

EMS-D10 SPECIFICATIONS

Mechanical

Mounting: Fits into standard 3 1/8" panel hole
Optional flush mount bracket available
Weight: 1 lb. 4 oz. (.57 kg)

Environmental

Operating Temperature: -22° to 122° F
(-30° to 50° C)

Power

Voltage: 10 - 30 Vdc
Power: 10 Watts maximum

Connections

Wiring: D-25 & D-37 pin male connectors

Screen

Type: AMLCD, TFT (Thin Film Transistor)
Backlight: 450 NIT
Size: 3.8" diagonal (96 mm)
Resolution: 320 x 240 color pixels

User Interface

Menu: Softkey menus
Buttons: 6
Power On/Off: Furthest left button
Momentary press to turn on
Hold for 2 seconds to turn off
Hotkeys: Page switching, furthest left button
Instrument switching, furthest right button

Timers

Flight: Current flight, 99 hrs 59 min max
Trip: Total trip hours for tracking multiple leg flights, can be reset via softkey, 99 hrs 59 min max
Tach: 99999.9 hrs max
Hobbs: Activated by oil pressure, 99999.9 hrs max

Data Logging

Data: All enabled sensors
Intervals: User-selectable, 1 - 600 seconds
Storage: 20,000 records

Sensor Inputs

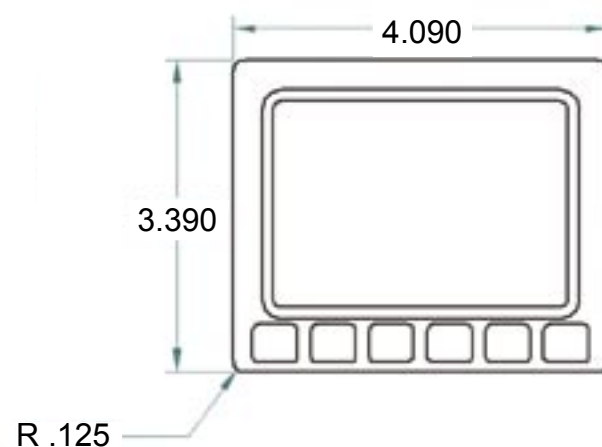
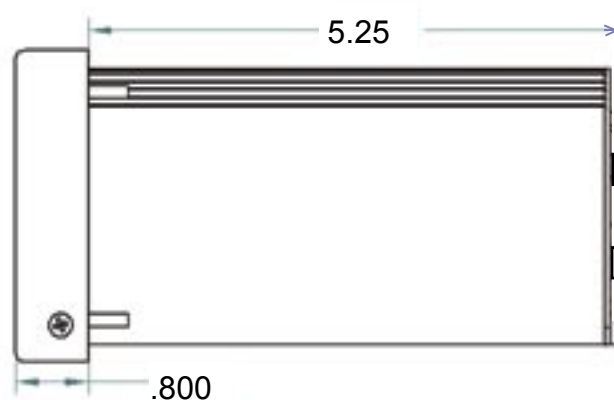
- 6 - EGT (Type K Thermocouple)
- 6 - CHT (Type J Thermocouple)
- 2 - Fuel Level (Resistive or Capacitance with 5 volt output)
- 2 - RPM (Frequency)
- 2 - Contacts (Canopy, Landing Gear, Fuel Switch, Carb Heat, Fuel Pump, Contact 1, Contact 2)
- 1 - Manifold Pressure (Resistive)
- 1 - Oil Temperature (Resistive)
- 1 - Oil Pressure (Resistive)
- 1 - Fuel Pressure (Resistive)
- 1 - Fuel Flow (Frequency)
- 1 - Amp/Volts (Shunt)
- 1 - Turbine Inlet Temperature (Type K Thermocouple)
- 3 - General Purpose (Either resistive or voltage for OAT, Fuel Tanks 3 & 4, Coolant Temp/Press, Carb Temp)

