


Model Number 482C64	SENSOR SIGNAL CONDITIONER		Revision E ECN #: 40512										
Performance Channels Sensor Input Type(s) Voltage Gain Voltage Gain Increment Accuracy (Gain, x0.1 to x0.4) Accuracy (Gain, x0.5 to x200) Sensitivity ($\pm 1\%$) (Charge Input @ 100 Hz) Insulation Resistance at Input (Minimum Required) (0.1 mV/pC) Insulation Resistance at Input (1.0 mV/pC) Insulation Resistance at Input (10.0 mV/pC) Input Range (Charge Input, Nominal) Output Range Frequency Range (-5 %) (x0.1 to x99.9 Gain) Frequency Range (-5 %) (x100 to x200 Gain) Low Frequency Response (-5 %) (Charge Input) Filter Type (Fourth-order Butterworth) Electrical Filter Roll-off Electrical Filter Corner Frequency (-3 dB) Electrical Filter Roll-off Electrical Filter Pass Band Amplitude Accuracy Electrical Filter Stop Band Attenuation (Minimum) Phase Response (at 1 kHz) Linearity (Charge Input) Cross Talk (maximum) TEDS Sensor Support Fault/Bias Monitor/Meter (LED)	ENGLISH 4 ICP®, Voltage, Charge x0.1 to x200 0.1 $\pm 5\%$ $\pm 1\%$ 0.1 / 1.0 / 10.0 mV/pC 10 kohm 100 kohm 1 MOhm ± 100000 pC ± 10 Vpk 0.05 to 100000 Hz 0.05 to 75000 Hz 0.5 Hz Low Pass 24 dB/octave 10 kHz 80 dB/decade 1 % 96 dB $\pm 1^\circ$ $\pm 1\%$ FS -72 dB Yes Open/Short/Overload	SI 4 ICP®, Voltage, Charge x0.1 to x200 0.1 $\pm 5\%$ $\pm 1\%$ 0.1 / 1.0 / 10.0 mV/pC 10 kohm 100 kohm 1 MOhm ± 100000 pC ± 10 Vpk 0.05 to 100000 Hz 0.05 to 75000 Hz 0.5 Hz Low Pass 24 dB/octave 10 kHz 80 dB/decade 1 % 96 dB $\pm 1^\circ$ $\pm 1\%$ FS -72 dB Yes Open/Short/Overload	Optional Versions (Optional versions have identical specifications and accessories as listed for standard model except where noted below. More than one option maybe 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 $\pm 20\%$ of the specified frequency. [4] Frequency tolerance is within $\pm 5\%$ of the specified value. [5] Contact factory for other available frequencies. [6] Auto sensing 10 base-T or 100 base-TX [7] See PCB Declaration of Conformance PS024 for details. Supplied Accessories 017AXX Power Cord (1) 100-7103-50 (02711) Multi-conductor cable, 6-ft, 9-pin female to 9-pin male. (1) 488B14/NC POWER CONVERTOR (1) EE75 PCB MCSC Control Software. (1)										
