

Model Number 422E51	IN-LINE CHARGE CONVERTER				Revision: E ECN #: 37900										
Performance		ENGLISH	SI	OPTIONAL VERSIONS											
Sensitivity(± 5.0 %)(Charge Conversion)		100 mV/pC	100 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 pC	± 50 pC												
Overrange		± 8 V	± 8 V												
Low Frequency Response(-5 %)		5 Hz	5 Hz												
High Frequency Response(-5 %)		100 kHz	100 kHz												
Non-Linearity		≤ 1.0 % FS	≤ 1.0 % FS	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.											
Environmental															
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 Polarity		Inverted	Inverted												
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)		49 µV	-86 dB												
Spectral Noise(1 Hz)		19 µV/√Hz	-94 dB												
Spectral Noise(10 Hz)		5.1 µV/√Hz	-106 dB												
Spectral Noise(100 Hz)		1.5 µV/√Hz	-116 dB												
Spectral Noise(1 kHz)		0.6 µV/√Hz	-124 dB												
Spectral Noise(10 kHz)		0.2 µV/√Hz	-134 dB												
Capacitance(Feedback)		10 pF	10 pF												
Overload Recovery Time		10 µsec	10 µsec												
Discharge Time Constant		>0.1 sec	>0.1 sec												
Resistance(Feedback)		1.2x10 ¹⁰ ohm	1.2x10 ¹⁰ ohm												
Source Capacitance Loading		0.0005 %/pF	0.0005 %/pF												
Physical				<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>25577</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	25577
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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												
Weight		1.15 oz	32.7 gm												
															
<i>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.</i> ICP® is a registered trademark of PCB Group, Inc.															
<table><tr><td colspan="2"></td><td colspan="2">Phone: 716-684-0001 Fax: 716-684-0987 E-Mail: electronics@pcb.com</td></tr><tr><td colspan="4">3425 Walden Avenue, Depew, NY 14043</td></tr></table>								Phone: 716-684-0001 Fax: 716-684-0987 E-Mail: electronics@pcb.com		3425 Walden Avenue, Depew, NY 14043					
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