CURTIS

Instrumentation

Digital Instrumentation

Model 3501






Model 3501

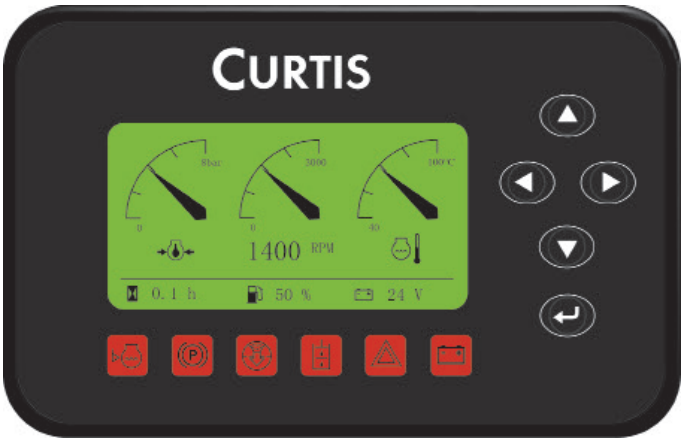
Digital Instrumentation

The Curtis Model 3501 is a microprocessor based instrument panel that can be customized to monitor, display and control numerous vehicle functions in a single integrated package. The panel is fully CANopen compatible. Electric and engine powered industrial and commercial vehicles, including material handling, outdoor power and construction equipment, stationary equipment, commercial cleaning equipment, and light-on-road vehicles.

FEATURES

- Fully customizable instrument. You design your own instrument to your specific applications and needs, with a wide palette of possibilities.
- Digital & CAN functionality in one instrument. All aspects of vehicle management, control and display can be accommodated.
- CAN and SCI communication with selectable baud rate allow seamless interconnectivity with other system components, such as motor controllers.
- Replicates some motor controller programming features from Models 1311 and 1313.
- Microprocessor based logic eliminates or reduces the need for auxiliary vehicle circuits, such as timing circuits.
- One hardware set can be instantly programmed into a wide range of OEM specified instrumentation for use in a variety of different vehicles.
- Large, easy-to-read dot matrix LCD is backlit for ideal viewing in all lighting conditions.
- Real-time clock can be used to provide data logging and real-time event time stamping.
- Operating voltage is menu-selectable which minimizes the need for multiple versions.
- Four digital inputs (active high) can also be used as a frequency input or a Curtis DC controller fault code input.

See a 360° view of Model 3501 at:
curtisinstruments.com/360view

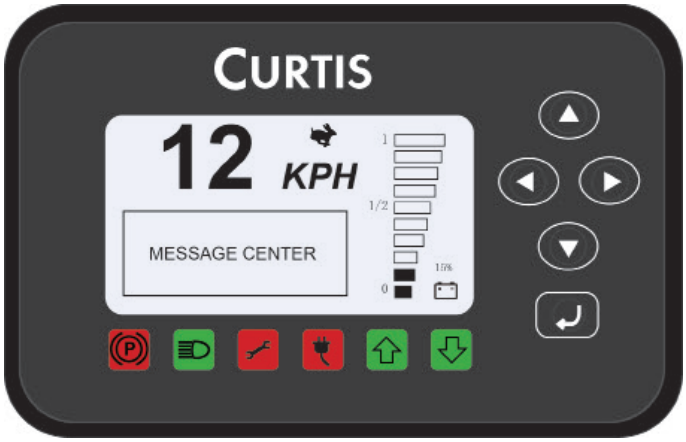


Model 3501

Digital Instrumentation

FEATURES continued

- Displays can include multiple warning icons and an advisory line for hour meters, maintenance monitors and time-of-day clock.
- Five front panel, metal-dome buttons provide enhanced user interface.
- Password protected, enabled field-programming of maintenance monitoring, elapsed time and battery discharge profiles matches the panel to the specific user application.
- Visual warnings include 6 customizable (color, symbol) LEDs and flashing LCD icons and bargraph segments. Optional audible alarm available.
- One 1-Amp FET is used to control OEM specified vehicle functions, such as alarms, lift-lockout, etc.
- For battery powered vehicles, innovative Curtis battery monitoring technology provide reliable state-of-charge information.
- IP65 rated front panel (IP 40 rear with IP64 option) assures performance in the harshest environments.
- Easy Snap-Fit design and integrated connector lowers production costs by eliminating traditional mounting hardware kits.
- Available in a panel-mount housing or behind-panel module for OEM design flexibility.
- Reliable solid-state design means no moving parts to wear out.
- Attractive contemporary styling enhances vehicle design and maximizes readability.



