

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.

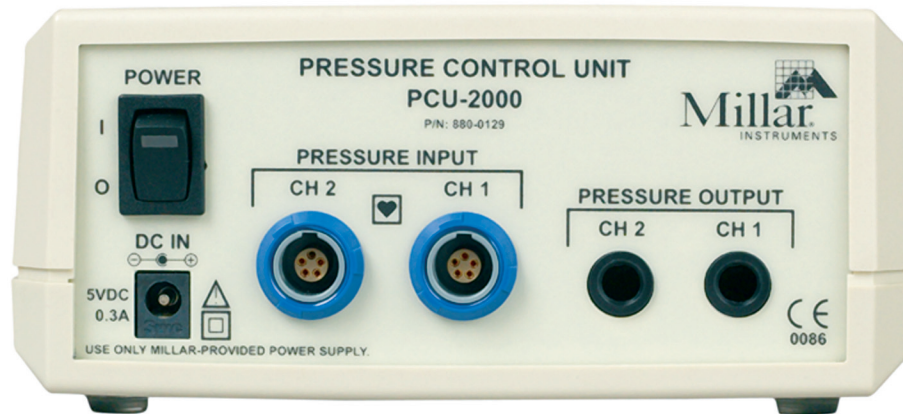
Interface Cable Ordering Information

| 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-4D | 850-5103 | 4 ft. (122 cm) | Low Profile |
| 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 | C12 input for three-prong cords |
| North American Power Cord | 850-5117 | Hospital-grade NEMA 5-15P and C13 |
| European Power Cord | 850-5118 | CEE 7/7 and C13 |



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

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