Outputs

- 1 - Alarm Light Contact
- 1 - Audio Alarm
- 1 - RS-232



Actual Size



The Intelligent Choice for Power Management

EMS-D10 Engine Monitoring System



DYNON AVIONICS

Innovative Avionics for Experimental Aircraft

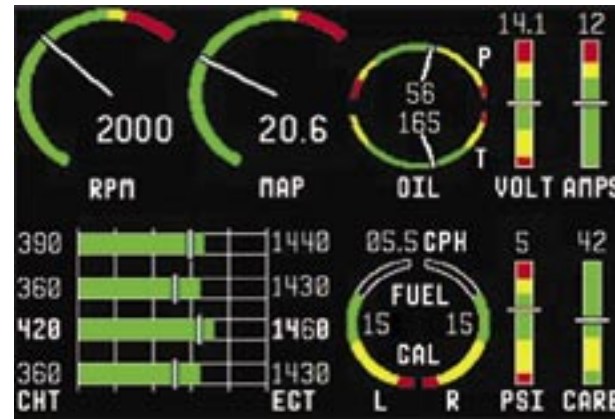
www.dynonavionics.com

EMS-D10 - ENGINE MONITORING SYSTEM

KEY FEATURES

- ✓ Multiple Color Graphic Displays
- ✓ Rapid Hotkey Page Switching
- ✓ EGT Peak Detection
- ✓ Fuel Computer (with optional fuel sensor)
- ✓ User-Defined Limits/Color Ranges
- ✓ Audio & Visual Alarms
- ✓ System Clock & Timers
- ✓ User Configurable Displays
- ✓ Laptop-Free Sensor Setup/Calibration
- ✓ English & Metric Units
- ✓ Monitor up to 4 Fuel Tanks
- ✓ Data Logging/PC Analysis
- ✓ Ergonomic Design
- ✓ User-Friendly Softkey Menus

System Overview Page



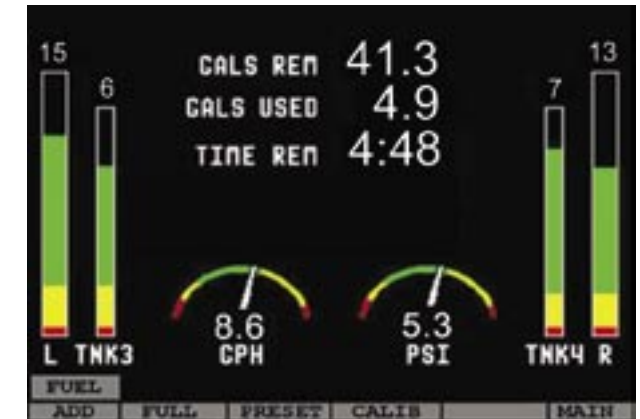
The System Overview Page presents all the key items for monitoring your engine including RPM, Manifold Pressure, Oil Temperature, Oil Pressure, up to 6 channels of EGT & CHT, Fuel Level & Fuel Flow Rate. The vertical Info Bars on this page and the Auxiliary page are user-configured (see special features below.)

Auxiliary Monitor Page



The Auxiliary Monitor Page presents a System Clock, Flight Timer, Trip Timer, Tach Time, Hobbs Time, up to three more user-configured Info Bars, and 2 user selectable contact closure functions to monitor the status of the canopy, landing gear or other general purpose functions. The Trip Timer may be reset via a softkey function.

Fuel Computer Page



The Fuel Computer Page provides a comprehensive overview of your entire fuel system. Included are fuel tank levels for up to 4 tanks, fuel pressure and fuel flow rate. The fuel computer tracks the remaining fuel, total fuel used and fuel time before running out. Fuel fill data are entered from the menu on this page whenever fuel is added.

Checklist Page



Up to 5 customized checklists may be entered via a PC running Dynon's free Windows™ PC Support Program. Users can name each list to accommodate engine runup, take-off, landing, emergency etc.

Setup Page



Intuitive menus drive setup of all probes and functions without use of an external PC. Users may also activate or disable functions, perform fuel level calibration, set color ranges, alarms and select from a range of possible sensors etc.

Optional EFIS Page



Panels equipped with Dynon's EFIS-D10 series instrument can output data directly to the EMS-D10 where it may be displayed by the simple press of a dedicated Hotkey. This is ideal for the copilot who wishes to fly from the right seat.

EMS-D10 SPECIAL FEATURES

Peak EGT Detection

Activating the Lean function assists the pilot to optimally set the fuel mixture by watching each successive cylinder EGT as it peaks. The enhanced System Overview page displays the order in which each cylinder peaks and the temperature differential from its peak.

Alarms/Acknowledgement

User-adjustable alarm setpoints, when exceeded, post a visual alarm bar on the display, change the gauge status and generate output signals to drive an external audible horn and light indicator. All alarms may either be silenced or acknowledged by the pilot.

Softkey Menu/Hotkey Control

All monitoring pages, checklists and setup menus are accessible via the softkey menu. Additionally, users may activate hotkeys to switch rapidly between primary monitoring pages or switch the display over to other Dynon instruments like the EFIS-D10 series.

User-Configured Info Bars

Up to 7 vertical "Info Bars" are available that may be activated and positioned by the user to display measurements for: Volts, Amps, Fuel Pressure, Carburetor Temperature, OAT, Coolant Temperature, Coolant Pressure, Fuel Tanks 3 & 4 and Turbine Inlet Temperature.

Engine Packages

Dynon offers probes to accommodate a variety of engines. Special package deals bundling probes and harnesses with the instrument are available for popular engines. The EMS-D10 is also great for retrofitting existing panels and will work with many existing sensors.