

Model Number 480E09	SIGNAL CONDITIONER, BATTERY-POWERED		Revision P ECN #: 32013
Performance	ENGLISH	SI	Optional Versions (Optional versions have identical specifications and accessories as listed for standard model except where noted below. More than one option maybe used.)
Channels	1	1	R - Rechargeable option, includes rechargeable batteries and charger.
Frequency Range (-5 %) (x1, x10 Gain)	0.15 to 100000 Hz	0.15 to 100000 Hz	Internal Battery (Quantity) 3 3
Frequency Range (-10 %) (x100 Gain)	0.15 to 50000 Hz	0.15 to 50000 Hz	Internal Battery (Type) 9V 9V
Voltage Gain (±2 %)	1:1	1:1	Battery Life (Rechargeable Ni MH) 20 hours 20 hours
Voltage Gain (±2 %)	1:10	1:10	Notes
Voltage Gain (±2 %)	1:100	1:100	[1] Excitation voltage to sensor limited by optional DC power voltage.
Fault/Bias Monitor/Meter (±1 V) (midscale)	13 VDC	13 VDC	[2] Through internal current limiting regulator.
Environmental			[3] With 1M ohm load.
Temperature Range	32 to 140 °F	0 to 50 °C	[4] Provided by optional external DC power supply.
Electrical			[5] Low frequency response specified into 1M ohm load.
Excitation Voltage (To Sensor)	25 to 29 VDC	25 to 29 VDC	[6] After Serial Number 24699, previously HFR was 100kHz.
Constant Current Excitation (To Sensor)	2.0 to 3.2 mA	2.0 to 3.2 mA	[7] See PCB Declaration of Conformance PS024 for details. A low impedance connection from case to earth ground is required to maintain CE compliance.
Discharge Time Constant	>7 sec	>7 sec	Optional Accessories
DC Offset (Maximum)	<30 mV	<30 mV	400A81 (3) 9 V ultralife lithium batteries ()
Spectral Noise (1 Hz) (Gain 1)	.25 µV/√Hz	-132 dB	488A02 Tabletop battery charger, selectable input voltage, 110 & 220 VAC (for Series 480 battery signal conditioners) ()
Spectral Noise (10 Hz) (Gain 1)	.07 µV/√Hz	-143 dB	488A03 AC power source (for Series 480 battery signal conditioners - based on Model 488A02) ()
Spectral Noise (100 Hz) (Gain 1)	.05 µV/√Hz	-146 dB	
Spectral Noise (1000 Hz) (Gain 1)	.04 µV/√Hz	-148 dB	
Spectral Noise (10000 Hz) (Gain 1)	.03 µV/√Hz	-150 dB	
Broadband Electrical Noise (1 to 10000 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 (1000 Hz) (Gain 10)	.55 µV/√Hz	-125 dB	
Spectral Noise (10000 Hz) (Gain 10)	.3 µV/√Hz	-130 dB	
Broadband Electrical Noise (1 to 10000 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 (1000 Hz) (Gain 100)	5.5 µV/√Hz	-105 dB	
Spectral Noise (10000 Hz) (Gain 100)	2 µV/√Hz	-114 dB	
Broadband Electrical Noise (1 to 10000 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	
Internal Battery (Quantity)	3	3	
DC Power	18 to 30 VDC	18 to 30 VDC	
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	

Entered: BLS	Engineer: CPH	Sales: JJM	Approved: BLS	Spec Number:
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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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