Control Interface Human Interface Display Digital Control Interface Digital Control: Data Rate Digital Control: Start, Data, Stop, Parity Digital Control: Handshaking Digital Control: Cable Length (Maximum) Digital Control Interface	Keypad 2 rows, 16 columns RS-232 19200 bps 1, 8, 1, No RTS/CTS 50 ft Ethernet	Keypad 2 rows, 16 columns RS-232 19200 bps 1, 8, 1, No RTS/CTS 15.2 m Ethernet	<table border="1" data-bbox="1129 1149 2011 1224"> <tr> <td>Entered: AP</td> <td>Engineer: AK</td> <td>Sales: JJM</td> <td>Approved: JWH</td> <td>Spec Number:</td> </tr> <tr> <td>Date: 02/05/2013</td> <td>Date: 02/05/2013</td> <td>Date: 02/05/2013</td> <td>Date: 02/05/2013</td> <td>36597</td> </tr> </table>	Entered: AP	Engineer: AK	Sales: JJM	Approved: JWH	Spec Number:	Date: 02/05/2013	Date: 02/05/2013	Date: 02/05/2013	Date: 02/05/2013	36597
Entered: AP	Engineer: AK	Sales: JJM	Approved: JWH	Spec Number:									
Date: 02/05/2013	Date: 02/05/2013	Date: 02/05/2013	Date: 02/05/2013	36597									
Environmental Temperature Range (Operating) Electrical Power Required (for supplied AC power adaptor) Power Required (direct input to unit) AC Power (50 to 60 Hz) AC Power Excitation Voltage (To Sensor) DC Offset	+32 to +120 °F AC Power DC power 100 to 240 VAC 1.6 amps +24 VDC ≤ 50 mV	0 to +50 °C AC Power DC power 100 to 240 VAC 1.6 amps +24 VDC ≤ 50 mV	 3425 Walden Avenue Depew, NY 14043 UNITED STATES Phone: 800-828-8840 Fax: 716-684-0987 E-mail: info@pcb.com Web site: www.pcb.com										

DC Power	+9 to +18 VDC	+9 to +18 VDC	
DC Power	≤2.5 amps	≤2.5 amps	
Constant Current Excitation (To Sensor)	0 to 20 mA	0 to 20 mA	[1]
Output Impedance	≤50 Ohm	≤50 Ohm	
Overload Threshold (±0.2 Vpk)	+10 Vpk	+10 Vpk	
Discharge Time Constant (Charge Input)	1.0 sec	1.0 sec	
Broadband Electrical Noise (1 to 10000 Hz) (Gain x1)	50 μV rms	50 μV rms	[2]
Spectral Noise (1 Hz) (Gain x1)	8.0 μV/√Hz	8.0 μV/√Hz	[2]
Spectral Noise (10 Hz) (Gain x1)	1.5 μV/√Hz	1.5 μV/√Hz	[2]
Spectral Noise (100 Hz) (Gain x1)	1.0 μV/√Hz	1.0 μV/√Hz	[2]
Spectral Noise (1 kHz) (Gain x1)	1.0 μV/√Hz	1.0 μV/√Hz	[2]
Spectral Noise (10 kHz) (Gain x1)	1.0 μV/√Hz	1.0 μV/√Hz	[2]
Broadband Electrical Noise (1 to 10000 Hz) (Gain x10)	75 μV rms	75 μV rms	[2]
Spectral Noise (1 Hz) (Gain x10)	20 μV/√Hz	20 μV/√Hz	[2]
Spectral Noise (10 Hz) (Gain x10)	1.5 μV/√Hz	1.5 μV/√Hz	[2]
Spectral Noise (100 Hz) (Gain x10)	1.0 μV/√Hz	1.0 μV/√Hz	[2]
Spectral Noise (1 kHz) (Gain x10)	1.0 μV/√Hz	1.0 μV/√Hz	[2]
Spectral Noise (10 kHz) (Gain x10)	1.0 μV/√Hz	1.0 μV/√Hz	[2]
Broadband Electrical Noise (1 to 10000 Hz) (Gain x100)	350 μV rms	350 μV rms	[2]
Spectral Noise (1 Hz) (Gain x100)	100.0 μV/√Hz	100.0 μV/√Hz	[2]
Spectral Noise (10 Hz) (Gain x100)	10.0 μV/√Hz	10.0 μV/√Hz	[2]
