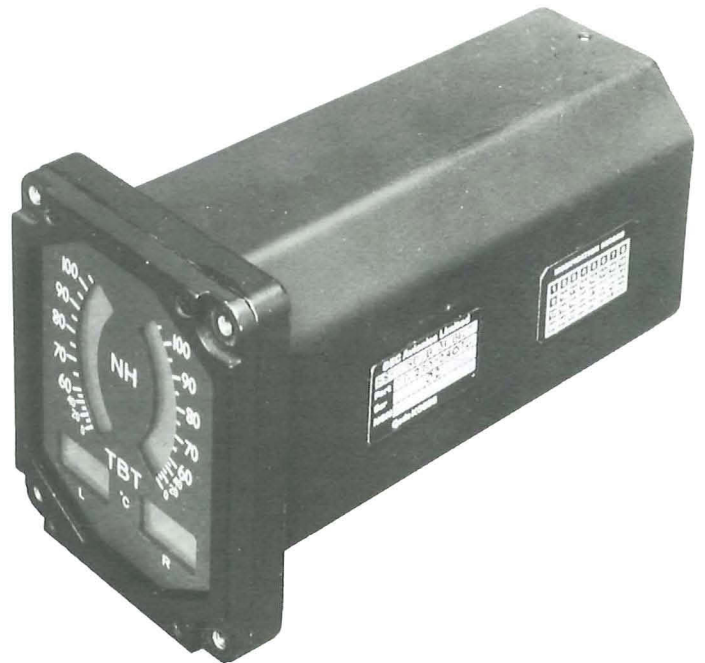
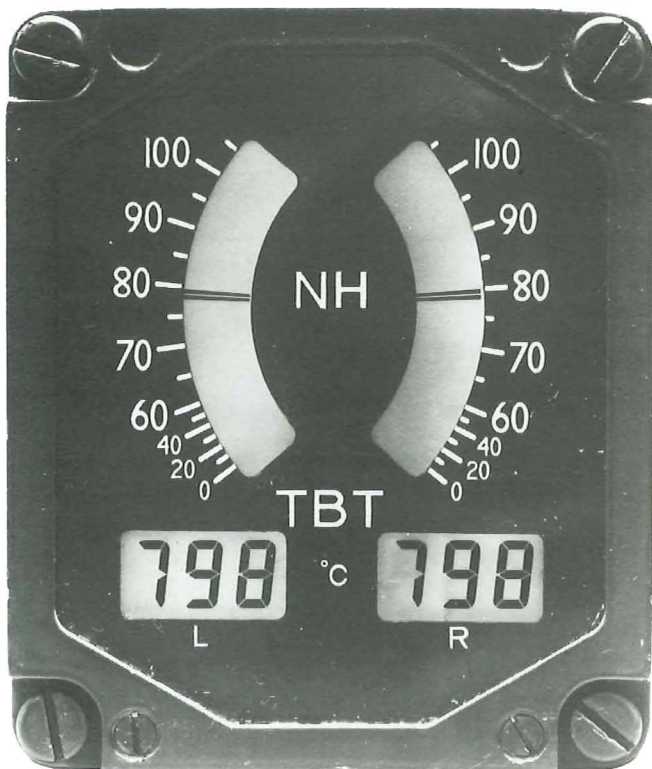


# Engine Speed and Temperature Indicator (ESTI)



## FEATURES

- MICROPROCESSOR BASED INSTRUMENT
- LIQUID CRYSTAL DISPLAYS
- RAW DATA INPUTS
- LOW POWER – REVERSIONARY CAPABILITY
- GOOD READABILITY IN ALL LIGHT CONDITIONS
- QUALIFIED TO MIL-STD-810C
- RECONFIGURABLE SOFTWARE
- SELF-TEST AND LAMPS TEST OPTIONS
- ENHANCED CAPABILITIES

## GENERAL

The Engine Speed and Temperature Indicator (ESTI) is a cockpit instrument which uses the latest technologies proven for aircraft use. In the configuration shown above, the following information is displayed to the pilot for each engine:

- Speed – An analogue moving pointer in segments, with a 'growing bar' for over-limit warning
- Temperature – A three-digit, seven-segment display, with flashing digits for over-limit indication

