



Model Number 483C41	<b>EIGHT-CHANNEL ICP®/VOLTAGE/CHARGE SENSOR SIGNAL CONDITIONER</b>		Revision: C ECN #: 40833										
<b>Performance</b>	<b>ENGLISH</b>	<b>SI</b>	<b>OPTIONAL VERSIONS</b>										
Channels	8	8	Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.										
Sensor Input Type(s)	ICP®, Voltage, Charge	ICP®, Voltage, Charge											
Gain(ICP®/ Voltage Input)	0.1 to 200	0.1 to 200											
Gain(mV/pC)(Charge Input)	0.01 to 2000	0.01 to 2000											
Gain Increment(minimum)(ICP®/ Voltage Input)	0.1	0.1											
Gain Increment(minimum)(Charge Input)	0.01	0.01											
Accuracy(ICP®/ Voltage Input)(Gain, 0.1 to 0.4)	± 5 %	± 5 %											
Accuracy(ICP®/ Voltage Input)(Gain, 0.5 to 200)	± 1 %	± 1 %											
Accuracy(Charge Input)(Gain, 0.01 to 0.04)	± 6 %	± 6 %											
Accuracy(Charge Input)(Gain, 0.05 to 2000)	± 1 %	± 1 %											
Input Range(maximum)(Charge Input)	100,000 pC pk	100,000 pC pk											
Input Range(maximum)(ICP® Input)	10 Vpk	10 Vpk		[4]									
Input Range(maximum)(Voltage Input)	5 Vpk	5 Vpk											
Low Frequency Response(-5 %)(ICP®/ Voltage Input)	≤ 0.05 Hz	≤ 0.05 Hz											
Low Frequency Response(-5 %)(Charge Input)	0.5 Hz	0.5 Hz		[5]									
High Frequency Response(-3 dB)(Gain from 0.01 to 99.9)	>100 kHz	>100 kHz											
High Frequency Response(-3 dB)(Gain from 100 to 2000)	>80 kHz	>80 kHz											
Filter Type(8-pole Butterworth)	Low Pass	Low Pass											
Electrical Filter Corner Frequency(-10 %)	0.1-0.3-1-3-10-30 kHz	0.1-0.3-1-3-10-30 kHz		[6]									
Electrical Filter Roll-off	160 dB/decade	160 dB/decade											
Electrical Filter Pass Band Amplitude Accuracy	1 %	1 %											
Phase Response(at 1 kHz)	± 2 °	± 2 °											
Non-Linearity	1 %	1 %											
Cross Talk	<-72 dB	<-72 dB											
TEDS Sensor Support	Yes	Yes											
Fault/Bias Monitor LEDs	Open/Short/Overload	Open/Short/Overload											
<b>Control Interface</b>				<b>NOTES:</b>									
Human Interface	Keypad	Keypad		[1] Use T1.6A fuse.									
Display	2 rows, 16 columns	2 rows, 16 columns		[2] User adjustable, factory set at 4 mA (± 1.0 mA). Each channel individually adjustable.									
Digital Control Interface	Ethernet	Ethernet		[3] Typical.									
<b>Environmental</b>			[4] Max input signal is dependant on sensor bias.										
Temperature Range(Operating)	+32 to +120 °F	0 to +50 °C	[5] The low frequency tolerance is accurate within ±25% of the specified frequency.										
<b>Electrical</b>			[6] The high frequency tolerance is accurate within ±5% of the specified frequency.										
Power Required(direct input to unit)	AC Power	AC Power	[7] See PCB Declaration of Conformance PS024 for details.										
AC Power(47 to 63 Hz)	100 to 240 VAC	100 to 240 VAC											
AC Power	≤ 0.7 Amps	≤ 0.7 Amps	[1]										
Excitation Voltage(To Sensor)	>24 VDC	>24 VDC											
DC Offset	<50 mV	<50 mV											
Constant Current Excitation(To Sensor)	2 to 20 mA	2 to 20 mA	[2]										
Output Voltage(minimum)	10 V	10 V											
Output Current(minimum)	10 mA	10 mA											
Output Impedance	<50 Ohm	<50 Ohm											
Overload Threshold(± 0.5 Vpk)	± 10 Vpk	± 10 Vpk											
Broadband Electrical Noise(1 to 10,000 Hz)(Gain x1)	50 µV/rms	50 µV/rms	[3]										
Spectral Noise(1 Hz)	8 µV/√Hz	8 µV/√Hz	[3]										
Spectral Noise(10 Hz)	2 µV/√Hz	2 µV/√Hz	[3]										
Spectral Noise(100 Hz)	0.7 µV/√Hz	0.7 µV/√Hz	[3]										
Spectral Noise(1 kHz)	0.7 µV/√Hz	0.7 µV/√Hz	[3]										
