**FEATURES**

- Eight channels of AC LVDT conditioning
- Removable screw terminal blocks for easy connection and serviceability
- Use easily with PLC or PC-based DAS
- Non-multiplexed, real-time, simultaneous conditioned outputs
- Compatible with other ACCES A/D products for use in legacy systems using DB37M
- LED display utility for quick and easy operation verification of connected LVDTs
- User configurable excitation voltage levels
- Factory set oscillator frequency per channel from 20Hz to 20kHz
- User configurable excitation voltage levels per channel
- +/- 10VDC or +/-5VDC outputs
- Excellent temperature stability
- Operates on 24VDC power
- Reverse input power protection
- Includes rugged, industrial enclosure for physical protection and mounting
- DIN rail mounting provision
- Conditioned outputs also available via DB-37M connector
- Wide-range calibration pot per channel

**FACTORY OPTIONS**

- 12VDC, ±12VDC, 48VDC or external ±15VDC power
- Alternate excitation frequency from 20Hz to 20kHz

**FUNCTIONAL DESCRIPTION**

The LVDT-8A signal conditioning board was designed based on a customer request to fill a solution void in the automotive parts manufacturing industry. The board supplies excitation and the corresponding conditioning of the outputs for up to eight independent LVDT transducers simultaneously. Those outputs are then readily available via removable screw terminals for introduction to a data acquisition or measurement circuit such as an analog to digital converter or simply by using a display meter.

A new feature that sets our board apart from others (including our discontinued model LVDT-8), is that the board no longer has a multiplexer to combine all eight outputs into a single output. Advantages of this approach is that there is no speed limitation associated with monitoring or acquiring the positioning signals. Take the data as fast as you need and run with it. No multiplexer control signaling or timing issues. Do you want to use this conditioner with a PLC A/D module? No problem, it will even operate natively on the 24VDC commonly used with PLCs.

The board is flexible with different transducer types due to user-configurable excitation voltage levels for precise tuning of your specific application. This reduces self-heating that can come from a rigid excitation voltage by using the lowest voltage that produces reliable and repeatable measurements. It also has a very handy LED display utility for quick and easy checkout of the sensors and signal conditioner operation. This inherently makes the product more serviceable and vastly more user friendly.

**ACCESSORIES**

Accessories include an assortment of 37-pin ribbon cables for connecting the conditioned outputs to a variety of readily available analog to digital converter products. ACCES offers a broad range of A/D products using USB, RS-485, PCI, PC/104, Ethernet, 900MHz/2.4GHz wireless, and even ISA bus types. Other than that you just need some LVDTs and some wiring to connect them to the removable screw terminals that ship installed on the board.

**SOFTWARE**

No software is necessary to start using the LVDT-8A. It can be utilized right out of the box. A user friendly setup program and user manual is included with each shipment. The setup program can be used to help with the selection of application specific options and the user manual contains full details on the boards operation.
### SPECIFICATIONS

- **Transducers Served:** LVDT, RVDT, LVRT with primary impedances of 150 Ohms or more
- **Signal Conditioner:** AD698AP
- **Excitation Frequency:** 5kHz standard
  - The frequencies may be anywhere in the range of 20Hz to 20kHz however this is a factory installed option which should be specified at the time of purchase.
  - Frequencies may be different for each LVDT channel.
- **Power Required:** +24 (18 to 36) VDC at 350 mA maximum
  - Call factory for installed power options which should be specified at the time of purchase.
  - Options include:
    - +12 (9 to 18) VDC at 700 mA maximum
    - +48 (36 to 75) VDC at 175 mA maximum
  - External power supply: +/- 12VDC or +/- 15VDC at +/- 300 mA maximum
- **Output Analog Voltage:** +/- 10VDC or +/-5VDC
- **Environmental**
  - Operating Temperature: 0°C to 65°C
  - Storage Temperature: -40°C to +100°C
  - Humidity: 0 to 90%, non-condensing
- **Size (LVDT-8A card):** 8.0” long (203 mm) X 4.74” wide (120 mm) X 0.75” high (19 mm)
- **Size (T-BOX):** 8.5” long (216 mm) X 5.25” wide (133 mm) X 2.0” high (51 mm)
- **Ordering Guide**
  - LVDT-8A: Signal conditioning card installed in enclosure