

# AC102 Series

## Multi-Purpose Accelerometer, Top Exit Connector/Cable, 100 mV/g

SECTION I - VIBRATION SENSORS  
Accelerometers



Actual Product Size Shown



### Product Features

**CTC's Most Popular Sensor!**

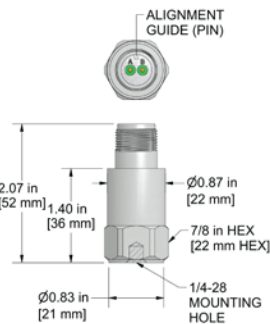
**High Performance in a Low Cost Sensor**

- Standard 2 Pin MIL Connection
- Perfect for Thousands of Applications
- Affordably Priced, Hermetically Sealed Sensors

#### AC102-1A

2 Pin Connector

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



#### AC102-2C

Integral Cable

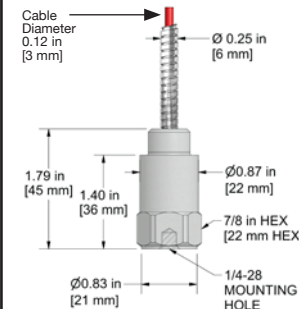
Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
Shield	Cable Drain Wire



#### AC102-3C

Armored Integral Cable

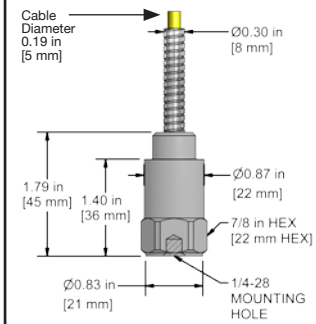
Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
Shield	Cable Drain Wire



#### AC102-6C

Heavy Duty Armored Integral Cable

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



Specifications	Standard	Metric
Part Number	AC102	M/AC102
Sensitivity (±10%)	100 mV/g	
Frequency Response (±3dB)	30-900,000 CPM	0.5-15000 Hz
Frequency Response (±10%)	120-600,000 CPM	2.0-10000 Hz
Dynamic Range	± 50 g, peak	
<b>Electrical</b>		
Settling Time	<2.5 seconds	
Voltage Source (IEPE)	18-30 VDC	
Constant Current Excitation	2-10 mA	
Spectral Noise @ 10 Hz	14 µg/√Hz	
Spectral Noise @ 100 Hz	2.3 µg/√Hz	
Spectral Noise @ 1000 Hz	2 µg/√Hz	
Output Impedance	<100 ohm	
Bias Output Voltage	10-14 VDC	
Case Isolation	>10 <sup>8</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	IP68	
Submersible Depth (AC102-2C/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	AC102-1A (1/4-28 Stud)	AC102-2C - / (1/4-28 Stud)	AC102-3C - / (1/4-28 Stud)	AC102-6C - / (1/4-28 Stud)
		(length in feet) (termination)	(maximum armor length 100 ft.) (cable length in feet) (termination)	(maximum armor length 20 ft.) (cable length in feet) (termination)
Metric	M/AC102-1A (M6x1 Adapter Stud)	M/AC102-2C - / (M6x1 Adapter Stud)	M/AC102-3C - / (M6x1 Adapter Stud)	M/AC102-6C - / (M6x1 Adapter Stud)
		(length in meters) (termination)	(maximum armor length 30 m) (cable length in meters) (termination)	(maximum armor length 6 m) (cable length in meters) (termination)

Cable Termination Options: **E** **F** **L** **Z**

Backed by our Unconditional Lifetime Warranty

[www.ctconline.com](http://www.ctconline.com)



# AC104 Series

## Multi-Purpose Accelerometer, Side Exit Connector/Cable, 100 mV/g

SECTION 1 - VIBRATION SENSORS  
Accelerometers



Actual Product Size Shown



### Product Features

**CTC's Most Popular Side Exit Sensor!**

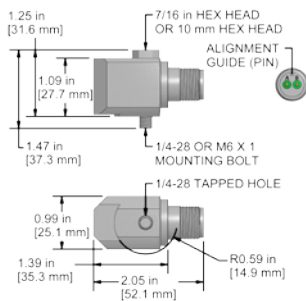
**High Performance in a Low Cost Sensor**

