

## M75AT Miniature tri-axial IEPE accelerometer





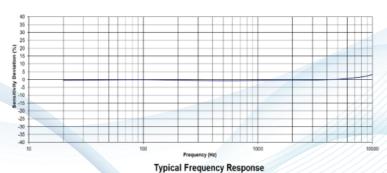
M75AT is an IEPE triaxial accelerometer designed for under-water applications. The accelerometer uses shear piezo electronical element which provides a wide operating frequency range. The IEPE sensor combines outstanding crystals and low noise integral microelectronics to achieve very low sensitivity variation over the operating temperature range, compared to other sensing element designs. The shear element technology also ensures high immunity to base strain errors. The accelerometer uses a welded titanium construction for low mass and integral cable assembly for under water operation. Excellent frequency response, both amplitude and phase, provide the user with a triaxial accelerometer ideally suited for structural and component testing, drop tests and hydraulic dynamic laboratory work. The miniature cube size of this accelerometer enables the test engineer or technician to measure the accelerations of three orthogonal axes of vibration simultaneously on lightweight structures. All variations provide reliable measurements and long-term stability.

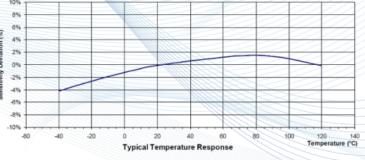
### Features:

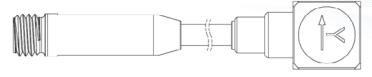
- Waterproof design
- Tri-axial measurement
- Miniature cube
- Adhesive or stud mounting
- Hermetic seal
- Annularshear mode
- Shock duration

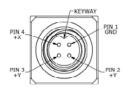
# Application :

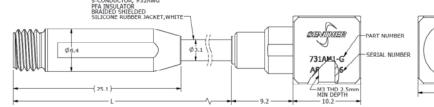
- Hydraulic dynamic
- Shock testing
- Satellite testing
- Modal analysis
- Aircraft testing













## Specification:

Dynamic	Unit							
performance								
Measurement Range	g	50	100	200	500	1000	2000	
Sensitivity ±15%	mV/g	100	50	25	-	-	-	
Sensitivity ±10%	mV/g	-	-	-	10	5	2.5	
Frequency Range ±5%	Hz	1 ~ 10000	0.5 ~ 10000	2~10000	1~10000	1 ~ 10000	1 ~ 10000	
Frequency Range ±3dB	Hz	0.5 ~ 15000	0.3 ~ 15000	1~15000	0.5~15000	0.5~15000	0.5~15000	
Resonant Frequency	kHz				42			
Transverse Sensitivity	%	<5						
Non-Linearity	% FSO	±1						
Shock Limit	g	5000						
Environmental par	ameters							
Temperature response -55 ~ +125°C				%/°C	±10			
Operating and Storage Temperature				°C	-55~125			
Bias Voltage (Room Temp.)				Vdc	8~12			
Bias Voltage (-50~125) °C				Vdc		6~13		
Electrical characte	ristics							
Output Impedance				Ω	< 100			
Full Scale Output Voltage				V	±5			
Insulation Resistance				ΜΩ	> 100			
Supply Voltage				Vdc	18 ~ 30			
Supply Current				mA		2~10		
Physical properties								
Weight (Excluding Cable)	Grams				4.3			
Mounting torque	lb-in (N- m)				16 (1.8)			
Sensing Element		Piezo ceramic						
Housing Material	Titanium alloy							
Humidity	Hermetically sealed							
Output Methods	nods IEPE output							

Accessories		Availability
HS013	M3X8.0 cup point set screw	Included
AM003	3 channels IEPE signal conditioner	Optional
AM004	Portable vibration analyzer	Optional
AM005	8 channels data acquisition system	Optional
IS003	Paste mounting base	Optional
IS004	Installation of magnetic base (grounded)	Optional
IS005	Installation of magnetic base (floating ground)	Optional

Optional Cable					
	13 cable	Triaxial acceleration sensor cable with 4-pin connector 3*BNC connector	Optional		

TEL: 400-780-9688

Web: www.senstechxyz.com



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### Ordering information:

M75AS GGGG ZZZ

Range 0050=50g 0100=100g 0200=200g 0500=500g 1000=1000g 2000=2000q

A=IEPE output M1=High temperature/high pressure waterproof design

E.G:

M75AS-50

Model M75AS, 0050, Connector, No Options

M75AS-50A

Model M75AS, 0050, Connector, IEPE

The data contained in this document is intended for the use of technical trainers only.

The customer's technical department is responsible for assessing the suitability of the product for the intended

application and the completeness of the product information given in this document in relation to such application. For further information on products, technology, terms and conditions of delivery and prices, please contact our nearest office (www.senstechxyz.com).

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