

PCU-2000 Pressure Control Unit with Patient Isolation



PCU-2000 Features

- CE approved
- Patient isolated
- Supports one dual-sensor or two single-sensor Mikro-Tip® catheters
- Line powered

The Latest Addition to Millar's Line of Pressure Control Units

The PCU-2000 Pressure Control Unit is a two-channel, patient-isolated, line-powered amplifier/interface unit for connecting one or two Millar Mikro-Tip catheters to a CE-approved pressure monitor and data acquisition system. Each channel has an electrically isolated input for patient safety. The analog output signal level of 1V/100 mmHg is compatible with most pressure monitors and data acquisition systems.

The in-line power supply adapts automatically to line voltages from 100 to 240 volts AC. Its power cord is long enough to allow the power supply to be positioned well out of the field of operation.

The PCU-2000 provides electrically isolated bridge excitation and signal amplification for each channel, as well as separate balance, or zero, controls. Lighted push-button switches provide calibration signals equivalent to 0, 25, 100, and 125 mmHg on each channel. A Standby/Transducer switch allows the operator to reset zero and recalibrate during a procedure with the transducer in place in the subject.

LED bar graphs visually confirm transducer functionality. Pressure input connectors are color-coded Redel® style, while pressure output connectors are ¼-inch phone-plug style. Pressure output cables are sold separately. The CE-approved PCU-2000 is the latest addition to Millar's line of pressure control units.

PCU-2000 Specifications

Equipment Classifications	II (USA), IIb (EU), II (Canada)
Ingress Protection	IP20
Type	CF
Pressure Transducer Characteristics	
Transducer Sensitivity	5 μ V/V/mmHg, nominal
Bridge Excitation Load Resistance	1000 ohms, nominal 350 ohms, minimum
Transducer Bridge Excitation	5.0 V_{DC} , nominal
Signal Input Resistance	50 megohm, nominal
Pressure Outputs	
Sensitivity	1 V/100 mmHg, nominal
Accuracy Error Band	$\leq \pm 1$ mmHg or 1% of reading, whichever is greater
Frequency Response	DC to 1000 Hz (-3 dB), minimum
Output Resistance	1000 ohms, nominal
Noise	< 0.3 mmHg peak-to-peak
Zero-Offset Temperature Coefficient	< 0.15 mmHg/ $^{\circ}$ C
Gain Temperature Coefficient	$< 0.1\%$ / $^{\circ}$ C
Balance Adjustment Range	± 140 mmHg, nominal
Standby-Calibration Mode	
Zero Offset	$\leq \pm 1$ mmHg
Calibration Steps	0, 25, 100 and 125 mmHg
Calibration Accuracy	$\leq \pm 0.5$ mmHg
LED Bar Graphs	
Range	-25 to 200 mmHg in 10 steps
Resolution	25 mmHg
Out of Range	Top light stays on at high pressures Bottom light turns off at low pressures
Power Supply	
Input (Universal)	100 to 240 V_{AC} , 0.3A, 50/60 Hz
Output	5 V_{DC} /2.0 A, regulated ($\pm 5\%$)
Safety Approvals	EN 60601-1, CSA C22.2 No. 601.1
Mechanical	
Size	2.6 in. H x 6.1 in. W x 5.3 in. D (6.6 cm H x 15.5 cm W x 13.5 cm D)
Weight	1.1 lbs. (0.5 kg)
Environmental	
Operating	50° to 104°F (10° to 40°C), 30 to 75% RH
Transport and Storage	-4° to 149°F (-20° to 65°C), 30 to 75% RH
Safety Protection	
Fuse	Resettable, 0.4A

Note: Specifications subject to change without notice.

Interface Cable Ordering Information

Cable Model	Part Number	Cable Length	Catheter End Connector Type
PEC-1.5C	850-8088	1.5 ft. (46 cm)	Viking
PEC-10C	850-5089	10 ft. (305 cm)	Viking
PEC-10D	850-5090	10 ft. (305 cm)	Low Profile

NOTE: Viking connectors are round with 4 pins. Low Profile connectors are flat with 4 pins.

PCU-2000 Power Supply Ordering Information

Item	Part Number	Connector
Power Supply	249-2365	C8P input accepts C7P or C7
North American Power Cord	850-5092	Polarized NEMA 1/15P and C7P
European Power Cord	850-5093	Type XVI and C7



All input and output connectors are conveniently located on the rear panel of the PCU-2000.

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