

Model Number

**481A02**

# ICP ® SIGNAL CONDITIONER

Revision: K  
ECN #: 31504

<u>ELECTRICAL</u>	<u>UNITS</u>	<u>VALUE</u>	
Channels		16	
Display: LED (red) - Bias		Open/Short	
LED (yellow)		Overload	
Sensor Excitation	V/mA	24 ±1/3-20	[1]
Fixed Gain:		x1 (unity)	
Accuracy (at 500 Hz)	%	±1	
Linearity (10-50 kHz)	%	±1	
Frequency Response (-5%)	Hz	0.5 – 100,000	
X100 only	Hz	0.5 – 60,000	[3]
Noise (spectral): Typical	gain	x1	[5]
1 Hz	µV√Hz	2.0	
10 Hz	µV√Hz	0.2	
100 Hz	µV√Hz	0.2	
1 kHz	µV√Hz	0.15	
10 kHz	µV√Hz	0.15	
Broadband Noise 1 Hz-10 kHz (typical)	µV	11.0	
Input Range	V	9.0 (Max.)	
Overload Threshold	Vpk	10 (±0.2)	
Output Range (w/5 kΩ load minimum)	V/mA	10/2.0	
Output DC Offset (maximum)	mV	50	
Output Impedance	ohms	50 (maximum)	
Channel Isolation (minimum)	dB	72	
Power Requirements:	VAC	100-240	
Maximum	A	0.6	
Frequency	Hz	47-63	

<u>ENVIRONMENTAL</u>	<u>UNITS</u>	<u>VALUE</u>
Operating Temperature	°F [°C]	32 to 120 [0 to 50]
Relative Humidity (maximum)	%	85

<u>PHYSICAL</u>	<u>UNITS</u>	<u>VALUE</u>
Connectors - Signal:		
Input (rear)	D-sub-50	1
Output (rear)	D-sub-37	1
Output (front)	BNC	16
Connector - Power		IEC 320
Size (H x W x D):	in	3.5 x 19.0 x 16.25
	[mm]	[88,8 x 483 x 413]
Weight (maximum)	lb [kg]	15.0 [6,82]

<u>FEATURE LIST</u>				
<b>035 – Programmable Gain</b>				
Gain Accuracy	%	1		[3]
Linearity	%	1		
Gain		x1, x10, x100		
Noise (spectral):	Typical	gain	x1	x10
	1 Hz	µV√Hz	2.0	20.0
	10 Hz	µV√Hz	0.2	0.6
	100 Hz	µV√Hz	0.2	0.6
	1 kHz	µV√Hz	0.15	0.6
	10 kHz	µV√Hz	0.15	0.6
Broadband Noise 1 Hz-10 kHz (typical)		µV	11.0	50.0
Frequency Response (-5%)		kHz	65	56
				40
<b>080 – 16 BNC Inputs Rear Panel</b>				
<b>101 - Digital Control with RS-232/RS-485</b>				
<b>Interface</b>				
Connectors	D-sub-9		2	
Baud Rate	bits/sec		9,600	
Start, Data, Stop, Parity			1, 8, 1, No	
Handshaking			RTS/CTS	
RS-485 Devices In System			16	[2]
Cable Length (maximum): RS-232		ft	50	
Cable Length (maximum): RS-485 *		ft	200	
Supplied Accessories		cable	009N03	
<b>102 – Memory Default</b>				
<b>103 - Front Panel Control/Display</b>				
Keypad			4	
Reset			1	
Display Dot Matrix		row/col	2/16	

**NOTES:**

[1] Constant current factory set at 4 mA.

[2] RS-485 interface uses proprietary interconnect of PCB equipment only.

[3] Serial number 253 and greater.

[4] See PCB Declaration of Conformance PA024 for details.

[5] Noise test per A-107-2, using 401A05.

**SUPPLIED ACCESSORIES:**

Model 017 Power Cable  
009N03

Ferrite Bead (part number 100-2973-30)  
EE-75 481A Control Software (1 CD ROM)

\* Not Tested



[4]

*All specifications are at room temperature unless otherwise specified*

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*In the interest of constant product improvement, we reserve the right to change specifications without notice.*

Drawn: LH	Engineer: CPH	Sales: JJM	Approved: EB	Spec Number:
Date: 10/8/09	Date: 9/16/09	Date: 9/21/09	Date: 9/23/09	<b>8090</b>