Pressure Sensor MPS20N0040D-S

Introduction
Pressure range: 0-5.8 psi (40 kPa);

Product Features:
Solid, MEMS technology, high reliability
Low cost
Wide monitoring and control media
The application of a wide temperature range
Easy to use, choose from a variety of range. Easy to use, easy to install in OEM equipment
Application areas:
Automotive: tire pressure, car air pump, MAP sensor, diagnostic equipment, automotive sensors.
Industry: Air brake switch, portable pressure gauge, such as digital pressure gauge, environmental monitoring, consumer and sports
Health care: patient monitoring and diagnostic equipment, such as blood pressure monitors, medical instrumentation and monitoring
Range: 40 kPa (differential pressure)
Output: mV signal
Electricity supply: 5 VDC or constant current 1 mA
Linear accuracy: 0.25% FS

Measure the pressure range of 580 PSIG, 40 KPaG
Max pressure capacity of three times the measuring range
Work power supply 5 VDC,
Input impedance of 4-6 kΩ
The output impedance of 4-6 kΩ
Operating temperature: -40 - 85 °C -40 °F - +185 °F
Storage Temperature: -40 - 125 °C -40 ° to +257 °F
Accessible media, clean, dry, non-corrosive gases
Bias voltage ± 25 mV
Full-scale output voltage 50 - 100 mV
Bridge Resistance to 4 - 6 kΩ
Linearity ± 0.3% F.S.
Hysteresis ± 0.7% F.S.
Bias Temperature coefficient ± 0.08% of F.S. / °C
Temperature coefficient of sensitivity -0.21 % FS/ °C
Difference Amplifier

This amplifier uses both inverting and non-inverting inputs with a gain of one to produce an output equal to the difference between the inputs. It is a special case of the differential amplifier. You can also choose the resistances to amplify the difference.
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If the resistores forming the voltage divider for $V_2$ are each multiplied by the same number, preserving their ratio, the small fraction is unchanged.

Dimensions