

**SC-Series sensor**  
**Dual In Line Package**  
**mV Output**  
**Temperature Compensated**  
**Constant Current**

### DESCRIPTION

SC-Series is a temperature compensated, mV output, ceramic mounted pressure sensor packaged in a rugged Dual In Line package. SC-Series uses a silicon MEMS pressure sensor bonded to a ceramic substrate containing thick film resistors that are uniquely laser trimmed for each sensor.

Incorporating a flexible design, the SC-Series is available with no, short or long tubes and can be mounted pin up or pins down to allow OEM to optimize their board design. The SC-Series is powered using constant current or constant voltage and when configured as in the application note, the integrated gain set or current set resistor will ensure sensor field interchangeability.

The SC-Series superior die performance, coupled with rugged ceramic substrate ensures long term stability with superior temperature performance over wide operating range.

### FEATURES

- 0.1% Pressure Non Linearity
- Constant Current
- Dual in-line package
- Wide selection of port
- Absolute, Differential or Gage pressures
- Temperature Compensated

### APPLICATIONS

- Medical equipment/instrumentation
- Air Speed and Altitude measurement
- Environmental controls
- Gas flow measurement
- Duct static pressure
- Process Controls
- Pneumatic controls
- Automotive diagnostics

## PERFORMANCE SPECIFICATIONS

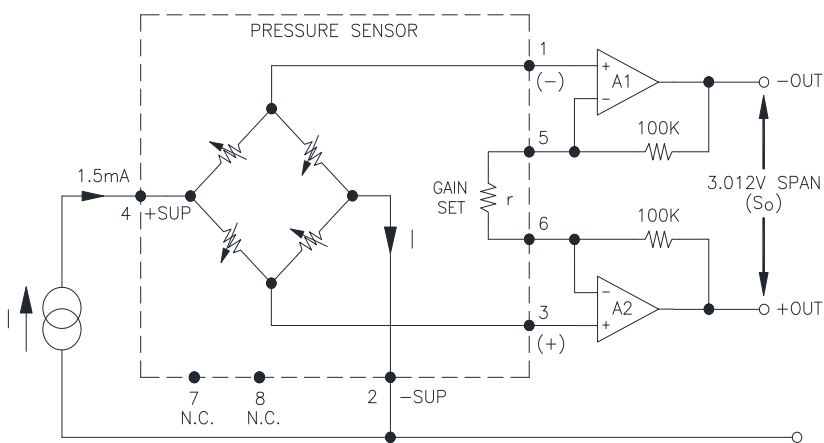
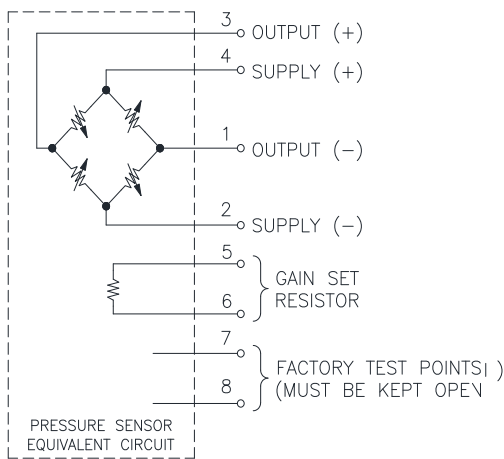
| Specifications                     | Min                    | Typical | Max  | Unit | Note |
|------------------------------------|------------------------|---------|------|------|------|
| Supply Current                     | 1                      | 1.5     | 2    | mA   |      |
| Full-Scale Output                  | 75                     | 100     | 150  | mV   |      |
| Zero Pressure Offset               | -2                     | -       | 2    | mV   |      |
| Non Linearity                      | -0.2                   | 0.1     | 0.2  | %FS  |      |
| Hysteresis & Repeatability         | -0.15                  | 0.1     | 0.15 | %FS  |      |
| Input/Output Resistance            | 2.5                    | 5       | 6.5  | KΩ   |      |
| Temperature Error – Zero           | -0.5                   | 0.2     | 0.5  | %FS  |      |
| Temperature Error – Span           | -0.5                   | 0.3     | 0.5  | %FS  |      |
| Resistance Temperature Coefficient | 0.25                   | 0.3     | 0.35 | %/°C |      |
| Long Term Stability                | -                      | 0.25    | -    | %FS  |      |
| Compensation Temperature           | -20                    |         | 70   | °C   |      |
| Operating Temperature              | -40                    |         | 100  | °C   |      |
| Storage Temperature                | -50                    |         | 125  | °C   |      |
| Overage Pressure                   | 3X                     |         |      |      |      |
| Wetted Materials                   | Dry, non-corrosive gas |         |      |      |      |

