

MODEL 3000T



DESCRIPTION

The Curtis enGage™ III is a three function, microprocessor based instrument that can be factory or user defined to monitor various functions, including fuel, temperature, pressure, voltage, battery state of charge and maintenance/status.

2 versions: 12VDC, no buttons, no backlighting
12-48VDC, with buttons, with backlighting

APPLICATION

Industrial and commercial vehicles, including: material handling, outdoor power and construction equipment, engine driven stationary devices, commercial cleaning equipment, and golf / light-on-road. Ideally suited for monitoring scheduled maintenance, warranty and leasing intervals.

QUALITY COMPLIANCE

Manufactured under ISO 9001 certified Quality Management System. UL recognized & CE certified.

FEATURES

- Integrated dash design allows monitoring of the vehicle with a single, compact panel resulting in enhanced vehicle differentiation and minimized instrumentation expense.
- enGage™ III accepts two sender inputs and displays those functions either simultaneously (one as a bargraph, one numeric) or by toggling (either automatically or manually via the front-panel buttons).
- Multiple functions in one programmable unit:
 - Lower overall stocking requirements.
 - Reduced installation time and labor.
 - Reduced vehicle instrumentation count.
 - Ease of ordering.
 - Volume pricing/purchasing advantages.
- Field programmable maintenance monitor allows dealers and/or users to program maintenance intervals for their specific application.
- Settable hour meter allows replacement of a failed hour meter without loss of total elapsed time.
- Flexible output modes include flashing LCD segments, LED warning icons and FET (0.5A) which allow the equipment designer to define critical parameters and to choose appropriate notification methods.
- Curtis battery monitoring technology means proven algorithm protection capabilities which provide reliable state of charge information.
- Sealed front panel buttons allow easy:
 - Setting of maintenance interval.
 - Setting of battery monitoring profile.
 - Re-setting of maintenance hours.
 - Setting of total hour meter.
 - Toggling the display between multiple functions.
- Clock function allows vehicle operator easy and safe access to time of day status.
- Snap-Fit design and integrated connector lowers installation and production costs and eliminates traditional mounting hardware kits. (Optional mounting bracket avail.)
- Rated IP65 front and rear (AMP version, when connected) providing a sealed, rugged instrument.
- EEPROM non-volatile memory retains usage data with out battery back-up.
- Attractive contemporary look enhances vehicle styling and maximizes readability.
- Reliable solid state design means no moving parts minimizing warranty costs.

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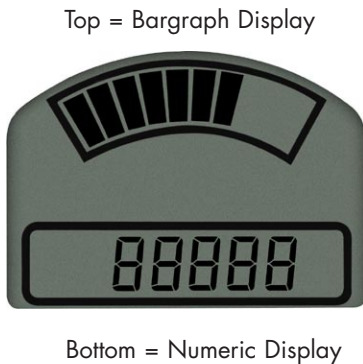
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MODEL ENCODEMENT

You can select 2 or 3 functions which can be displayed in the top, bar-graph display or the bottom, numeric display. Pick 1 function to be displayed in each or 2 for the top and 1 for the bottom, or 1 for the top and 2 for the bottom.



Choose from these functions:

Sender Functions (up to 2)

Fuel
Temperature
Pressure
Tachometer

Non-Sender Functions (up to 2)

Battery Discharge Indicator (BDI)

(Only available on 12 - 48 VDC versions)

Maintenance Monitor

(Only available on 12 - 48 VDC versions, includes Total Hours & Resettable Hours)

Hour Meter

(Only available as a numeric function)

Settable Hour Meter

(Only available on 12 - 48 VDC versions and as a numeric function)

Voltage

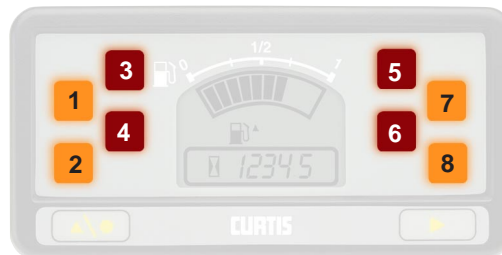
(Only available in certain combinations)

To determine your model number and/or to request a free sample, go to www.curtisinst.com and click on the "Configure Your Own Gauge" link in the Products Menu.

WARNING ICON DEFINITION

- Customer selects icon symbol from ISO/SAE standard.
- Colors and layout are fixed as shown. Custom colors or locations require minimum order quantities – please contact factory.

These 4 icon LEDs are programmable. Icons (1 - 4) can be associated to a specific gauge function or customized through the microprocessor, subject to minimum quantity requirements. Icons can also be controlled by switching to V+.

