Model Number 421B31	DIFFER	ENTIAL INP	UT IN-LII	NE CHARGE AMPLIFIER		vision: NR N #: 49931
Performance	ENGLISH	SI		OPTIONAL VERSIC	NS	
Sensitivity(± 5 %)(Voltage Output)	10 mV/pC	10 mV/pC	[1][2]	Optional versions have identical specifications and accessori where noted below. More than one o	es as listed for the sta	ndard model exce
ensitivity(± 5 %)(Current Output)	10 µA/pC	10 µA/pC	[1][2]	where noted below. More than one o	nion may be used.	
but Range	± 500 pC	± 500 pC	121141			
w Frequency Response(- 3 dB) h Frequency Response(- 1 dB)	10 Hz 1 kHz	10 Hz 1 kHz	[3][4] [5][6][4]			
on-Linearity	≤ 1.0 % FS	≤ 1.0 % FS	[3][0][4]			
nvironmental		2 110 /010				
emperature Range(Operating)	-22 to +185 °F	-30 to +85 °C				
emperature Response(Sensitivity	< 2.5 %	< 2.5 %				
Deviation) Electrical						
xcitation Voltage	22 to 28 VDC	22 to 28 VDC				
Output Bias Voltage	7.3 to 7.7 VDC	7.3 to 7.7 VDC				
Dutput Voltage	± 5 Vpk	± 5 Vpk				
Dutput Bias Current	11 to 13 mA	11 to 13 mA				
Dutput Current	± 5 mApK	± 5 mApK				
Dutput Impedance Broadband Electrical Noise(1 to 10,000 Hz)	< 770 Ohm 478 µV	< 770 Ohm -66 dB	[7][0]			
spectral Noise(1 Hz)	478 μν 19 μV/√Hz	-94 dB	[7][8] [7][8]			
pectral Noise(10 Hz)	26 µV/√Hz	-92 dB	[7][8]			
pectral Noise(100 Hz)	7 μV/√Hz	-103 dB	[7][8]			
pectral Noise(1 kHz)	6 µV/√Hz	-104 dB	[7][8]			
pectral Noise(10 kHz)	4 µV/√Hz	-108 dB	[7][8]			
Resistance(Minimum required at input) Source Capacitance Loading	100,000 Ohm 0.0009 %/pF	100,000 Ohm 0.0009 %/pF				
Physical	0.0009 %/ pF	0.0009 %/ pr				
lousing Material	Aluminum	Aluminum				
Veight	6.5 oz	184 gm				
				 an accelerometer with a diferent sensitivity, the output sensitivity will vary. [3]The low frequency tolerance is accurate within ±20% of the specified frequency. [4]Frequency response tested with 1000pF input capacitor. [5]Above stated frequency, the amplifier becomes slew rate limited. [6]The high frequency tolerance is accurate within ±20% of the specified frequency. [7]Tested using voltage source and input capacitor equal to the feedback capacitor, to simulate a charge output sensor. [8]Typical. [9]See PCB Declaration of Conformance PS024 for details. A low impendance connection from cas to earth ground is required to maintain CE compliance. 		
				Entered: LK Engineer: AJP Sales: MC	Approved: NJF	Spec Number:
				Date: 11/05/2019 Date: 11/05/2019 Date: 11/05/2019	Date: 11/05/2019	71009
All specifications are at room temperature ur n the interest of constant product improvem CP $^{\otimes}$ is a registered trademark of PCB Piezoti	ent, we reserve the right to ch	ange specifications witho	ut notice.		6-684-0001 84-0987 J@pcb.com	
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