AC-CAP3

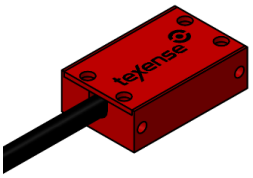
3 axis capacitive accelerometer 5 to 20G range

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			
Available ranges		±5, ±10, ±15, ±20	G
Sensitivity		400 to 100 ±2%	mV/G
Sensitivity Drift (20 to 80°C)		±2.5	%
Signal at 0G		2.500 ± 0.050	V
Offset Drift (20 to 80°C)		±30	mV
Cut-off frequency -3dB (±10%)	Min	10	Hz
	Default	65	
	Max	500	
Calibrator		LDS V406	
Resonance		5000	Hz
Typical Cross axis sensitivity		3	%
Electrical features			
Supply Voltage(1)		5 to 16	V
Supply Current		< 3	mA
Output Voltage		0 – 5	V
Output Impedance		< 10	Ω
Max output Load		5000	Ω
Mechanical features			
Dimensions		25x16x8	mm
Material		Aluminium	
Weight (without cable)		7	g
Protection		IP66	
Environment			
Shock		1000	G
Insulation under 50V_{DC}		>55	MΩ
Operating Temp		-20 to +100	°C
Storage Temp		-40 to +125	°C

(1) At 5V supply voltage, the outputs are saturated to 4.650V. Accuracy features are not impacted in the operating range.



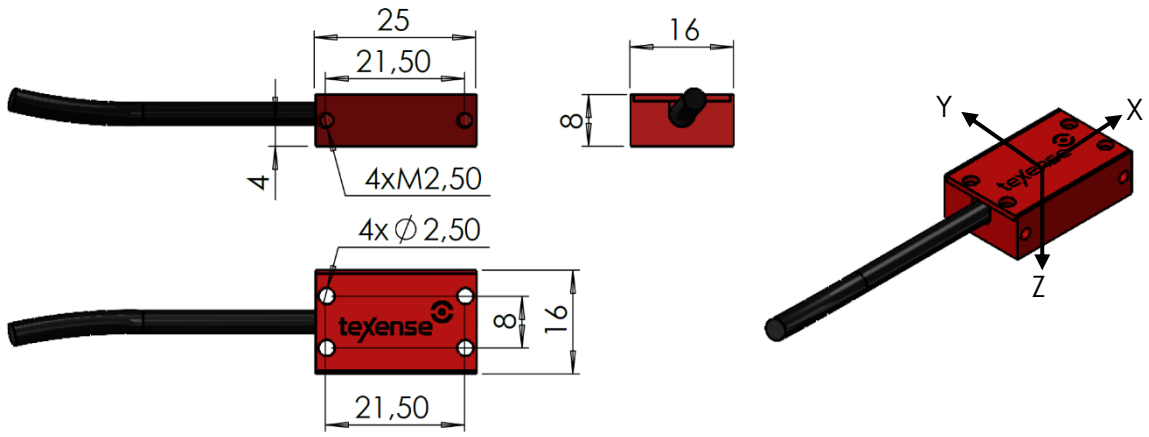
Date		Operator	
Order			
Customer			
Product Ref	AC-CAP3-##-###		

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 (%)	…%	…%	…%

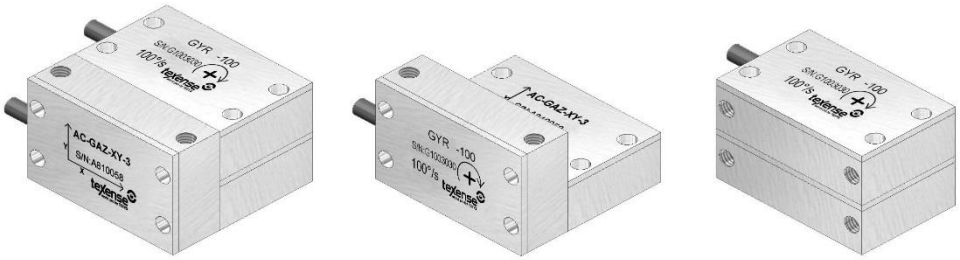
Cable		
5x26 AWG FEP tinned copper braided cable 250V 200°C Length: 1000mm Tubing: Connector: on request		
Color	**Function**	**Pin**
Red	Supply	-
Black	0V	-
White	Signal X	-
Green	Signal Y	-
Yellow	Signal Z	-
Braid	Connected to case	

Calibration table				
	5G 400 mV/G	10G 200 mV/G	15G 133mV/G	20G 100mV/G
-20				0.500
-15			0.500	1.000
-10		0.500	1.167	1.500
-5	0.500	1.500	1.833	2.000
0	2.500	2.500	2.500	2.500
+5	4.500	3.500	3.167	3.000
+10		4.500	3.833	3.500
+15			4.500	4.000
+20				4.500

Mechanical drawing



Example of Texense inertial units installation



The mounting holes enable to build a compact custom inertial system, mixing accelerometers and gyroscopes.

Ordering information

Ordering ref:

AC-CAP3 – *Range* – *Cut off frequency*

5: Range ±5G
10: Range ±10G
15: Range ±15G
20: Range ±20G

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

ex: AC-CAP3-5-65