Spectral Noise(10 kHz)	0.6 µV/√Hz	0.6 µV/√Hz	[3]										
Broadband Electrical Noise(1 to 10,000 kHz)(Gain x10)	75 µV rms	75 µV rms	[3]										
Spectral Noise(1 Hz)	18 µV/√Hz	18 µV/√Hz	[3]										
Spectral Noise(10 Hz)	1.5 µV/√Hz	1.5 µV/√Hz	[3]										
Spectral Noise(100 Hz)	1.0 µV/√Hz	1.0 µV/√Hz	[3]										
Spectral Noise(1 kHz)	1.0 µV/√Hz	1.0 µV/√Hz	[3]										
Spectral Noise(10 kHz)	1.0 µV/√Hz	1.0 µV/√Hz	[3]										
Broadband Electrical Noise(1 to 10,000 Hz)(Gain x100)	350 µV rms	350 µV rms	[3]										
Spectral Noise(1 Hz)	100 µV/√Hz	100 µV/√Hz	[3]										
Spectral Noise(10 Hz)	10 µV/√Hz	10 µV/√Hz	[3]										
Spectral Noise(100 Hz)	6 µV/√Hz	6 µV/√Hz	[3]										
Spectral Noise(1 kHz)	5 µV/√Hz	5 µV/√Hz	[3]										
Spectral Noise(10 kHz)	5 µV/√Hz	5 µV/√Hz	[3]										
Broadband Electrical Noise(1 to 10,000 Hz)(0.1 mV/pC)	52.0 µV/rms	52.0 µV/rms	[3]										
Spectral Noise(1 Hz)	10.0 µV/√Hz	10.0 µV/√Hz	[3]										
Spectral Noise(10 Hz)	1.5 µV/√Hz	1.5 µV/√Hz	[3]										
Spectral Noise(100 Hz)	0.6 µV/√Hz	0.6 µV/√Hz	[3]										
Spectral Noise(1 kHz)	0.6 µV/√Hz	0.6 µV/√Hz	[3]										
Spectral Noise(10 kHz)	0.6 µV/√Hz	0.6 µV/√Hz	[3]										
Broadband Electrical Noise(1 to 10,000 Hz)(1.0 mV/pC)	52.0 µV/rms	52.0 µV/rms	[3]										
Spectral Noise(1 Hz)	14.0 µV/√Hz	14.0 µV/√Hz	[3]										
Spectral Noise(10 Hz)	2.0 µV/√Hz	2.0 µV/√Hz	[3]										
Spectral Noise(100 Hz)	0.7 µV/√Hz	0.7 µV/√Hz	[3]										
Spectral Noise(1 kHz)	0.7 µV/√Hz	0.7 µV/√Hz	[3]										
Spectral Noise(10 kHz)	0.7 µV/√Hz	0.7 µV/√Hz	[3]										
Broadband Electrical Noise(1 to 10,000 Hz)(10.0 mV/pC)	56.0 µV/rms	56.0 µV/rms	[3]										
Spectral Noise(1 Hz)	15.0 µV/√Hz	15.0 µV/√Hz	[3]										
Spectral Noise(10 Hz)	2.0 µV/√Hz	2.0 µV/√Hz	[3]										
Spectral Noise(100 Hz)	0.6 µV/√Hz	0.6 µV/√Hz	[3]										
Spectral Noise(1 kHz)	0.6 µV/√Hz	0.6 µV/√Hz	[3]										
Spectral Noise(10 kHz)	0.6 µV/√Hz	0.6 µV/√Hz	[3]										
Oscillator(+/- 2%)(Internal Generator - ICP®/ Voltage Mode)	0.1 V pk	0.1 V pk											
Oscillator(+/- 2%)(Internal Generator - Charge Mode)	100 pC pk	100 pC pk											
Oscillator(+/- 2%)	100/1000 Hz	100/1000 Hz											
<b>Physical</b>			<b>SUPPLIED ACCESSORIES:</b>										
Electrical Connector(Input, sensor)	BNC Jack	BNC Jack	Model 017AXX Power Cord (1)										
Electrical Connector(Output)	BNC Jack	BNC Jack	Model EE75 PCB MCSC Control Software. (1)										
Electrical Connector(Ethernet)	RJ-45	RJ-45											
Size (Height x Width x Depth)(nominal)	1.75 in x 19 in x 13.7 in	44.5 mm x 482.6 mm x 348 mm											
Weight	8 lb	3.6 Kg											
 [7]													
<p>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.</p> <p>ICP® is a registered trademark of PCB Group, Inc.</p>													
			<b>Phone: 716-684-0001</b> <b>Fax: 716-684-0987</b> <b>E-Mail: info@pcb.com</b>										
<p>Represented in India by  <b>Structural Solutions Pvt Ltd.   Phone: 040 2322 2380   Email: sales@stsoils.com</b>  #4th Floor, Sudheer Tapani Towers, Himayath Nagar, Hyderabad - 500 029</p>			<table border="1"> <tr> <td>Entered: AP</td> <td>Engineer: AJP</td> <td>Sales: JJM</td> <td>Approved: JWH</td> <td>Spec Number:</td> </tr> <tr> <td>Date: 3/25/2013</td> <td>Date: 3/25/2013</td> <td>Date: 3/25/2013</td> <td>Date: 3/25/2013</td> <td><b>46951</b></td> </tr> </table>	Entered: AP	Engineer: AJP	Sales: JJM	Approved: JWH	Spec Number:	Date: 3/25/2013	Date: 3/25/2013	Date: 3/25/2013	Date: 3/25/2013	<b>46951</b>
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