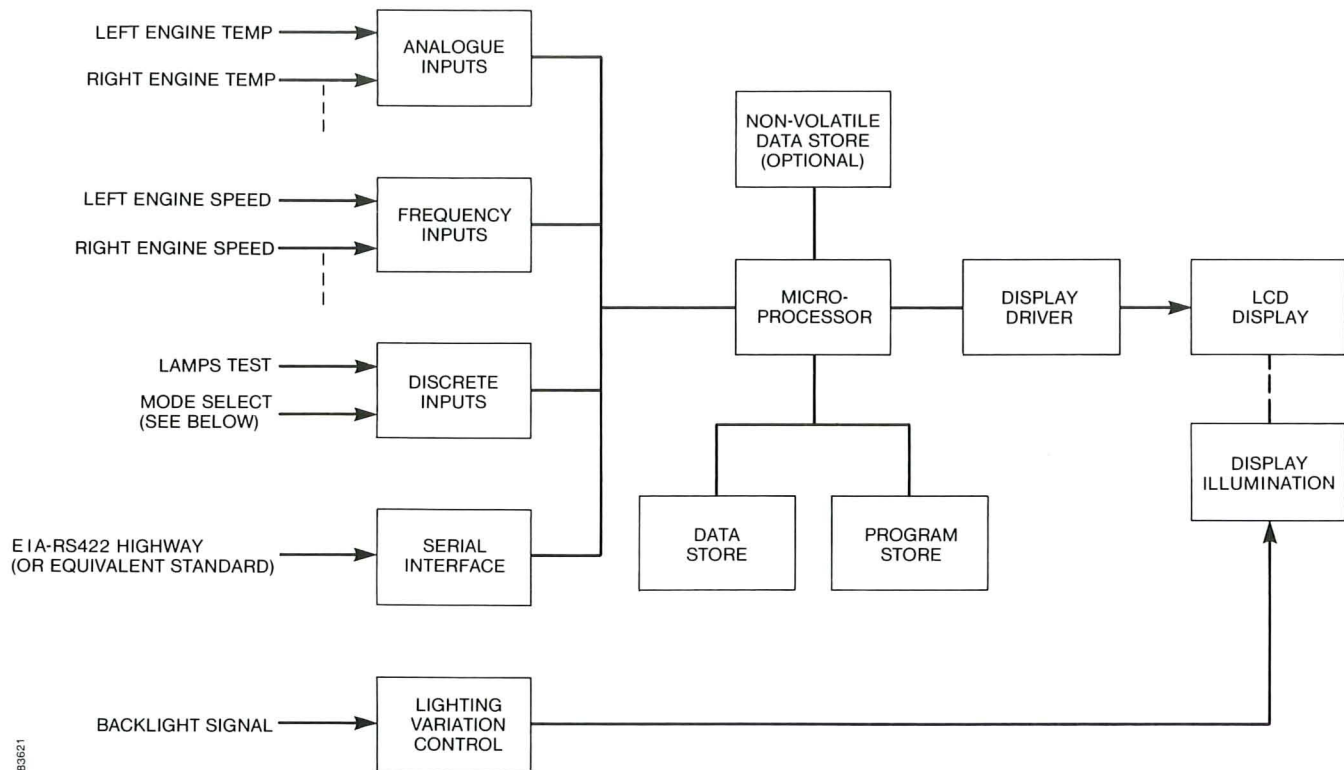
The ESTI is designed for normal and reversionary modes of operation, using low power Liquid Crystal Displays and operating from a 28V dc supply. In the reversionary mode, it operates from aircraft emergency supplies.

The ESTI is designed to condition raw data signals, thus avoiding any reliance on other electronic units. This is essential in its reversionary mode.

The ESTI has recently been qualified for flight on the British Aerospace Experimental Aircraft Programme, having successfully undergone extensive lighting trials. These trials established liquid crystals as the emerging flat panel technology for avionic applications.

The unit is configured to be easily tailored to specific engine or aircraft types. Input conditioning, software scalings, display formats and unit size can all be adapted to suit the requirements. In addition, its small size and low power consumption make ESTI an ideal choice for retrofit to existing aircraft.

83621



**LEADING PARTICULARS**

Size:  
70 mm wide, 83 mm high,  
142 mm deep

Weight:  
800 grammes

Power:  
28V dc (MIL-STD-704) 3 watts

Temperature Range:  
-40°C to +70°C

Environment:  
Qualified to MIL-STD-810C

EMC:  
Qualified to MIL-STD-461A

Legibility:  
0.1 to 100,000 lux. Backlight  
used in low ambient light

MTBF:  
32,000 hours  
(MIL-HDBK-271D)

BITE Capability:  
Initiated self-test and lamps  
test

**INTERFACES**

Frequency Inputs:

- 0 to 10 kHz
- Isolated
- 50mV rms minimum
- 0.2% accuracy

Analogue Inputs:

- 0 to 5V
- Isolated
- 0.5% accuracy

Discrete Inputs:

- 0V or 28V
- Isolated

Serial Interfaces:

- RS422
- RS232
- Others

**DISPLAY**

- Twisted nematic liquid crystal
- Two radial bar graphs of 56 addressable segments
- Two 3-digit, 7-segment numerical indicators
- Contrast ratio >8:1
- Viewing angle >±45°
- Night Vision Goggle compatibility

GEC Avionics is actively enhancing these capabilities, and would be happy to discuss further any variant of this proven instrument.

**Please contact our Marketing Department on (0634) 44433 extension 63**



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