

Model Number 422E54	IN-LINE CHARGE CONVERTER				Revision: C ECN #: 37900												
Performance		ENGLISH	SI	OPTIONAL VERSIONS													
Sensitivity(± 2.5 %)(Charge Conversion)		0.1 mV/pC	0.1 mV/pC	Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.													
Input Range		± 50,000 pC	± 50,000 pC														
Overrange		± 8 V	± 8 V														
Low Frequency Response(-5 %)		5 Hz	5 Hz														
High Frequency Response(4 mA)		12 kHz	12 kHz														
High Frequency Response(20 mA)		50 kHz	50 kHz	[3]													
Non-Linearity		≤ 1.0 % FS	≤ 1.0 % FS	[3]													
Environmental				NOTES: [1] Tested using voltage source and input capacitor equal to the feedback capacitor, to simulate a charge output sensor. [2] Effective feedback resistance for time constant is 3 times tested value due to circuitry (i.e 1x10E9 = 3x10E9 ohm) [3] High frequency response may be limited by supply current and output cable length. [4] See PCB Declaration of Conformance PS024 for details. A low impedance connection from case to earth ground is required to maintain CE compliance.													
Temperature Range(Operating)		-65 to +250 °F	-54 to +121 °C														
Maximum Shock		5000 g pk	49,050 m/s² pk														
Maximum Vibration(5 to 2000 Hz)		100 g pk	981 m/s² pk														
Electrical																	
Excitation Voltage		18 to 28 VDC	18 to 28 VDC														
Constant Current Excitation		2 to 20 mA	2 to 20 mA														
Output Voltage		± 5.0 V	± 5.0 V														
Output Impedance		100 ohm	100 ohm														
Output Bias Voltage		9 to 13 VDC	9 to 13 VDC														
Maximum Input Voltage		40 V	40 V														
Broadband Electrical Noise(1 to 10,000 Hz)		33 µV	-90 dB														
Spectral Noise(1 Hz)		9.8 µV/√Hz	-100 dB														
Spectral Noise(10 Hz)		3 µV/√Hz	-110 dB														
Spectral Noise(100 Hz)		0.8 µV/√Hz	-122 dB														
Spectral Noise(1 kHz)		0.4 µV/√Hz	-128 dB														
Spectral Noise(10 kHz)		0.2 µV/√Hz	-134 dB														
Capacitance(Feedback)		10,000 pF	10,000 pF														
Overload Recovery Time		10 µsec	10 µsec														
Discharge Time Constant		>0.1 sec	>0.1 sec														
Resistance(Feedback)		6x10 ⁷ ohm	6x10 ⁷ ohm														
Source Capacitance Loading		0.0005 %/pF	0.0005 %/pF														
Physical																	
Housing Material		Stainless Steel	Stainless Steel														
Sealing		Epoxy	Epoxy														
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	<table><tr><td>Entered: DMW</td><td>Engineer: KL</td><td>Sales: JJM</td><td>Approved: BAM</td><td>Spec Number:</td></tr><tr><td>Date: 12/14/2011</td><td>Date: 12/14/2011</td><td>Date: 12/14/2011</td><td>Date: 12/14/2011</td><td>31969</td></tr></table>		Entered: DMW	Engineer: KL	Sales: JJM	Approved: BAM	Spec Number:	Date: 12/14/2011	Date: 12/14/2011	Date: 12/14/2011	Date: 12/14/2011	31969		
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Weight		1.15 oz	32.7 gm														
				<table><tr><td colspan="2"></td><td colspan="2">Phone: 716-684-0001</td></tr><tr><td colspan="2"></td><td colspan="2">Fax: 716-684-0987</td></tr><tr><td colspan="2"></td><td colspan="2">E-Mail: electronics@pcb.com</td></tr></table>				Phone: 716-684-0001				Fax: 716-684-0987				E-Mail: electronics@pcb.com	
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[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.																	