Model Number
482 <b>A2</b> 1

## **SENSOR SIGNAL CONDITIONER**

Revision: K ECN #: 43617

Performance         ENGLISH         SI           Channels         1         1           Voltage Gain(± 1 %)         1:1         1:1           Low Frequency Response(-5 %)         <0.1 Hz         <0.1 Hz         <0.1 Hz           High Frequency Response(-5 %)         >1000 kHz         >1000 kHz         <0.1 Hz         <0.1 Hz         <0.1 Hz         [3][4]           High Frequency Response(-5 %)         >1000 kHz         >1000 kHz         >1000 kHz         <0.1 Hz         <0.0 Hz <th></th> <th>=</th> <th></th> <th></th>		=		
Voltage Gain(± 1 %)         1:1         1:1         1:1           Low Frequency Response(-5 %)         <0.1 Hz	Performance	<u>ENGLISH</u>	<u>SI</u>	
Low Frequency Response(-5 %)         <0.1 Hz		·	•	
High Frequency Response(-5 %) >1000 kHz >1000 kHz   Fault/Bias Monitor/Meter 26 V FS 26 V FS    Environmental   Temperature Range 32 to 120 °F 0 to 50 °C    Electrical   Power Required(Standard)   DC power   Excitation Voltage(To Sensor)   25 to 27 VDC   25 to 27 VDC   DC Offset(Maximum)   COPOWER   DC Power   132 to 38 VDC   13	Voltage Gain(± 1 %)	1:1	1:1	
Fault/Bias Monitor/Meter         26 V FS         26 V FS           Environmental         Temperature Range         32 to 120 °F         0 to 50 °C           Electrical         DC power           Power Required(Standard)         DC power         DC power           Excitation Voltage(To Sensor)         25 to 27 VDC         25 to 27 VDC           DC Offset(Maximum)         < 20 mV         < 20 mV           DC Power         + 32 to 38 VDC         + 32 to 38 VDC         [1]           DC Power         + 32 to 38 VDC         + 32 to 38 VDC         [1]           DC Power         + 32 to 38 VDC         + 32 to 38 VDC         [1]           Constant Current Excitation(To Sensor)         2 to 20 mA         2 to 20 mA         [2]           Discharge Time Constant(0 to +50%)         10 sec         10 sec         13 [4]           Spectral Noise(1 Hz)         0.71 μV/√Hz         -142 dB         [5]           Spectral Noise(10 Hz)         0.05 μV/√Hz         -147 dB         [5]           Spectral Noise(1 kHz)         0	Low Frequency Response(-5 %)	<0.1 Hz	<0.1 Hz	[3][4]
Environmental           Temperature Range         32 to 120 °F         0 to 50 °C           Electrical         Power Required(Standard)         DC power         DC power           Excitation Voltage(To Sensor)         25 to 27 VDC         25 to 27 VDC           DC Offset(Maximum)         <20 mV	High Frequency Response(-5 %)	>1000 kHz	>1000 kHz	
Temperature Range 32 to 120 °F 0 to 50 °C  Electrical  Power Required(Standard) DC power DC power  Excitation Voltage(To Sensor) 25 to 27 VDC 25 to 27 VDC  DC Offset(Maximum) < 20 mV <20 mV  DC Power	Fault/Bias Monitor/Meter	26 V FS	26 V FS	
Electrical           Power Required(Standard)         DC power         DC power           Excitation Voltage(To Sensor)         25 to 27 VDC         25 to 27 VDC           DC Offset(Maximum)         <20 mV	Environmental			
Power Required(Standard)         DC power         DC power           Excitation Voltage(To Sensor)         25 to 27 VDC         25 to 27 VDC           DC Offset(Maximum)         <20 mV	Temperature Range	32 to 120 °F	0 to 50 °C	
Excitation Voltage(To Sensor)         25 to 27 VDC         25 to 27 VDC           DC Offset(Maximum)         <20 mV	Electrical			
DC Offset(Maximum)         <20 mV         <20 mV           DC Power         +32 to 38 VDC         +32 to 38 VDC         [1]           DC Power         0.12 Amps         0.12 Amps         [1]           Constant Current Excitation(To Sensor)         2 to 20 mA         2 to 20 mA         [2]           Discharge Time Constant(0 to +50%)         10 sec         10 sec         [3][4]           Spectral Noise(1 Hz)         0.71 μV/NHz         -123 dB         [5]           Spectral Noise(10 Hz)         0.09 μV/NHz         -142 dB         [5]           Spectral Noise(100 Hz)         0.05 μV/NHz         -147 dB         [5]           Spectral Noise(1 kHz)         0.04 μV/NHz         -149 dB         [5]           Spectral Noise(1 kHz)         0.03 μV/NHz         -150 dB         [5]           Spectral Noise(10 kHz)         3.25 μV         -110 dB         [5]           Physical           Electrical Connector(Input, sensor)         BNC Jack         BNC Jack           Electrical Connector(Output)         BNC Jack         BNC Jack           Electrical Connector(DC Power Input)         DIN Jack         DIN Jack           Size (Height x Width x Length)         6.3 in x 2.4 in x 11 in         16 cm x 6.1 cm x 28 cm	Power Required(Standard)	DC power	DC power	