- Standard 2 Pin MIL Connection
- Perfect for Thousands of Applications
- Affordably Priced, Hermetically Sealed Sensors

#### AC104-1A

2 Pin Connector

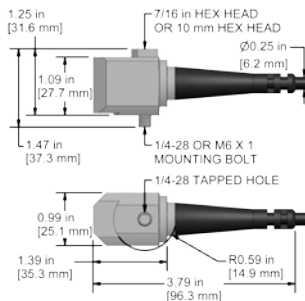
Connector Pin	Polarity
A	(+) Signal/Power
B	(-) Common



#### AC104-2C

Integral Cable

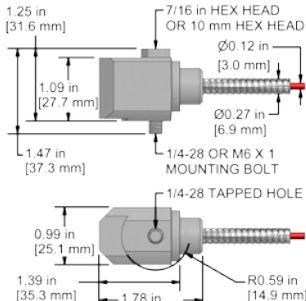
Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
Shield	Cable Drain Wire



#### AC104-3C

Armored Integral Cable

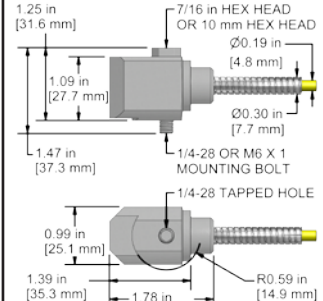
Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
Shield	Cable Drain Wire



#### AC104-6C

Heavy Duty Armored Integral Cable

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



Specifications	Standard	Metric
Part Number	AC104	M/AC104
Sensitivity (±10%)	100 mV/g	
Frequency Response (±3dB)	30-600,000 CPM	0.5-10000 Hz
Frequency Response (±10%)	120-420,000 CPM	2.0-7000 Hz
Dynamic Range	± 50 g, peak	
<b>Electrical</b>		
Settling Time	<2.5 seconds	
Voltage Source (IEPE)	18-30 VDC	
Constant Current Excitation	2-10 mA	
Spectral Noise @ 10 Hz	14 µg/√Hz	
Spectral Noise @ 100 Hz	2.3 µg/√Hz	
Spectral Noise @ 1000 Hz	2 µg/√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	IP68	
Submersible Depth (AC104-2C/3C)	200 ft.	60 m
<b>Physical</b>		
Sensing Element	PZT Ceramic	
Sensing Structure	Shear Mode	
Weight	5.1 oz	145 grams
Case Material	316L Stainless Steel	
Mounting	1/4-28	
Connector (non-integral)	2 Pin MIL-C-5015	
Resonant Frequency	1,320,000 CPM	22000 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	AC104-1A (1/4-28 Captive Bolt)	AC104-2C - / (1/4-28 Captive Bolt)	AC104-3C - / (1/4-28 Captive Bolt)	AC104-6C - / (1/4-28 Captive Bolt)
Metric	M/AC104-1A (M6x1 Captive Bolt)	M/AC104-2C - / (M6x1 Captive Bolt)	M/AC104-3C - / (M6x1 Captive Bolt)	M/AC104-6C - / (M6x1 Captive Bolt)

Cable Termination Options: E F L Z

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Actual Product Size Shown



### Product Features

**Standard, Route-Based Sensor**

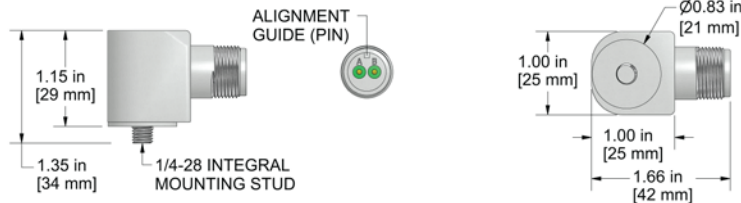
**Excellent Sensor for Trending**

- Specifically Designed to Use with MH214-3A Magnet
- Comfortable Ergonomic Design Makes Data Collection Easy
- $\pm 50$  g, Peak Dynamic Range

