bar (PD only)

2-Wire 3-Wire Transmitter Transmitter Connector 723 Cable
- OUT/GND 1 1 white
OUT +Vcc 2 2 red
+Vcc 3 3 black

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