

ACK-MR

Capacitive accelerometer Medium 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.

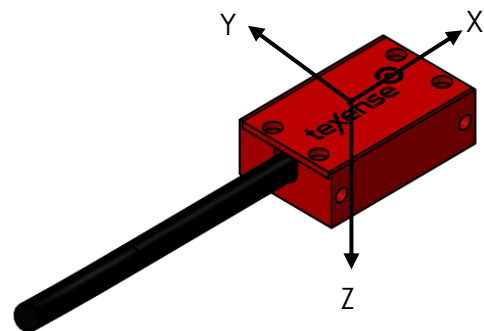
Measurement features		
Range	$\pm 10, \pm 15$ or ± 20	G
Sensitivity	Range $\pm 10G$	$200 \pm 2\%$
	Range $\pm 15G$	$133 \pm 2\%$
	Range $\pm 20G$	$100 \pm 2\%$
Sensitivity Drift (20 to 80°C)		± 2.5 %
Signal at 0G		2.500 ± 0.050 V
Offset Drift (20 to 80°C)	Range $\pm 10G$	± 40
	Range $\pm 15G$	± 30
	Range $\pm 20G$	± 20
Cut-off frequency -3dB ($\pm 10\%$)	Min	10
	Default	65
	Max	500
Calibrator		LDS V406
Resonance	5500	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	25x16x8	mm
Material	Aluminium	
Weight	15	g
Protection	IP66	
Environment		
Shock	1000	G
Insulation under 50V _{DC}	>100	M Ω
Operating Temp	-20 to +100	°C
Storage Temp	-40 to +125	°C

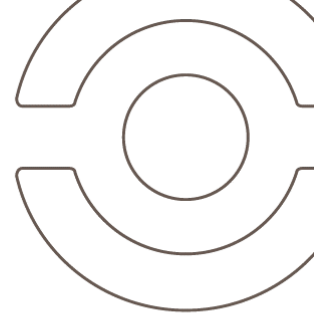
(1) Output signal is saturated to supply voltage – 0.350V. Thus, at 5V supply voltage, the outputs are limited to 4.650V. Offset and sensitivity are not changed as they are regulated.

Date	Operator
Customer	
Order	
Product Ref	ACK-MR-#-X#-Y#-Z#-##

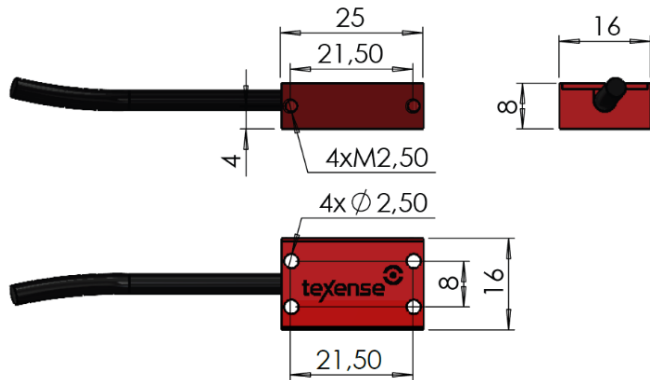
Sensor readings			
	X	Y	Z
Signal (V) @ -1G	...V	...V	...V
Signal (V) @ 0G	...V	...V	...V
Signal (V) @ +1G	...V	...V	...V
Sensitivity (mV/G)	...mV/G	...mV/G	...mV/G
Cut off frequency (Hz) at -3 dB	...Hz	...Hz	...Hz
Cross Axis (%)	...%	...%	...%

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





Mechanical drawing



Wiring

Cable				
26 AWG FEP tinned copper braided cable 250V 200°C				
Length: 1000mm Tubing: 50mm				
Connector: on request				
Axis configuration			Wire color	Function
Number of axis	Total number of wires	Axis		
			Red	Supply
			Black	0V
1	3	X	White	X output
		Y	White	Y output
		Z	White	Z output
2	4	XY	White	X output
			Green	Y output
		YZ	White	Y output
			Green	Z output
		XZ	White	X output
			Green	Z output
3	5	XYZ	White	X output
			Green	Y output
			Yellow	Z output
-		-	Braid	-

Ordering information

Ordering ref:		
ACK - MR - Nb Axis - XRange - YRange - ZRange - Cut off frequency		
<p><u>MR</u>: Medium range</p>	<p><u>N</u>: Not wired</p> <p>1: 1 axis</p> <p>2: 2 axis</p> <p>3: 3 axis</p>	<p>Cut off frequency -3dB in Hz</p> <p>10: 10Hz (min)</p> <p>...</p> <p>65: 65Hz (default)</p> <p>...</p> <p>500: 500Hz (max)</p>
<p>ex: ACK-MR-2-X10-YN-Z20-65:</p> <ul style="list-style-type: none"> • 2 axis: <ul style="list-style-type: none"> ○ X axis range ±10G ○ Z axis range ±20G • 65Hz cut-off frequency at -3dB 		