

AC951 Series

IEC Certified (IECEX), Intrinsically Safe Accelerometer,
Top Exit Connector/Cable, 10 mV/g

SECTION 1 - VIBRATION SENSORS
Intrinsically Safe Accelerometers: IEC Certified



Actual Product Size Shown

IECEX
CE

Requires **Intrinsically Safe Barrier**

Product Features

IECEX Approvals

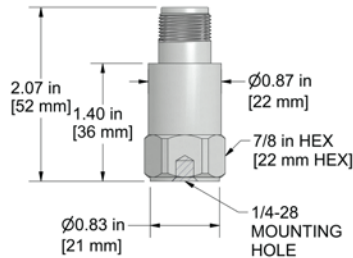
Helps to Detect Bearing Defects and Other High Frequency Faults

- 1,2 - 15000 Hz (72 - 900,000 CPM) Frequency Response
- 10 mV/g Sensitivity ±10%
- Requires Intrinsic Safety Barrier (see page 278)

AC951-1A 2 Pin Connector

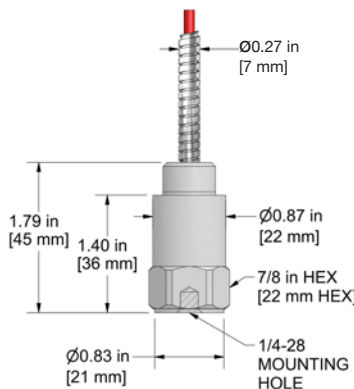
Connector Pin	Polarity
A	(+) Signal / Power
B	(-) Common

ALIGNMENT GUIDE (PIN)



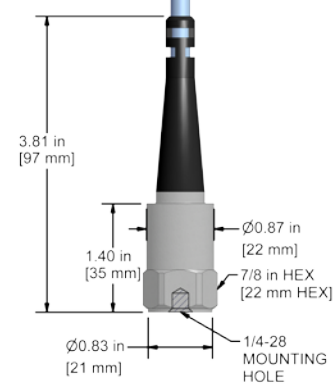
AC951-3C Armored Integral Cable

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



AC951-9C Integral Cable

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



Specifications	Standard	Metric
Part Number	AC951	M/AC951
Sensitivity (±10%)	10 mV/g	
Frequency Response (±3dB)	72-900,000 CPM	1,2-15000 Hz
Frequency Response (±10%)	150-360,000 CPM	2,5-6000 Hz
Dynamic Range	± 500 g, peak	
Electrical		
Settling Time	<3 Seconds	
Voltage Source	18-28 VDC	
Constant Current Excitation	2-4 mA	
Spectral Noise @ 10 Hz	500 µg/√Hz	
Spectral Noise @ 100 Hz	65 µg/√Hz	
Spectral Noise @ 1000 Hz	11 µg/√Hz	
Output Impedance	<100 ohm	
Bias Output Voltage	10-14 VDC	
Case Isolation	>10 ⁹ ohm	

Specifications	Standard	Metric
Environmental		
Temperature Range	-58 to 250°F	-50 to 121°C
Maximum Shock Protection	5,000 g, peak	
Electromagnetic Sensitivity	CE	
Sealing	Welded, Hermetic	
Physical		
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	AC951-1A (1/4-28 Stud)	AC951-3C - / [] / [] - [] (1/4-28 Stud) (maximum armor length 100 ft.) (cable length in feet) (termination)	AC951-9C - / [] - [] (1/4-28 Stud) (length in feet) (termination)
Metric	M/AC951-1A (M6x1 Adapter Stud)	M/AC951-3C - / [] / [] - [] (M6x1 Adapter Stud) (maximum armor length 30 m) (cable length in meters) (termination)	M/AC951-9C - / [] - [] (M6x1 Adapter Stud) (length in meters) (termination)

Read Before Purchasing
Important information on
Regulatory Approvals and Requirements
on Page 67

Cable Termination Options: **L** **Z**

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AC953 Series

IEC Certified (IECEX), Intrinsically Safe Accelerometer,
Top Exit Connector/Cable, 50 mV/g



Actual Product Size Shown

IECEX
CE

Requires **Intrinsically Safe Barrier**

Product Features

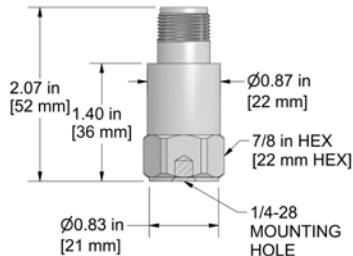
IECEX Approvals
Excellent for Higher g Applications

