

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
	Default	65
	Max ⁽¹⁾	500
Calibrator	LDS V406	
Resonance	5000	Hz
Typical Cross axis sensitivity	3	%
Electrical features		
Supply Voltage ⁽²⁾	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

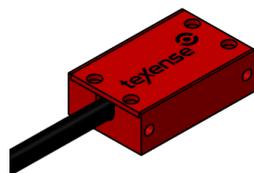
Date		Operator	
Order			
Customer			
Product Ref	AC-CAP3-##-###		

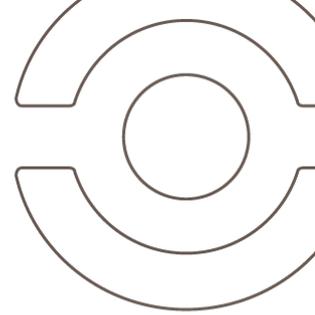
Sensor readings			
	X	Y	Z
Signal (V) @ -1G	...V	...V	...V
Signal (V) @ 0G	...V	...V	...V
Signal (V) @ +1G	...V	...V	...V
Sensitivity (mV/G)	...mV/G	...mV/G	...mV/G
Cut off frequency (Hz) at -3 dB	...Hz	...Hz	...Hz
Cross Axis (%)	...%	...%	...%

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	Not connected	

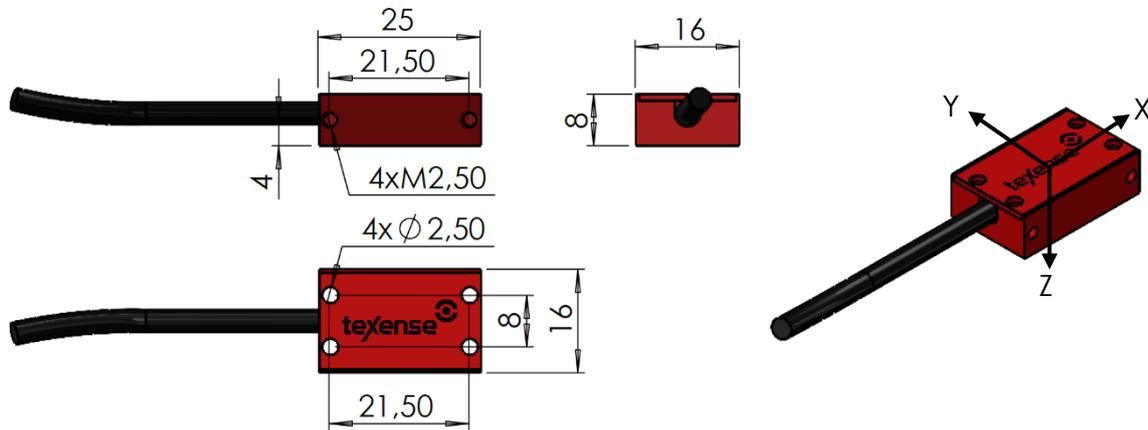
Calibration table				
	5G 400 mV/G	10G 200 mV/G	15G 133mV/G	20G 100mV/G
-20				0.500
-15			0.500	1.000
-10		0.500	1.167	1.500
-5	0.500	1.500	1.833	2.000
0	2.500	2.500	2.500	2.500
+5	4.500	3.500	3.167	3.000
+10		4.500	3.833	3.500
+15			4.500	4.000
+20				4.500

- (1) On X and Y axis only, it is possible to go up to 700Hz on request.
 (2) At 5V supply voltage, the outputs are saturated to 4.650V.
 Accuracy features are not impacted in the operating range.





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:	
<i>AC-CAP3 – Range – Cut off frequency</i>	
5: Range $\pm 5G$	Cut off frequency -3dB in Hz
10: Range $\pm 10G$	10: 10Hz (min)
15: Range $\pm 15G$...
20: Range $\pm 20G$	65: 65Hz (default)
	...
	500: 500Hz (max)
ex: AC-CAP3-5-65	