\*Maximum temperature error between -20°C and +70°C with respect to 25°C

## EQUIVALENT CIRCUIT

## APPLICATION CIRCUIT

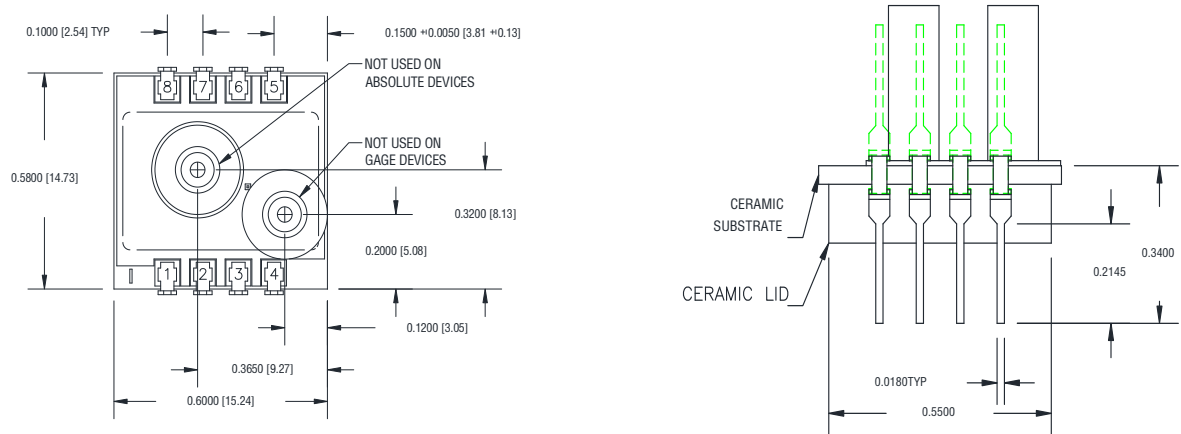
### CONSTANT CURRENT



APPLICATION SCHEMATIC

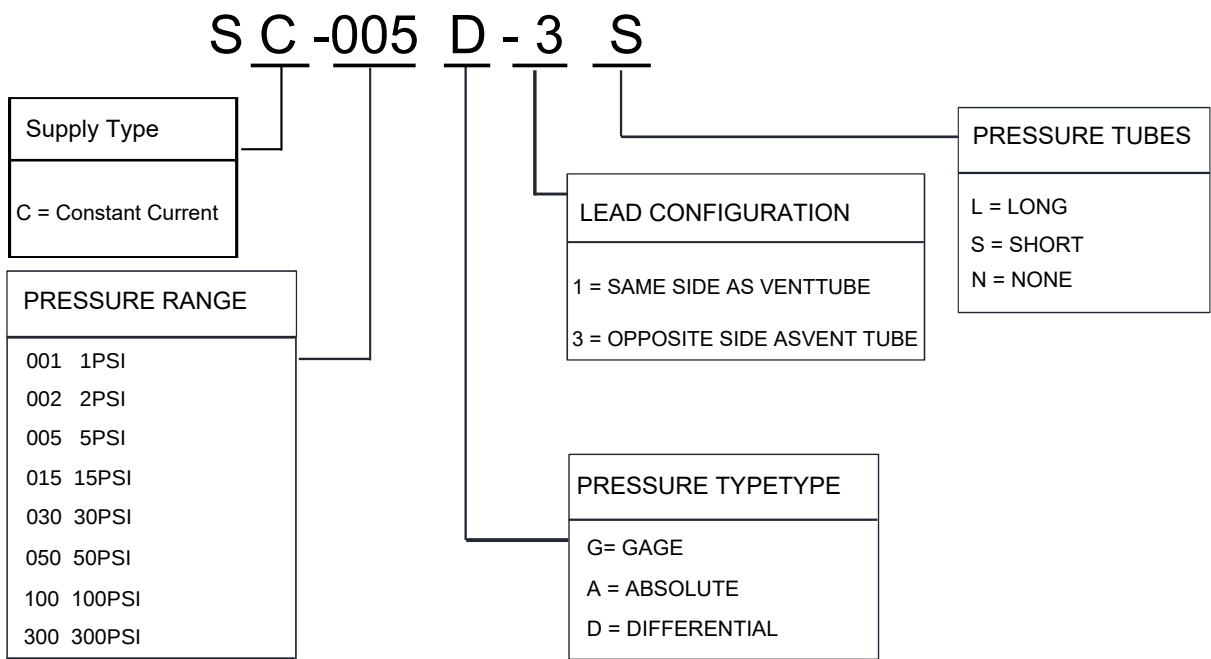
MECHANICAL DIMENSIONS in [mm]

METAL TUBE/CERAMIC SUBSTRATE AND LID



| PAD NO | FUNCTION |
|--------|----------|
| 1      | -OUT     |
| 2      | -EX      |
| 3      | +OUT     |
| 4      | +EX      |
| 5,6    | GAIN     |
| 7,8    | TEST     |

PART NUMBERING FOR ORDERS



Part Number Example: SC-005D-3S