0ACS100A.90-1

1 Order data

Model number	Short description	Figure
	Sensors	
0ACS100A.90-1	Accelerometer, nominal sensitivity 100 mV/g, side exit	
	Required accessories	
	Cables	
0ACC0020.01-1	Cable for acceleration sensor, length 2 m, 2x 0.34 mm², M12 socket on sensor side, can be used in cable drag chains, UL listed	
0ACC0050.01-1	Cable for acceleration sensor, length 5 m, 2x 0.34 mm², M12 socket on sensor side, can be used in cable drag chains, UL listed	
0ACC0100.01-1	Cable for acceleration sensor, length 10 m, 2x 0.34 mm², M12 socket on sensor side, can be used in cable drag chains, UL listed	
0ACC0150.01-1	Cable for accelerometer, length 15 m 2x 0.34 mm², female M12 connector on the sensor side, can be used in cable drag chains, UL listed	
0ACC0200.01-1	Cable for acceleration sensor, length 20 m, 2x 0.34 mm², M12 socket on sensor side, can be used in cable drag chains, UL listed	
0ACC0500.01-1	Cable for accelerometer, length 50 m 2x 0.34 mm², female M12 connector on the sensor side, can be used in cable drag chains, UL listed	
0ACC1000.01-1	Cable for accelerometer, length 100 m 2x 0.34 mm², female M12 connector on the sensor side, can be used in cable drag chains, UL listed	

Table 1: 0ACS100A.90-1 - Order data

2 Technical data

Model number	0ACS100A.90-1
Sensor properties	
Natural resonance (mounted)	22 kHz (rated)
Sensitivity	100 mV/g ±10% nominal 80 Hz at 22°C
Frequency response	2 Hz to 10 kHz ±5% 0.8 Hz to 15 kHz ±3 dB
Isolation	Isolated base
Measurement range	±50 g
Cross-sensitivity	<5%
Electrical characteristics	
Electrical disturbances	Max. 0.1 mg
Broadband resolution	0.2 mg (200 µg) over 1 Hz to 15 kHz
Spectral noise	10 Hz to 10 µg/Hz 100 Hz to 4 µg/Hz 1 kHz to 3 µg/Hz
Current range	0.5 to 8 mA
Bias voltage	10 to 12 VDC
Settling time	2 s
Output impedance	Max. 200 Ω
Housing isolation	$>10^8$ Ω at 500 V
Operating conditions	
Degree of protection per EN 60529	IP67
Environmental conditions	
Temperature	
Operation	-55 to 140°C
Max. shock resistance	5000 g
Emitted interferences	EN 61000-6-4:2001
Immunity to interference	EN 61000-6-2:1999
Mechanical properties	
Housing	
Material	Stainless steel
Installation	M8 x 1.25 x 33 mm screw, included in delivery
Weight	170 g

Table 2: 0ACS100A.90-1 - Technical data

Model number	0ACS100A.90-1
Measurement element	PZT piezoelectric crystal (lead zirconate titanate)
Measurement execution	Compressed
Tightening torque	8 Nm
Connectors	M12

Table 2: 0ACS100A.90-1 - Technical data

For applicable certifications for the sensor, see the manufacturer's website.