### AC116-1A

2 Pin Connector

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



Specifications	Standard	Metric
Part Number	AC116	
Sensitivity ( $\pm 10\%$ )	100 mV/g	
Frequency Response ( $\pm 3$ dB)	30-900,000 CPM	0,5-15000 Hz
Frequency Response ( $\pm 10\%$ )	120-600,000 CPM	2,0-10000 Hz
Dynamic Range	$\pm 50$ g, peak	
<b>Electrical</b>		
Settling Time	<2.5 seconds	
Voltage Source (IEPE)	18-30 VDC	
Constant Current Excitation	2-10 mA	
Spectral Noise @ 10 Hz	14 $\mu$ g./Hz	
Spectral Noise @ 100 Hz	2.3 $\mu$ g./Hz	
Spectral Noise @ 1000 Hz	2 $\mu$ g./Hz	
Output Impedance	<100 ohm	
Bias Output Voltage	10-14 VDC	
Case Isolation	$>10^8$ 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	IP68	
<b>Physical</b>		
Sensing Element	PZT Ceramic	
Sensing Structure	Shear Mode	
Weight	4.4 oz	124 grams
Case Material	316L Stainless Steel	
Mounting	1/4-28 Integral Stud	
Connector (non-integral)	2 Pin MIL-C-5015	
Resonant Frequency	1,320,000 CPM	22000 Hz
Mounting Torque	2 to 5 ft. lbs.	2,7 to 6,8 Nm
Calibration Certificate	CA10	

### Ordering Information

Standard	AC116-1A (1/4-28 Integral Stud)	
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# AC150 Series

Low Cost Accelerometer, Top Exit Connector/Cable, 100 mV/g

SECTION 1 - VIBRATION SENSORS  
Accelerometers



Actual Product Size Shown



## Product Features

**Low-Cost Accelerometer - Perfect for Permanent Mounting**

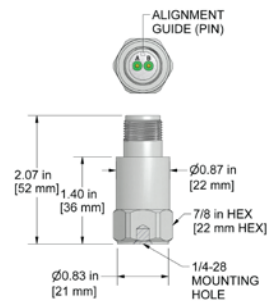
**Excellent Choice for budget Conscious Data Collection**

- $\pm 50$  g, Peak Dynamic Range
- Standard 2 Pin MIL Connection
- 1-10000 Hz (60-600,000 CPM) Frequency Response

### AC150-1A

2 Pin Connector

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



### AC150-2C

Integral Cable

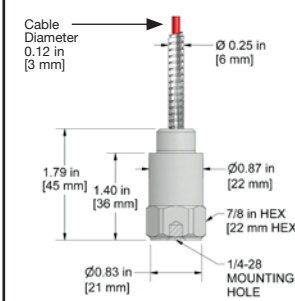
Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
Shield	Cable Drain Wire



### AC150-3C

Armored Integral Cable

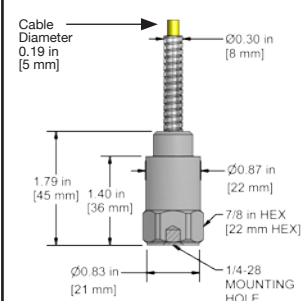
Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
Shield	Cable Drain Wire



