Model Number	IN-LINE CHARGE CONVERTER	Revision: C
422E66/A		ECN #: 39690

Performance	**ENGLISH**	**SI**	
Sensitivity(± 2 %)(Charge Conversion)	10 mV/pC	10 mV/pC	
Input Range	± 500 pC	± 500 pC	
Low Frequency Response(-5 %)	5 Hz	5 Hz	[2]
High Frequency Response(4 mA)	90 kHz	90 kHz	[1][3]
Non-Linearity	≤ 1.0 % FS	≤ 1.0 % FS	
Environmental			
Temperature Range(Operating)	-65 to +250 °F	-54 to +121 °C	
Maximum Shock	1000 g pk	9810 m/s² pk	
Humidity Range	100 %	100 %	
Radiation Exposure Limit(Integrated Gamma Flux)	≤ 1 Mrad	≤ 1 Mrad	
Radiation Exposure Limit(Integrated Neutron Flux)	≤ 10^{10} N/cm²	≤ 10^{10} N/cm²	
Electrical			
Excitation Voltage	+18 to 28 VDC	+18 to 28 VDC	
Constant Current Excitation	2.2 to 20 mA	2.2 to 20 mA	
Output Voltage	± 5 V	± 5 V	
Output Impedance	<20 Ohm	<20 Ohm	
Output Bias Voltage	9 to 14.5 VDC	9 to 14.5 VDC	
Broadband Electrical Noise(1 to 10,000 Hz)	17 µV	-95 dB	[1]
Spectral Noise(1 Hz)	10 µV/√Hz	-100 dB	[1]
Spectral Noise(10 Hz)	2 µV/√Hz	-114 dB	[1]
Spectral Noise(100 Hz)	0.3 µV/√Hz	-130 dB	[1]
Spectral Noise(1 kHz)	0.05 µV/√Hz	-146 dB	[1]
Spectral Noise(10 kHz)	0.05 µV/√Hz	-146 dB	[1]
Capacitance(Maximum allowable at input)	20,000 pF	20,000 pF	
Discharge Time Constant	≥ .05 sec	≥ .05 sec	
Resistance(Minimum required at input)	10,000 Ohm	10,000 Ohm	
Source Capacitance Loading	<0.0005 %/pF	<0.0005 %/pF	
Physical			
Housing Material	Stainless Steel	Stainless Steel	
Sealing	Welded	Welded	
Electrical Connector(Input)	10-32 Coaxial Jack	10-32 Coaxial Jack	
Electrical Connector(Output)	10-32 Coaxial Jack	10-32 Coaxial Jack	
Size (Diameter x Length)	0.50 in x 3.0 in	13 mm x 76 mm	
Weight	0.8 oz	23 gm	

CE[4]

All specifications are at room temperature unless otherwise specified.
In the interest of constant product improvement, we reserve the right to change specifications without notice.

OPTIONAL VERSIONS

Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.

NOTES:

[1] Tested using voltage source and input capacitor equal to the feedback capacitor, to simulate a charge output sensor.
[2] The low frequency response is accurate within ±30% of the specified frequency
[3] Slew rate limiting may result at higher frequencies.
[4] See PCB Declaration of Conformance PS024 for details. A low impendance connection from case to earth ground is required to maintain CE compliance.

Entered: AP	Engineer: AJP	Sales: JJM	Approved: JWH	Spec Number:
Date: 1/31/2013	Date: 1/31/2013	Date: 1/31/2013	Date: 1/31/2013	**31910**

PCB PIEZOTRONICS
3425 Walden Avenue, Depew, NY 14043
Phone: 716-684-0001
Fax: 716-684-0987
E-Mail: info@pcb.com