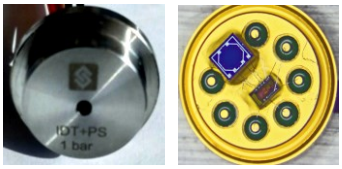
Digital Output (I2C)
Smart Pressure Transducer



PRODUCT DESCRIPTION:

SCL developed MEMS based pressure sensors are in the form of Bridge of four peizo-resistors to give differential output proportional to applied pressure. Absolute pressure sensor has an internal vacuum reference.

Pressure transducer module is fully calibrated and temperature compensated for sensor offset, sensitivity and temperature effects. Transducer comes with pre programmed calibration coefficients, loaded into EEPROM. Transducer provides corrected output voltage. Pressure sensor die along with signal conditioner IC are assembled in a single 7-pin TO package. Transducer provides corrected pressure data over I2C bus.

FEATURES:

- Operating Voltage 1.8V to 3.6V
- 16-Bit I2C Output
- Operating Temperature: -40ºC to 110ºC
- Pressure Range 1.0, 2.0, 5.0 Bar
- Tight accuracy of 0.1% of FSS (BFSL)
- Total Error Band (TEB) less than 0.25% FSR
- Fully Corrected Signal at digital output
- The product also has SPI output variant.

Product Specification		
S.No.	**Parameters**	**Specification**
1	Operating Pressure Range[1]	1.0, 2.0, 5.0 Bar
2	Pressure Reference	Absolute
3	Proof Pressure	> 1.5 Times Operating Pressure
4	Burst Pressure	>3 Times Operating Pressure
5	Operating Supply Voltage V_{DD}	1.8V to 3.6V
6	Supply Current	2 mA
7	Accuracy	0.1% Full Scale Range
8	Total Error Band (TEB)[2]	< 0.25% Full Scale Range
9	Compensated Temperature Range	-40°C to 85°C
10	Operating Temperature Range	-40°C to 110°C
11	Transducer Output[3]	16-Bit I^2C (Compensated)
12	Full Scale Output Range	5% to 95% (90% of 2^{16})
13	Media Compatibility4	Clean, dry gases only

[1] Higher pressure ranges are also available.
[2] Transducers provides corrected digital output, TEB < 0.25% Full Scale.
[3] Transducer can also be factory configured for SPI digital output.
[4] Media isolated (Oil Filled) transducers are also available.