### AC150-6C

Heavy Duty Armored Integral Cable

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



Specifications	Standard	Metric
Part Number	AC150	M/AC150
Sensitivity ( $\pm 15\%$ )		100 mV/g
Frequency Response ( $\pm 3$ dB)	60-600,000 CPM	1,0-10000 Hz
Dynamic Range		$\pm 50$ g, peak
<b>Electrical</b>		
Settling Time		<2.5 seconds
Voltage Source (IEPE)		18-30 VDC
Constant Current Excitation		2-10 mA
Spectral Noise @ 10 Hz		14 $\mu$ g./Hz
Spectral Noise @ 100 Hz		2.3 $\mu$ g./Hz
Spectral Noise @ 1000 Hz		2 $\mu$ g./Hz
Output Impedance		<100 ohm
Bias Output Voltage		10-14 VDC
Case Isolation		>10 <sup>8</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		IP68
Submersible Depth (AC150-2C/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	AC150-1A (1/4-28 Stud)	AC150-2C - / (1/4-28 Stud)	AC150-3C - / (1/4-28 Stud)	AC150-6C - / (1/4-28 Stud)
		(length in feet) (termination)	(maximum armor length 100 ft.) (cable length in feet) (termination)	(maximum armor length 20 ft.) (cable length in feet) (termination)
Metric	M/AC150-1A (M6x1 Adapter Stud)	M/AC150-2C - / (M6x1 Adapter Stud)	M/AC150-3C - / (M6x1 Adapter Stud)	M/AC150-6C - / (M6x1 Adapter Stud)
		(length in meters) (termination)	(maximum armor length 30 m) (cable length in meters) (termination)	(maximum armor length 6 m) (cable length in meters) (termination)

Cable Termination Options: E F L Z



VIBRATION ANALYSIS HARDWARE

Backed by our Unconditional Lifetime Warranty

**LIMITED AVAILABILITY!**



Actual Product Size Shown



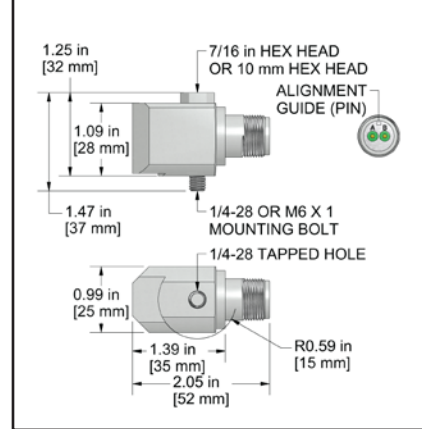
### Product Features

**Low Cost Side Exit Sensor!**  
Economical way to Trend Machinery

- Standard 2 Pin MIL Connection
- $\pm 50g$ , Peak Dynamic Range
- 5 - 7000 Hz (30 - 420,000 CPM) Frequency Response

### AC154-1A 2 Pin Connector

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



Specifications	Standard	Metric
Part Number	AC154-1A	M/AC154-1A
Sensitivity ( $\pm 15\%$ )	100 mV/g	
Frequency Response ( $\pm 3dB$ )	30-420,000 CPM	0,5-7000 Hz
Dynamic Range	$\pm 50 g$ , peak	
<b>Electrical</b>		
Settling Time	<2.5 seconds	
Voltage Source	18-30 VDC	
Constant Current Excitation	2-10 mA	
Spectral Noise @ 10 Hz	14 $\mu g/\sqrt{Hz}$	
Spectral Noise @ 100 Hz	2.3 $\mu g/\sqrt{Hz}$	
Spectral Noise @ 1000 Hz	2 $\mu g/\sqrt{Hz}$	
Output Impedance	<100 ohm	
Bias Output Voltage	10-14 VDC	
Case Isolation	>10 <sup>8</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	5.1 oz	145 grams
Case Material	316L Stainless Steel	
Mounting	1/4-28	
Connector (non-integral)	2 Pin MIL-C-5015	
Resonant Frequency	1,320,000 CPM	22000 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	AC154-1A (1/4-28 Captive Bolt)
Metric	M/AC154-1A (M6x1 Captive Bolt)

→ **Contact Factory BEFORE Ordering or Quoting!**



# AC184 Series

Multi-Purpose Accelerometer, M8 Captive Bolt, Side Exit Connector/Cable, 100 mV/g



