



Model Number 483C30	EIGHT-CHANNEL, ICP® SENSOR SIGNAL CONDITIONER		Revision: H ECN #: 45020	
Performance	ENGLISH	SI	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.	
Channels	8	8		
Sensor Input Type(s)	ICP®, Voltage, Charge	ICP®, Voltage, Charge		
Voltage Gain	x0.1 to x200	x0.1 to x200		
Voltage Gain Increment	0.1	0.1		
Accuracy(Gain, x0.1 to x0.4)	± 5 %	± 5 %		
Accuracy(Gain, x0.5 to x200)	± 1 %	± 1 %		
Sensitivity(± 1 %)(Charge Input @ 100 Hz)	0.1-10.0 mV/pC	0.1-10.0 mV/pC		
Low Frequency Response(-5 %)(ICP® Input)	≤ 0.05 Hz	≤ 0.05 Hz		
Low Frequency Response(-5 %)(Charge Input)	0.5 Hz	0.5 Hz	[3][4]	
High Frequency Response(-3 dB)	>100 kHz	>100 kHz		
High Frequency Response(-3 dB)	>80 kHz	>80 kHz		
Filter Type(4-pole)	Low Pass	Low Pass		
Electrical Filter Corner Frequency(-3 dB)	10 kHz	10 kHz	[5]	
Electrical Filter Roll-off	24 dB/octave	24 dB/octave		
Electrical Filter Roll-off	80 dB/decade	80 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/Meter	Open/Short/Overload	Open/Short/Overload		
Control Interface				
Digital Control Interface	Ethernet	Ethernet		
Environmental				
Temperature Range(Operating)	+32 to +120 °F	0 to +50 °C		
Electrical				
Power Required(direct input to unit)	AC Power	AC Power		
AC Power(47 to 63 Hz)	100 to 240 VAC	100 to 240 VAC		
AC Power	≤ 0.85 Amps	≤ 0.85 Amps		
Excitation Voltage(To Sensor)	>24 VDC	>24 VDC		
DC Offset	<50 mV	<50 mV		
Constant Current Excitation(To Sensor)(Non-Isolated Mode)	2 to 20 mA	2 to 20 mA	[1]	
Constant Current Excitation(± 0.6 mA)(Isolated Mode)	4 mA	4 mA		
Output Voltage	10 V	10 V		
Output Current	50 mA	50 mA		
Output Impedance	<50 Ohm	<50 Ohm		
Overload Threshold(± 0.5 Vpk)	± 10 Vpk	± 10 Vpk		
Discharge Time Constant(± 25 %)(Charge Input)	1 sec	1 sec		
Broadband Electrical Noise(1 to 10,000 Hz)(Gain x1)	50 µV/rms	50 µV/rms	[2]	
Spectral Noise(1 Hz)	8 µV/√Hz	8 µV/√Hz	[2]	
Spectral Noise(10 Hz)	2 µV/√Hz	2 µV/√Hz	[2]	
Spectral Noise(100 Hz)	0.7 µV/√Hz	0.7 µV/√Hz	[2]	
Spectral Noise(1 kHz)	0.7 µV/√Hz	0.7 µV/√Hz	[2]	
Spectral Noise(10 kHz)	0.6 µV/√Hz	0.6 µV/√Hz	[2]	
Broadband Electrical Noise(1 to 10,000 Hz)(Gain x10)	75 µV rms	75 µV rms	[2]	
Spectral Noise(1 Hz)	18 µV/√Hz	18 µV/√Hz	[2]	
Spectral Noise(10 Hz)	1.5 µV/√Hz	1.5 µV/√Hz	[2]	
Spectral Noise(100 Hz)	1.0 µV/√Hz	1.0 µV/√Hz	[2]	
Spectral Noise(1 kHz)	1.0 µV/√Hz	1.0 µV/√Hz	[2]	
Spectral Noise(10 kHz)	1.0 µV/√Hz	1.0 µV/√Hz	[2]	
Broadband Electrical Noise(1 to 10,000 Hz)(Gain x100)	350 µV rms	350 µV rms	[2]	
Spectral Noise(1 Hz)	100 µV/√Hz	100 µV/√Hz	[2]	
