Pressure Transmitter for High Pressure Applications up to 15,000 bar
Type HP-2

Applications
- Test benches
- Water jet cutting
- High pressure pasteurisation
- High pressure cleaning

Special Features
- Pressure ranges up to 15,000 bar
- Accuracy 0.5 %
- Output: 4 ... 20 mA, 0 ... 10 V, etc.
- Electrical connection: DIN 175301-803 A L-connector, M12x1 circular connector, flying leads, etc.
- Pressure connections: M16x1.5 female, M20 x1.5 female, 9/16-18 UNF female F250-C

Description
The pressure transducer HP-2 is designed for superior high pressure applications up to 15,000 bar.

HP-2 provides a very high long-term stability and a very good accuracy.

Due to its excellent life cycle behaviour HP-2 offers an extra long service life also for dynamic pressure curves.

The optional cavitation and peak pressure protection has been developed especially for highly dynamic pressure curves. It provides an extended operating time even in demanding applications.
### Specifications Type HP-2

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Pressure ranges</th>
<th>Over pressure safety</th>
<th>Burst pressure</th>
<th>Pressure ranges</th>
<th>Over pressure safety</th>
<th>Burst pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>bar</td>
<td>bar</td>
<td>bar</td>
<td>psi</td>
<td>psi</td>
<td>psi</td>
</tr>
<tr>
<td>1,600</td>
<td>2,500</td>
<td>4,000</td>
<td>5,000</td>
<td>6,000</td>
<td>7,000</td>
<td>8,000</td>
</tr>
<tr>
<td>2,300</td>
<td>3,500</td>
<td>5,000</td>
<td>6,000</td>
<td>7,000</td>
<td>8,000</td>
<td>10,000</td>
</tr>
<tr>
<td>4,000</td>
<td>6,000</td>
<td>8,000</td>
<td>10,000</td>
<td>11,000</td>
<td>12,000</td>
<td>12,000</td>
</tr>
<tr>
<td>36,000</td>
<td>58,000</td>
<td>72,000</td>
<td>87,000</td>
<td>100,000</td>
<td>115,000</td>
<td>145,000</td>
</tr>
<tr>
<td>33,300</td>
<td>50,500</td>
<td>72,500</td>
<td>87,000</td>
<td>101,500</td>
<td>116,000</td>
<td>145,000</td>
</tr>
<tr>
<td>58,000</td>
<td>87,000</td>
<td>116,000</td>
<td>145,000</td>
<td>159,500</td>
<td>159,500</td>
<td>174,000</td>
</tr>
</tbody>
</table>

Up to 15,000 bar / 217,000 psi on request.

### Materials
- Wetted parts: 1.4534
- Case: Stainless steel

### Power supply UB
- UB in VDC: 10 \(\ldots\) 30 (14 \(\ldots\) 30 with signal output 0 \(\ldots\) 10 V)
- RA in Ohm: 4 \(\ldots\) 20 mA, 2-wire
- RA \(\leq\) (UB \(-\) 10 V) / 0.02 A

### Signal output and maximum resistive load RA
- 0 \(\ldots\) 5 V, 3-wire
- RA \(\geq\) 5 k
- 0 \(\ldots\) 10 V, 3-wire
- RA \(\geq\) 10 k

### Adjustability zero
- %: \(\pm\) 5 using potentiometers inside the instrument

### Response time (10 \(\ldots\) 90 %)
- ms: \(\leq\) 1

### Accuracy
- % of span: \(\leq\) 0.5 *)
- % of span: \(\leq\) 0.25 *) on request
- *) Including non-linearity, hysteresis, zero point and full scale error (corresponds to error of measurement per IEC 61298-2).

### Insulation voltage
- VDC: 500

### 1-year stability
- % of span: \(\leq\) 0.1 (at reference conditions)

### Permissible temperature of
- Medium **)
- Ambience **)
- Storage **)

** Also complies with EN 50178, Tab. 7, Operation (C) 4K4H, Storage (D) 1K4, Transport (E) 2K3

### Rated temperature range
- 0 \(\ldots\) +80 °C
- +32 \(\ldots\) +176 °F

### Temperature error within rated temperature range
- %: \(\leq\) 1.0 typ.
- \(\leq\) 2.5 max.

### RoHS-conformity
- on request

### CE-conformity
- Pressure equipment directive: 97/23/EC
- EMC directive: 2004/108/EC, EN 61326 Emission (Group 1, Class B) and Immunity (industrial locations)

### Shock resistance
- g: 100 (2.4 ms) according to IEC 60068-2-27

### Vibration resistance
- mm: 0.35 (10 \(\ldots\) 55 Hz) according to IEC 60068-2-6

### Wiring protection
- Short-circuit resistance: Sig+ towards UB-
- Reverse polarity protection: UB+ towards UB-

### Weight
- kg: Approx. 0.3

### Electrical connections

<table>
<thead>
<tr>
<th>L-connector DIN 175301-803 A</th>
<th>Circular connector M12x1</th>
<th>Cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-wire</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UB = 1</td>
<td>0V = 2</td>
<td>UB = 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UB = brown</td>
</tr>
<tr>
<td>Wire gauge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>up to max. 1.5 mm²</td>
<td>-</td>
<td>0.5 mm² (AWG 20)</td>
</tr>
<tr>
<td>Ingress protection per IEC 60 529</td>
<td>IP 65</td>
<td>IP 67</td>
</tr>
</tbody>
</table>
Specifications and dimensions given in this data sheet represent the state of engineering at the time of printing. Modifications may take place and materials specified may be replaced by others without prior notice.

For installation and safety instructions see the operating instructions for this product. The respective values for your mounting torque and maximum pressure please find in the documentation of your high-pressure equipment supplier.

*) The respective values for your mounting position please find in the documentation of your high-pressure equipment supplier.