Actual Product Size Shown



## M8 Captive Bolt Product Features

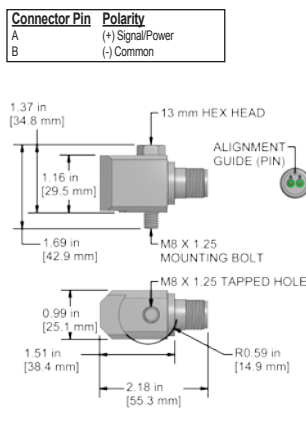
**CTC's Most Popular Side Exit Sensor, Now With M8 Mounting!**

**High Performance in a Low Cost Sensor**

- Standard 2 Pin MIL Connection
- Perfect for M8 Applications
- Affordably Priced

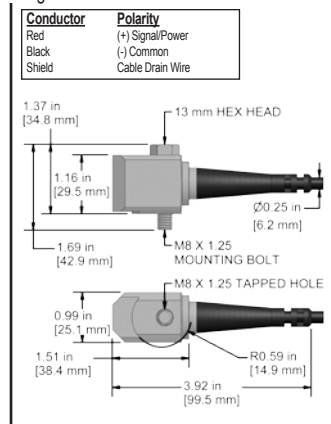
### AC184-1A

2 Pin Connector



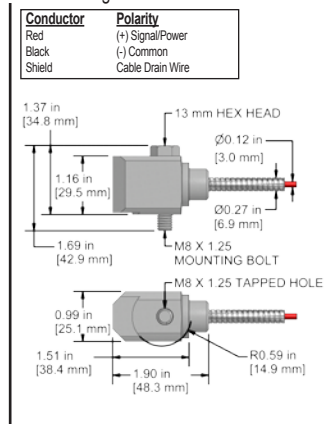
### AC184-2C

Integral Cable



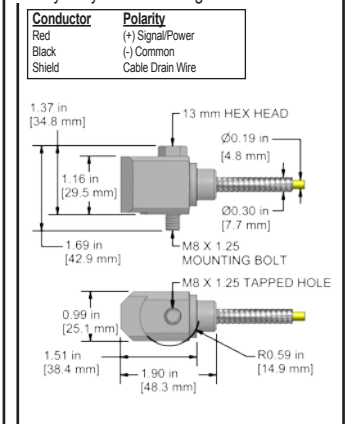
### AC184-3C

Armored Integral Cable



### AC184-6C

Heavy Duty Armored Integral Cable



Specifications	Standard	Metric
Part Number	AC184	
Sensitivity (±10%)	100 mV/g	
Frequency Response (±3dB)	30-600,000 CPM	0.5-10000 Hz
Frequency Response (±10%)	120-300,000 CPM	2.0-5000 Hz
Dynamic Range	± 50 g, peak	
<b>Electrical</b>		
Settling Time	<2.5 seconds	
Voltage Source (IEPE)	18-30 VDC	
Constant Current Excitation	2-10 mA	
Spectral Noise @ 10 Hz	14 µg/√Hz	
Spectral Noise @ 100 Hz	2.3 µg/√Hz	
Spectral Noise @ 1000 Hz	2 µg/√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	IP68	
Submersible Depth (AC184-2C/3C)	200 ft.	60 m
<b>Physical</b>		
Sensing Element	PZT Ceramic	
Sensing Structure	Shear Mode	
Weight	6 oz	170 grams
Case Material	316L Stainless Steel	
Mounting	M8	
Connector (non-integral)	2 Pin MIL-C-5015	
Resonant Frequency	1,200,000 CPM	20000 Hz
Mounting Torque	2 to 5 ft. lbs.	2.7 to 6.8 Nm
Mounting Hardware	M8 Captive Bolt	
Calibration Certificate	CA10	

## Ordering Information

Metric	AC184-1A (M8x1 Captive Bolt)	AC184-2C - / (M8x1 Captive Bolt)	AC184-3C - / (M8x1 Captive Bolt)	AC184-6C - / (M8x1 Captive Bolt)

Cable Termination Options: E F L Z

