



VDAS® AFA6

## 32-WAY PRESSURE DISPLAY UNIT

A 32-way pressure measurement and display unit for use with TecQuipment's Subsonic Wind Tunnels (AF1300, AF1450, AF1600).



- Ancillary to TecQuipment's modular Subsonic Wind Tunnels (AF1300, AF1450, AF1600)
- Measures and displays up to 32 pressures from models, Pitot-static tubes and other devices
- Quicker, easier and more versatile than using liquid manometers
- Integral LCD allows direct pressure measurement
- Measures pressures with respect to atmosphere
- Fully compatible with TecQuipment's Versatile Data Acquisition System (VDAS®) to enable accurate real-time data capture, monitoring and display on a computer

# 32-WAY PRESSURE DISPLAY UNIT

## DESCRIPTION

The 32-Way Pressure Display Unit is an optional ancillary to TecEquipment's modular Subsonic Wind Tunnels (AF1300, AF1450, AF1600). It measures and displays up to 32 pressures from models, Pitot-static tubes and other measuring instruments fitted to a wind tunnel. It is ideally suited to applications where multiple pressure measurements are required, for example in boundary layer and tapped aerofoil model investigations.

The unit mounts onto the control and instrumentation frame of the (AF1300, AF1450, AF1600) wind tunnels. Connection to each of the 32 calibrated pressure transducers is via quick-release pressure inputs mounted on the front panel of the unit. This allows easy and quick connection between the unit and an experiment mounted in a wind tunnel. All pressures are measured with respect to atmosphere.

The unit has an integral liquid crystal display with a scroll switch that allows all 32 channels to be viewed in groups of four at any time.

The conditioned outputs of the pressure sensors, and any other connected compatible electronic instruments, may be output to TecEquipment's Versatile Data Acquisition System (VDAS®, available separately) to allow computer-based data acquisition and display. Using VDAS® enables accurate real-time data capture, monitoring, display, calculation and charting of all relevant parameters on a suitable computer (computer not included). When the 32-Way Pressure Display Unit is used with the system it allows laboratory time to be used more efficiently because data can be captured and processed much more quickly than when using manual techniques. The facility in the software to average data to remove the fluctuations inherent in wind tunnel measurements, enhances the quality of the results by making their interpretation much easier. This option provides significant experimental advantages over conventional instruments such as manometers.

## STANDARD FEATURES

- Supplied with comprehensive user guide
- Five-year warranty
- Made in accordance with the latest European Union directives

## ANCILLARY FOR

- Subsonic Wind Tunnel (AF1300, AF1450, AF1600)
- NACA 0012 Aerofoil With Tappings (AF1300b, AF1450b)
- Boundary Layer Model (AF1300f, AF1450f)

## ESSENTIAL SERVICES

### ELECTRICAL SUPPLY:

100 V a.c. to 240 V a.c., 50 Hz to 60 Hz

**NOTE:** A suitable electrical supply outlet is included at the rear of the Subsonic Wind Tunnel controller.

## SPECIFICATION

### DIMENSIONS:

Nett: height 450 mm x width 350 mm x depth 220 mm

Packed: 0.11m<sup>3</sup>

### WEIGHT:

Nett: 10 kg

Packed: 20 kg

### PRESSURE SENSORS:

32 pressure transducers calibrated at a maximum of  $\pm 7$  kPa

## OPERATING CONDITIONS

### OPERATING ENVIRONMENT:

Well ventilated laboratory

### STORAGE TEMPERATURE RANGE:

-25°C to +55°C (when packed for transport)

### OPERATING TEMPERATURE RANGE:

+5°C to +40°C

### OPERATING RELATIVE HUMIDITY RANGE:

80% at temperatures < 31°C decreasing linearly to 50% at 40°C