Model 3501

Digital Instrumentation

SPECIFICATIONS

Case and Bezel Material:
Polycarbonate Resin, black.

Lens Material:
PMMA, transparent.

Module Specifications:
All modules are supplied with critical components exposed. If the module is being used in an environment other than specified, the user must take precautions to package the module to provide adequate protection.

Main Interface Connector:
16-pin TYCO Mini Universal Mate-N-Lok.

Operating voltages:
Auto-ranging –
12V to 80V DC ± 25% (9V to 100V DC).

Operating temperature:
–40°C to +70°C.

Storage temperature:
–40°C to +85°C.

Humidity (Applicable To Enclosed Units Only):
95% RH (non-condensing) at +38˚C as per SAE J1455, section 4.2.3. Note: Module requirements may be reduced.

Mechanical Shock (Applicable To Enclosed Units Only):
SAE J 1378 March 83. Amplitude
44–55g, half sine, 9–13ms duration.

Vibration (Applicable To Enclosed Units Only):
SAE J 1378 March 83 Double amplitude of 1.53mm with frequency sweep for 10-80-10 Hz (20g max) at 1 minute intervals.

Sealing (Applicable To Enclosed Units Only):
IP-65 (face), IP-40 (rear).

Thermal Cycling:
As per SAE J1455 section 4.1.3.1. to +80°C.

Thermal Shock:
As per SAE J1455 section 4.1.3.2. to +80°C.

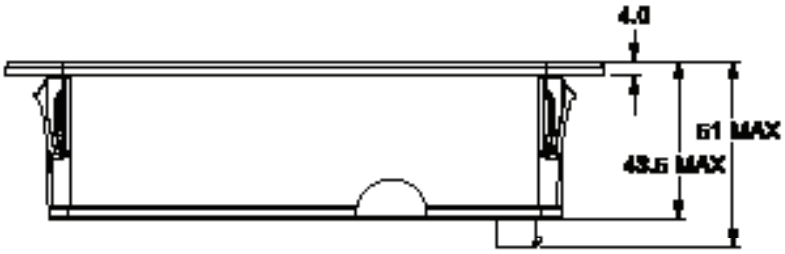
Salt Spray / Fog (Applicable To Enclosed Units Only):
ASTM B 117-73 as per SAE J1810, section 4.7.1.2.

