

## IPS100D ISOLATED POWER SUPPLY MODULE



The IPS100D is used to operate 100C and 100D Series amplifier modules **independently** of an MP data acquisition unit. The IPS100D module couples the 100-series amplifier outputs directly to any **other** data acquisition system, oscilloscope or chart recorder. 100D Series Smart Amps connect directly to the RJ12 analog channel outputs on the IPS100D's front panel to receive the necessary isolated power, while older-style 100C Series Amplifier modules snap onto the side. The IPS100D allows users to operate up to 16 100C or 100D amplifiers on a stand-alone basis. The IPS100D is generally used with animal or tissue preparations. When collecting data from electrodes attached to humans, use the OUTISOA adapter to couple signals to external equipment.

100D Series Smart Amps may be connected to the IPS100D. In order to send isolated signals to external equipment, the CBL237 + OUTISOA combination should be used. The MEC104D is the appropriate extension cable for the Smart Amp series.

Includes In-line Transformer (AC300A) and USA or EURO power cord.

### IMPORTANT USAGE NOTE

Do not use the IPS100D with a BIOPAC MP based system.

**100C Series Amplifiers:** For a fully isolated recording system using the IPS100D, couple signal inputs through an OUTISOA adapter. Contact BIOPAC for details.

### THIRD-PARTY SOFTWARE CONSIDERATIONS:

When using third-party data acquisition software, additional signal processing will be required in order to obtain the proper biopotential physical units.

- Signal inversion voltage mapping must be applied in the software scaling (see page 2).
- Filters in Smart Amps are fixed, any additional filtering must be applied in the software.

**IPS100D SPECIFICATIONS**

Amplifier Output Access: 16 channels (front panel) – RJ12 jacks  
 Isolated Power Access:  $\pm 12$  V, +5 V @ 100 ma (back panel) – screw terminals  
 Weight: 0.907 kg (unit only)  
 Dimensions: 7 cm (wide) x 11 cm (deep) x 19 cm (high)  
 Power Source: 12 VDC @ 1 amp (uses AC300A transformer)

**AMP VOLTAGE MAPPING:**

| Amp Type                               | Default Voltage Mapping                       |
|--|---|
| ECG100D, EOG100D,<br>fEMG100D, EGG100D | 0 V → 0 mV<br>10 V → -5 mV                    |
| EMG100D                                | 0 V → 0 mV<br>10 V → -20 mV                   |
| ERS100D, EEG100D                       | 0 V → 0 $\mu$ V<br>10 V → -500 $\mu$ V        |
| RSP100D, PPG100D                       | 0 V → 0 V<br>1 V → 1 V                        |
| EDA100D                                | cal_1 V → 0.1 $\mu$ S<br>cal_2 V → 20 $\mu$ S |
| SKT100D                                | 0 V → 32 deg C<br>10 V → 52 deg C             |
| NICO100D (Z):                          | cal_1 V → 20 ohm<br>cal_2 → 40 ohm            |
| NICO100D (dZ):                         | cal_1 → 0 ohm/sec<br>cal_2 → 4 ohm/sec        |