

# AC901 Series

## Intrinsically Safe Accelerometer, Top Exit Connector/Cable, 10 mV/g

SECTION I - VIBRATION SENSORS  
Intrinsically Safe Accelerometers



Actual Product Size Shown



Requires **Intrinsically Safe Barrier**

### Product Features

**CSA/ATEX Approved**

**Helps to Detect Bearing Defects and Other High Frequency Faults**

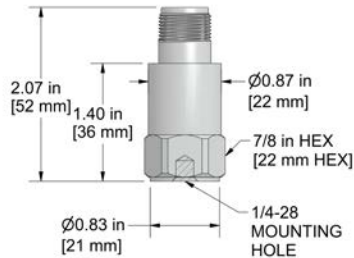
- $\pm 500$  g, Peak Dynamic Range
- 1,2 - 15000 Hz (72 - 900,000 CPM) Frequency Response
- Requires Intrinsic Safety Barrier (see page 278)

### AC901-1A

2 Pin Connector

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

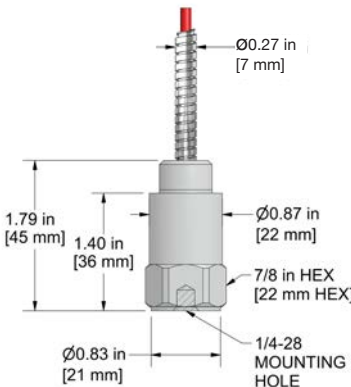
ALIGNMENT GUIDE (PIN)



### AC901-3C

Armored Integral Cable

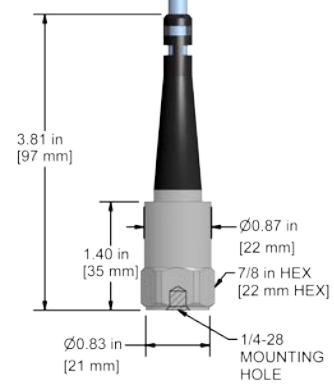
Conductor	Polarity
Red	(+) Signal / Power
Black	(-) Common
Shield	Cable Drain Wire



### AC901-9C

Integral Cable

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



Specifications	Standard	Metric
Part Number	AC901	M/AC901
Sensitivity ( $\pm 10\%$ )	10 mV/g	
Frequency Response ( $\pm 3$ dB)	72-900,000 CPM	1,2-15000 Hz
Frequency Response ( $\pm 10\%$ )	150-360,000 CPM	2,5-6000 Hz
Dynamic Range	$\pm 500$ g, peak	
<b>Electrical</b>		
Settling Time	<3 Seconds	
Voltage Source	18-28 VDC	
Constant Current Excitation	2-10 mA	
Spectral Noise @ 10 Hz	500 $\mu\text{g}/\sqrt{\text{Hz}}$	
Spectral Noise @ 100 Hz	65 $\mu\text{g}/\sqrt{\text{Hz}}$	
Spectral Noise @ 1000 Hz	11 $\mu\text{g}/\sqrt{\text{Hz}}$	
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	
<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 (AC901-1A)	2 Pin MIL-C-5015	
Armored Cable (AC901-3C)	Armor Jacketed Cable	
Integral Cable (AC901-9C)	RAL 5015 Blue Polyurethane Cable	
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	AC901-1A (1/4-28 Stud)	AC901-3C - / [ ] / [ ] - [ ] (1/4-28 Stud) (maximum armor length 100 ft.) (cable length in feet) (termination)	AC901-9C - / [ ] - [ ] (1/4-28 Stud) (length in feet) (termination)
Metric	M/AC901-1A (M6x1 Adapter Stud)	M/AC901-3C - / [ ] / [ ] - [ ] (M6x1 Adapter Stud) (maximum armor length 100 ft.) (cable length in feet) (termination)	M/AC901-9C - / [ ] - [ ] (M6x1 Adapter Stud) (length in feet) (termination)
		[ ] M / [ ] M - [ ] (maximum armor length 30 m) (cable length in meters) (termination)	[ ] M - [ ] (length in meters) (termination)



**Read Before Purchasing**  
Important information on  
**Regulatory Approvals and Requirements**  
on Pages 60 & 61

Cable Termination Options: L Z



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