



Model Number 480E09	BATTERY-POWERED SIGNAL CONDITIONER			Revision: V ECN #: 45339
Performance	ENGLISH	SI		OPTIONAL VERSIONS
Channels	1	1		Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.
Frequency Range(-5 %)(x1, x10 Gain)	0.15 to 100,000 Hz	0.15 to 100,000 Hz	[6]	
Frequency Range(-10 %)(x100 Gain)	0.15 to 50,000 Hz	0.15 to 50,000 Hz	[7]	
Voltage Gain(± 2 %)	1:1	1:1		
Voltage Gain(± 2 %)	1:10	1:10		
Voltage Gain(± 2 %)	1:100	1:100		
Fault/Bias Monitor/Meter(± 1 V)(midscale)	13 VDC	13 VDC		
Environmental				
Temperature Range	32 to 120 °F	0 to 50 °C		
Electrical				
Excitation Voltage(To Sensor)	25 to 29 VDC	25 to 29 VDC	[1]	
Constant Current Excitation(To Sensor)	2.0 to 3.2 mA	2.0 to 3.2 mA	[2]	
Discharge Time Constant	>7 sec	>7 sec	[3][4]	
DC Offset(Maximum)	<30 mV	<30 mV	[3]	
Spectral Noise(1 Hz)(Gain 1)	.25 µV/√Hz	-132 dB		
Spectral Noise(10 Hz)(Gain 1)	.07 µV/√Hz	-143 dB		
Spectral Noise(100 Hz)(Gain 1)	.05 µV/√Hz	-146 dB		
Spectral Noise(1 kHz)(Gain 1)	.04 µV/√Hz	-148 dB		
Spectral Noise(10 kHz)(Gain 1)	.03 µV/√Hz	-150 dB		
Broadband Electrical Noise(1 to 10,000 Hz)(Gain x1)	3.25 µV rms	-110 dB/rms		
Spectral Noise(1 Hz)(Gain 10)	2.2 µV/√Hz	-113 dB		
Spectral Noise(10 Hz)(Gain 10)	2.0 µV/√Hz	-114 dB		
Spectral Noise(100 Hz)(Gain 10)	1.1 µV/√Hz	-119 dB		
Spectral Noise(1 kHz)(Gain 10)	.55 µV/√Hz	-125 dB		
Spectral Noise(10 kHz)(Gain 10)	.3 µV/√Hz	-130 dB		
Broadband Electrical Noise(1 to 10,000 Hz)(Gain x10)	49 µV/rms	-86 dB/rms		
Spectral Noise(1 Hz)(Gain 100)	20 µV/√Hz	-94 dB		
Spectral Noise(10 Hz)(Gain 100)	19 µV/√Hz	-94 dB		
Spectral Noise(100 Hz)(Gain 100)	12 µV/√Hz	-98 dB		
Spectral Noise(1 kHz)(Gain 100)	5.5 µV/√Hz	-105 dB		
Spectral Noise(10 kHz)(Gain 100)	2 µV/√Hz	-114 dB		
Broadband Electrical Noise(1 to 10,000 Hz)(Gain x100)	569 µV/rms	-65 dB/rms		
Power Required(Standard)	Internal Battery	Internal Battery		
Internal Battery(Type)	9V	9V		
Battery Life(Standard Alkaline)	50 hours	50 hours		
Power Required(Alternate)	DC power	DC power		
DC Power	15 mA	15 mA	[5]	
Internal Battery(Quantity)	3	3		
DC Power	18 to 30 VDC	18 to 30 VDC	[5][1]	
Physical				
Electrical Connector(Input, sensor)	BNC Jack	BNC Jack		
Electrical Connector(Output, scope)	BNC Jack	BNC Jack		
Electrical Connector(External Power, DC)	3.5 mm Diameter Miniature Jack	3.5 mm Diameter Miniature Jack		
Electrical Connector(Battery Charger)	#722 Switchcraft Jack	#722 Switchcraft Jack		
Size (Depth x Height x Width)	2.4 in x 4.0 in x 2.9 in	6.1 cm x 10 cm x 7.4 cm		
Weight(Including Batteries)	0.7 lb	0.3 kg		
 [8]				
<i>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.</i>				
NOTES: [1]Excitation voltage to sensor limited by optional DC power voltage. [2]Through internal current limiting regulator. [3]With 1M ohm load. [4]Un-buffered output, read out device input impedance affects discharge time constant and low frequency response of unit. [5]Provided by optional external DC power supply. [6]Low frequency response specified into 1M ohm load. [7]After Serial Number 24699, previously HFR was 100kHz. [8]See PCB Declaration of Conformance PS024 for details.				
Entered: LK	Engineer: CPH	Sales: ML	Approved: JWH	Spec Number:
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3425 Walden Avenue, Depew, NY 14043				
Phone: 716-684-0001 Fax: 716-684-0987 E-Mail: info@pcb.com				



Represented in India by

Structural Solutions Pvt Ltd. | Phone: 040 2322 2380 | Email: sales@stsols.com

#4th Floor, Sudheer Tapani Towers, Himayath Nagar, Hyderabad - 500 029