

HelmView™ HV450

Commercial Marine Display

The HelmView HV450 is a 4-inch display specifically designed to meet the engine monitoring needs of the commercial marine industry. Its durable design and easy-to-use interface offer a complete view of your vessel's engines. Monitor propulsion, auxiliary, transmission and genset engines all on one display. It is equipped with the ability to switch between day and night mode operations and even has a blackout option. There are multiple screens to choose from, and it features the ability to turn screens on/off to meet your specific marine application needs. The HV450 has the ability to be connected to a video camera for monitoring the engine room or other important areas of the vessel. It can utilize modern electronic engines and vessel monitoring using a SAE J1939 CAN network.

This multifunctional, bonded screen allows you to monitor multiple engines, transmissions, fuel usage and more using only one device, thus greatly reducing operating costs. It has eight tactile push buttons that can easily be pressed with or without gloves. The HV450's sunlight-viewable, full-color screen makes seeing lifelike gages, alarm warnings, service codes and video easy to view in virtually any condition. The HV450 is fully programmed to display Diagnostic Trouble Codes showing critical alarms and text explanations.

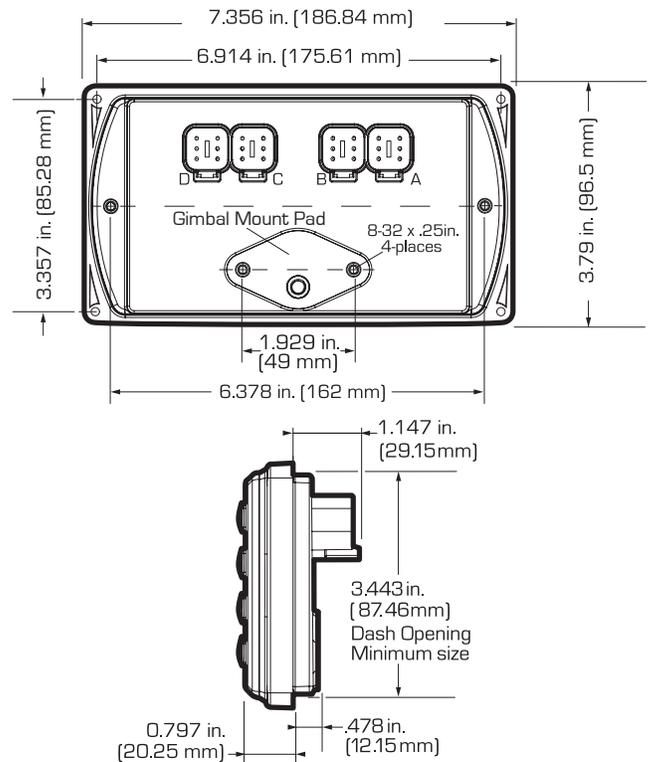
Display Parameters

The following are some of the parameters displayed by the HV450 in Imperial or Metric units (when applicable, consult engine or transmission manufacturer for SAE J1939 supported parameters).

- Engine RPM
- Engine Hours
- System Voltage
- % Engine Load at the Current RPM
- Coolant Temperature
- Oil Pressure
- Transmission Oil Temperature
- Transmission Oil Level
- Tank Levels
- Course Over Ground*
- Speed Over Ground*
- Longitude and Latitude*
- Real-Time Display*
- Instantaneous Fuel Usage
- Trip Fuel
- Navigational Bearing
- Active Service Codes
- Stored Service Codes (when supported)
- Video
- *NMEA GPS Antennae required



Dimensions



Specifications

Technical

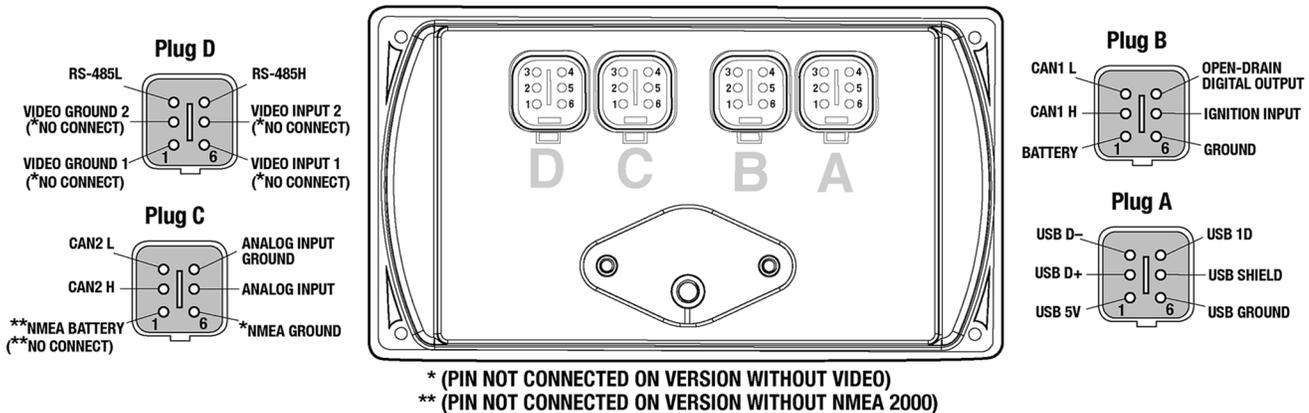
Display: Bonded 4.3" color transmissive TFT LCD
Resolution: WQVGA, 480 x 272 pixels, 16-bit color
Aspect Ratio: 16:9
Orientation: Landscape
Backlighting: LED, 500-650 cd/m2 (30,000 hr lifetime)
Microprocessor: Freescale i.MX357 32bit, 532Mhz
 QNX Realtime Operating System
Flash Memory: 256 MB
RAM: 128 Mbytes DDR2 SDRAM
Operating Voltage: 6-32 VDC, protected against reverse polarity and load dump
Power Consumption: 10W max.
CAN: (2) CAN 2.0B; optional NMEA 2000 isolation
Protocols: J1939, NMEA 2000
RS-485: (1) MODBUS Master/Slave
Video Input: (2) NTSC/PAL input channels - one displayed at a time
Connection: (4) Deutsch DT 6-pin connectors
Keyboard: (8) tactile buttons with white LED backlight
USB: 2.0 host, full speed

Output: (1) Open-drain, capable of sinking 500 mA
Input: (1) Resistive, 0-5 V, or 4-20 mA (software configurable) (10-bit resolution)
Clock: Real-time clock with built-in rechargeable Li-ion battery back-up (0.033 mWh)

Environmental

Operating Temperature: -40° to +185°F (-40° to +85°C)
Storage Temperature: -40° to +185°F (-40° to +85°C)
Protection: IP 66 and 67, front and back
Electromagnetic Compatibility:
 2004/108/EC
 EN 61000-6-4 EN 501121-3-2
 EN 61000-6-2 (immunity) EN 12895
 J1113/2, 4, 11, 12, 21, 24, 26 and 41
Vibration: Random vibration, 7.86 Grms (5-2000 Hz), 3 axes
Shock: ± 50G in 3 axes

Pinout



How To Order

Part Number	Description	Notes
78700563	HV450, J1939, with video	Commercial marine configuration and non-isolated CAN ports
78700538	HV450, J1939, NMEA, with video	Commercial marine configuration with one NMEA 2000 isolated CAN port