Model Number	IN-LINE CHARGE CONVERTER	Revision: F ECN #: 45760
422E35		

	ENGLISH	SI	
Performance			
Sensitivity(± 2 %)(Charge Conversion)	1 mV/pC	1 mV/pC	
Input Range	± 2500 pC	± 2500 pC	
Low Frequency Response(-5 %)	5 Hz	5 Hz	[2]
High Frequency Response(2.2 mA)	30 kHz	30 kHz	[3]
High Frequency Response(4 mA)	60 kHz	60 kHz	[3]
High Frequency Response(20 mA)	100 kHz	100 kHz	[3]
Non-Linearity	≤ 1.0 % FS	≤ 1.0 % FS	
Environmental			
Temperature Range(Operating)	-65 to +250 °F	-54 to +121 °C	
Temperature Response(Sensitivity Deviation)	<2 %	<2 %	
Maximum Shock	1000 g pk	9810 m/s² pk	
Humidity Range	100 %	100 %	
Electrical			
Excitation Voltage	+18 to 28 VDC	+18 to 28 VDC	
Output Bias Voltage	+12.00 to 15.00 VDC	+12.00 to 15.00 VDC	
Output Voltage(at specified measurement range)	± 2.5 V	± 2.5 V	
Constant Current Excitation	2.2 to 20 mA	2.2 to 20 mA	
Output Impedance	<10 Ohm	<10 Ohm	
Settling Time	<6 min	<6 min	
Output Polarity	Inverted	Inverted	
Maximum Input Voltage	30 V	30 V	
Broadband Electrical Noise(1 to 10,000 Hz)	14.0 µV	-97 dB	[1]
Spectral Noise(1 Hz)	8.90 µV/√Hz	-101 dB	[1]
Spectral Noise(10 Hz)	0.85 µV/√Hz	-121 dB	[1]
Spectral Noise(100 Hz)	0.31 µV/√Hz	-130 dB	[1]
Spectral Noise(1 kHz)	0.17 µV/√Hz	-135 dB	[1]
Spectral Noise(10 kHz)	0.07 µV/√Hz	-143 dB	[1]
Capacitance(Maximum allowable at input)	20,000 pF	20,000 pF	
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)	BNC Jack	BNC Jack	
Size (Diameter x Length)	0.52 in x 3.4 in	13 mm x 86 mm	
Weight	1.1 oz	31 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.
ICP® is a registered trademark of PCB Group, Inc.

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.

TLD - TEDS Capable of Digital Memory and Communication Compliant with IEEE 1451.4

Temperature Range(Operating)	-40 to +185 °F	-40 to +85 °C

NOTES:

[1]Tested using voltage source and input capacitor equal to the feedback capacitor, to simulate a charge output sensor.
[2]The low frequency tolerance is accurate within ±10% of the specified frequency.
[3]Above stated frequency, the amplifier becomes slew rate limited.
[4]See PCB Declaration of Conformance PS024 for details.

Entered: LK	Engineer: CPH	Sales: ML	Approved: DY	Spec Number:
Date: 8/10/2016	Date: 8/10/2016	Date: 8/10/2016	Date: 8/10/2016	17785

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