



CURTIS

Instrumentation



# Digital Instrumentation: CANopen

## enGage® II Model 3100R





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The Curtis enGage® II Model 3100 is a microprocessor based instrument that monitors and displays operating and performance parameters critical to industrial vehicles. The gauge is fully compatible with the CANopen controller area network protocol. Industrial and commercial vehicles including: material handling, aerial lifts, commercial cleaning equipment. Also ideally suited for monitoring scheduled maintenance, warranty and leasing intervals. Manufactured under ISO 9001 certified Quality Management system. UL recognized & CE certified.

### FEATURES

- ▶ Interfaces directly and seamlessly with Curtis CAN enabled vehicle and motor controllers and displays various system parameters.
- ▶ Attractive, easy-to-read, Liquid Crystal Display with optional backlighting for enhanced viewing in all lighting conditions.
- ▶ LCD contains bar graph and alpha numeric sections for viewing operational status and system codes.
- ▶ Can be used with any CANopen enabled speed controller.
- ▶ Requires substantially less wiring while providing increased access to system information.
- ▶ Standard models display hours of use, battery state-of-charge and messages from vehicle / motor controller.
- ▶ Easy access to speed controller status, system parameters.
- ▶ External LED to warn of system operation outside pre-programmed norms.
- ▶ Optional sealed front panel buttons allows direct access to the motor controller.
- ▶ Reliable, all solid state design means no moving parts minimizing warranty costs.
- ▶ Mounting bracket and integrated connector lowers installation and production costs and eliminates traditional mounting hardware kits.
- ▶ Aesthetically attractive contemporary look enhances vehicle styling and maximizes readability. Overlays can easily be customized to create a specific brand/logo identity.
- ▶ Over 40 years of Curtis instrumentation design and manufacturing experience insures products are both innovative and extremely reliable.
- ▶ Curtis global network of sales and technical support provides timely and complete applications support.





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### SPECIFICATIONS

**Operating voltages:**

Auto-ranging, 12-48 VDC nominal

**Operating temperature:**

-40°C to +85°C

**Storage temperature:**

-50°C to +90°C

**Humidity:**

95% RH (non-condensing) at +38°C

**Shock:**

SAE J1378 March 83. Amplitude 44-55 g, half sine, 9-13 ms duration

**Vibration:**

SAE J1378 Double amplitude of 1.53mm with frequency sweep for 10-80-10 Hz (20 g max) at 1 minute intervals