Spectral Noise (100 Hz) (Gain x100)	8.0 μV/√Hz	8.0 μV/√Hz	[2]
Spectral Noise (1 kHz) (Gain x100)	6.0 μV/√Hz	6.0 μV/√Hz	[2]
Spectral Noise (10 kHz) (Gain x100)	6.0 μV/√Hz	6.0 μV/√Hz	[2]
Broadband Electrical Noise (1 to 10000 Hz) (0.1 mV/pC & Gain x1)	52.0 μV/rms	52.0 μV/rms	[2]
Spectral Noise (1 Hz) (0.1 mV/pC & Gain x1)	10.0 μV/√Hz	10.0 μV/√Hz	[2]
Spectral Noise (10 Hz) (0.1 mV/pC & Gain x1)	1.5 μV/√Hz	1.5 μV/√Hz	[2]
Spectral Noise (100 Hz) (0.1 mV/pC & Gain x1)	0.6 μV/√Hz	0.6 μV/√Hz	[2]
Spectral Noise (1000 Hz) (0.1 mV/pC & Gain x1)	0.6 μV/√Hz	0.6 μV/√Hz	[2]
Spectral Noise (10000 Hz) (0.1 mV/pC & Gain x1)	0.6 μV/√Hz	0.6 μV/√Hz	[2]
Broadband Electrical Noise (1 to 10000 Hz) (1.0 mV/pC & Gain x1)	52.0 μV rms	52.0 μV rms	[2]
Spectral Noise (1 Hz) (1.0 mV/pC & Gain x1)	14.0 μV/√Hz	14.0 μV/√Hz	[2]
Spectral Noise (10 Hz) (1.0 mV/pC & Gain x1)	2.0 μV/√Hz	2.0 μV/√Hz	[2]
Spectral Noise (100 Hz) (1.0 mV/pC & Gain x1)	0.7 μV/√Hz	0.7 μV/√Hz	[2]
Spectral Noise (1000 Hz) (1.0 mV/pC & Gain x1)	0.7 μV/√Hz	0.7 μV/√Hz	[2]
Spectral Noise (10000 Hz) (1.0 mV/pC & Gain x1)	0.7 μV/√Hz	0.7 μV/√Hz	[2]
Broadband Electrical Noise (1 to 10000 Hz) (10.0 mV/pC & Gain x1)	56.0 μV rms	56.0 μV rms	[2]
Spectral Noise (1 Hz) (10.0 mV/pC & Gain x1)	15.0 μV/√Hz	15.0 μV/√Hz	[2]
Spectral Noise (10 Hz) (10.0 mV/pC & Gain x1)	2.0 μV/√Hz	2.0 μV/√Hz	[2]

Spectral Noise (100 Hz) (10.0 mV/pC & Gain x1)	0.6 $\mu\text{V}/\sqrt{\text{Hz}}$	0.6 $\mu\text{V}/\sqrt{\text{Hz}}$	[2]
Spectral Noise (1000 Hz) (10.0 mV/pC & Gain x1)	0.6 $\mu\text{V}/\sqrt{\text{Hz}}$	0.6 $\mu\text{V}/\sqrt{\text{Hz}}$	[2]
Spectral Noise (10000 Hz) (10.0 mV/pC & Gain x1)	0.6 $\mu\text{V}/\sqrt{\text{Hz}}$	0.6 $\mu\text{V}/\sqrt{\text{Hz}}$	[2]
Calibration Input ($\pm 1\%$)	± 1000 pC/V	± 1000 pC/V	
Physical			
Electrical Connector (ICP® Sensor Input)	BNC Jack	BNC Jack	
Electrical Connector (Charge Sensor Input)	BNC Jack	BNC Jack	
Electrical Connector (Output)	BNC Jack	BNC Jack	
Electrical Connector (DC Power Input)	6-socket mini DIN (female)	6-socket mini DIN (female)	
Electrical Connector (Charge Calibration Input)	BNC Jack	BNC Jack	
Electrical Connector (RS-232 Digital Control)	DB-9 Connector	DB-9 Connector	
Electrical Connector (Ethernet)	RJ45	RJ45	[6]
Size (Height x Width x Depth)	3.2 in x 8.0 in x 5.9 in	8.1 cm x 20 cm x 15 cm	
Weight	2.50 lb	1134 gm	



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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