

ACM-100: MEMS DIGITAL OUTPUT TRI-AXIS ACCELEROMETER

■ PRODUCT DESCRIPTION

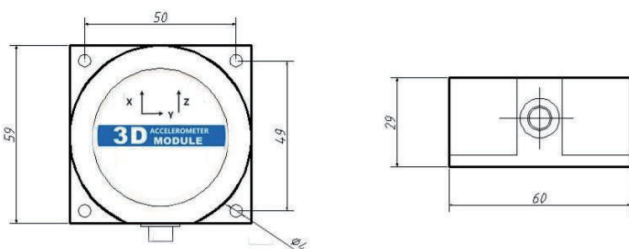


The ACM-100 tri-axis accelerometer is a widely used acceleration sensor series product produced by MXMW Hi-Tech Company with Swiss patented technology, which can be used in various fields such as vibration testing and impact testing. The product adopts digital interface output, with RS232, RS485, TTL, Modbus protocol, and RS422 optional. Different address codes can be set, and multiple sensors can be connected in series for long-distance measurement and data analysis at multiple points. ACM-100 is a single crystal silicon capacitive sensor, consisting of a silicon chip that has undergone micro mechanical processing, a low-power ASIC for signal adjustment, a microprocessor for storing compensation values, and a temperature sensor.

■ PRODUCT MAIN SPECIFICATION

Parameter	Conditions	ACM-I00-2	ACM-I00-8	ACM-I00-40	Unit
Measuring range		±2	±8	±40	g
Bias calibration		<2	<5	<10	mg
Measuring axis	axis	X, Y, Z	X, Y, Z	X, Y, Z	
Zero bias stability (yearly)		1.5(<5)	7.5(<25)	22(<75)	mg
Resolution threshold	@Hz	<1	<5	<15	mg
Bias temperature coefficient	-55 ~ 100°	0.1	0.5	1.5	mg/°C
Bandwidth		0~≥400	0~≥400	0~≥400	Hz
Resonance frequency		1.6	6.7	6.7	KHz
Output rate	5Hz, 15Hz, 35Hz, 50Hz can be set (RS485 does not have this function)				
Output signal	RS232/RS485/RS422/TTL optional				
Reliability	MIL-HDBK-217, Level 2				
Impact resistance	20000g, 2ms, 1/2sine				
Anti-vibration	10grms、10 ~ 1000Hz				
Waterproof level	IP67				
Cable	Standard 1.5m length, wear-resistant, oil-proof, wide temperature, shielded cable 5*0.2mm2				
Weight	180g (excluding packaging box)				
Connector	6-pin aviation plug				
Capacitive loading	1000				

■ PRODUCT DIMENSION



SIZE: L60*W59*H29MM

■ PRODUCT APPLICATION

- Unmanned aerial vehicles
- Ship navigation attitude measurement
- Crash records, fatigue monitoring and prediction
- Satellite solar antenna positioning
- Transportation system monitoring
- Roadbed analysis and high-speed railway fault detection