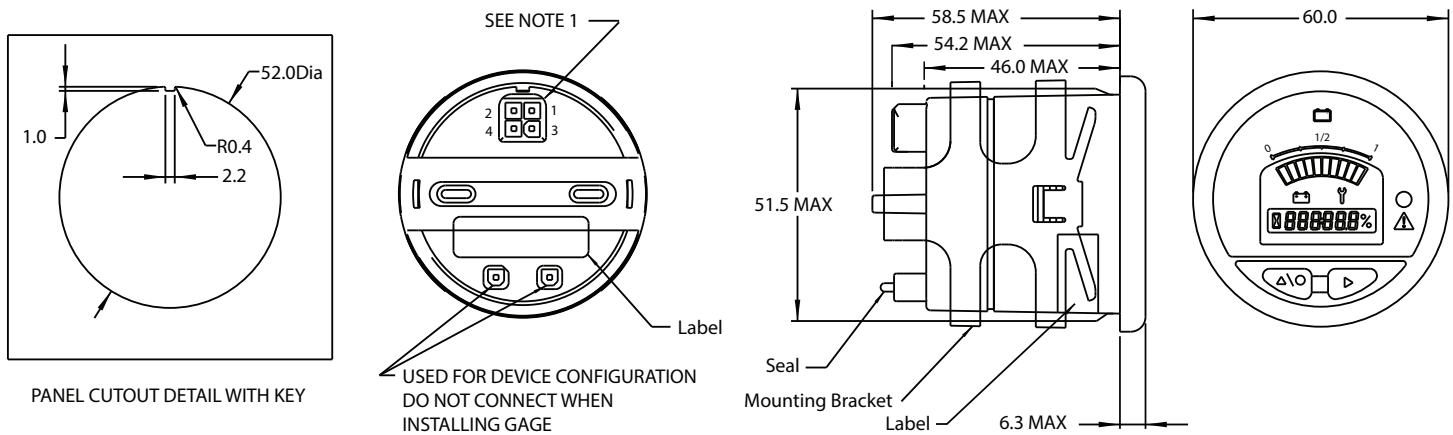
**Sealing:**

AMP connector - IP65 (with connector installed)

**Maximum Current Ratings:**

55 mA – CAN Inactive  
125 mA – CAN Active

### DIMENSIONS mm



**NOTES:**

- 1.0 MATING CONNECTOR; 4-PIN AMP P/N 794805-1 WITH UL RATING 94V-0, INTERFACE SEAL P/N 794772-4, WIRE SEAL 794758-1, PINS P/N 770904-X FOR #18-24 AWG
- 2.0 52mm METER IS PROVIDED IN A STANDARD ROUND PACKAGE FOR MOUNTING IN A 52mm DIA DASH PANEL HOLE. SEE DETAIL FOR PANEL CUTOUT WITH KEY.
- 3.0 MATERIAL: CASE — POLYCARBONATE, LENS — CLEAR POLYMETHYLMETHACRYLAT (PMMA), COVER — POLYCARBONATE, OVERLAY — POLYCARBONATE, MOUNTING BRACKET — POLYCARBONATE.
- 4.0 THIS UNIT IS DESIGNED FOR A MOUNTING PANEL THICKNESS OF 0.8 mm - 6.4 mm.
- 5.0 ENVIRONMENTAL PROTECTION FRONT IP-65, REAR IP-65 (WITH MATING CONNECTOR INSTALLED AND SEALS IN DEVICE CONFIGURATION PORTS).
- 6.0 WEIGHT: 0.095 kg MAX, INCLUDING MOUNTING BRACKET.
- 7.0 OPERATING VOLTAGE = 12 TO 48 VDC.
- 8.0 LCD VIEWING ANGLE = 0 TO -20~.

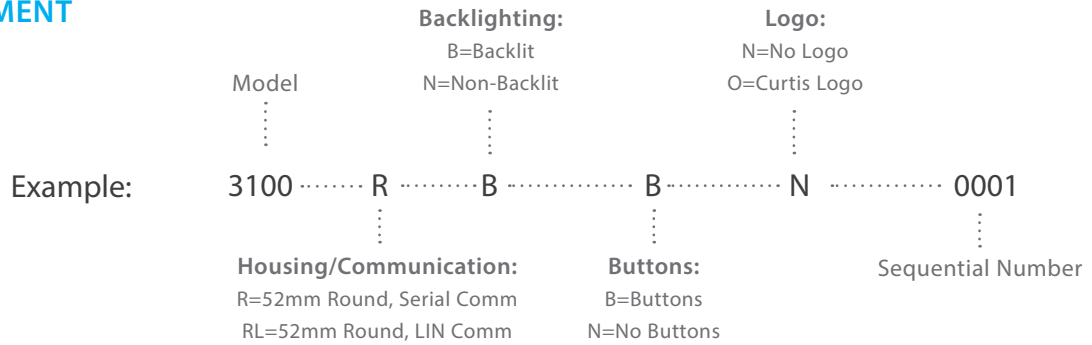
Pin	Function
PIN 1	B
PIN 2	B+
PIN 3	CAN HI
PIN 4	CAN LO

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### MODEL ENCODEMENT



**OPTIONS & ACCESSORIES** Optional gasket available, Curtis part number 15336005

**WARRANTY** Two year limited warranty from time of delivery.

The Curtis Difference  
You feel it when you drive it



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Specifications subject to change without notice

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