- 50 mV/g Sensitivity ±10%
- 1,0 - 15000 Hz (60 - 900,000 CPM) Frequency Response
- Requires Intrinsic Safety Barrier (see page 278)

AC953-1A 2 Pin Connector

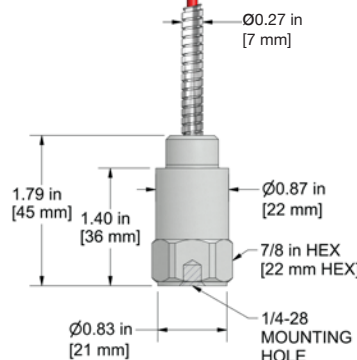
Connector Pin	Polarity
A	(+) Signal / Power
B	(-) Common

ALIGNMENT GUIDE (PIN)



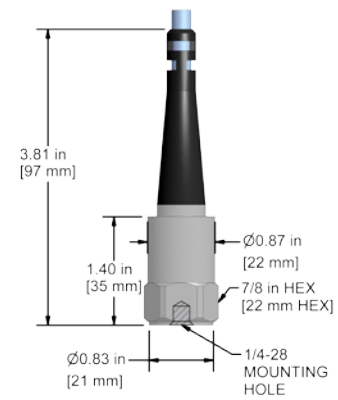
AC953-3C Armored Integral Cable

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



AC953-9C Integral Cable

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



Specifications	Standard	Metric
Part Number	AC953	M/AC953
Sensitivity (±10%)	50 mV/g	
Frequency Response (±3dB)	60-900,000 CPM	1,0-15000 Hz
Frequency Response (±10%)	120-300,000 CPM	2,0-5000 Hz
Dynamic Range	± 100 g, peak	
Electrical		
Settling Time	<3 Seconds	
Voltage Source	18-28 VDC	
Constant Current Excitation	2-4 mA	
Spectral Noise @ 10 Hz	9 µg/√Hz	
Spectral Noise @ 100 Hz	2 µg/√Hz	
Spectral Noise @ 1000 Hz	1.6 µg/√Hz	
Output Impedance	<100 ohm	
Bias Output Voltage	10-14 VDC	
Case Isolation	>10 ⁹ ohm	

Specifications	Standard	Metric
Environmental		
Temperature Range	-58 to 250°F	-50 to 121°C
Maximum Shock Protection	5,000 g, peak	
Electromagnetic Sensitivity	CE	
Sealing	Welded, Hermetic	
Physical		
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	AC953-1A (1/4-28 Stud)	AC953-3C - / [] / [] - [] (1/4-28 Stud) (maximum armor length 100 ft.) (cable length in feet) (termination)	AC953-9C - / [] - [] (1/4-28 Stud) (length in feet) (termination)
Metric	M/AC953-1A (M6x1 Adapter Stud)	M/AC953-3C - / [] / [] - [] (M6x1 Adapter Stud) (maximum armor length 30 m) (cable length in meters) (termination)	M/AC953-9C - / [] - [] (M6x1 Adapter Stud) (length in meters) (termination)

Read Before Purchasing
Important information on
Regulatory Approvals and Requirements
on Page 67

Cable Termination Options: **L** **Z**



VIBRATION ANALYSIS HARDWARE

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AC954 Series

IEC Certified (IECEX), Intrinsically Safe Accelerometer,
Side Exit Connector/Cable, 50 mV/g

SECTION 1 - VIBRATION SENSORS
Intrinsically Safe Accelerometers: IEC Certified

Requires **Intrinsically Safe Barrier**

Product Features

IECEX Approvals

Excellent for Higher g Applications

- $\pm 100g$, Peak Dynamic Range
- 50 mV/g Sensitivity $\pm 10\%$
- Requires Intrinsic Safety Barrier (see page 278)

