AC-CAP-PRO-LR

Capacitive accelerometer Low Range

SN: A########

Texense sensors are designed for data logging. Should the users want to include this sensor in a closed loop system, they must undertake total responsibility from doing so.

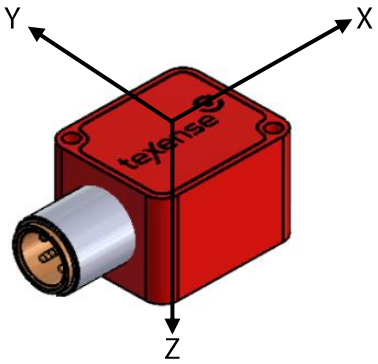
Measurement features			
Range		±2 or ±5	G
Sensitivity	Range ±2G	1000 ± 2%	mV/G
	Range ±5G	400 ± 2%	
Sensitivity Drift (20 to 80°C)		±2.5	%
Signal at 0G		2.500 ± 0.050	V
Offset Drift (20 to 80°C)	Range ±2G	±60	mV
	Range ±5G	±30	
Cut-off frequency -3dB (±10%)	Min	10	Hz
	Default	65	
	Max	500	
Calibrator		LDS V406	
Resonance		5000	Hz
Max Cross axis sensitivity		3	%
Electrical features			
Supply Voltage(1)		5 to 16	V
Supply Current		< 3	mA
Output Voltage(1)		0 – 5	V
Output Impedance		< 10	Ω
Max output load		5000	Ω
Mechanical features			
Dim		38x22x18	mm
Material		Aluminium	
Weight		19	g
Protection		IP66	
Environment			
Shock		1000	G
Insulation under 50V_{DC}		>100	MΩ
Operating Temp		-20 to +100	°C
Storage Temp		-40 to +125	°C

(1) Output signal is saturated to supply voltage – 0.350V. Thus, at 5V supply voltage, the outputs are limited to 4.650V. Offset and sensitivity are not changed as they are regulated.

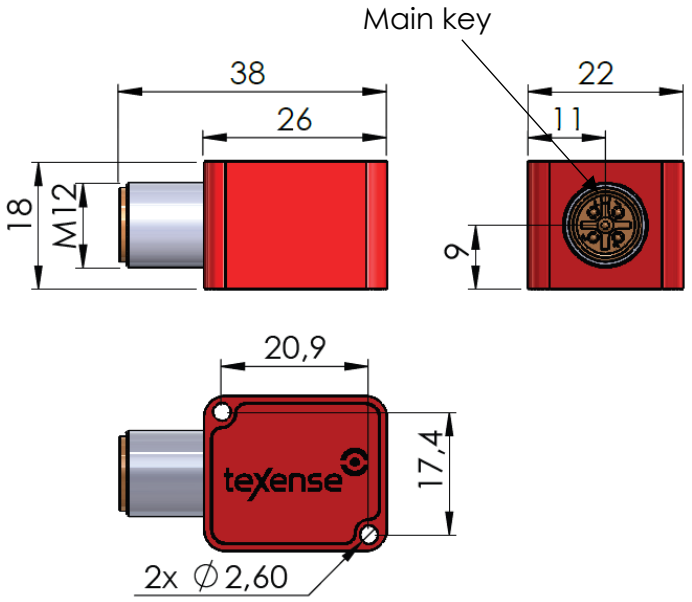
Date		Operator	
Customer			
Order			
Product Ref	AC-CAP-PRO-LR-#-X#-Y#-Z#-##		

Sensor readings			
	X	Y	Z
Signal (V) @ -1G	…V	…V	…V
Signal (V) @ 0G	…V	…V	…V
Signal (V) @ +1G	…V	…V	…V
Sensitivity (mV/G)	…mV/G	…mV/G	…mV/G
Cut off frequency (Hz) at -3 dB	…Hz	…Hz	…Hz
Cross Axis (%)	…%	…%	…%

Calibration table		
Acceleration	Range 2G	Range 5G
	1000mV/G	400 mV/G
G	V	V
-5		0.500
-2.5		1.500
-2	0.500	1.700
-1	1.500	2.100
0	2.500	2.500
1	3.500	2.900
2	4.500	3.300
2.5		3.500
5		4.500



Mechanical drawing



Pinout

Connector		
M12-A 5 pins connector		
Pin	**Function**	**Comment**
1	Supply	
2	0V	
3	Signal X	Not wired if XN code
4	Signal Y	Not wired if YN code
5	Signal Z	Not wired if ZN code

Ordering information

Ordering ref:

AC-CAP-PRO- *LR* – *Nb Axis* – X*Range* – Y*Range* – Z*Range* – *Cut off frequency*

LR: Low range

1: 1 axis
2: 2 axis
3: 3 axis

N: Not wired
2: Range ±2G
5: Range ±5G

Cut off frequency -3dB in Hz
10: 10Hz (min)
…
65: 65Hz (default)
…
500: 500Hz (max)

ex: AC-CAP-PRO-LR-2-X2-YN-Z5-65:

- 2 axis:
  - X axis range ±2G
  - Z axis range ±5G
- 65Hz cut-off frequency at -3dB