Model Number	IN-LINE CHARGE CONVERTER	Revision: E
422E38		ECN #: 34173

Performance	ENGLISH	SI	
Sensitivity(± 2 %)(Charge Conversion)	0.1 mV/pC	0.1 mV/pC	
Input Range	± 25,000 pC	± 25,000 pC	
Low Frequency Response(-5 %)	5 Hz	5 Hz	[2]
High Frequency Response(2.2 mA)	4 kHz	4 kHz	[3]
(4 mA)	15 kHz	15 kHz	[3]
(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	
Constant Current Excitation	2.2 to 20 mA	2.2 to 20 mA	
Settling Time	<6 min	<6 min	
Output Voltage(at specified measurement range)	± 2.5 V	± 2.5 V	
Output Impedance	<10 ohm	<10 ohm	
Output Bias Voltage	+12.00 to 15.00 VDC	+12.00 to 15.00 VDC	
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]
(10 Hz)	0.85 µV/√Hz	-121 dB	[1]
(100 Hz)	0.31 µV/√Hz	-130 dB	[1]
(1 kHz)	0.17 µV/√Hz	-135 dB	[1]
(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	
(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.

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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.

T - TEDS Capable of Digital Memory and Communication Compliant with IEEE P1451.4

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:	Engineer:	Sales:	Approved:	Spec Number:
Date: 10-25-10	Date: 10-6-10	Date: 10-25-10	Date: 10-25-10	28876

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