Spectral Noise(10 Hz)	10 µV/√Hz	10 µV/√Hz	[2]	
Spectral Noise(100 Hz)	6 µV/√Hz	6 µV/√Hz	[2]	
Spectral Noise(1 kHz)	5 µV/√Hz	5 µV/√Hz	[2]	
Spectral Noise(10 kHz)	5 µV/√Hz	5 µV/√Hz	[2]	
Broadband Electrical Noise(1 to 10,000 Hz)(0.1 mV/pC & Gain x1)	52.0 µV rms	52.0 µV rms	[2]	
Spectral Noise(1 Hz)	10.0 µV/√Hz	10.0 µV/√Hz	[2]	
Spectral Noise(10 Hz)	1.5 µV/√Hz	1.5 µV/√Hz	[2]	
Spectral Noise(100 Hz)	0.6 µV/√Hz	0.6 µV/√Hz	[2]	
Spectral Noise(1000 Hz)	0.6 µV/√Hz	0.6 µV/√Hz	[2]	
Spectral Noise(10,000 Hz)	0.6 µV/√Hz	0.6 µV/√Hz	[2]	
Broadband Electrical Noise(1 to 10,000 Hz)(1.0 mV/pC & Gain x1)	52.0 µV rms	52.0 µV rms	[2]	
Spectral Noise(1 Hz)	14.0 µV/√Hz	14.0 µV/√Hz	[2]	
Spectral Noise(10 Hz)	2.0 µV/√Hz	2.0 µV/√Hz	[2]	
Spectral Noise(100 Hz)	0.7 µV/√Hz	0.7 µV/√Hz	[2]	
Spectral Noise(1000 Hz)	0.7 µV/√Hz	0.7 µV/√Hz	[2]	
Spectral Noise(10,000 Hz)	0.7 µV/√Hz	0.7 µV/√Hz	[2]	
Broadband Electrical Noise(1 to 10,000 Hz)(10.0 mV/pC & Gain x1)	56.0 µV/rms	56.0 µV/rms	[2]	
Spectral Noise(1 Hz)	15.0 µV/√Hz	15.0 µV/√Hz	[2]	
Spectral Noise(10 Hz)	2.0 µV/√Hz	2.0 µV/√Hz	[2]	
Spectral Noise(100 Hz)	0.6 µV/√Hz	0.6 µV/√Hz	[2]	
Spectral Noise(1000 Hz)	0.6 µV/√Hz	0.6 µV/√Hz	[2]	
Spectral Noise(10,000 Hz)	0.6 µV/√Hz	0.6 µV/√Hz	[2]	
Electrical Isolation(Selectable)(Channel-to-channel signal grounds)	Isolated/Non-isolated	Isolated/Non-isolated		
Electrical Isolation(Selectable)(Input-to-output signal grounds)	Isolated/Non-isolated	Isolated/Non-isolated		
Oscillator(+/- 2%)(Internal Generator - ICP Mode)	0.1 V pk 100/1000 Hz	0.1 V pk 100/1000 Hz		
Oscillator(+/- 2%)(Internal Generator - Charge Mode)	100 pC pk 100/1000 Hz	100 pC pk 100/1000 Hz		
External Calibration Input(+/- 1%)(ICP Mode Input Gain)	1 V/V	1 V/V		
External Calibration Input(+/- 1%)(Charge Mode Input Gain)	1000 pC/V	1000 pC/V		
Physical				
Electrical Connector(Input, sensor)	BNC Jack	BNC Jack		
Electrical Connector(Output)	BNC Jack	BNC Jack		
Electrical Connector(External Cal)	10-32 Coaxial Jack	10-32 Coaxial Jack		
Electrical Connector(Ethernet)	RJ-45	RJ-45		
Size (Height x Width x Depth)(nominal)	1.75 in x 19 in x 13.744.5 mm	44.5 mm x 482.6 mm x 348 mm		
Weight	8 lb	3.6 kg		
SUPPLIED ACCESSORIES: Model 017AXX Power Cord (1) Model EE75 PCB MCSC Control Software. (1)				
Entered: LK	Engineer: CPH	Sales: ML	Approved: ECB	Spec Number:
Date: 1/20/2016	Date: 1/20/2016	Date: 1/20/2016	Date: 1/20/2016	38090
 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.			 Phone: 716-684-0001 Fax: 716-684-0987 E-Mail: info@pcb.com	



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