High Precision Pressure Transducers & Transmitters

HT-SHP Series

- High accuracy & reliability
- Ranges 10 mbar to 2,000 barg
- 2 or 3 wire mA & voltage outputs
- Wide choice of connectors
- Accuracies of ±0.15% (<±0.1% BFSL)
- Compact and rugged design

For the highest level of measurement precision - typically in R&D, laboratory or workshop test rigs and systems. The HT-SHP series provides an exceptional performance with room temperature (RT) accuracy <0.15% FS according to IEC 61298-2, <0.1% BFSL (combined non-linearity, hysteresis and repeatability).

Discover more at www.hydrotechnik.co.uk
High Precision Pressure Transducers & Transmitters

HT-SHP Series

TECHNICAL SPECIFICATIONS

Standard pressure ranges & signal outputs

<table>
<thead>
<tr>
<th>Measuring range*(mbar)</th>
<th>10</th>
<th>20</th>
<th>40</th>
<th>60</th>
<th>100</th>
<th>250</th>
<th>600</th>
<th>1000</th>
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<tbody>
<tr>
<td>Overload pressure</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>500</td>
<td>1250</td>
<td>1800</td>
<td>3000</td>
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<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>1500</td>
<td>3750</td>
<td>3000</td>
<td>5000</td>
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<td>2</td>
<td>2.5</td>
<td>4</td>
<td>6</td>
<td>10</td>
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<td>6</td>
<td>10</td>
<td>20</td>
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<tr>
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<td>15</td>
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<td>Measuring range (bar)</td>
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<td>100</td>
<td>160</td>
<td>200</td>
<td>250</td>
<td>400</td>
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<tr>
<td>Overload pressure</td>
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<td>100</td>
<td>200</td>
<td>200</td>
<td>400</td>
<td>400</td>
<td>750</td>
<td>750</td>
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<tr>
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<td>150</td>
<td>300</td>
<td>300</td>
<td>600</td>
<td>600</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td>Measuring range (bar)</td>
<td>600</td>
<td>1000</td>
<td>1600</td>
<td>2000</td>
<td></td>
<td></td>
<td></td>
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<tr>
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<td>1200</td>
<td>2400</td>
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<tr>
<td>Burst pressure</td>
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<td>1500</td>
<td>3000</td>
<td>3000</td>
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</table>

*Gauge ranges shown - vacuum and absolute ranges available on request

<table>
<thead>
<tr>
<th>2 wire</th>
<th>3 wire</th>
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<tbody>
<tr>
<td>Output signal</td>
<td>4-20mA</td>
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<tr>
<td>Supply voltage</td>
<td>9-32Vdc</td>
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</tbody>
</table>

- Media temperature: -20°C to +85°C
- Compensated range: -10°C to +80°C
- Ambient temperature: -20°C to +85°C

Performance
- Accuracy: combined non-linearity, hysteresis non-repeatability and zero span offsets at room temperature according to IEC 61298-2 (or BSFL/Best Fit Straight Line)
  <0.15% FS range (<0.1% BFSL)
  Optional <0.1% FS range (<0.05% BFSL) available Autumn 2017
- Temperature effects:
  Zero/Span typical thermal coefficients <0.15% FS range / 10°C
- Total Error Band: 0.5% FS from room temperature to -40°C or +85°C
- Long term stability: <0.1% FS range/year
- Response time: <4mS (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)
- EMC Characteristics:
  EN61000-4-2 Level 3 & 4
  EN61000-4-4 Level 4
  EN61000-4-5 Level 3
  EN61000-4-6 Level 3
  EN61000-4-16 Level 3

Physical
- Material: body - stainless steel, pressure inlet port stainless steel (stainless steel silicon for ranges up to 1 bar)
- Process connection: G 1/4 A, G1/4B, G1/2B, 1/4NPT
- Electrical connection: integral cable (1 metre), M12 x 1 male socket, DIN plug/socket, mini DIN plug socket (DIN EN 175301-803)
- Weight: approximately 120g (dependent upon configuration)
- Ingress protection: IP65 (for connector versions with their mating plug fitted)

Options
(1) Improved accuracy <0.1% FS
(2) additional cable (specify length)
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

Dimensions
HT-SHP with MVS/A

Mechanical Connections

Electrical Connections

Options
(1) Improved accuracy <0.1% FS
(2) additional cable (specify length)
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# HT-SHP Series
## ORDER CODES

<table>
<thead>
<tr>
<th>Series</th>
<th>Output Signal</th>
<th>Pressure Range</th>
<th>Unit</th>
<th>Process Type</th>
<th>HEX</th>
<th>Electr. Connection</th>
<th>Extras</th>
</tr>
</thead>
<tbody>
<tr>
<td>HT-SHP</td>
<td>20.20</td>
<td>0040000</td>
<td>BAR</td>
<td>(sr)</td>
<td>G14E</td>
<td>22</td>
<td>M12</td>
</tr>
</tbody>
</table>

### Signal
- 4...20 mA / 2 wires: 10.0
- 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 not rat.: 40.0
Others: AAA

### Pressure Range
- Absolute Pressure: (a)
- Relative Pressure: (g)
- Sealed Reference: (sr)

### Units
- bar: BAR
- kPa: kPa
- MPa: MPA
- PSI: PSI
- kg/cm²: KGC
- m WC: MWS
- in WC: IWS
- others: CCC

### Pressure Type
- bar
- kPa
- MPa
- PSI
- kg/cm²
- m WC
- in WC
- others

### Process Connection
- HEX: Electr. Connection
- Extras

### Extras
- G 1/8 A Shape A: G18A
- G 1/4 A Shape A: G14A
- G 1/4 A Shape E: G14E
- G 1/4 B (Manom.): G14B
- G 1/2 B (Manom.): G12B
- G 1/2 A Shape E: G12E
- G 1/2 A Shape A: G12A
- 1/8 NPT: T8N
- 1/4 NPT: T4N
- 7/16-18 UNF-2A: U72M
- 7/16-20 UNF-2A/C: U72C
- 1/8-24 UNF-2A: U82M
- 1/4-24 UNF-2A: U42M
- 7/16-18 UNF-3A: U73M
- 7/16-20 UNF-3A/C: U73C
- 1/8-24 UNF-3A: U83M
- 1/4-24 UNF-3A/C: U43C
- 7/16-18 UNF-2B: U72M
- 7/16-20 UNF-2B: U72C
- 1/8-24 UNF-2B: U82M
- 1/4-24 UNF-2B: U42M
- 7/16-18 UNF-3B: U73M
- 7/16-20 UNF-3B/C: U73C
- 1/8-24 UNF-3B: U83M
- 1/4-24 UNF-3B/C: U43C

### Others
- MVC/A: MVC
- MVC/C: MVC
- Hirschmann Mini: HIM
- IS9 Industrial Socket: IS9

### Restrictor 0.6 mm
- Restrictors others: RXX

### Total Error other
- Cleaned for Oxygen use: OXX
- Ext. Change of Parameters: PAR

### Cleaned for Oxygen use
- Others (see below): GGG

** Necessary Number of Contacts: Current: 4-poles / Voltage: 5-poles

* e.g. with cable length 1 metre

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**Central Park, Lenton Lane, Nottingham, NG7 2NR**
t: 0115 9003 550  e: sales@hydrotechnik.co.uk
www.hydrotechnik.co.uk