

Model Number 422E11	IN-LINE CHARGE CONVERTER	Revision: R ECN #: 45760
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	ENGLISH	SI
Performance		
Sensitivity(± 5 %)(Charge Conversion)	100 mV/pC	100 mV/pC
Overrange	± 3 V	± 3 V
Low Frequency Response(-5 %)	5 Hz	5 Hz
High Frequency Response(2.2 mA)	60 kHz	60 kHz
High Frequency Response(4 mA)	90 kHz	90 kHz
High Frequency Response(20 mA)	110 kHz	110 kHz
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/s ² pk
Electrical		
Excitation Voltage	18 to 28 VDC	18 to 28 VDC
Output Bias Voltage	12.75 to 14.25 VDC	12.75 to 14.25 VDC
Output Voltage(at specified measurement range)	± 2.5 Vpk	± 2.5 Vpk
Constant Current Excitation	2.2 to 20 mA	2.2 to 20 mA
Output Impedance	<20 Ohm	<20 Ohm
Output Polarity	Inverted	Inverted
Maximum Input Voltage	30 V	30 V
Broadband Electrical Noise(1 to 10,000 Hz)	60 µV	-84 dB
Spectral Noise(1 Hz)	44 µV/√Hz	-87 dB
Spectral Noise(10 Hz)	8.0 µV/√Hz	-102 dB
Spectral Noise(100 Hz)	1.0 µV/√Hz	-120 dB
Spectral Noise(1 kHz)	0.2 µV/√Hz	-134 dB
Spectral Noise(10 kHz)	0.1 µV/√Hz	-140 dB
Discharge Time Constant	0.1 sec	0.1 sec
Resistance(Minimum required at input)	2x10 ⁸ Ohm	2x10 ⁸ Ohm
Source Capacitance Loading	0.005 %/pF	0.005 %/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	1.15 oz	32.7 gm

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
Output Bias Voltage	13.35 to 14.85 VDC	13.35 to 14.85 VDC

NOTES:

[1] Tested using voltage source and input capacitor equal to the feedback capacitor, to simulate a charge output sensor.

[2] Not to be used with low values of source resistance such as charge mode sensors at elevated temperatures or contaminated sensor cables (preventing low frequency peaking and/or output bias problems).

[3] Above stated frequency, the amplifier becomes slew rate limited.

[4] See PCB Declaration of Conformance PS024 for details.

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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	422-5110-80



[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.
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