

RMS peak output accelerometer



Features

- RMS peak output
- 4-20mA current signal
- Hermetic seal
- Case isolated
- EMI / RFI shielded
- Shock resistance

Application

- Blowing machine
- · Gear box monitoring
- Bearing detection

50.8

Machine monitoring

-KEYWAY

Description

310CP Model industrial is an piezo-electrical accelerometer permitting vibration measurements. 310CP features an annular shear ceramic crystal which exhibits excellent output stability over time. The accelerometer incorporates an internal circuit with in a two-wire system which transmits the 4~20mA current output through the same cable that supplies the voltage excitation. Signal ground is internal shielded and isolated from the outer case of the unit. Polarity inversion protection for the amplify circuit is inherent in the circuit design. The welded stainless-steel construction provides a hermetic housing. The standard MIL-C-5015 glass insulated connector provides long-term stability over the operating temperature range. In addition to adhesive mounting, 310CP has 1/4-28 threaded holes for stud mounting on the test object. 310CP provides wide frequency response and shock resistance, which is ideal for industrial vibration monitoring under incidental shock environment. Senther's model 16-L is a MIL-C-5015 connector mating cable for the sensor.





Specification

Typical at +24°C (+75°F), 24Vdc and 100Hz, unless otherwise stated.

Part Number	310CP-5	310CP-10	310CP-20	310CP-50	310CP-100	310CP-500	
Acceleration Range	5	10	20	50	100	500	g, RMS
FSO ±10% 25°C	16	16	16	16	16	16	mA
Frequency Response ±10%	5-4000	5-5000	5-7000	5-7000	5-7000	5-7000	Hz
Frequency Response ±3dB	3-10000	3-10000	3-13000	3-13000	3-13000	3-13000	Hz
Resonant Frequency	20	20	32	32	32	32	kHz
Transverse Sensitivity	<5	<5	<5	<5	<5	<5	%
Temperature Response,	±10	±10	±10	±10	±10	±10	%
-55 to +85°C							
Non-Linearity	±1	±1	±1	±1	±1	±1	%FSO
Shock Limit	2000	2000	5000	5000	5000	5000	g
Warm-up Time	<2	<2	<2	<2	<2	<2	second
Weight	87	87	80	80	80	80	Gram

Specifications	Standard	Units
Bias Current ±10%	4	mA
Supply Voltage	12 to 30	Vdc
Output Impedance	<100	Ω
Case Insulation (@100Vdc)	>100	MΩ
Operating Temperature	-55 to +85°C	°C
Humidity	Hermetically Sealed	
Case Material	316L Stainless Steel	
Sensing Element	Piezo Ceramic (Shear)	
Connector	2 Pin MIL-C-5015	

Accessories

Calibration certificate included.

Part Number	Description	Availability	
PM0011	Mounting stud 1/4-28 to 1/4-28 thread	One stud Included	
PM0008	Mounting stud 1/4-28 to M6 thread	One stud Included	
PM0007	Mounting stud 1/4-28 to M10 thread	Optional	
PM0445	Adhesive mounting adapter	Optional	
MB0001	Flat bottom magnet mounting adapter	Optional	
MB0011	Saddle-shaped magnet mounting adapter	Optional	
16A-10	10 meter mating cable with MIL-C-5015 connector	Optional	
16A-10-B	10 meter mating cable with MIL-C-5015 to BNC connector	Optional	
IN-3062	8 channels data acquisition system	Optional	



Measurement configuration



Ordering information

310	СР	-	50	-	Α
Model	Output signal	-	Range	-	Mounting stud
310	CP=Acceleration RMS peak	-	5=5g	-	A= 1/4-28 to 1/4-28 thread
	signal by loop current output		10=10g		B= 1/4-28 to M6 metric thread
			20=20g		C*=Special
			50=50g		
			100=100g		
			500=500g		



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