

Sensorex®

Single axis silicium accelerometer SX46020



Meggitt (Sensorex) SX46020 accelerometer is based on a silicium capacitive cell to which the two following functions are associated:

- Power supply regulation, thus enabling the sensor to accept a non regulated 9V-to-36V excitation voltage
- Protection against electromagnetic disturbances (CE)

The sensor's high level output signals (0/5V and 4/20mA) are proportional to the acceleration.

Single axis, this sensor can easily be integrated in any mechanical system thanks to its compact and rugged housing.

Characteristics

- Minimal size
- Low power consumption
- Voltage and current outputs
- Excellent stability (2mg typical)
- Rugged for severe environments

Applications

- Structure and building movement monitoring
- Vehicle behavior
- Low frequency vibration measurements

Meggitt Sensing Systems

Our measurement product competencies:
LVDTs | Inertial systems | Inclinometers | Accelerometers | IMU |
MEMS sensors | Servo-inclinometer | Conditioners

MEGGITT
smart engineering for
extreme environments

Sensorex®

Single axis silicium accelerometer

SX46020

Specifications

Range	±2g	±10g
Power supply	9V to 36V	9V to 36V
Consumption (except current output)	3mA typical/4mA max	3mA typical/4mA max
Voltage output sensitivity	835±10mV/g	167±3mV/g
Current output sensitivity	2.8±0.05mA/g	0.56±0.02mA/g
Zero output voltage	2.5V±50mV	2.5V±50mV
Zero output current	12mA±0.2mA	12mA±0.2mA
Bandwidth	800Hz	600Hz
Outputs	0/5V & 4/20mA	0/5V & 4/20mA
Non linearity	< 0.8% of FS	< 0.9% of FS
Repeatability & hysteresis	< 0.01% of FS	< 0.01% of FS
Cross axis sensitivity	< 0.03g/g	< 0.03g/g
Bias stability	< 5mg	< 25mg
Resolution	< 0.1mg	< 0.5mg
Electrical noise	< 3mVrms	< 3mVrms
Bias thermal drift	±0.5mg/°C max	±2.2mg/°C max
Sensitivity thermal drift	100ppm/°C typ -50/250ppm/°C (mini/max)	100ppm/°C typ -50/250ppm/°C (mini/max)
Voltage output impedance	< 400Ω	< 400Ω
Operating temperature	-40°C/+125°C	-40°C/+125°C
Vibrations	20g / 20Hz to 2000Hz	20g / 20Hz to 2000Hz
Shocks	200g / 11ms	200g / 11ms
Protection	IP 65	IP 65

Selection guide

Range	Product code
±2g	690046025
±10g	690046026

Options

Dual or tri-axis mounting block	690046030
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Contact

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