



Sentinel™ II Instrument System

DESCRIPTION

AMETEK Aerospace introduces the SENTINEL II Instrument System, the natural progression of our original SENTINEL system. The SENTINEL II System with its dual redundant 3 inch by 4 inch AMLCDs brings the convenience of a fully digital instrument system to the operators of existing aircraft without the need for major aircraft system retrofits. The SENTINEL II system is also ideal for new aircraft designs where the single box system offers savings in weight, space, cost, and system complexity.

The SENTINEL II Instrument System offers all the advantages of the original three box SENTINEL System in a single box design. No longer is it necessary to make significant aircraft modifications for independent data acquisition units and multiple display units.

Typical system applications include primary and secondary engine instruments and caution/advisory panels. The SENTINEL II Instrument System is designed to accept standard aircraft signals including: DC Voltage, AC Voltage, resistance, frequency, thermocouple, discrete signals, and ARINC 429. The SENTINEL II Instrument System also provides aircraft standard output signals such as: analog FDR outputs, sensor excitation, high current switches, and ARINC 429 transmitters. The SENTINEL II Instrument System offers outstanding optical qualities with high reliability fluorescent lamps providing a uniformly lit 125 FL average white brightness, suitable for viewing in direct sunlight. Heaters are provided for both the fluorescent lamps and the AMLCDs to permit operation in cold weather conditions.

SAFETY AND CERTIFICATION

The key to a successful single box instrument system is redundancy. The SENTINEL II system offers full redundancy in 100% of its systems. Both data processing sections are constantly acquiring all input signals. Should a failure occur in either the data processing section or an AMLCD display section, the other system is instantly ready to display all input parameters. This allows certification without the need for an additional standby indicating system.

The SENTINEL II Instrument System has been designed and tested to meet the hardware and software requirements of a "Level B Essential" system for FAR Part 25 aircraft. The fully digital design provides a high reliability instrument which meets strict safety guidelines for availability and reliability. To assure a high MTBF, all components have been derated and the design has been tested beyond its intended operating envelope.



FEATURES

- ✓ NVG compatible
- ✓ Engine displays
- ✓ Caution and warning
- ✓ Fault and trend monitoring
- ✓ Power control
- ✓ Full digital and analog input capability
- ✓ Helicopters, bizjets, and air transport retrofit

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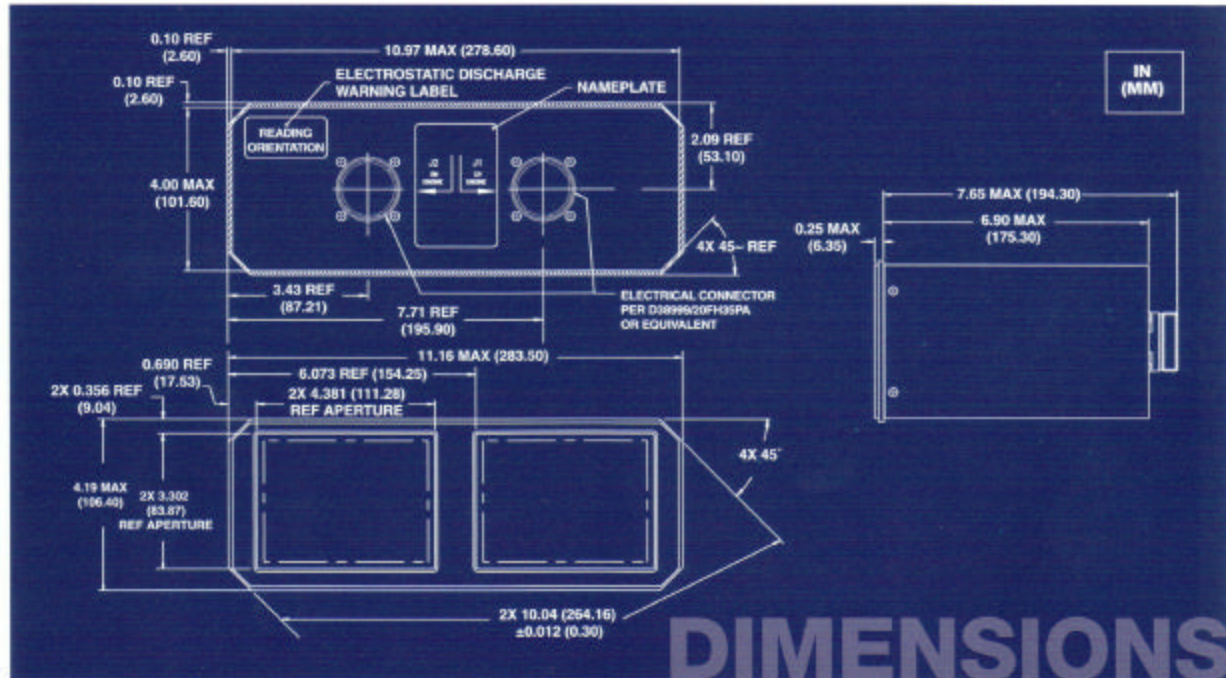
Sentinel™ II Instrument System

SPECIFICATIONS

ELECTRONIC DISPLAY UNIT

Viewing Area: 3 inch (76.2 mm) high by 4 inch (101.6 mm) wide
 Contrast Ratio: 75 typical (optimum viewing angle)
 Luminance: Greater than 125 FL
 Viewing Angle: 45° left and right, 30° up, 15° down
 Resolution: 320 pixels wide by 234 pixels high
 Lighting: Cold cathode fluorescent lamps

Input Power: 28 VDC nominal, 9 to 90 volts abnormal
 Power Consumption: 28 watts per side without heater
 Temperature Range: -40° to 185°F (-40° to 85°C)
 Weight: 9.0 lbs. (4.08 kg)
 Cooling: Not required
 Certification: Level B "Essential"



RVSM COMPLIANT ALTIMETERS

For those operators considering aircraft upgrades, AMETEK also offers a complete selection of fully RVSM compliant altimeters, altitude repeaters, fuel gauging systems, wiring harnesses, and a variety of sensors including speed, pressure, temperature, flame, and level.

AMETEK's RVSM altimeters provide the alerter function, transponder output, and autopilot interface required for aircraft level RVSM compliance. AMETEK's altimeters also provides many of the outputs typically provided by the traditional air data computer for interface with FMS/GPS systems. AMETEK has formed an alliance that provides the aircraft operator a



one-stop RVSM solution. This alliance provides a single solution that includes the capability to provide the RVSM data gathering, SSEC determination, and ultimate aircraft certification of the complete RVSM installation kit.

AMETEK also provides an "altitude repeater" version of the altimeter that interfaces with existing air data computers. This modern indicator gives operators the option of replacing unreliable counter wheel indicators. Both the altimeter and indicator utilize LCD's for the digital displays and DC Resolver drive for the pointer, providing the ultimate in reliability and readability.



Kellstrom Industries is AMETEK's Authorized Distributor for Europe, Africa, the Middle East and Latin America.

Kellstrom Industries
 3701 Flamingo Road
 Miramar, FL 33027
www.kellstrom.com
 Tel: +1-954-538-2000
 Fax: +1-954-538-2188

To learn more about AMETEK's CF6-80C/E Probe, please contact:

Adriana Simon-Wheeler
 Sales Director, Distribution
adriana.simon@kellstrom.com
 Tel: +1-954-538-2450
 Fax: +1-954-538-3206

Dean Morgan
 Vice President, Distribution
dean.morgan@kellstrom.com
 Tel: +1-954-538-2436
 Fax: +1-954-538-2158