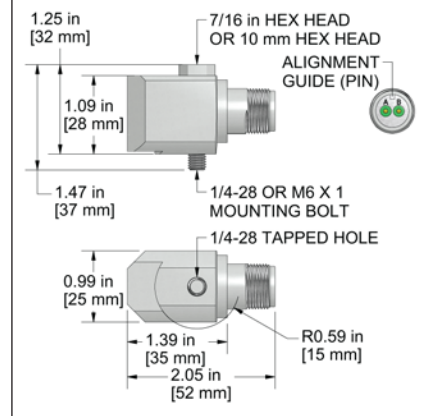
Actual Product Size Shown

IECEX



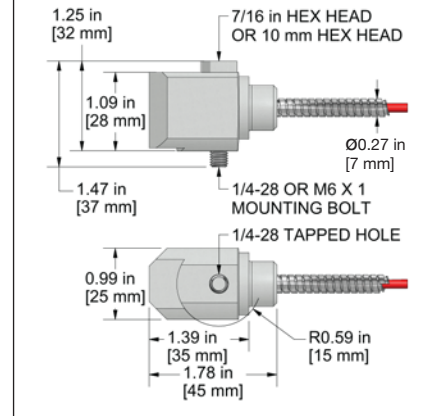
AC954-1A 2 Pin Connector

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



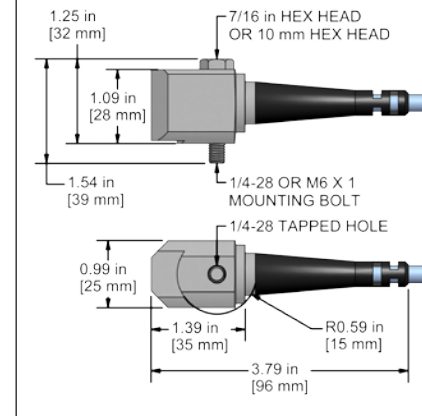
AC954-3C Armored Integral Cable

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



AC954-9C Integral Cable

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



Specifications	Standard	Metric
Part Number	AC954	M/AC954
Sensitivity ($\pm 10\%$)	50 mV/g	
Frequency Response ($\pm 3dB$)	60-480,000 CPM	1,0-8000 Hz
Frequency Response ($\pm 10\%$)	120-180,000 CPM	2,0-3000 Hz
Dynamic Range	± 100 g, peak	
Electrical		
Settling Time	<3 Seconds	
Voltage Source	18-28 VDC	
Constant Current Excitation	2-4 mA	
Spectral Noise @ 10 Hz	9 $\mu g/\sqrt{Hz}$	
Spectral Noise @ 100 Hz	2 $\mu g/\sqrt{Hz}$	
Spectral Noise @ 1000 Hz	1.6 $\mu g/\sqrt{Hz}$	
Output Impedance	<100 ohm	
Bias Output Voltage	10-14 VDC	
Case Isolation	>10 ⁹ ohm	

Specifications	Standard	Metric
Environmental		
Temperature Range	-58 to 250°F	-50 to 121°C
Maximum Shock Protection	5,000 g, peak	
Electromagnetic Sensitivity	CE	
Sealing	Welded, Hermetic	
Physical		
Sensing Element	PZT Ceramic	
Sensing Structure	Shear Mode	
Weight	5.3 oz	150 grams
Case Material	316L Stainless Steel	
Mounting	1/4-28	
Connector (non-integral)	2 Pin MIL-C-5015	
Resonant Frequency	1,260,000 CPM	21000 Hz
Mounting Torque	2 to 5 ft. lbs.	2.7 to 6.8 Nm
Mounting Hardware	1/4-28 Captive Bolt	M6x1 Captive Bolt
Calibration Certificate	CA10	

Ordering Information

Standard	AC954-1A (1/4-28 Captive Bolt)	AC954-3C - / [] / [] - [] (1/4-28 Captive Bolt) (maximum armor length 100 ft.) (cable length in feet) (termination)	AC954-9C - / [] - [] (1/4-28 Captive Bolt) (length in feet) (termination)
Metric	M/AC954-1A (M6x1 Captive Bolt)	M/AC954-3C - / [] / [] - [] (M6x1 Captive Bolt) (maximum armor length 100 ft.) (cable length in feet) (termination)	M/AC954-9C - / [] - [] (M6x1 Captive Bolt) (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 Page 67

Cable Termination Options: L Z

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AC955 Series

IEC Certified (IECEX), Intrinsically Safe Accelerometer,
Top Exit Connector/Cable, 100 mV/g

