

Model Number 443B101		MODULAR SERIES POWER SUPPLY		Revision: D ECN #: 47122	
Performance		ENGLISH		SI	
Sensor Input Type(s)		ICP®, Charge		ICP®, Charge	
Voltage Gain Increment		0.1-1000		0.1-1000	
Accuracy(ICP®/ Voltage Input)		± 0.5 %		± 0.5 %	
Accuracy(Charge Input)		± 0.5 %		± 0.5 %	
Sensitivity(ICP®/Voltage)		.001 to 9.999 mV/unit		.001 to 9.999 mV/unit [8]	
Sensitivity(Charge Input)		0.0001 to 10 V/pC		0.0001 to 10 V/pC	
Input Range(maximum)(Charge Input)		100,000 pC		100,000 pC [9]	
Low Frequency Response(-10 %)		2.0 Hz ±20 %		2.0 Hz ±20 %	
Low Frequency Response(-10 %)		0.2 Hz ±20 %		0.2 Hz ±20 %	
Low Frequency Response(10 %)(Velocity)		1.0 HZ ±5 %		1.0 HZ ±5 %	
Low Frequency Response(10 %)(Velocity)		10 Hz ±5 %		10 Hz ±5 %	
Low Frequency Response(10 %)(Displacement)		1.0 Hz ±5 %		1.0 Hz ±5 %	
Low Frequency Response(10 %)(Displacement)		10 Hz ±5 %		10 Hz ±5 %	
High Frequency Response(-10 %)		200 kHz ±5 %		200 kHz ±5 %	
Filter Type(4-pole Butterworth)		Low Pass		Low Pass	
Electrical Filter Roll-off		80 dB/decade		80 dB/decade	
High Frequency Response(-10 %)		0.1 kHz ±5 %		0.1 kHz ±5 %	
High Frequency Response(-10 %)		1.0 kHz ±5 %		1.0 kHz ±5 %	
High Frequency Response(-10 %)		3.0 kHz ±5 %		3.0 kHz ±5 %	
High Frequency Response(-10 %)		10 kHz ±5 %		10 kHz ±5 %	
High Frequency Response(-10 %)		30 kHz ±5 %		30 kHz ±5 %	
High Frequency Response(-10 %)		100 kHz ±5 %		100 kHz ±5 %	
Fault/Bias Monitor LEDs		Fault/Overload		Fault/Overload	
Control Interface					
Human Interface		Keypad		Keypad	
Display		2 rows, 16 columns		2 rows, 16 columns	
Digital Control Interface		RS-485		RS-485 [1]	
Digital Control: Data Rate		9600 bps		9600 bps	
Digital Control: Start, Data, Stop, Parity		1, 8, 1, No		1, 8, 1, No	
Environmental					
Temperature Range(Operating)		32 to 120 °F		0 to +50 °C	
Electrical					
Power Required(VDC)		+15 at 230 mA		+15 at 230 mA	
Power Required(VDC)		-15 at 140 mA		-15 at 140 mA	
Power Required(Watts)		6.25		6.25 [2]	
Power Required(VDC)		+28 at 5 mA + Sensor		+28 at 5 mA + Sensor	
		Current		Current	
Excitation Voltage(To Sensor)		24 ±1 VDC		24 ±1 VDC	
DC Offset		<50 mV		<50 mV	
Constant Current Excitation(to Sensor, Selectable)		0 to 20 mA		0 to 20 mA [3]	
Output Voltage		≥10 V		≥10 V	
Output Impedance		<1 Ohm		<1 Ohm	
Broadband Electrical Noise(1 Hz to 10 kHz)(ICP® INPUT)		9 µV		-101 dB [4][5]	
Broadband Electrical Noise(2 to 22.4 kHz)(ICP® INPUT)		<3 µV		<-110 dB [4][5]	
Spectral Noise(1 Hz)		1 µV/√Hz		-120 dB [5]	
Spectral Noise(10 Hz)		0.22 µV/√Hz		-133 dB [5]	
Spectral Noise(100 Hz)		0.08 µV/√Hz		-142 dB [5]	
Spectral Noise(1 kHz)		0.08 µV/√Hz		-142 dB [5]	
Spectral Noise(10 kHz)		0.07 µV/√Hz		-143 dB [5]	
Broadband Electrical Noise(1 Hz to 10 kHz)(Charge Input)		9 µV		-101 dB [6][7]	
Broadband Electrical Noise(2 Hz to 22.4 kHz)(Charge Input)		<5 fC		<5 fC [6][7]	
Spectral Noise(1 kHz)		0.8 µV/√Hz		-122 dB [6]	
Spectral Noise(10 kHz)		0.20 µV/√Hz		-134 dB [6]	
Spectral Noise(100 kHz)		0.08 µV/√Hz		-142 dB [6]	
Spectral Noise(1 kHz)		0.08 µV/√Hz		-142 dB [6]	
Spectral Noise(10 kHz)		0.07 µV/√Hz		-143 dB [6]	
Oscillator(pC RMS)		100±1%		100±1%	
Oscillator(V RMS)		1±1%		1±1%	
Oscillator(Hz)		159.2±1%		159.2±1%	
Overload Threshold		± 10 V to ±1 V		± 10 V to ±1 V	
Physical					
Electrical Connector(Input, sensor)		BNC		BNC	
Electrical Connector(Output)		BNC		BNC	
Size (Height)		5.05 x 3.6 in		128 x 92 mm [10]	
Weight		1.45 lb		0.66 kg	
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.					
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] Must be used with PCB 440 series mainframe chassis with computer control (RS-232).					
[2] Maximum number of 443B101 Dual Mode Signal Conditioners that can be powered by (1) 441A101 is (4). Other modules must be calculated not to exceed total power of 30 watts.					
[3] Discrete mA settings (0, 2, 4, 8, 12, or 20).					
[4] Measured at gain of 1,000 (60 dB), input referred.					
[5] Measured at gain of 1 with low noise ICP® simulator.					
[6] Measured at gain of 1 mV/pC with 1 nF source capacitance.					
[7] Measured at gain of 10V/pC (80 dB) with 1 nF source capacitance, input referred.					
[8] 4 Digit - Selectable					
[9] Can be increased using optional external 472B series charge attenuator.					
[10] Double width unit.					
SUPPLIED ACCESSORIES:					
Model 070A02 Scope input adaptor (10-32 jack to BNC plug)					
Model EE-79 443B Control Software (1 CD ROM)					
Entered: LK		Engineer: CPH		Sales: WDC	
Approved: DY		Spec Number:			
Date: 1/29/2018		Date: 1/29/2018		Date: 1/29/2018	
Date: 1/29/2018		Date: 1/29/2018		14470	
PCB PIEZOTRONICS®					
3425 Walden Avenue, Depew, NY 14043					
Phone: 716-684-0001					
Fax: 716-684-0987					
E-Mail: info@pcb.com					