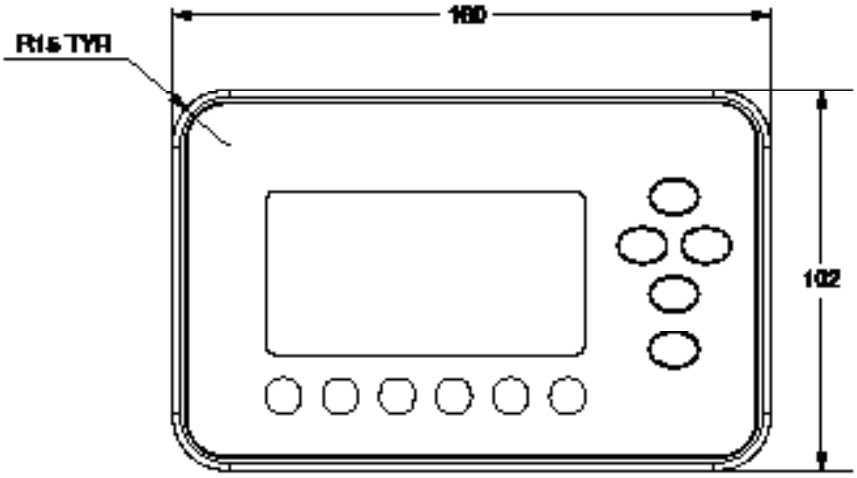
Model 3501

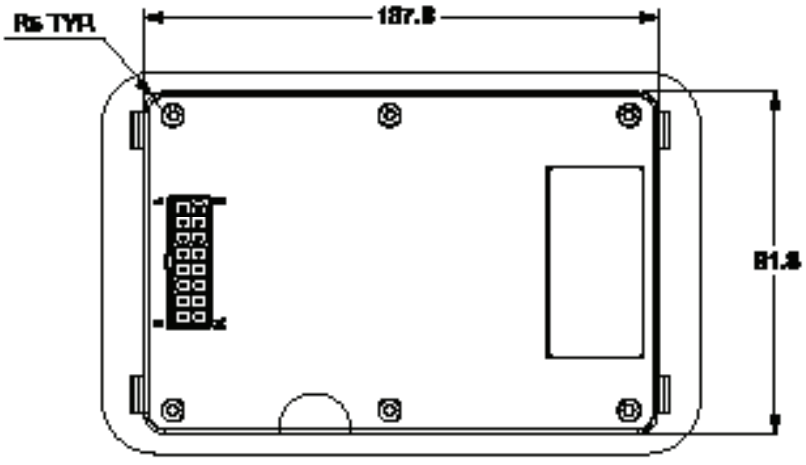
Digital Instrumentation

DIMENSIONS mm

Cased Unit







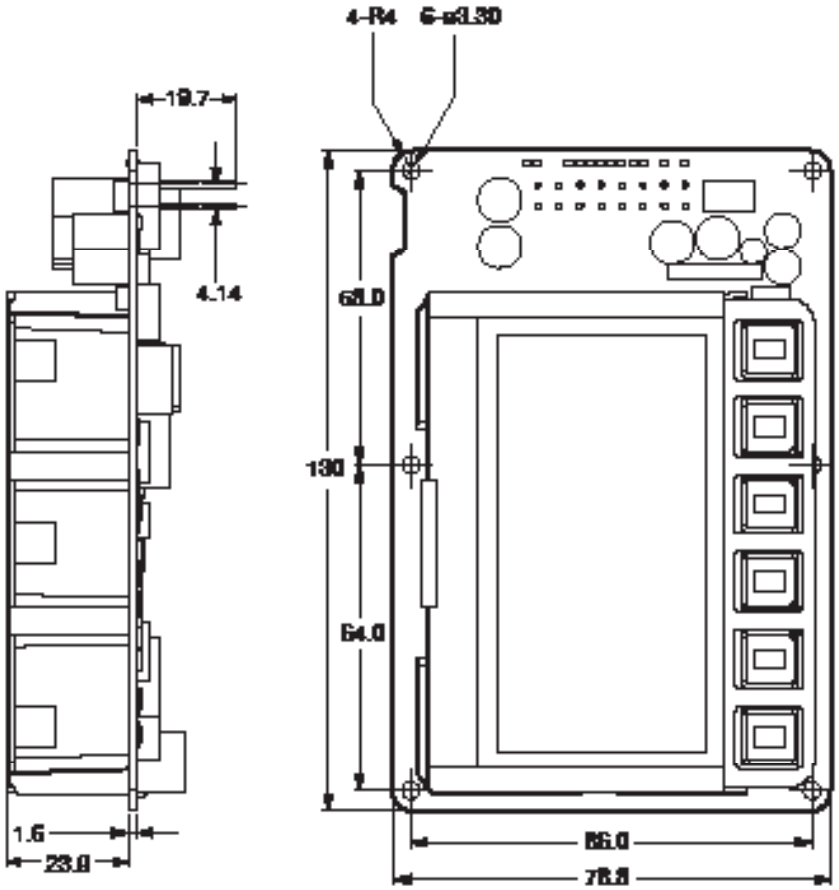
Pin	Function
PIN 1	SCI Rx
PIN 2	SCI GND
PIN 3	CAN_L
PIN 4	CAN_L Termination
PIN 5	Switch Input 1/ Frequency Input 1
PIN 6	Switch Input 3/HYD Fault Code Input
PIN 7	KSI
PIN 8	MOSFET Output
PIN 9	SCI Tx
PIN 10	CAN_GND
PIN 11	CAN_H
PIN 12	CAN_H Termination
PIN 13	Switch Input 2/ Frequency Input 2
PIN 14	Switch Input 4/TRA Fault Input
PIN 15	B–
PIN 16	B+

Model 3501

Digital Instrumentation

DIMENSIONS mm

Module



MODEL ENCODEMENT

Example	Model 3501	T	B	5	XXX
		Case Style T = Cased P = Module	Icon Location T = Top B = Bottom	Backlight Color 5 = Green 7 = Amber 9 = White	Sequential Number

WARRANTY Two year limited warranty from time of delivery.

The Curtis Difference
You feel it when you drive it

 50278 Rev A 11/15