

# INTRODUCING

# MS5840-02BA

# PRESSURE SENSOR

- **Save space with one of the lowest profile micro altimeters in the market**
- **Provide precise digital 24-bit pressure and temperature measurements**

TE Connectivity (TE) introduces the MS5840-02BA pressure sensor; one of the lowest profile micro altimeters in the market. This ultra-compact gel-filled pressure and temperature sensor is optimized for both altimeter and barometer applications and is ideal for applications with tight space constraints.

This MEMS based sensor includes a high-linearity pressure sensor with ultra-low power 24-bit digital output (I<sup>2</sup>C) and an altitude resolution at sea level of 13 cm. The board level design delivers sensing accuracy for both pressure ( $\pm 0.5$  mbar) and temperature ( $\pm 2^{\circ}\text{C}$ ) measurements.

## TARGET MARKETS

- Consumer Devices
- Wearables
- Autonomous Vehicles

## APPLICATIONS

- Multisport Watches
- Fitness Trackers
- Swim Watches
- Bike Computers
- Mobile Altimeter/Barometer Systems
- Personal Navigation Devices
- e-Cigarettes
- Drones

## KEY BENEFITS

- Save space with one of the lowest profile micro altimeters in the market - 3.3 x 3.3 x 1.7 mm
- Provide precise digital 24-bit pressure and temperature measurements with ultra-low power requirements
- Designed for harsh environments with a robust construction featuring a ceramic and metal package
- Ensure water resistance and component protection with silicone gel plus black pigments added for additional light protection
- Enable high integrity sealing when used with an O-ring (1.8 x 0.8 mm)

## PERFORMANCE

- Package: Ceramic - metal, 3.3 x 3.3 x 1.7 mm
- Extended Pressure Range: 10 - 2,000 mbar
- Pressure Accuracy: Down to  $\pm 5$  mbar (600-1000 mbar)
- Pressure Resolution: 0.016 mbar (OSR 8192)
- Overpressure: 10 bar
- Operating Temperature Range: -20 to +85°C
- Temperature Accuracy:  $\pm 2^{\circ}\text{C}$  (300-1100 mbar)
- Temperature Resolution: 0.002°C (OSR 8192)
- Supply Voltage: 1.5 to 3.6V
- Long Term Stability:  $\pm 2$  mbar/yr
- Standby Supply Current:  $< 0.1 \mu\text{A}$
- Interface: I<sup>2</sup>C
- Output Word: 24 bit

## LEARN MORE

[MS5840-02BA Product Page](#)

[MS5840-02BA Infographic](#)

[MS5840-02BA Datasheet](#)

[Video: Board Mount Pressure Sensors](#)

[Selection Guide: Board Mount Pressure Sensors](#)