SECTION 1 - VIBRATION SENSORS
Intrinsically Safe Accelerometers: IEC Certified



Actual Product Size Shown

IECEX



Requires **Intrinsically Safe Barrier**

Product Features

IECEX Approvals

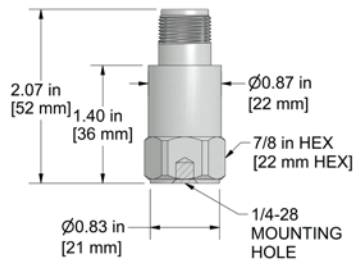
High Performance in a Low Cost Sensor

- 0.5 - 15000 Hz (30 - 900,000 CPM) Frequency Response
- 100 mV/g Sensitivity ±10%
- Requires Intrinsic Safety Barrier (see page 278)

AC955-1A 2 Pin Connector

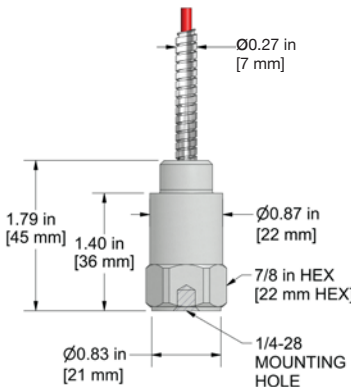
Connector Pin	Polarity
A	(+) Signal / Power
B	(-) Common

ALIGNMENT GUIDE (PIN)



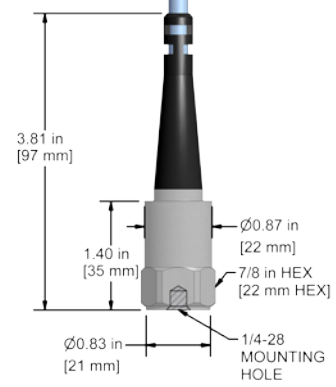
AC955-3C Armored Integral Cable

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



AC955-9C Integral Cable

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



Specifications	Standard	Metric
Part Number	AC955	M/AC955
Sensitivity (±10%)	100 mV/g	
Frequency Response (±3dB)	30-900,000 CPM	0.5-15000 Hz
Frequency Response (±10%)	60-600,000 CPM	1.0-10000 Hz
Dynamic Range	± 50 g, peak	
Electrical		
Settling Time	<3 Seconds	
Voltage Source	18-28 VDC	
Constant Current Excitation	2-4 mA	
Spectral Noise @ 10 Hz	6.5 µg/√Hz	
Spectral Noise @ 100 Hz	2 µg/√Hz	
Spectral Noise @ 1000 Hz	1.8 µg/√Hz	
Output Impedance	<100 ohm	
Bias Output Voltage	10-14 VDC	
Case Isolation	>10 ⁹ ohm	

Specifications	Standard	Metric
Environmental		
Temperature Range	-58 to 250°F	-50 to 121°C
Maximum Shock Protection	5,000 g, peak	
Electromagnetic Sensitivity	CE	
Sealing	Welded, Hermetic	
Physical		
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	AC955-1A (1/4-28 Stud)	AC955-3C - / [] / [] - [] (1/4-28 Stud) (maximum armor length 100 ft.) (cable length in feet) (termination)	AC955-9C - / [] - [] (1/4-28 Stud) (length in feet) (termination)
Metric	M/AC955-1A (M6x1 Adapter Stud)	M/AC955-3C - / [] / [] - [] (M6x1 Adapter Stud) (maximum armor length 100 ft.) (cable length in feet) (termination)	M/AC955-9C - / [] - [] (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 Page 67

Cable Termination Options: L Z



VIBRATION ANALYSIS HARDWARE

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AC956 Series

IEC Certified (IECEX), Intrinsically Safe Accelerometer,
Side Exit Connector/Cable, 100 mV/g

SECTION 1 - VIBRATION SENSORS
Intrinsically Safe Accelerometers: IEC Certified

Requires Intrinsically Safe Barrier

Product Features

IECEX Approvals

High Performance in a Low Cost Sensor

- 0.5 - 8600 Hz (30 - 516,000 CPM) Frequency Response
- 100 mV/g Sensitivity ±10%
- Requires Intrinsic Safety Barrier (see page 278)

