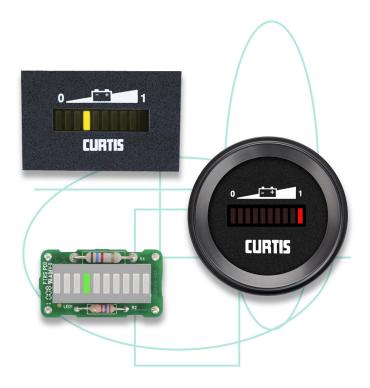
## BATTERY "FUEL" GAUGE

# CURTIS

# MODEL 906



## DESCRIPTION

Model 906 is an inexpensive, one piece, easy to install battery fuel gauge. It is completely solid state and provides a reliable, accurate, and easy to read display of battery state-of-charge. Model 906 is available in six panel mount packages and a printed circuit board mounted module for custom dash panel applications.

## **APPLICATION**

This battery fuel gauge features Curtis patented technology and is ideal for golf cars, commercial cleaning equipment, mobility aids, electric bicycles, electric marine motors, medical devices, and similar equipment.

## www.curtisinstruments.com

#### FEATURES

- All principal circuits are integrated in a single chip for long-life reliability.
- A 10-bar LED displays the state-of-charge successively, bar by bar, from full to empty.
- At 70% depth of discharge, a flashing LED signals an "energy reserve" alert.
- At 80%, alternately flashing LEDs provides an "empty" status warning.
- Model 906 is compact and easily installed in panel cutouts as small as 36.8 X 24.1 mm, with as little as 35 mm behind panel clearance needed, see dimensions of various case styles.
- Recognizes improperly charged battery.
- Keyswitch activated LED display (state-of-charge is monitored as long as 906 is connected to battery).
- Memory allows gauge to recall state-of-charge whenever battery is disconnected.
- Three possible reset methods:
  - Open Circuit Reset (OCR): Upon reconnection of a battery the gauge will reset if it measures 2.09 volts/ cell or higher (example "B" profile) (for units with memory option).
  - 2. High Voltage Reset (HVR): Gauge must measure >2.35 volts per cell for 6 continuous minutes during charging (example "B" profile).
  - 3. Charge Tracking Reset (CTR): Display tracks charge level during opportunity charging (requires gauge to be connected to battery when charging).

## OPTIONS

- The Output Signal option causes the voltage on pin 3 to drop from 5 to 0 volts at 80% discharge. It can be used to signal another component or to allow for the disabling of a specified vehicle function, insuring against abusive deep discharge conditions. The Output Signal can also be used to drive the Curtis 1178 Relay Module.
- Special models and custom panels are available.

## **SPECIFICATIONS**

System Voltages: 12V, 24V, 36V, 48V

Operating voltage: +/-25% of nominal voltage

Operating temperature: -40°C to +85°C

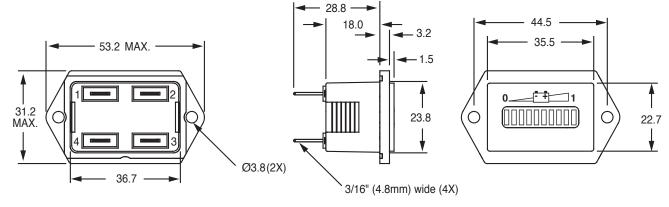
Storage temperature: -50°C to +90°C

Shock & Vibration: Meets SAE J 1378

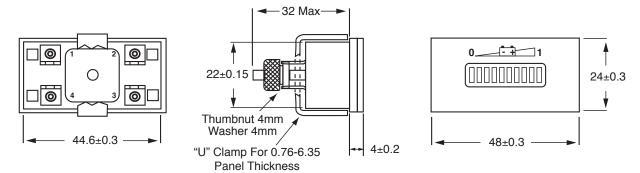
# MODEL 906

## DIMENSIONS mm

## Case Style T

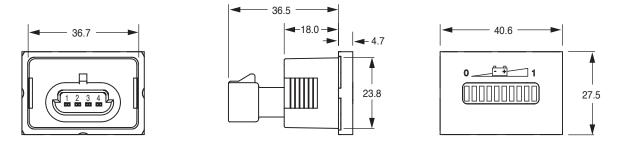


## Case Style D



NOTE: 3/16" fast on spade terminals.

