The MS5837-30BA is a new generation of high resolution pressure sensors with I2C bus interface for depth measurement systems with a water depth resolution of 2 mm.

Overpressure: 50 bar
Pressure: 30000 mbar
Sensor Type: Digital Pressure and Altimeter Sensor Modules
Type: Absolute
Output/Span: 24 bit ADC

The sensor module includes a high linearity pressure sensor and an ultra-low power 24 bit ΔΣ ADC with internal factory calibrated coefficients.

It provides a precise digital 24 Bit pressure and temperature value and different operation modes that allow the user to optimize for conversion speed and current consumption. A high resolution temperature output allows the implementation in depth measurement systems and thermometer function without any additional sensor. The MS5837-30BA can be interfaced to virtually any microcontroller. The communication protocol is simple, without the need of programming internal registers in the device. The gel protection and antimagnetic stainless steel cap make the module water resistant. This new sensor module generation is based on leading MEMS technology and latest benefits from MEAS Switzerland proven experience and know-how in high volume manufacturing, which has been widely used for over a decade.

**BENEFITS**

- Ceramic - metal package, 3.3 x 3.3 x 2.75mm
- High-resolution module 0.2 mbar
- Fast conversion down to 0.5 ms
- Low power, 0.6 μA (standby < 0.1 μA at 25°C)
- Integrated digital pressure sensor (24 bit ΔΣ ADC)
- Supply voltage 1.5 to 3.6 V
- Operating range: 0 to 30 bar, -20 to +85 °C
- I²C interface
- No external components (Internal oscillator)
- Excellent long term stability
- Hermetically sealable for outdoor devices
- Sealing designed for 1.8 x 0.8mm O-ring

[MS5837-30BA Digital Pressure Sensor Video](#)
The MS5837-30BA is a new generation of high resolution pressure sensors with I2C bus interface for depth measurement systems with a water depth resolution of 2 mm.

### Features

#### Product Type Features

<table>
<thead>
<tr>
<th>Sensor Type</th>
<th>Digital Pressure and Altimeter Sensor Modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Absolute</td>
</tr>
</tbody>
</table>

#### Electrical Characteristics

| Supply Voltage (V)            | 1.5 - 3.6                                    |

#### Dimensions

<table>
<thead>
<tr>
<th>Dimensions (mm)</th>
<th>3.3 x 3.3 x 2.75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions (in)</td>
<td>.13 x .13 x .108</td>
</tr>
</tbody>
</table>

#### Usage Conditions

<table>
<thead>
<tr>
<th>Operating Temperature Range (°C)</th>
<th>-20 - 85</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature Range (°F)</td>
<td>-4 - 185</td>
</tr>
</tbody>
</table>

#### Operation/Application

<table>
<thead>
<tr>
<th>Resolution</th>
<th>.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output Interface</td>
<td>PC or SPI</td>
</tr>
<tr>
<td>Overpressure</td>
<td>50 bar</td>
</tr>
<tr>
<td>Pressure (mbar)</td>
<td>30000</td>
</tr>
<tr>
<td>Output/Span</td>
<td>24 bit ADC</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±400mbar</td>
</tr>
</tbody>
</table>

#### Packaging Features

| Package                       | Surface Mountable                            |

### Related Materials

**Data Sheet**
- MS5837-30BA
- English

**Specification Or Standard**
- Application Note MS5837 Series O-Ring Mount
- English

**Customer View Model**
- Customer View Model
0-30 BAR DIGITAL PRESSURE SENSOR
TE Model #: MS5837-30BA
TE Internal #: CAT-BLPS0017

3D

Customer View Model
Customer View Model
English

Customer View Model
Customer View Model
English

Customer View Model
Customer View Model
English

Also in the Series | MEAS MS5837

Board Level Pressure Sensors(8)