

Model Number  
480B21

# 3-CHANNEL, BATTERY-POWERED, ICP® SENSOR SIGNAL CONDITIONER

Revision: J  
ECN #: 26442

## Performance

	ENGLISH	SI
Channels	3	3
Frequency Range(-5 %)(x1, x10 Gain)	0.15 to 100,000 Hz	0.15 to 100,000 Hz [4]
Frequency Range(-10 %)(x100 Gain)	0.15 to 50,000 Hz	0.15 to 50,000 Hz [4]
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(± 2 V)(midscale)	13 VDC	13 VDC
<b>Electrical</b>		
Excitation Voltage(To Sensor)	25 to 30 VDC	25 to 30 VDC [1]
Constant Current Excitation(± 0.25)(To Sensor)	3.0 mA	3.0 mA
Discharge Time Constant	>3 sec	>3 sec
DC Offset(Maximum)	<30 mV	<30 mV [2]
Spectral Noise(1 Hz)(Gain 1)	0.4 µV/√Hz	-128 dB
Spectral Noise(10 Hz)(Gain 1)	0.1 µV/√Hz	-140 dB
Spectral Noise(100 Hz)(Gain 1)	.06 µV/√Hz	-144 dB
Spectral Noise(1 kHz)(Gain 1)	.04 µV/√Hz	-147 dB
Spectral Noise(10 kHz)(Gain 1)	.04 µV/√Hz	-148 dB
Broadband Electrical Noise(1 to 10,000 Hz)(Gain x1)	3.54 µV rms	-110 dB/rms
Spectral Noise(1 Hz)(Gain 10)	1.80 µV/√Hz	-115 dB
Spectral Noise(10 Hz)(Gain 10)	1.3 µV/√Hz	-118 dB
Spectral Noise(100 Hz)(Gain 10)	0.75 µV/√Hz	-122 dB
Spectral Noise(1 kHz)(Gain 10)	0.70 µV/√Hz	-123 dB
Spectral Noise(10 kHz)(Gain 10)	0.35 µV/√Hz	-129 dB
Broadband Electrical Noise(1 to 10,000 Hz)(Gain x10)	50.1 µV/rms	-86 dB/rms
Spectral Noise(1 Hz)(Gain 100)	17.0 µV/√Hz	-85 dB
Spectral Noise(10 Hz)(Gain 100)	12.0 µV/√Hz	-98 dB
Spectral Noise(100 Hz)(Gain 100)	8.4 µV/√Hz	-102 dB
Spectral Noise(1 kHz)(Gain 100)	6.4 µV/√Hz	-104 dB
Spectral Noise(10 kHz)(Gain 100)	2.0 µV/√Hz	-114 dB
Broadband Electrical Noise(1 to 10,000 Hz)(Gain x100)	500 µV/rms	-66 dB/rms
Power Required(Standard)	Internal Battery	Internal Battery
Internal Battery(Type)	9V	9V
Battery Life(Standard Alkaline)	25-40 hours	25-40 hours [3]
Power Required(Alternate)	DC power	DC power
DC Power	25 mA	25 mA
Internal Battery(Quantity)	3	3
DC Power	30 to 40 VDC	30 to 40 VDC
<b>Physical</b>		
Electrical Connector(Input, sensor)	BNC Jack	BNC Jack [5]
Electrical Connector(Output, scope)	BNC Jack	BNC Jack
Electrical Connector(External Power, DC)	DIN Jack	DIN Jack
Electrical Connector(Input, sensor)	4-Pin Jack	4-Pin Jack
Size (Depth x Height x Width)	2.0 in x 7.5 in x 5.0 in	5.0 cm x 19 cm x 13 cm
Weight(Including Batteries)	1.1 lb	0.5 kg



[6]

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] Excitation voltage to sensor limited by optional DC power voltage.
- [2] With 1M ohm load.
- [3] Alkaline type recommended for longest service life.
- [4] Low frequency response specified into 1M ohm load.
- [5] Use BNC's or Triax connector, not both at once. Cover all unused connectors with black ESD protective caps.
- [6] See PCB Declaration of Conformance PS024 for details.

## OPTIONAL ACCESSORIES:

Model 400A81 (3) 9 V ultralife lithium batteries  
Model 488A10 AC input adaptor  
Model 488A12 Auto lighter adaptor 6-pin mini din

Entered: <i>SAH</i>	Engineer: <i>AAH</i>	Sales: <i>Ygn</i>	Approved: <i>AAH</i>	Spec Number:
Date: 5-15-07	Date: 5/15/07	Date: 5/15/07	Date: 5/15/07	15125

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