AiM Infotech

AiM pressure sensor
0-160 bar M10

Release 1.02
1
Introduction

This datasheet explains how to use AiM 0-160 bar M10 pressure sensor. The sensor **part number** is:

• Pressure sensor 0-160 bar M10 **X05PSA00160B10**

This sensor fits the measurement of oil pressure and needs a careful installation. This is why AiM suggest to address to a specialized workshop.

To correctly install the AiM 0-160 bar M10 pressure sensor, a kit is available, that includes (image below):

• 2 lock nuts (1)
• 2 nipples (2)
• 1 “T” metallic junction; M10 thread (3)

Installation kit and AiM 0-160 bar M10 pressure sensor can be bought together. Part number: **X05PSA00160B10K**.
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Dimensions, pinout and technical characteristics

The drawing here below shows sensors dimensions in millimetres [inches].

0-160 bar M10
The sensor ends with a 4 pins Binder 719 male connector. The image below shows the connector pinout from solder termination side.

<table>
<thead>
<tr>
<th>Pin</th>
<th>Function</th>
<th>Cable colour</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Analog signal</td>
<td>White</td>
</tr>
<tr>
<td>2</td>
<td>GND</td>
<td>Black</td>
</tr>
<tr>
<td>3</td>
<td>+Vb</td>
<td>Red</td>
</tr>
<tr>
<td>4</td>
<td>Not connected</td>
<td></td>
</tr>
</tbody>
</table>

The table here below shows the sensor electrical characteristics.

<table>
<thead>
<tr>
<th>Technical characteristics</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply</td>
<td>8-16 V</td>
</tr>
<tr>
<td>Accuracy</td>
<td>&lt; +/- 0.5% FS (CLNH – combined non-linearity and hysteresis)</td>
</tr>
<tr>
<td>Output signal</td>
<td>from 0.5 V to 4.5 V</td>
</tr>
<tr>
<td>Characterisation</td>
<td>500 mV/ 0 bar</td>
</tr>
<tr>
<td></td>
<td>4500 mV/ 160 bar</td>
</tr>
<tr>
<td>Consumption</td>
<td>&lt; 10 mA</td>
</tr>
<tr>
<td>Temperature working range</td>
<td>from -20°C to 135°C</td>
</tr>
<tr>
<td>Sealing</td>
<td>IP66</td>
</tr>
<tr>
<td>Housing</td>
<td>316 stainless steel</td>
</tr>
<tr>
<td>Weight</td>
<td>30 g</td>
</tr>
<tr>
<td>Cable length</td>
<td>400 mm</td>
</tr>
<tr>
<td>Thread</td>
<td>M10</td>
</tr>
</tbody>
</table>
3

Extension cables

The sensor is sold with a 40 cm cable. Standard length extension cables are available, whose part number changes according to their length and to the product the sensor is to be connected to.

Extension cable for connection to:
- MXG/MXG 1.2/MXG 1.2 Strada
- MXS/MXS 1.2/MXS Strada/MXS 1.2 Strada
- MXP/MXP Strada
- MXL2
- MXm
- EVO5
- MXL Strada/Pista/Pro05

Part numbers:
- \texttt{V02PCB05B} - cable length: 500mm
- \texttt{V02PCB10B} - cable length: 1000mm
- \texttt{V02PCB15B} - cable length: 1500mm
- \texttt{V02PCB20B} - cable length: 2000mm
- \texttt{V02PCB25B} - cable length: 2500mm
- \texttt{V02PCB30B} - cable length: 3000mm

Extension cable for connection to:
- Channel Expansion
- EVO4
- EVO4S

Part numbers:
- \texttt{V02PCB05BTXG} - cable length: 500mm
- \texttt{V02PCB10BTXG} - cable length: 1000mm
- \texttt{V02PCB15BTXG} - cable length: 1500mm
- \texttt{V02PCB20BTXG} - cable length: 2000mm
- \texttt{V02PCB25BTXG} - cable length: 2500mm
- \texttt{V02PCB30BTXG} - cable length: 3000mm