



## AL510 CONFIGURABLE MULTIFUNCTION DISPLAY



### OVERVIEW

The AL510 Configurable Multifunction Display provides an adaptable display of test data in aircraft instrument panels by combining a bright, high contrast TFT LCD display with a programmable data processing unit. In the lab prior to flight, the user programs the display range (e.g., +50° to +350°) that corresponds to the analog input signal of 0 to +5V derived from data acquisition subsystems. The data are displayed as either a 'sweep' or a single pointer along with a digital readout. The AL510 also provides max and max/min hold functions and the programmable range arcs are available in up to six different colors. After one series of flight tests are completed, the display can be reprogrammed to support the next set, eliminating the need to buy unique, specialized displays per mission.

### FEATURES

- User programmable LCD-based display
- Fits standard 3" instrument panel cutouts
- Stores four display formats in non-volatile memory
- Accepts four analog signal inputs (0V to 5V DC)
- Four quadrant touch screen for control (optimized for gloved finger operation)
- Display select, dim/brite, and max hold reset
- Ethernet programming interface
- Setup GUI software provided
- Operates on 18-36 VDC power, 300mA

## SPECIFICATIONS

### MECHANICAL

- Cylindrical body with maximum diameter of 3"
- Maximum depth of 6" behind panel, not including electrical connector
- Front mount capability with 3 each 6-32 screws on a square, 2.5" spacing
- Front bezel maximum of 0.5" depth, 3.5" across
- Weighs less than 5 pounds

### ENVIRONMENTAL

- Temperature: -30°C to 70°C operating
- Humidity: 95% non-condensing
- Altitude: 0 to 70,000 feet

### ELECTRICAL

- Input Power: +18VDC to 36VDC, 300mA
- Power Consumption: 12 watts maximum
- Power Interruption: Resumes operation within 15 seconds of reapplication of power
- Connector: Mil-C-38999

### DISPLAY CHARACTERISTICS

- Input: Analog DC Voltage 0 to +5VDC
- Discrete control: Four set-up configurations (pages) via front panel touch screen display
- Update Rate:  $\geq 30$  frames per second
- Sunlight Readable
- Resolution: 240 x 160 pixels
- Number of Colors: 8 colors per display page are selected from a palette of 256K color combinations
- Contrast Ratio: Transmissive Mode, typical is 70:1 and Reflective Mode, typical is 5:1
- Viewing Angle: CR of 10:1 as the measurement point and specifies a uniform +/- 40 degree viewing angle (Left/Right/Up/Down)

### GAUGE TYPES

- 340° Arc
- Dual bar: Horizontal or vertical
- Accumulator/Counter: Count-up or count-down
- Tether hover
- Additional gauges upon request, consult factory