

SILICIUM ACCELEROMETER : SX 46020 SERIES



SPECIFICATIONS

- Very small size.
- Very small power consumption.
- Tension and current output.
- Excellent stability along the product lifetime (2 mg drift typical).
- Very good resistance to its environment.

GENERAL DESCRIPTION

The SX46020 accelerometer is based on a silicon capacitive cell, to which the 2 following functions are associated :

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

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

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

APPLICATIONS

- Structure monitoring
- Vehicle behavior
- Low frequency vibrations measurement

ACCESSORIES

- 3 axis mounting block : ref. 46030
- To be ordered separately

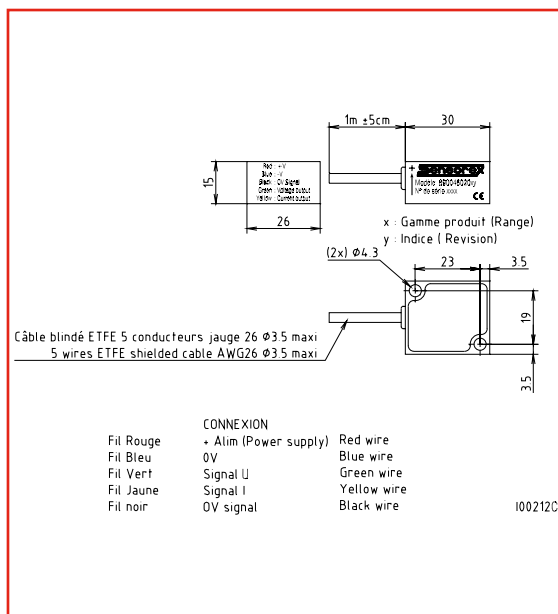
GENERAL SPECIFICATIONS (AT 25°C)

Models	46025	46026
Range (g)	± 2	± 10
Excitation voltage (V)	9 to 36 V (non regulated) <i>(note 1)</i>	
Consumption (mA)	4 max excluding 4-20 mA output	
Bias (mg)	< 35 voltage output < 50 current output	< 180 voltage output < 265 current output
Bias stability (mg)	< 5	< 25
Bias thermal drift (mg/°C)	± 0,5 max <i>(note 2)</i>	± 2,2 max
Sensitivity (mV/g)	835 ± 7	167 ± 2
(mA/g)	2,8 ± 0,05	0,54 ± 0,01
Non linearity (% PE)	< 0,6	< 0,96
Thermal sensitivity drift (ppm/°C)	100 (typ) - 50 / + 250 (min/max) <i>(note 2)</i>	
Resolution (mg)	< 0,1	< 0,5
Noise (µV/√Hz)	< 18	
Axis error (Kp, Ko) (mrad)	< 15	
Bandwidth at - 3 dB (Hz)	0 - 800	0 - 600
Natural frequency (KHz)	1,3	2,7
Output Impedance (Ohms)	400	
Weight (g)	25	

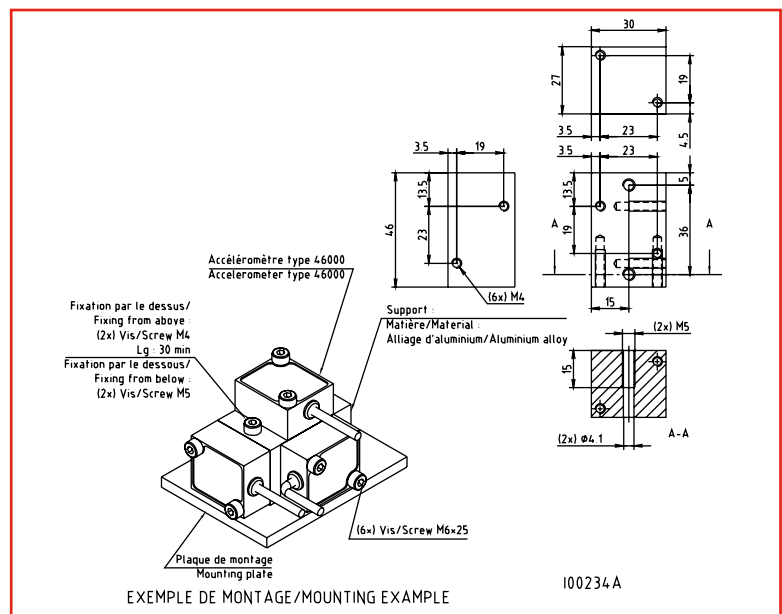
Note 1 : Load resistance (current output) 300 Ohms max. for 9 V power supply.

Note 2 : The temperature coefficient is defined for the temperature range -40 to +50°C. Within this range, the drift is linear.

INTERFACE DRAWING



DUAL OR TRI-AXIS MOUNTING BLOCK OPTION



SELECTION GUIDE

Range	± 2g	± 10g	2 or 3 axis mounting bloc
Reference	46025 Sxi	46026 Sxi	46030 Sxi