

24PC01SMT



Actual product appearance may vary.

Pressure Sensors: Measurement Type:
Gage, Vacuum Gage, Wet/Wet/Differential;
Unamplified; Noncompensated; Pressure
Range: ± 1.0 psi; Port Style: Straight

Features

- Alignment pins for position accuracy
- Small package size (less than one half the size of the 26PC) and compact surface mount profile
- 3,18 mm [0.125 in] diameter pick-up feature for use in pick and place machines
- Maximum peak reflow temperature of 260 °C [500 °F]
- Gage, vacuum gage, differential gage, wet/wet differential sensing available in one package
- True wet/wet differential sensing
- Proven elastomeric interconnections of the 20PC family
- Temperature compensation
- End point calibration
- Sensor consists of only five components
- Elastomeric construction
- Wide operating temperature range of -40 °C to 85 °C [-40 °F to 185 °F]

Potential Applications

Medical

- CPAP (Continuous Positive Airway Pressure) equipment
- Respirators and ventilators
- Blood glucose monitors
- Oxygen conservers
- Oxygen concentrators
- Nebulizers

Environmental

- Residential fuel cells

Industrial

- Soft drink dispensing

Description

The 24PC SMT (Surface Mount Technology) Series pressure sensors provide a small, low cost, high value, pressure sensing solution for use with printed circuit boards (PCBs). Based on the long established reliability and accuracy of the 26PC pressure sensor, the 26PC SMT offers reduced size with true SMT capability. The smaller size reduces the sensor's footprint on the PCB, thereby reducing the size of the PCB. The 24PC SMT is designed to be used with other SMT components on a PCB, helping to lower installation costs and eliminate secondary operations.

The sensor features Wheatstone bridge construction, silicon piezoresistive technology, and ratiometric output for proven application flexibility, design simplicity and ease of manufacture.

Although designed for the medical industry, the 24PC SMT pressure sensor may be applied in almost any applications that requires a surface mount pressure sensor.

Product Specifications

Measurement Type	Vacuum Gage, Wet/Wet Differential, Gage
Signal Conditioning	Unamplified
Pressure Range	± 1.0 psi
Maximum Overpressure	20 psi
Supply Voltage	10.0 Vdc typ., 12.0 Vdc max.
Compensated	No

Output Calibration	No
Response Time	1 ms max.
Termination	Surface Mount Technology; 2 x 2
Port Style	Straight - 1,88 mm dia [.074 in]
Package Style	Honeywell - 20PC SMT
Linearity	0.15 % span typ., 0.4% span max.
Typical Sensitivity	45 mV typ.
Full Scale Span	25 mV min., 45 mV typ., 65 mV max.
Null Offset	-30 mV min., 0 mV typ., 30 mV max.
Null Shift over Temperature	± 1.0 mV typ.
Span Shift Over Temperature	± 5.0 % span typ.
Repeatability & Hysteresis Error	± 0.15 % span typ.
Input Resistance	4.5 kOhms min., 5.0 kOhms typ., 5.5 kOhms max.
Output Resistance	4.5 kOhms min., 5.0 kOhms typ., 5.5 kOhms max.
Shock	Qualification tested to 150 g
Vibration	MIL-STD-202 Method 213 (150 g half sine 11 ms)
Weight	0.5 g [0.0176 oz]
Operating Temperature Range	-40 °C to 85 °C [-40 °F to 185 °F]
Storage Temperature Range	-55 °C to 100 °C [-67 °F to 212 °F]
Media Compatibility	Limited only to those media which will not attack polyetherimide, silicon, flourosilicone, silicone, EPDM, and neoprene seals.
UNSPSC Code	411121
UNSPSC Commodity	411121 Transducers
Comment	Lead free solder and no clean flux; wet/wet differential
Availability	Global
Series Name	24PC SMT