# Smart Transducers

### Force Plates Industrial Load Transducers Balance Plates

- Fully digital RS485 output
- 16-bit resolution
- Built-in calibration matrix
- Fully calibrated output
- No cross-talk
- 1 kHz sampling frequency
- 500 Hz dynamic range

# Output Options

#### Option 1: AM6500 - Digital output

- USB output
- Connects directly to computer
- Free data acquisition software
- Plug-and-play

#### Option 2: AM65XX - Analog output

- Analog output
- +/- 5V calibrated outputs
- Autozero function
- Preset, fixed gain amplification

#### Option 3: AM6800 - Dual output

- USB / analog outputs
- Seven user-selectable gains
- Autozero function
- Free data acquisition software

```
Rev. date 2003.05.05
```

Contents of this publication may be changed without notice and shall not be regarded as a warranty. Printed in the U.S.A.



## AM6800

The AM6800 is a digital-to-analog amplifier, providing analog output and synchronization for Bertec digital force plate.

Features:

- Cross-talk-free calibrated outputs
- 6 channels of  $\pm 5V$  full-scale analog output
- 500 Hz bandwidth (standard)
- End-to-end group delay (includes the preamplifier) is less than comparable analog systems
- 30ppm accurate digital gain ratios
- Accurate analog output auto-zero
- One gain selection switch for all 6 output channels
- Additional software gain selection independent for each channel
- Gain display
- Digital output via USB parallels the analog output
- Digital acquisition start input (synchronization slave)
- Gated sample rate output (synchronization master)

Connectors:

- Mains power 90–250V, 50–60Hz
- Digital plate input
- USB digital data output
- Analog output and synchronization

Front panel:

- Gain switch (7 gains)
- Gain display (3 digit red LED display)
- Signal polarity indicators
- Auto-zero button
- Auto-zero and power indicators
- Power switch

The analog outputs provide calibrated full-scale outputs per rated load range of each channel of the attached transducer. Example: if the transducer has a  $\pm 1,000$ N load range in the Fz channel, the -5.00V output on Fz will correspond to -1,000N load, and +5.00V corresponds to +1,000N. The synchronization is provided so that the digital data acquisition can be synchronized with separate data acquisition systems, like motion systems. Either slave or master modes are available. The slave mode initiates the digital data acquisition on the attached PC upon reception of a TTL/CMOS logic signal by the amplifier. In the master mode, the amplifier signals other data acquisition devices the acquisition of each data sample whenever the acquisition is running on the PC. Note that the synchronization is related to the data storage on the attached PC only, the analog output is provided continuously and independently. It is thus possible to utilize both the analog outputs, as well as acquire the data with the attached PC via the USB connection.