Certificates

http://www.hansfordsensors.com/resources/certificates/

3 Pin assignments of the 0ACS100A.x0-1

X20CM4810

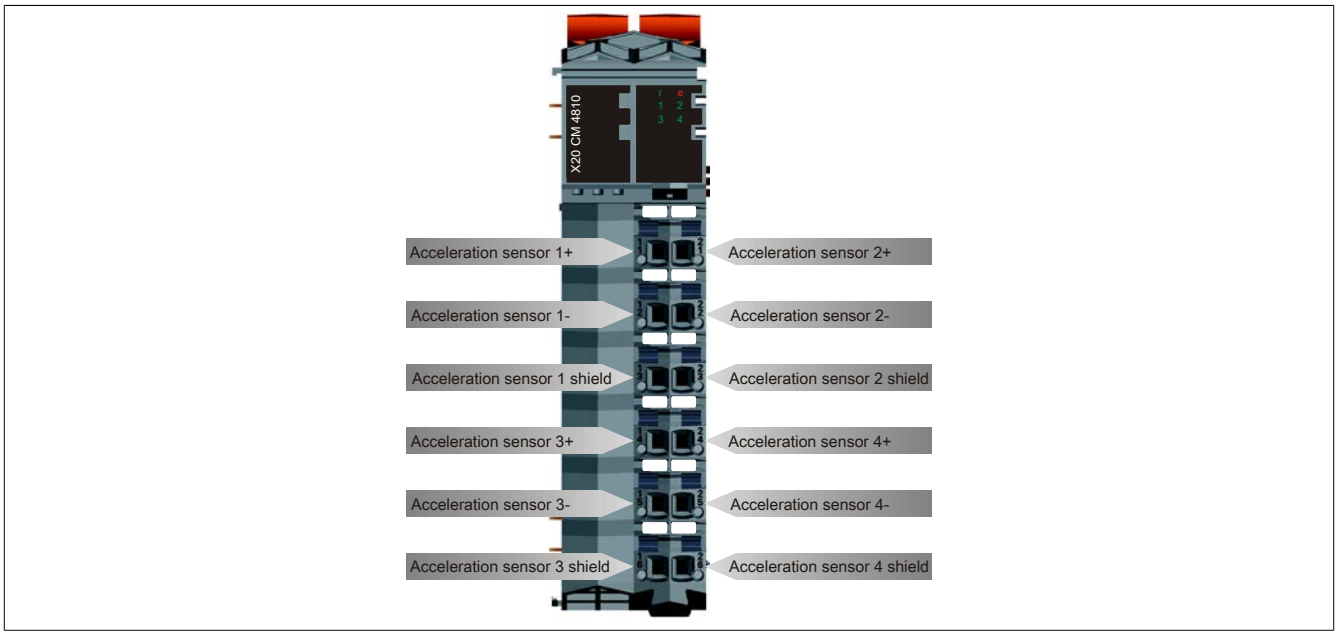
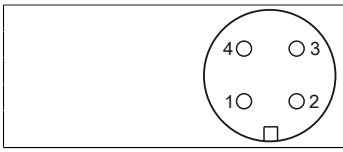


Figure 1: 0ACS100A.x0-1 - Pin assignments example X20CM4810

4 Pinout



Pin	Description
1	Not assigned
2	18 to 30 V (brown)
3	Not assigned
4	0 V (blue)

Table 3: 0ACS100A.x0-1 - Pinout

5 Frequency response

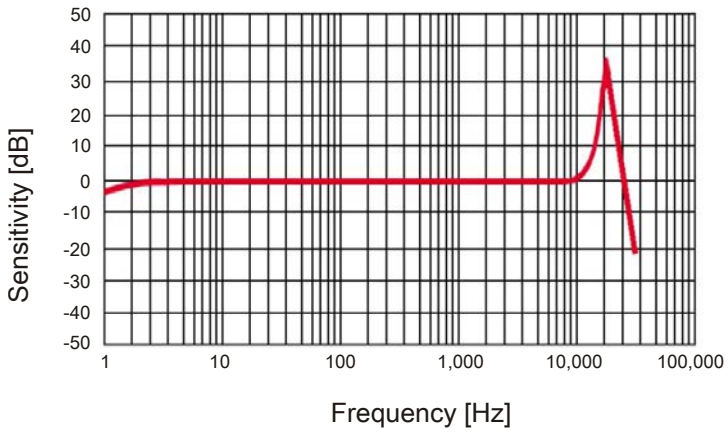


Figure 2: 0ACS100A.x0-1 - Frequency response

6 Dimensions

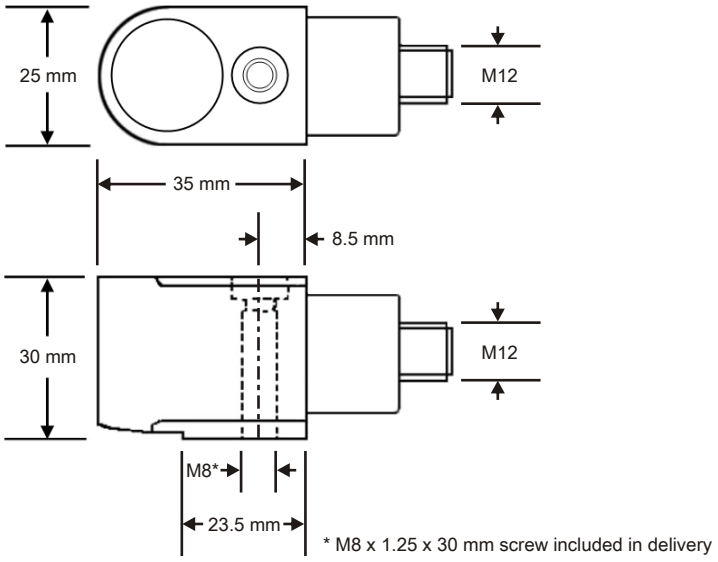


Figure 3: 0ACS100A.90-1 - Dimensions