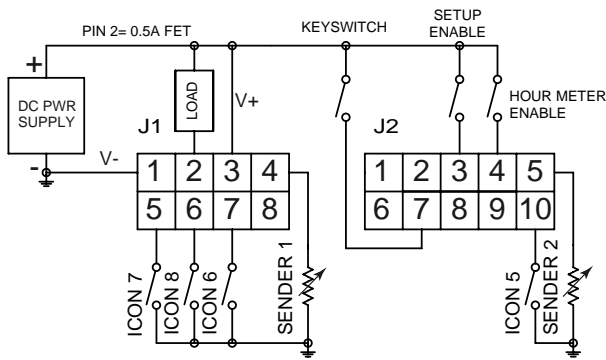


These 4 icon LEDs are Switched to Ground. Icons (5 - 8) are independent of the micro-processor and illuminate only when its corresponding input is switched to ground.

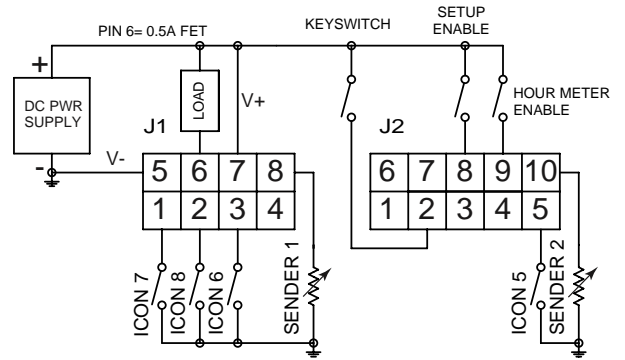
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TYPICAL WIRING

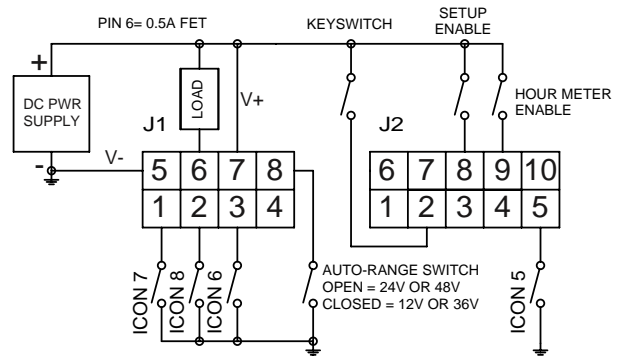
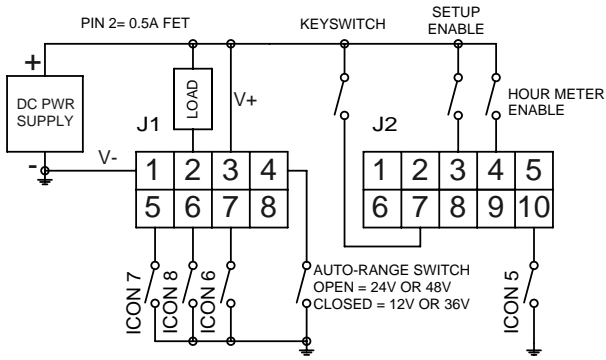
Molex



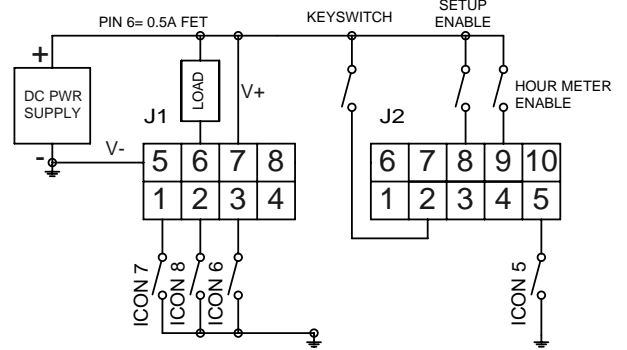
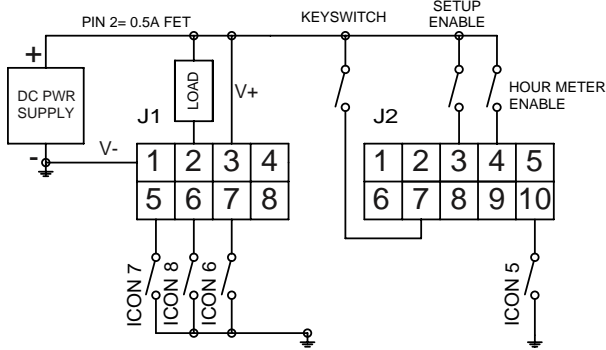
AMP



Resistive based sender input (i.e. temp, fuel and pressure).



