

## 1000-1200-0000 General purpose accelerometer

### Applications

- Wind turbine

### Features

- Rugged design
- Corrosion resistant
- Hermetic seal
- Case isolated
- ESD protection
- Rapid shock recovery

### Dynamic

Sensitivity, $\pm 5\%$ , 25°C .....	100 mV/g
Acceleration range .....	80 g peak
Amplitude nonlinearity .....	1%
Frequency response:	
$\pm 5\%$ .....	3 - 5,000 Hz
$\pm 10\%$ .....	1 - 9,000 Hz
$\pm 3$ dB .....	0.5 - 14,000 Hz
Resonance frequency .....	30 kHz
Transverse sensitivity, max .....	5% of axial
Temperature response:	
-50°C .....	-5%
+120°C .....	+5%

### Electrical

Power requirement:	voltage source .....	18 - 30 VDC
	current regulating diode .....	2 - 10 mA
Electrical noise, equiv g:		
Broadband	2.5 Hz to 25 kHz .....	700 $\mu$ g
Spectral	10 Hz .....	10 $\mu$ g/ $\sqrt{\text{Hz}}$
	100 Hz .....	5 $\mu$ g/ $\sqrt{\text{Hz}}$
	1000 Hz .....	5 $\mu$ g/ $\sqrt{\text{Hz}}$
Output impedance, max .....		100 $\Omega$
Bias output voltage .....		12 VDC
Grounding .....		Case isolated, internally shielded

### Environmental

Temperature range .....	-50 to 120°C
Vibration limit .....	500 g peak
Shock limit .....	5,000 g peak
Electromagnetic sensitivity, equiv g, max .....	70 $\mu$ g/gauss
Sealing .....	Hermetic
Base strain sensitivity, max .....	0.0002 g/ $\mu$ strain

### Physical

Sensing element design .....	PZT ceramic / shear
Weight .....	90 grams
Case material .....	316L stainless steel
Output connector .....	4 pin M12
Mating connector .....	4 pin Lumberg
Mounting .....	M8 x 1.25
Mounting torque recommended .....	4.5 Nm

<u>Connector pin</u>	<u>Function</u>	<u>System end</u>
Case	Connector shield	N/C
Pin 1	Signal	Brown
Pin 2	To pin 3 inner shield	White
Pin 3	Common	Blue
Pin 4	N/C	Black

