

Model Number 422E53		IN-LINE CHARGE CONVERTER			Revision: D ECN #: 37900	
Performance		ENGLISH	SI	OPTIONAL VERSIONS		
Sensitivity(± 2.5 %)(Charge Conversion)		1 mV/pC	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		± 5000 pC	± 5000 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	[3]		
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 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	[1]		
Spectral Noise(1 Hz)		9.8 µV/√Hz	-100 dB	[1]		
Spectral Noise(10 Hz)		3 µV/√Hz	-110 dB	[1]		
Spectral Noise(100 Hz)		0.8 µV/√Hz	-122 dB	[1]		
Spectral Noise(1 kHz)		0.4 µV/√Hz	-128 dB	[1]		
Spectral Noise(10 kHz)		0.2 µV/√Hz	-134 dB	[1]		
Capacitance(Feedback)		1000 pF	1000 pF			
Overload Recovery Time		10 µsec	10 µsec			
Discharge Time Constant		>0.1 sec	>0.1 sec			
Resistance(Feedback)		1.5x10 ⁹ ohm	1.5x10 ⁹ ohm	[2]		
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			
Weight		1.15 oz	32.7 gm			
		[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.						
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