BDI (with auto-ranging switch)

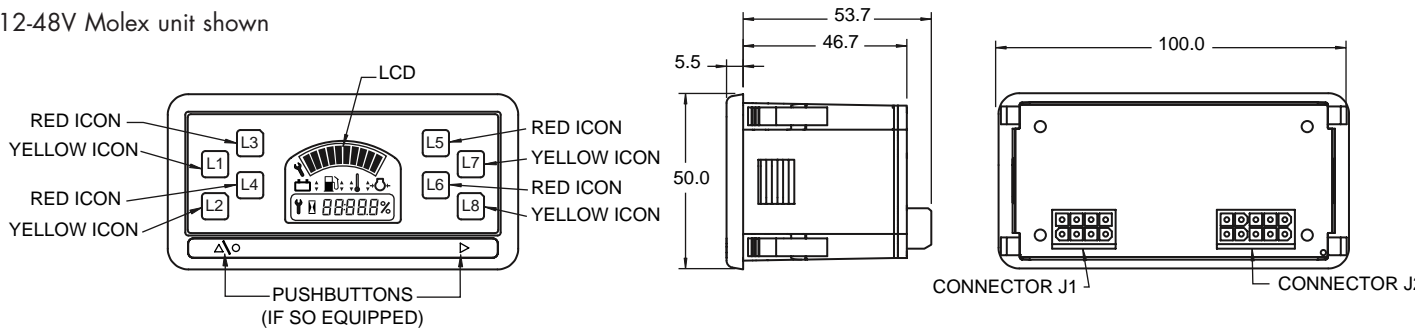


Voltmeter

MODEL 3000T

DIMENSIONS mm

12-48V Molex unit shown



	MOLEX MATING CONNECTORS		AMP MATING CONNECTORS	
	J1	J2	J1	J2
CONNECTOR	MOLEX #39-01-2105	MOLEX #39-01-2085	AMP #794821-1	AMP #794781-1
PIN	MOLEX #39-00-0039		AMP #770904-1	
GASKET			AMP #784772-8	AMP #1-794772-0
WIRE SEAL			AMP #794758-1	

NOTES:

- 1) CASE MATERIAL: ABS/PC BLEND, BLACK
- 2) LENS MATERIAL: POLYCARBONATE
- 3) PANEL CUTOUT SIZE: 45 +.6/-0 X 92 +.8/-0
- 4) ALL SENDER CHARACTERISTICS TO BE DETERMINED

SPECIFICATIONS

- Operating voltages
12VDC nominal (9 to 15VDC)
12-48VDC nominal (9 to 60VDC)
 - Operating temperature
-40°C to +85°C
 - Storage temperature
-50°C to +90°C
 - Humidity
95% RH (non-condensing) at +38°C
 - Shock
SAE J 1378 March 83. Amplitude
44-55 g, half sine, 9-13 ms duration
 - Vibration
SAE J 1378
Double amplitude of 1.53mm with
frequency sweep for 10-80-10 Hz
(20 g max) at 1 minute intervals
 - Sealing
IP-65 (face), IP-40 (rear Molex), IP-65 (rear AMP with
connector installed)
 - Output signal format (Power MOSFET)
N channel MOSFET (switches ground side only)
Programmable; capable of sinking up to 0.5A, maximum
 - Adjustable BDI Discharge Profile Range
Full: 1.80 – 2.30 V/cell (Factory set at 2.04 V/cell)
Empty: 1.50 – 2.20 V/cell (Factory set at 1.73 V/cell)
100 mV/cell is minimum differential between full & empty
 - BDI Open Circuit Reset Level factory set at 2.09 V/cell
 - Maximum Current Ratings*
12VDC Only Models: 155 mA @ 15VDC
12 – 48VDC Models: 140 mA @ 60VDC
- * Maximum current draw listed based upon all icons illuminated.
Each icon draws 15mA.

NOTE - BDI, Maintenance Monitor, Settable Hours and Time of Day functions require programming buttons on front display.
Buttons NOT available on units rated 12VDC only.

OPTIONS & ACCESSORIES

- 17633800-01 – AMP Based Installation Kit
Includes a pre-assembled mating connector with over 5" of crimp-connect terminated wires and an installation booklet.
- 17633800-02 – Molex Based Installation Kit
Includes a pre-assembled mating connector with over 5" of crimp-connect terminated wires and an installation booklet.
- 17633307 – Mounting Bracket.
- 12690AMPkit10 – AMP mating connector kit (10 pin)
Includes a connector housing, pins, seals.
- 12690AMPkit8 – AMP mating connector kit (8 pin)
Includes a connector housing, pins, seals.

WARRANTY Two year limited warranty from time of delivery.