



HV100LF / HV200LF SERIES

Low-frequency, high EMI resistance accelerometers

HV100LF / HV200LF series are designed for low-frequency applications where high electrical isolation between the sensor and machine is required. HV sensors can withstand arcing between the sensor base and its internal electronics to levels as high as 6,000 volts. The sensors offer improved EMI resistance in areas where high electromagnetic interference occurs, such as wind turbines, railway systems and other high-voltage generators. Improvements in EFT and ESD resistance improve survivability during extreme transient events. The HV100LF/200LF series has superior performance down to 0.1 Hz.



Models available

HV models	Output connector	Integral mounting	Sensitivity
HV100LF	4 pin, M12	M8 x 1.25	100 mV/g
HV100LF-500		1010 X 1,23	500 mV/g
HV101LF		1/4-28 UNF	100 mV/g
HV101LF-500		1/4-20 UNF	500 mV/g
HV102LF		M6	100 mV/g
HV102LF-500		IVIO	500 mV/g
HV200LF	2 pin, MIL-5015	1/4-28 UNF	100 mV/g
HV200LF-500		1/4-20 UNF	500 mV/g
HV201LF		M8 x 1.25	100 mV/g
HV201LF-500		IVIO X 1.25	500 mV/g
HV202LF		Me	100 mV/g
HV202LF-500		M6	500 mV/g

Certifications



Note: Due to continuous process improvement, specifications are subject to change without notice. This document is cleared for public release.

Key features

- Ultra low-frequency measurements
- Case-base isolated up to 6 kV
- Ideal for power generation applications
- Rapid shock recovery
- · Improved EMI resistance
- Manufactured in an approved ISO 9001 facility

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SPECIFICATIONS

	LF series LF-500 series
Sensitivity, ±5%, 25°C	100 mV/g 500 mV/g
Acceleration range, VDC > 22 V	80 g peak 10 g peak
Amplitude nonlinearity	1%
Frequency response: ±5 ±10 ±3 d	0.25 - 7,000 Hz
Resonance frequency, nominal	28 kHz
Transverse sensitivity, max	5% of axial
Temperature response: -25° +120°	
Temperature range	–50° to +120° C
Power requirement: Voltage source Current regulating diode	18 - 30 VDC 2 - 10 mA
Dielectric withstand voltage between connector and surface: 6,000 VD 5,000 VA	
Electrical noise, equiv. g: Broadband 2.5 Hz to 25 kF Spectral 10 F 100 F	z 10 µg/√Hz 3 µg/√Hz z 5 µg/√Hz 2 µg/√Hz
Output impedance, max	100 Ω 300 Ω
Impedance, between connector and ba D 100 H 1.0 kH 10 kH	>100 GΩ >100 MΩ >10 MΩ
Bias output voltage	13 VDC
Grounding	case isolated, internally shielded
Vibration limit	500 g peak
Shock limit	5,000 g peak
Electromagnetic sensitivity, equiv. g, r	ax 70 μg/gauss
Sealing	hermetic
Base strain sensitivity, max	0.0002 g/µstrain
Sensing element design	PZT, shear
Sensor case material	stainless steel
Isolation material	ceramic
isolation material	00.41.110

Connections - HV100LF series			
Function	Connector pin		
signal	P1		
to pin 3 inner shield	P2		
common	P3		
case	P4		
connector shell	case		

Connections - HV200LF series			
Function	Connector pin		
signal	Α		
common	В		
connector shell	case		

See page 3 for further specifications, dimensions and drawings.

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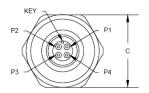


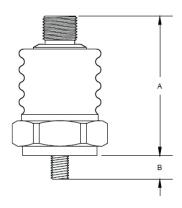
HV100LF SERIES

SPECIFICATIONS	8	HV100LF/HV100LF-500	HV101LF/HV101LF-500	HV102LF/HV102LF-500
Output connecto	r ¹	4 pin M12	4 pin M12	4 pin M12
Integral mountin	g	M8 x 1.25	1/4 - 28 UNF	M6 x 1.00
Dimensions:	Α	1.98 in. (50.3 mm)	1.98 in. (50.3 mm)	1.98 in. (50.3 mm)
	В	0.33 in. (8.4 mm)	0.33 in. (8.4 mm)	0.33 in. (8.4 mm)
	С	1.21 in. (30.8 mm)	1.21 in. (30.8 mm)	1.21 in. (30.8 mm)
Weight		126 grams (4.44 oz)	126 grams (4.44 oz)	126 grams (4.44 oz)

Notes: 1 For best performance, it is recommended that the connector shell be tied to the cable shield.

Recommended connector: R75S



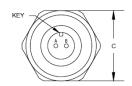


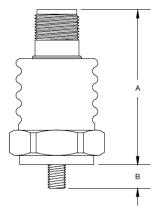
HV200LF SERIES

SPECIFICATIONS	6	HV200LF/HV200LF-500	HV201LF/HV201LF-500	HV202LF/HV202LF-500
Output connecto	r¹	2 pin MIL-5015	2 pin MIL-5015	2 pin MIL-5015
Integral mountin	g	1/4 - 28 UNF	M8 x 1.25	M6 x 1.00
Dimensions:	Α	2.21 in. (56.0 mm)	2.21 in. (56.0 mm)	2.21 in. (56.0 mm)
	В	0.33 in. (8.4 mm)	0.33 in. (8.4 mm)	0.33 in. (8.4 mm)
	С	1.21 in. (30.8 mm)	1.21 in. (30.8 mm)	1.21 in. (30.8 mm)
Weight		122 grams (4.35 oz)	122 grams (4.35 oz)	122 grams (4.35 oz)

 $\textbf{Notes:} \ ^{1} \, \text{For best performance, it is recommended that the connector shell be tied to the cable shield.}$

Recommended connector: R6Q





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The information provided herein is to the best of our knowledge true and accurate, it is provided for guidance only. All specifications are subject to change without prior notification.

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