For OEMs that need consistent high levels of performance, reliability and stability, the 3100 Series sputtered thin film units offer unbeatable price performance ratio in a small package size with all stainless steel wetted parts in the volumes required. A wide choice of electrical outputs as well as both electrical and pressure connections means the unit is suitable for most applications without modification. The compact construction of the 3100 series makes it ideal for installation where space is at a premium.

**Specifications**

<table>
<thead>
<tr>
<th>Input</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure Range</td>
<td>0 to 10 bar, 0 to 2200 bar G (100 to 30,000 psi)</td>
</tr>
<tr>
<td>Proof Pressure</td>
<td>2 x FS (Ranges 1600 &amp; 2200 bar 1.5x)</td>
</tr>
<tr>
<td>Burst Pressure</td>
<td>Ranges ≤ 400 bar, 10 x minimum 600 &amp; 1000 bar 4 x, 1600 &amp; 2200 1.5x</td>
</tr>
<tr>
<td>Fatigue Life</td>
<td>Designed for more than 100,000,000 cycles</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Term Drift</td>
<td>0.1% FS/year non cumulative</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±0.25% FS (Temp O/P ± 2.5% FS)</td>
</tr>
<tr>
<td>Thermal Error</td>
<td>±1% typical/100°C</td>
</tr>
<tr>
<td>Compensated Temperature</td>
<td>-40° to 120°C (-40° to 250°F)</td>
</tr>
<tr>
<td>Operable</td>
<td>-40° to 125°C (-40° to 250°F)</td>
</tr>
<tr>
<td>Zero Tolerance</td>
<td>±0.5% of span</td>
</tr>
<tr>
<td>Span Tolerance</td>
<td>±0.5% of span</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mechanical Construction</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure Port</td>
<td>See ordering chart</td>
</tr>
<tr>
<td>Wetted Parts</td>
<td>17-4 PH Stainless Steel</td>
</tr>
<tr>
<td>Electrical Connection</td>
<td>See ordering chart</td>
</tr>
<tr>
<td>Enclosure</td>
<td>IP65 for electrical code B (with connector fitted)</td>
</tr>
<tr>
<td></td>
<td>IP67 for electrical codes E, 6, 7, 8 and 9</td>
</tr>
<tr>
<td>Vibration</td>
<td>20G, 10-2000Hz sinusoidal</td>
</tr>
<tr>
<td>Shock</td>
<td>Withstands free fall to IEC 68-2-32 procedure 1</td>
</tr>
<tr>
<td>Approvals</td>
<td>CE</td>
</tr>
<tr>
<td>Weight</td>
<td>35 gms</td>
</tr>
</tbody>
</table>

**Individual Specifications**

- **Voltage Output Units**
  - Output: See ordering chart (current 4.5mA)
  - Supply Voltage: 2 Volts above Full Scale, to max 30 Volts
- **Current Output Units**
  - Output: 4-20mA
  - Supply Voltage: 10 to 30Vdc (24Vdc max for 110° and above)
  - Max. Loop Resistance: (Vs-10) x 50 ohms
- **Ratiometric Output Units**
  - Output: 0.5 to 4.5Vdc (3.5mA max)
  - Supply Voltage: 5Vdc, ± 10%

**MECHANICAL FITTINGS**

Code 01: G 1/4 EXT
- Code 04: 7/16”-20 UNF with 37° Flare
- Code 1J: 7/16”-20 UNF O-Ring
- Code 02: 1/4”-18 NPT
- Code 08: 1/8”-27 NPT

Code 05: G 1/4“A, Integral Face Seal
- Code 0L: M12 x 15
- Code 2T: M12x1.5 HP [metal washer seal]
- Code 0G: 7/16”Schraeder

Hex is 22mm [866] Across Flats (A/F) for deep socket mounting. Other thread forms available. Consult factory.

**NOTE**: Dimensions in mm
How to Order

Use the **bold** characters from the chart below to construct a product code

**Series**

- **00** - Pressure output
- **01** - Pressure and temperature output (see Note 1)

**Output**

- **B** - 4-20mA
- **C** - 1-6V
- **H** - 1-5V
- **N** - 0.5 to 4.5V Non Ratiometric
- **R** - 0-5V
- **S** - 0-10V
- **T** - 0.5 to 4.5 Ratiometric

**Pressure Range**

- **0010G** – 10barG
- **0100S** – 100barS
- **0100S** – 1000barS
- **0016G** – 16barG
- **0160S** – 160barS
- **0160S** – 1600barS
- **0025G** – 25barG
- **0250S** – 250barS
- **0250S** – 2200barS
- **0040G** – 40barG
- **0400S** – 400barS
- **0400S** – 4000barS
- **0060G** – 60barG
- **0600S** – 600barS
- **0600S** – 6000barS

**Integral Pressure Connection**

- **01** - G1/4 External
- **02** - 1/4-18 NPT External
- **04** - 7/16-20 UNF External
- **05** - G1/4 External Soft Seal
- **06** - 1/8 NPT External
- **08** - 1/8 NPT External
- **0L** - M12 x 1.5 - 6g (600bar and below)
- **1G** - Schraeder Deflator (Short)
- **1J** - 7/16 - 20 UNF External 'O' Ring Seal
- **2T** - M12 x 1.5-6g (1000bar and above)

**ELECTRICAL CONNECTOR**

**Code B**

- **DIN43650C Industrial**

**Code E**

- **M12 x 1P**

**Code 8**

- **Deutsch DT04-4P**

**Code 7**

- **DIN72585A1-4, 1**

**Code 9**

- **Packard MetriPack**

**Code 6**

- **Amp Superseal 1.5**

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**Note 1** Pressure and temperature output available with voltage output and electrical connectors B, E, 7 and 8 only

**Note 2** Ranges 1000 bar and above available with 2T pressure port only.

For mating electrical connectors and cables see page 67.

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Sealed pressure range (*5*): the pressure reading on these particular devices is found by comparing the pressure measured at the diaphragm to a sealed, known reference.

- the reference is sealed inside the sensor during manufacture
- sealed with the pressure of the day at the time of manufacture (approx. 900-1100mbar)
- this transducer is therefore neither an absolute or true gauge unit
- using this technique however the pressure reading only ends up slightly out
- the small differential created would be “invisible” in the 4-20mA range of the device as it is so relatively small

**Indicators and Accessories Pages 64-69**