



DETAIL A

dimensions in mm

Features

- $\pm 4V$ Differential Output or Single Ended Output: 0,5V to 4,5V
- 6,5V to 12V DC Power
- g-ranges available from 2g to 400g
- Uniaxial, 4 Wire System
- Low Cross Axis Sensitivity $\sim 2\%$
- Low Noise: $5 \mu g / \sqrt{Hz}$ for the 2g sensor
- High Shock Resistance
- Internal Temperature Sensor
- Nitrogen Damped / Hermetically Sealed
- Responds to DC & AC Acceleration
- -25 to +85°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 LN Sensor is an uniaxial accelerometer based on capacitive technology. Its hermetically sealed steel casing guarantees perfect protection from environmental influences. It can be used in zero to medium frequency instrumentation applications that require extremely low noise. Due to its internal Temperature Sensor it is relatively insensitive to temperature changes. The sensitive axis is perpendicular to the bottom of the package, with positive acceleration defined as a force pushing on the bottom of the package, as shown above.

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 $+125^\circ\text{C}$)	2g		100	300	(ppm of span) / $^\circ\text{C}$
	5g thru 200g		50	200	
Scale Factor Calibration Error ¹			1	2	%
Scale Factor Temperature Shift ($T_c = -55$ to $+125^\circ\text{C}$)		-250		250	ppm/ $^\circ\text{C}$
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			6		mA
Mass	Aluminium Case		30		grams
	Stainless Steel		80		

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

PERFORMANCE - by Model:										
MODEL No.	PJM LN 2g	PJM LN 5g	PJM LN 10g	PJM LN 25g	PJM LN 50g	PJM LN 100g	PJM LN 200g	PJM LN 400g	UNITS	
Input Range	± 2	± 5	± 10	± 25	± 50	± 100	± 200	± 400	g	
Frequency Response (Nominal, 3 dB)	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	$\mu\text{g}/\sqrt{\text{Hz}}$	
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