



dimensions in mm



Features

- ± 4 V Differential Output or Single Ended Output: 0,5V to 4,5V
- 6,5V to 12V DC Power
- g-ranges available from 2g to 400g
- Triaxial, 4 Wire System
- Low Cross Axis Sensitivity $\sim 2\%$
- Low Noise: $5 \mu\text{g}/\sqrt{\text{Hz}}$ for the 2g sensor
- High Shock Resistance
- Internal Temperature Sensor
- Nitrogen Damped / Hermetically Sealed
- Responds to DC & AC Acceleration
- -25°C to $+85^\circ\text{C}$ Operation Temperature
- Amplified Output

Options

- Calibration Test Sheet
- Customized Cable Length
- Customized Connector

Applications

- Seismic Monitoring
- Modal Analysis
- Vibration Monitoring
- Vehicle Dynamics

Description

The PJM 3D Sensor is an advancement of the uniaxial accelerometers of the PJM LN series. The Multi-Axis Accelerometer provides an orthogonal reference with a common center of percussion for up to three accelerometers which can be fitted with sensor elements of different measurement ranges. This makes the sensor particularly useful for standard measurement spots (e.g. axle box). Its space saving design enables easy and versatile placement and reduces the time for mounting considerably.

PERFORMANCE - all Models: Differential Mode					
PARAMETER		MIN	TYP	MAX	UNITS
Cross Axis Sensitivity			2	3	%
Bias Calibration Error	2g		2	4	% of span
	5g thru 200g		1	2	
Bias Temperature Shift ($T_C = -55$ to $+125$ °C)	2g		100	300	(ppm of span) /°C
	5g thru 200g		50	200	
Scale Factor Calibration Error ¹			1	2	%
Scale Factor Temperature Shift ($T_C = -55$ to $+125$ °C)		-250		250	ppm/°C
Non-Linearity ¹ (-90 to +90% of Full Scale)	2g thru 50g		0,15	0,5	% of span
	100g		0,25	1	
	200g		0,4	1,5	
	400g		0,7	2	
Output Impedance			220		Ohms
Operating Voltage		6,5	8	12	Volts
Operating Current			18		mA
Mass	Aluminium Case		75		grams
	Stainless Steel		100		

Note 1: 100g and greater versions are tested from -65 to +65g

PERFORMANCE - by Model:									
Sensor Element	2g	5g	10g	25g	50g	100g	200g	400g	UNITS
Input Range	±2	±5	±10	±25	±50	±100	±200	±400	g
Frequency Response (Nominal, 3dB)	0 - 400	0 - 600	0 - 1000	0 - 1500	0 - 2000	0 - 2500	0 - 3500	0 - 4000	Hz
Sensitivity (Differential) ²	2000	800	400	160	80	40	20	10	mV/g
Output Noise (Differential, RMS, typical)	5	7	10	25	50	100	200	400	µg/√Hz
Max. Mechanical Shock (0,1 ms)	2000		5000						g

Note 2: Single ended sensitivity is half of values shown

SALES & PRODUCT INFORMATION: Sales Inquiries should be addressed to: info@pjm.co.at