



### SCX01DN



*Actual product appearance may vary.*

**Pressure Sensors: Measurement Type:  
Differential, Gage; 0 psid to 1 psid  
Operating Pressure, Temperature  
Compensated, Straight Port**

#### Features

- Precision Temperature Compensation
- Calibrated Zero & Span
- Small Size
- Low Noise
- Low Cost (SCX\_NC)
- High Accuracy (SCX\_N)
- High Impedance for Low Power Applications

#### Potential Applications

- Medical Equipment
- Barometry
- Computer Peripherals
- Pneumatic Controls
- HVAC

#### Description

The SCX series sensors provide a very cost-effective solution for pressure applications that require operation over wide temperature range. These internally calibrated and temperature compensated sensors were specifically designed to provide an accurate and stable output over a 0 °C to 70 °C [32 °F to 158 °F] temperature range. This series is intended for use with non-corrosive, non-ionic working fluids such as air, dry gases and the Like.

Devices are available to measure absolute, differential and gage pressures from 1 psi (SCX01) up to 150 psi (SCX150). The Absolute (A in model number) devices have an internal vacuum reference and an output voltage proportional to absolute pressure. The Differential (D in model number) devices allow application of pressure to either side of the pressure-sensing diaphragm and can be used for gage or differential measurements.

The SCX series devices feature an integrated circuit (IC) sensor element and laser trimmed thick film ceramic housed in a compact solvent resistant case. This package provides excellent corrosion resistance and provides isolation to external packaging stresses. The package has convenient mounting holes and pressure ports for ease of use with standard plastic tubing for pressure connection.

If the application requires extended temperature range operation, beyond 0 °C to 70 °C [32 °F to 158 °F], two pins which provide an output voltage proportional to temperature are available for use with external circuitry. The 100 μS response time makes this series an excellent choice for computer peripherals and pneumatic control applications. The output of the bridge is ratio metric to the supply voltage. Operation from any dc supply voltage up to 20 Vdc is acceptable.

Product Specifications	
Measurement Type	Differential, Gage
Signal Conditioning	Unamplified
Pressure Range	0 psid to 1 psid
Maximum Overpressure	20 psid
Supply Voltage	20 Vdc max.
Compensated	Yes
Output Calibration	Yes
Response Time	100 •s
Termination	PCB
Port Style	Straight
Package Style	6-pin SIP
Typical Sensitivity	18 mV/psi
Full Scale Span	17.82 mV min, 18.0 mV typ., 18.8 mV max.
Span Shift Over Temperature	± 0.2% span typ., ± 1.0% span max.
Zero Pressure Offset	-300 µV min., 0.0 uV typ., 300 µV max.
Repeatability	± 0.2% span typ., ± 0.5% span max.
Input Resistance	4.0 kOhm typ.
Output Resistance	4.0 kOhm typ.
Operating Temperature Range	-40 °C to 85 °C [-40 °F to 185 °F]
Compensated Temperature Range	0 °C to 70 °C [32 °F to 158 °F]
Storage Temperature Range	-55 °C to 125 °C [-67 °F to 257 °F]
Media Compatibility	Clean, dry gases only.
UNSPSC Code	411121
UNSPSC Commodity	411121 Transducers
Comment	Lead Temperature Soldering 2 s to 4 s at 250 °C [482 °F]
Availability	Global
Series Name	SCX