SA-PKxxxM10-000 Pressure sensor

**Function**
- To measure brake pressure for example

**Overview:**
- Build in signal conditioned output 0..5V
- SA-PK010M10 from 0 to 10bar
- SA-PK025M10 from 0 to 25bar
- SA-PK100M10 from 0 to 100bar
- SA-PK250M10 from 0 to 250 bar

**Technical specifications**

**Electrical characteristics**
- Possible ranges: 10 / 25 / 100 / 250 bar
- Supply voltage (range): 8-16 V
- Supply voltage (typical): 12 V
- Supply current (maximum): 0..20 mA
- Output: 0..5 V dc, fixed

**Mechanical characteristics**
- Dimensions: refer figure above
- Weight: 45 g
- Pressure port: M10 x 1

**Connector**
- Type: Binder 719, 5PM
- Options: on request

**Cable**
- Type: Raychem, EPD
- Wire cross section: 3 x AWG 24
- Length: 800 mm

**Environmental data**
- Sealing class: IP 65
- Long term stability (1 year): ±0.3 % FS
- Storage temperature range: -40..+100 °C
- Calibrated operating temp. range: -10..+80 °C

**Vibration resistance**
- Shock: 40 G
- during a time period of: 10 ms
- Vibration tested at: 12 G
- measured with: 1000 Hz

**Calibration**
- Use the formulas on 2nd page to calculate the physical values

**Ordering information**
- Art.No.: SA-PKxxxM10
- Pressure range

The specifications on this document are subject to change at 2D decision. 2D assumes no responsibility for any claims or damages arising out of the use of this document, or from the use of modules based on this document, including but not limited to claims or damages based on infringement of patents, copyrights or other intellectual property rights.
SA-PKxxxM10-000 Pressure sensor

Formulas

<table>
<thead>
<tr>
<th>SA-PKxxxM10-000</th>
<th>Multiplier</th>
<th>Offset</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Bit A/D</td>
<td>Pressure [bar] = ( \frac{xxx}{4095} ) * Digits - 0</td>
<td></td>
</tr>
<tr>
<td>16 Bit A/D</td>
<td>Pressure [bar] = ( \frac{xxx}{65535} ) * Digits - 0</td>
<td></td>
</tr>
<tr>
<td>Voltage(^*)</td>
<td>Pressure [bar] = ( \frac{2520}{50} ) * Volt - 0</td>
<td></td>
</tr>
</tbody>
</table>

Replace the \( xxx \) with the pressure of your sensor:

\( \rightarrow \) Possible values are 10, 25, 100 or 250 bar (other values on request)

Connector layout

<table>
<thead>
<tr>
<th>Pin</th>
<th>Name</th>
<th>Description</th>
<th>Color (standard)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AGND</td>
<td>Analog Ground</td>
<td>black</td>
</tr>
<tr>
<td>2</td>
<td>n.c.</td>
<td>Not connected</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>+12V</td>
<td>Power supply</td>
<td>red</td>
</tr>
<tr>
<td>4</td>
<td>n.c.</td>
<td>Not connected</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>Signal</td>
<td>Analog signal</td>
<td>white</td>
</tr>
</tbody>
</table>

Possible options on customer request!

Please note:
For the first order of special customer options please use the following order code: **SA-PKxxxM10-000**
After the first order you will get from 2D a uniquely order code for your next orders.

The specifications on this document are subject to change at 2D decision. 2D assumes no responsibility for any claims or damages arising out of the use of this document, or from the use of modules based on this document, including but not limited to claims or damages based on infringement of patents, copyrights or other intellectual property rights.