



HV100 and HV200 series

Wilcoxon's HV series are designed for demanding applications requiring high electrical isolation between the sensor and machine. 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 HV series are available with a variety of mounting options to ensure compatibility with every application.



Models available

HV models	Output connector	Integral mounting
HV100		M8 x 1.25
HV101	4 pin, M12	1/4-28 UNF
HV102		M6
HV200		1/4-28 UNF
HV201	2 pin, MIL-5015	M8 x 1.25
HV202		M6

Key features

- 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

Certifications



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

High EMI resistance accelerometers



HV100 and HV200 series

SPECIFICATIONS

Sensitivity, ±5%, 25°C	100 mV/g
Acceleration range, VDC > 22 V	80 g peak
Amplitude nonlinearity	1%
Frequency response: ±5%	3 - 5,000 Hz
±10%	1 - 7,000 Hz
±3 dB	0.5 - 12,000 Hz
Resonance frequency	25 kHz
Transverse sensitivity, max	5% of axial
Temperature response: -40°C	-10%
+120°C	+10%
Temperature range	–40° to +120° C
Power requirement:	10 20 VDC
Voltage source Current regulating diode	18 - 30 VDC 2 - 10 mA
Dielectric withstand voltage between	2 10 111/
connector and surface: 6,000 VDC	1 min.
5,000 VAC	1 min.
Electrical noise, equiv. g:	-
Broadband 2.5 Hz to 25 kHz	700 μg
Spectral 10 Hz	10 μg/√Hz
100 Hz	5 μg/√Hz
1,000 Hz	5 μg/√Hz
Output impedance	100 Ω
Impedance, between connector and base:	. 400.00
DC 100 Hz	>100 GΩ >100 MΩ
1.0 Hz	>100 MΩ >10 MΩ
10 kHz	>1 MΩ
Bias output voltage	12 VDC
Grounding	case isolated, internally shielded
Vibration limit	500 g peak
Shock limit	5,000 g peak
Electromagnetic sensitivity, equiv. g, max	70 μg/gauss
Sealing	hermetic
Base strain sensitivity	<0.0002 g/µstrain
Sensing element design	PZT, shear
Sensor case material	stainless steel
Isolation material	ceramic
Recommended cabling	J10 / J9T2A

Function Connector pin signal P1 to pin 3 inner shield P2 common P3 case P4	Connections - HV100 series		
to pin 3 inner shield P2 common P3	Function	Connector pin	
common P3	signal	P1	
5.	to pin 3 inner shield	P2	
case P4	common	P3	
	case	P4	
connector shell case	connector shell	case	

Connections - HV200 series		
Function	Connector pin	
signal	Α	
common	В	
connector shell	case	

See page 3 for further specifications, dimensions and drawings.

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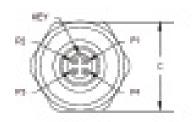


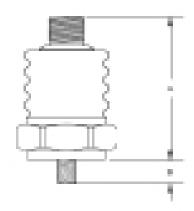
HV100 series

SPECIFICATIONS	S	HV100	HV101	HV102
Output connecto	or¹	4 pin M12	4 pin M12	4 pin M12
Integral mountin	g	M8 x 1.25 x 8.4 mm	1/4-28 UNF x 0.33 in.	M6 x 1.00 x 6.2 mm
Mounting torque	, recommended	40 in-lb / 4.5 Nm	30 in-lb / 3.4 Nm	30 in-lb / 3.4 Nm
Dimensions:	A	1.93 in. (49.5 mm)	1.93 in. (49.5 mm)	1.93 in. (49.5 mm)
	C	0.325 in. (8.3 mm) 1.21 in. (31.0 mm)	0.325 in. (8.3 mm) 1.21 in. (31.0 mm)	0.325 in. (8.3 mm) 1.21 in. (31.0 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



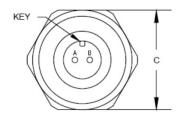


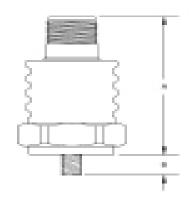
HV200 series

SPECIFICATIONS	S	HV200	HV201	HV202
Output connecto	r ¹	2 pin MIL-5015	2 pin MIL-5015	2 pin MIL-5015
Integral mountin	g	1/4-28 UNF x 0.33 in.	M8 x 1.25 x 8.4 mm	M6 x 1.00 x 6.2 mm
Mounting torque	, recommended	30 in-lb / 3.4 Nm	40 in-lb / 4.5 Nm	30 in-lb / 3.4 Nm
Dimensions:	A B C	2.15 in. (55.1 mm) 0.325 in. (8.3 mm) 1.21 in. (31.0 mm)	2.15 in. (55.1 mm) 0.325 in. (8.3 mm) 1.21 in. (31.0 mm)	2.15 in. (55.1 mm) 0.325 in. (8.3 mm) 1.21 in. (31.0 mm)
Weight		122 grams (4.35 oz)	122 grams (4.35 oz)	122 grams (4.35 oz)

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

Recommended connector: R6Q





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