DC Power         +32 to 38 VDC         +32 to 38 VDC         [1]           DC Power         0.12 Amps         0.12 Amps         [1]           Constant Current Excitation(To Sensor)         2 to 20 mA         2 to 20 mA         [2]           Discharge Time Constant(0 to +50%)         10 sec         10 sec         [3][4]           Spectral Noise(1 Hz)         0.71 μV/NHz         -123 dB         [5]           Spectral Noise(10 Hz)         0.09 μV/NHz         -142 dB         [5]           Spectral Noise(100 Hz)         0.05 μV/NHz         -147 dB         [5]           Spectral Noise(1 kHz)         0.04 μV/NHz         -149 dB         [5]           Spectral Noise(1 kHz)         0.03 μV/NHz         -150 dB         [5]           Spectral Noise(1 kHz)         3.25 μV         -150 dB         [5]           Physical         Electrical Noise(1 to 10,000 Hz)         3.25 μV         -110 dB         [5]           Physical         Electrical Connector(Input, sensor)         BNC Jack         BNC Jack         BNC Jack           Electrical Connector(Output)         BNC Jack         BNC Jack         BNC Jack           Electrical Connector(DC Power Input)         DIN Jack         DIN Jack           Size (Height x Width x Length)         6.3 in x 2.4 in x 11 in <td>Excitation Voltage(To Sensor)</td> <td>25 to 27 VDC</td> <td>25 to 27 VDC</td> <td></td>	Excitation Voltage(To Sensor)	25 to 27 VDC	25 to 27 VDC	
DC Power   D.12 Amps   D.1	DC Offset(Maximum)	<20 mV	<20 mV	
DC Power         0.12 Amps         0.12 Amps         [1]           Constant Current Excitation(To Sensor)         2 to 20 mA         2 to 20 mA         [2]           Discharge Time Constant(0 to +50%)         10 sec         10 sec         [3][4]           Spectral Noise(1 Hz)         0.71 μV√Hz         -123 dB         [5]           Spectral Noise(10 Hz)         0.09 μV√Hz         -142 dB         [5]           Spectral Noise(100 Hz)         0.05 μV√Hz         -147 dB         [5]           Spectral Noise(1 kHz)         0.04 μV√Hz         -149 dB         [5]           Spectral Noise(10 kHz)         0.03 μV/Hz         -150 dB         [5]           Spectral Noise(1 to 10,000 Hz)         3.25 μV         -110 dB         [5]           Physical           Electrical Connector(Input, sensor)         BNC Jack         BNC Jack           Electrical Connector(Output)         BNC Jack         BNC Jack           Electrical Connector(DC Power Input)         DIN Jack         DIN Jack           Size (Height x Width x Length)         6.3 in x 2.4 in x 11 in         16 cm x 6.1 cm x 28 cm	DC Power	+32 to 38 VDC	+32 to 38 VDC	[1]
Constant Current Excitation(To Sensor)         2 to 20 mA         [2]           Discharge Time Constant(0 to +50%)         10 sec         10 sec         [3][4]           Spectral Noise(1 Hz)         0.71 μV/√Hz         -123 dB         [5]           Spectral Noise(10 Hz)         0.09 μV/√Hz         -142 dB         [5]           Spectral Noise(100 Hz)         0.05 μV/√Hz         -147 dB         [5]           Spectral Noise(1 kHz)         0.04 μV/√Hz         -149 dB         [5]           Spectral Noise(1 kHz)         0.03 μV/√Hz         -150 dB         [5]           Spectral Noise(1 to 10,000 Hz)         3.25 μV         -110 dB         [5]           Physical         Electrical Connector(Input, sensor)         BNC Jack         BNC Jack           Electrical Connector(Output)         BNC Jack         BNC Jack           Electrical Connector(DC Power Input)         DIN Jack         DIN Jack           Size (Height x Width x Length)         6.3 in x 2.4 in x 11 in         16 cm x 6.1 cm x 28 cm	DC Power	0.12 Amps	0.12 Amps	[1]
