Hydrostatic Level / Depth Pressure Transducers & Transmitters

HT-PSI Series

- High accuracy & reliability
- Ranges 1mH20 to 250m H20g
- 2/3 wire 4-20mA & voltage
- Fully submersible IP68 rated
- Temperature -40°C + 85°C
- Compact and rugged design

The HT-PSI is a rugged hydrostatic level sensor that provides output proportional to pressure of the vertical liquid head directly above the point of measurement. Packaged in a slim IP68 sealed capsule for indefinite / long term submersion into storage tanks, vessels, rivers, lakes, reservoirs, weirs and boreholes.

Discover more at www.hydrotechnik.co.uk
Hydrostatic Level / Depth
Pressure Transducers & Transmitters

**HT-PSI Series**

**TECHNICAL SPECIFICATIONS**

**Standard pressure ranges & signal outputs**

<table>
<thead>
<tr>
<th>Measuring range <em>(bar)</em></th>
<th>0.1</th>
<th>0.25</th>
<th>0.5</th>
<th>1</th>
<th>1.6</th>
<th>2</th>
<th>2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overload pressure</td>
<td>0.3</td>
<td>0.5</td>
<td>1</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Burst pressure</td>
<td>0.6</td>
<td>1</td>
<td>1.5</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Measuring range (bar)</td>
<td>4</td>
<td>6</td>
<td>10</td>
<td>16</td>
<td>20</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Overload pressure</td>
<td>10</td>
<td>20</td>
<td>20</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>100</td>
</tr>
<tr>
<td>Burst pressure</td>
<td>15</td>
<td>30</td>
<td>30</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>150</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electrical</th>
<th>2 wire / 3 wire</th>
<th>3 wire</th>
<th>3 wire</th>
<th>ratiometric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output signal</td>
<td>4-20mA</td>
<td>0-10Vdc</td>
<td>1-5Vdc</td>
<td>0.5-4.5Vdc</td>
</tr>
<tr>
<td>Supply voltage</td>
<td>9-32Vdc</td>
<td>12-32Vdc</td>
<td>8-32Vdc</td>
<td>5Vdc ± 10%</td>
</tr>
</tbody>
</table>

- Media temperature: -40°C to +85°C
- Compensated temperature range: -20°C to +85°C
- Ambient temperature range: -40°C to +85°C

**Performance**

- Accuracy: Non-linearity, hysteresis and non-repeatability at room temperature according to IEC 61298-2 (or BSFL/Best Fit Straight Line): 0.5% FS range (<0.25% BFSL); 0.1% FS (<0.5% BFSL) for ranges <0.5 bar
- Temperature effects: Zero/Spans typical thermal coefficients <0.15% FS range/°C
- Total Error Band: 2% FS from room temperature to -40°C or +85°C
- Long term stability: <0.1% FS range/year
- Response time: <1 mS (from 10% to 90% FS range)
- Vibration resistance: 20g (according to IEC 68-2-6 and IEC 68-2-36)
- Shock resistance: 1000g (according to IEC 68-2-32)

**Options**

1. Improved accuracy:
   - 1 bar to 25 bar ranges <0.25% FS (<0.15% BFSL)
   - Ranges below 1 bar: <0.5% FS (<0.25% BFSL)
2. Additional cable (specify length)
   - (<0.15% BFSL)
3. Stainless Steel nose cone
   - (instead of plastic)

For further options or customised products please contact us.

**Related products**

Hydrotechnik manufactures a wide range of sensors, test and measurement equipment.

Contact us for further information or visit www.hydrotechnik.co.uk

Continuing development can necessitate specification changes without notice.
<table>
<thead>
<tr>
<th>Series</th>
<th>Output Signal</th>
<th>Pressure Range</th>
<th>Unit</th>
<th>Pressure Type</th>
<th>Process Connection</th>
<th>HEX</th>
<th>Electr. Connection</th>
<th>Extras</th>
</tr>
</thead>
<tbody>
<tr>
<td>HT-PSI</td>
<td>60.0</td>
<td>0001000</td>
<td>MWS</td>
<td>(g)</td>
<td>P</td>
<td>-</td>
<td>CP10 **</td>
<td></td>
</tr>
</tbody>
</table>

**HT-PS1 Series ORDER CODES**

- **4…20 mA/ 2 wires**: 10.0
- **0…20 mA/ 3 wires**: 10.1
- **4…20 mA/ 3 wires**: 10.2
- **0…10 V**: 20.0
- **1…5 V**: 20.1
- **0… 6 V**: 20.20
- **0… 5 V**: 20.4
- **0.5…4.5 V ratio**: 37.0
- **0.5…4.5 V non ratio**: 40.0
- **Switch npn/ NO**: 54.0
- **Switch npn/ NC**: 55.0
- **CANopen 2.0A**: 60.0
- **Others**: AAA

**Pressure Units**
- **bar**: BAR
- **kPa**: KPA
- **MPa**: MPA
- **PSI**: PSI
- **kg/cm²**: KGC
- **m WC**: MWS
- **in WC**: IWS
- **Others**: CCC

**Relative Pressure**
- **(g)**

**Electrical Details**
- **4…20 mA/ 2 wires**: 10.0
- **0…20 mA/ 3 wires**: 10.1
- **4…20 mA/ 3 wires**: 10.2
- **0…10 V**: 20.0
- **1…5 V**: 20.1
- **0… 6 V**: 20.20
- **0… 5 V**: 20.4
- **0.5…4.5 V ratio**: 37.0
- **0.5…4.5 V non ratio**: 40.0
- **Switch npn/ NO**: 54.0
- **Switch npn/ NC**: 55.0
- **CANopen 2.0A**: 60.0
- **Others**: AAA

**Total Error**
- **0.25%**: F25
- **Other**: FXX
- **Others (see below)**: GGG

**Cable Gland**
- Plastic: P
- Stainless Steel: S

- **(**) e.g. CP10 - cable length 10 metres

**HT-PS1 Series ORDER CODES**

**Unit Pressure**
- **Process**
- **Connection**
- ** extras**