## Case Style Y

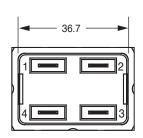


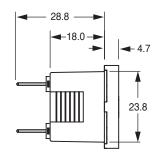
NOTE: Equivalent to Delphi-Packard connector P/N 15336035 4-pin.

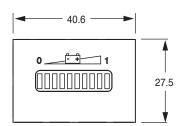
# MODEL 906

## DIMENSIONS mm continued

# Case Style Z

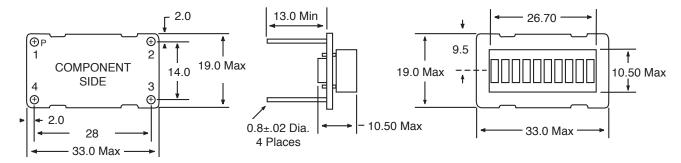




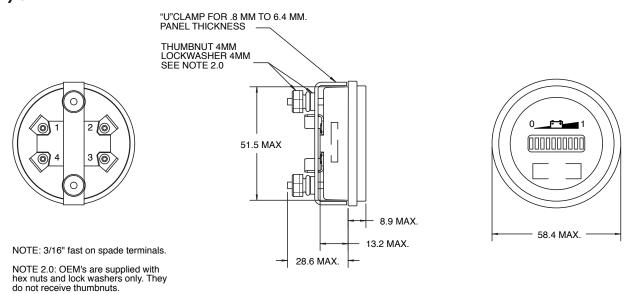


NOTE: 1/4" fast on spade terminals.

## **Module P**

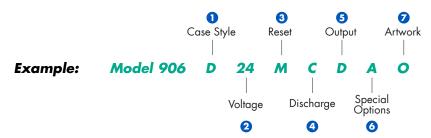


## Case Style R



### MODEL NUMBER ENCODING

Determine your model number by selecting the correct attribute for each item from the charts provided. Choose the appropriate letter that corresponds to the proper specification. Enter the code sequentially per the example below.



# Case Styles

T	
D	
Υ	
Z	
Р	
R	

# 2 Voltage Options

12	
24	
36	
48	

# 4 Discharge Profile Options

Letter Code	Volts <sub>I</sub>	Volts per Cell	
Letter Code	Full	Empty	
G	1.97	1.75	
Н	1.97	1.70	
J	1.97	1.63	
K	2.01	1.65	
L	2.10	1.92	
М	2.00	1.83	
Ν	2.04	1.73	
Р	2.08	1.98	
R	2.02	1.90	
Т	2.03	1.90	
٧	1.98	1.85	
W	2.02	1.85	
Х	1.95	1.75	
Y	2.00	1.90	

# **3** Reset Profile Options

Letter Code	Letter Code		Volts pe	er Cell	
with Memory Option	without Memory Option	Open Circuit Reset	High Voltage Reset	CTR Full	CTR Empty
K		1.928	2.167	2.167	2.10
	J	N/A	2.167		
Υ		2.083	2.167	2.167	2.10
N		1.980	2.230	2.230	2.10
	Е	N/A	2.230		
T		2.028	2.280	2.28	2.10
	L	N/A	2.280		
D		2.060	2.320	2.32	2.10
	Р	N/A	2.320		
В		2.090	2.350	2.35	2.10
	Н	N/A	2.350		
С		2.135	2.400	2.400	2.10
	М	N/A	2.400		

# Output Options

Letter Code	Signal
Α	None
В	Output + Memory
С	Output + Memory + CTR
D	$5 \pm 0.5$ V above empty 0 to 0.1 V at empty 10K $\Omega$ impedance
М	Memory option

# 6 Special Options

Letter Code	Options
Α	(TBD)
G	Tri-color LED array

# Artwork Options

Letter Code	Logo
0	Curtis
Ν	None

**Note:** This gauge is not intended to measure the state-of-charge of batteries subject to extended periods of inactivity since it does not account for self-discharge effects. Consult factory for details.

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