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Constant Current Excitation(To Sensor)	2 to 20 mA	2 to 20 mA	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		10 sec	10 sec	[3][4]
Spectral Noise(100 Hz)         0.05 μV/√Hz         -147 dB         [5]           Spectral Noise(1 kHz)         0.04 μV/√Hz         -149 dB         [5]           Spectral Noise(1 kHz)         0.03 μV/√Hz         -150 dB         [5]           Broadband Electrical Noise(1 to 10,000 Hz)         3.25 μV         -110 dB         [5]           Physical           Electrical Connector(Input, sensor)         BNC Jack         BNC Jack           Electrical Connector(Output)         BNC Jack         BNC Jack           Electrical Connector(DC Power Input)         DIN Jack         DIN Jack           Size (Height x Width x Length)         6.3 in x 2.4 in x 11 in         16 cm x 6.1 cm x 28 cm	Spectral Noise(1 Hz)		-123 dB	[5]
Spectral Noise(1 kHz)   0.04 μV/√Hz   -149 dB   [5]     Spectral Noise(10 kHz)   0.03 μV/√Hz   -150 dB   [5]     Broadband Electrical Noise(1 to 10,000 Hz)   3.25 μV   -110 dB   [5]     Physical     Electrical Connector(Input, sensor)   BNC Jack   BNC Jack     Electrical Connector(Output)   BNC Jack   BNC Jack     Electrical Connector(DC Power Input)   DIN Jack     Size (Height x Width x Length)   6.3 in x 2.4 in x 11 in   16 cm x 6.1 cm x 28 cm				
Spectral Noise(10 kHz) 0.03 $\mu$ V/\Hz -150 dB [5] Broadband Electrical Noise(1 to 10,000 Hz) 3.25 $\mu$ V -110 dB [5] <b>Physical</b> Electrical Connector(Input, sensor) BNC Jack BNC Jack Electrical Connector(Output) BNC Jack BNC Jack Electrical Connector(DC Power Input) DIN Jack DIN Jack Size (Height x Width x Length) 6.3 in x 2.4 in x 11 in 16 cm x 6.1 cm x 28 cm			-147 dB	[5]
Broadband Electrical Noise(1 to 10,000 Hz)  Physical  Electrical Connector(Input, sensor)  BNC Jack  Electrical Connector(Output)  BNC Jack  BNC Jack  BNC Jack  BNC Jack  BNC Jack  DIN Jack  Electrical Connector(DC Power Input)  DIN Jack  Size (Height x Width x Length)  6.3 in x 2.4 in x 11 in  16 cm x 6.1 cm x 28 cm			-149 dB	[5]
Physical       Electrical Connector(Input, sensor)     BNC Jack     BNC Jack       Electrical Connector(Output)     BNC Jack     BNC Jack       Electrical Connector(DC Power Input)     DIN Jack     DIN Jack       Size (Height x Width x Length)     6.3 in x 2.4 in x 11 in     16 cm x 6.1 cm x 28 cm				
Electrical Connector(Input, sensor)     BNC Jack     BNC Jack       Electrical Connector(Output)     BNC Jack     BNC Jack       Electrical Connector(DC Power Input)     DIN Jack     DIN Jack       Size (Height x Width x Length)     6.3 in x 2.4 in x 11 in     16 cm x 6.1 cm x 28 cm		3.25 μV	-110 dB	[5]
Electrical Connector(Output)     BNC Jack     BNC Jack       Electrical Connector(DC Power Input)     DIN Jack     DIN Jack       Size (Height x Width x Length)     6.3 in x 2.4 in x 11 in     16 cm x 6.1 cm x 28 cm				
Electrical Connector(DC Power Input)  DIN Jack DIN Jack Size (Height x Width x Length)  6.3 in x 2.4 in x 11 in  16 cm x 6.1 cm x 28 cm	Electrical Connector(Input, sensor)	BNC Jack	BNC Jack	
Size (Height x Width x Length) 6.3 in x 2.4 in x 11 in 16 cm x 6.1 cm x 28 cm	Electrical Connector(Output)	BNC Jack	BNC Jack	
Size (Height x Width x Length) 6.3 in x 2.4 in x 11 in 16 cm x 6.1 cm x 28 cm	Electrical Connector(DC Power Input)	DIN Jack	DIN Jack	
, g	` '	6.3 in x 2.4 in x 11 in	16 cm x 6.1 cm x 28 cm	
	` •	1.51 lb	685 gm	



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]Provided by supplied external DC power supply.
- [2]User adjustable, factory set at 4 mA (± 0.5 mA). One control adjusts all channels.
- [3]With ≥ 1M ohm input impedance of readout device.
- [4]Un-buffered output, read out device input impedance affects discharge time constant and low frequency response of unit.
- [5]Typical.

[6]See PCB Declaration of Conformance PS024 for details.

## **SUPPLIED ACCESSORIES:**

Model 017AXX Power Cord Model 488B04/NC Power Convertor

Entered: AP	Engineer: CPH	Sales: ML	Approved: JWH	Spec Number:
Date: 1/28/2015	Date: 1/28/2015	Date: 1/28/2015	Date: 1/28/2015	6528



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All specifications are at room temperature unless otherwise specified.

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