Model Number 483C30	EIGHT-CHANNEL, ICP® SENSOR SIGNAL CONDITIONER	Revision: J ECN #: 54177

Performance	ENGLISH	SI	
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 kHz)(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 13.7 in	44.5 mm x 482.6 mm x 348 mm	
Weight	8 lb	3.6 kg	

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.
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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.

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.

SUPPLIED ACCESSORIES:

Model 017AXX Power Cord (1)
Model EE75 PCB MCSC Control Software. (1)

Entered: ND	Engineer: JWH	Sales: AH	Approved: JWH	Spec Number:
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