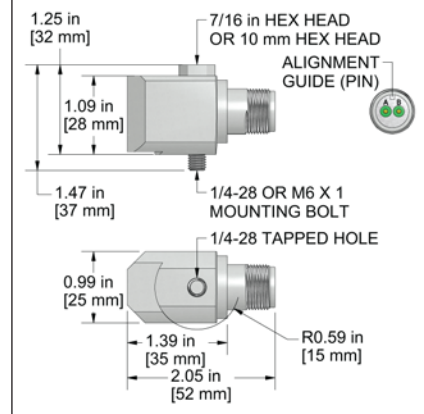
Actual Product Size Shown

IECEX



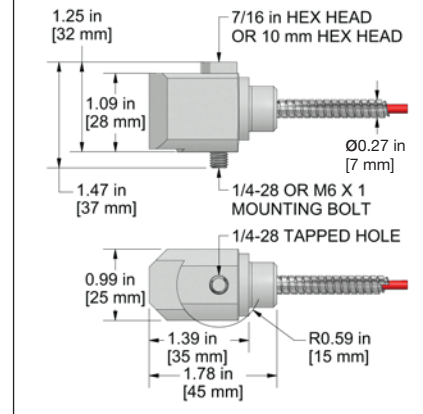
AC956-1A 2 Pin Connector

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



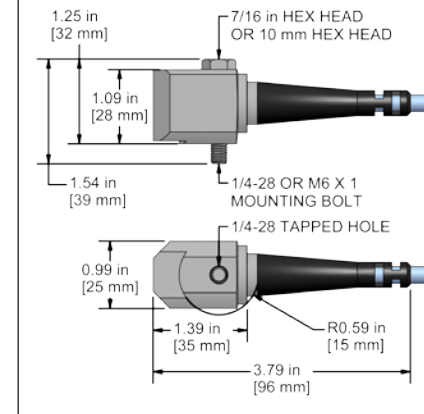
AC956-3C Armored Integral Cable

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



AC956-9C Integral Cable

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



Specifications	Standard	Metric
Part Number	AC956	M/AC956
Sensitivity (±10%)	100 mV/g	
Frequency Response (±3dB)	30-516,000 CPM	0.5-8600 Hz
Frequency Response (±10%)	60-360,000 CPM	1.0-6000 Hz
Dynamic Range	± 50 g, peak	
Electrical		
Settling Time	<3 Seconds	
Voltage Source	18-28 VDC	
Constant Current Excitation	2-4 mA	
Spectral Noise @ 10 Hz	6.5 µg/√Hz	
Spectral Noise @ 100 Hz	2 µg/√Hz	
Spectral Noise @ 1000 Hz	1.8 µg/√Hz	
Output Impedance	<100 ohm	
Bias Output Voltage	10-14 VDC	
Case Isolation	>10 ⁹ ohm	

Specifications	Standard	Metric
Environmental		
Temperature Range	-58 to 250°F	-50 to 121°C
Maximum Shock Protection	5,000 g, peak	
Electromagnetic Sensitivity	CE	
Sealing	Welded, Hermetic	
Physical		
Sensing Element	PZT Ceramic	
Sensing Structure	Shear Mode	
Weight	5.3 oz	150 grams
Case Material	316L Stainless Steel	
Mounting	1/4-28	
Connector (non-integral)	2 Pin MIL-C-5015	
Resonant Frequency	1,260,000 CPM	21000 Hz
Mounting Torque	2 to 5 ft. lbs.	2.7 to 6.8 Nm
Mounting Hardware	1/4-28 Captive Bolt	M6x1 Captive Bolt
Calibration Certificate	CA10	

Ordering Information

Standard	AC956-1A (1/4-28 Captive Bolt)	AC956-3C - / <input type="text"/> / <input type="text"/> - <input type="text"/> (1/4-28 Captive Bolt) (maximum armor length 100 ft.) (cable length in feet) (termination)	AC956-9C - / <input type="text"/> - <input type="text"/> (1/4-28 Captive Bolt) (length in feet) (termination)
Metric	M/AC956-1A (M6x1 Captive Bolt)	M/AC956-3C - / <input type="text"/> / <input type="text"/> - <input type="text"/> (M6x1 Captive Bolt) (maximum armor length 30 m) (cable length in meters) (termination)	M/AC956-9C - / <input type="text"/> - <input type="text"/> (M6x1 Captive Bolt) (length in meters) (termination)



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Important information on
Regulatory Approvals and Requirements
on Page 67

Cable Termination Options: L Z

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