

# AC905 Series

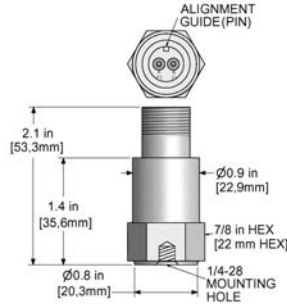
## Intrinsically Safe Accelerometer, Top Exit Connector / Cable, 100 mV/g



### AC905-1A

#### 2 Pin Connector

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



### AC905-2A

#### Integral Cable

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



### Part Numbers & Ordering Information:

When Ordering Metric, add "M" prefix.  
(Example: M/AC905-2A/010-Z)

**AC905-1A** Intrinsically safe accelerometer, 100 mV/g, 2 pin top connector

AC905-2A/010-Z	10 ft. (3 m), blunt cut end
AC905-2A/020-Z	20 ft. (6 m), blunt cut end
AC905-2A/030-Z	30 ft. (9 m), blunt cut end
AC905-2A/050-Z	50 ft. (15 m), blunt cut end
AC905-2A/100-Z	100 ft. (30 m), blunt cut end

\* Custom Lengths Available Upon Request

Performance Specifications	English	Metric	Environmental	English	Metric
<b>Sensitivity</b> ±10%	100 mV/g	100 mV/g	<b>Temperature Range</b>	-58 to 250° F	-50 to 121° C
<b>Frequency Response</b>			<b>Maximum Shock Protection</b>	5,000 g, peak	5000 g, peak
±3 dB	30-900,000 CPM	0.5-15000 Hz	<b>Electromagnetic Sensitivity</b>	CE	CE
±10%	60-600,000 CPM	1.0-10000 Hz	<b>Sealing</b>	Welded, Hermetic	Welded, Hermetic
<b>Dynamic Range</b>	±50 g, peak	±50 g, peak	<b>Submersible Depth (AC905-2A)</b>	200 ft.	61 m
<b>Electrical</b>			<b>Physical</b>		
<b>Settling Time (Turn on Time)</b>			<b>Sensing Element</b>	PZT Ceramic	PZT Ceramic
@ Room Temp (68°F/20°C)	<3 Seconds	<3 Seconds	<b>Sensing Structure</b>	Shear Mode	Shear Mode
<b>Power Requirement</b>			<b>Weight</b>	3.2 oz.	90 grams
<b>Voltage Source</b>	18-28 VDC	18-28 VDC	<b>Case Material</b>	316L Stainless Steel	316L Stainless Steel
<b>Constant Current Excitation</b>	2-4 mA	2-4 mA	<b>Mounting Hole</b>	1/4-28	1/4-28
<b>Electrical Noise (Typical)</b>			<b>Connector (AC905-1A)</b>	2 Pin MIL-C-5015	2 Pin MIL-C-5015
<b>Broadband 2.5 Hz to 25 kHz</b>	200 σg, rms	200 σg, rms	<b>Integral Cable (AC905-2A)</b>	CB103	CB103
<b>Spectral 10 Hz</b>	6.5 σg/√Hz	6.5 σg/√Hz	<b>Mechanical</b>		
<b>100 Hz</b>	2 σg/√Hz	2 σg/√Hz	<b>Resonant Frequency</b>	1,500,000 CPM	25000 Hz
<b>1000 Hz</b>	1.8 σg/√Hz	1.8 σg/√Hz	<b>Mounting Torque</b>	2 to 5 ft. lbs.	2,7 to 6,8 Nm
<b>Output Impedance, Max</b>	<100 ohm	<100 ohm	<b>Supplied Accessories</b>		
<b>Bias Output Voltage</b>	10-14 VDC	10-14 VDC	<b>Mounting Hardware</b>	1/4-28 Stud	M6x1 Adapter Stud
<b>Electrical Case Isolation</b>	>10 <sup>8</sup> ohm	>10 <sup>8</sup> ohm	<b>Calibration Certificate</b>	CA10	CA10

### Common Applications

#### Industries Served

- Chemical
- Mining
- Manufacturing
- Painting / Plating
- Military
- Petrochemical

#### Applications

- Machinery in Volatile Environments

#### Measurement Types

- Permanent Mount

### Regulatory Approvals

- **US & Canadian Standards:** Division 1, Classes I, II, III, Groups A-F
- **ATEX:** Zone 0

**\*Proper IS Barrier selection required, please refer to the Overview on Intrinsic Safety**

For optional accessories, please see the *Sensor Accessory Selection Chart*.



VIBRATION ANALYSIS HARDWARE