

# AC117 Series

## Multi-Purpose Accelerometer, Top Exit Connector/Cable, 50 mV/g

SECTION I - VIBRATION SENSORS  
Accelerometers



Actual Product Size Shown



### Product Features

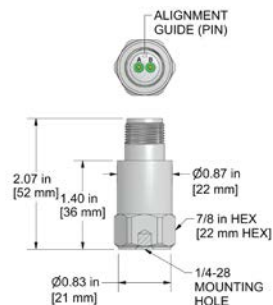
**50 mV/g General Purpose Sensor**  
Excellent for Higher g Applications

- $\pm 100$  g, Peak Dynamic Range
- 50 mV/g,  $\pm 10\%$  Sensitivity
- 1,0-12500 Hz (60-750,000 CPM)

#### AC117-1A

2 Pin Connector

Connector Pin	Polarity
A	(+) Signal/Power
B	(-) Common



#### AC117-2C

Integral Cable

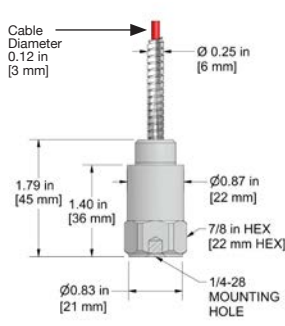
Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
Shield	Cable Drain Wire



#### AC117-3C

Armored Integral Cable

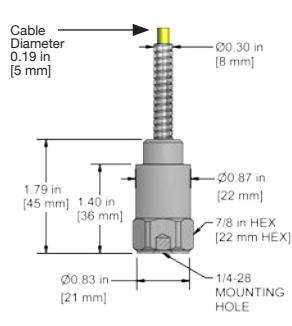
Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
Shield	Cable Drain Wire



#### AC117-6C

Heavy Duty Armored Integral Cable

Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
Shield	Cable Drain Wire



Specifications	Standard	Metric
Part Number	AC117	M/AC117
Sensitivity ( $\pm 10\%$ )	50 mV/g	
Frequency Response ( $\pm 3$ dB)	60-750,000 CPM	1,0-12500 Hz
Frequency Response ( $\pm 10\%$ )	240-540,000 CPM	4,0-9000 Hz
Dynamic Range	$\pm 100$ g, peak	
<b>Electrical</b>		
Settling Time	<2 Seconds	
Voltage Source	18-30 VDC	
Constant Current Excitation	2-10 mA	
Spectral Noise @ 10 Hz	8 $\mu$ g/√Hz	
Spectral Noise @ 100 Hz	2.5 $\mu$ g/√Hz	
Spectral Noise @ 1000 Hz	1.7 $\mu$ g/√Hz	
Output Impedance	<100 ohm	
Bias Output Voltage	10-14 VDC	
Case Isolation	>10 <sup>9</sup> ohm	

Specifications	Standard	Metric
<b>Environmental</b>		
Temperature Range	-58 to 250° F	-50 to 121°C
Maximum Shock Protection	5,000 g, peak	
Electromagnetic Sensitivity	CE	
Sealing	Welded, Hermetic	
Submersible Depth (AC117-2C/3C)	200 ft.	60 m
<b>Physical</b>		
Sensing Element	PZT Ceramic	
Sensing Structure	Shear Mode	
Weight	3.2 oz	90 grams
Case Material	316L Stainless Steel	
Mounting	1/4-28	
Connector (non-integral)	2 Pin MIL-C-5015	
Resonant Frequency	1,380,000 CPM	23000 Hz
Mounting Torque	2 to 5 ft. lbs.	2,7 to 6,8 Nm
Mounting Hardware	1/4-28 Stud	M6x1 Adapter Stud
Calibration Certificate	CA10	

### Ordering Information

Standard	AC117-1A	AC117-2C - /	AC117-3C - /	AC117-6C - /
	(1/4-28 Stud)	(1/4-28 Stud)	(1/4-28 Stud)	(1/4-28 Stud)
		(length in feet)	(maximum armor length 100 ft.)	(maximum armor length 20 ft.)
		(termination)	(cable length in feet)	(cable length in feet)
			(termination)	(termination)
Metric	M/AC117-1A	M/AC117-2C - /	M/AC117-3C - /	M/AC117-6C - /
	(M6x1 Adapter Stud)	(M6x1 Adapter Stud)	(M6x1 Adapter Stud)	(M6x1 Adapter Stud)
		(length in feet)	(maximum armor length 30 m)	(maximum armor length 6 m)
		(length in meters)	(cable length in meters)	(cable length in meters)
		(termination)	(termination)	(termination)

Cable Termination Options: E



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VIBRATION ANALYSIS HARDWARE