



MS5535-30C

30 bar Pressure Sensor Module

SPECIFICATIONS

- 0 – 30 bar absolute pressure range
- 6 coefficients for software compensation stored on-chip
- Piezoresistive silicon micromachined sensor
- Integrated miniature pressure sensor 9 x 9 mm
- 16 Bit ADC
- 3-wire serial interface
- 1 system clock line (32.768 kHz)
- Low voltage and low power consumption

The MS5535-30C is a high-pressure version of MS5535C pressure sensor module. It contains a precision piezoresistive pressure sensor and an ADC-Interface IC. It uses an antimagnetic polished stainless ring for sealing O-ring. It provides a 16 Bit data word from a pressure and temperature dependent voltage. Additionally the module contains 6 readable coefficients for a highly accurate software calibration of the sensor. MS5535-30C is a low power, low voltage device with automatic power down (ON/OFF) switching. A 3-wire interface is used for all communications with a microcontroller.

FEATURES

FIELD OF APPLICATION

- Mobile water depth measurement systems
- Diving computers and divers watches

TECHNICAL DATA

Sensor Performances ($V_{DD} = 3\text{ V}$)				
Pressure	Min	Typ	Max	Unit
Range	0		30	bar
ADC		16		bit
Resolution		3		mbar
Accuracy 0°C to +40°C, 0 to 10 bar	-65		+50	mbar
Accuracy -20°C to + 85°C 0 to 10 bar	-100		+250	mbar
Response time		35		ms
Long term stability		50		mbar/yr
Temperature	Min	Typ	Max	Unit
Range	-40		+125	°C
Resolution	0.005		0.015	°C
Accuracy	-0.8		+0.8	°C

FUNCTIONAL BLOCK DIAGRAM

