


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	
NOTES:			
[1]User adjustable, factory set at 4 mA (± 1.0 mA). One control adjusts all channels.			
[2]Typical.			
[3]The low frequency tolerance is accurate within ±25% of the specified frequency.			
[4]Assumes input resistance >10 MOhms. Lower input resistance can be used, but will degrade performance.			
[5]The high frequency tolerance is accurate within ±5% of the specified frequency.			
[6]See PCB Declaration of Conformance PS024 for details.			
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
 <i>All specifications are at room temperature unless otherwise specified.</i> <i>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.			PCB PIEZOTRONICS™ 3425 Walden Avenue, Depew, NY 14043 Phone: 716-684-0001 Fax: 716-684-0987 E-Mail: info@pcb.com