

# PowerGauge™

## Battery Discharge Display 24, 36 and 48 VDC

The battery on an electric vehicle is a costly component, which needs both maintenance and protection to provide the optimum cycle time and overall battery life. With these critical considerations in mind Sevcon has developed the PowerGauge product range.

The PowerGauge is a comprehensive range of Battery Discharge Indicators to maximise the productivity of your vehicle and minimise the potential for damage from operating outside the batteries optimum parameters.

The development of this product range has been a result of close collaboration with customers, maintenance engineers and battery experts.

Solid-state display - All the PowerGauge products are microprocessor based with no moving parts, maximising reliability. The super bright 10 segment LED bargraph gives instant battery state of charge feedback under all light conditions.

### Feature Overview

- Industry standard package (52mm)
- Microprocessor controlled
- Automatic reset
- Partial recharge recognition and indication
- 10 segment LED display
- Reverse polarity protection
- LCD hours count
- Lockout relay
- Discharge curve selector



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## Additional Features

**Tamper proof** – The hour meter is stored in EEPROM and remains regardless of connection to the power supply.

**Low voltage cut-out** – An internal relay provides a cut-out at 80% discharge. This can operate warning alarms or disable functions such as lift pump motors.

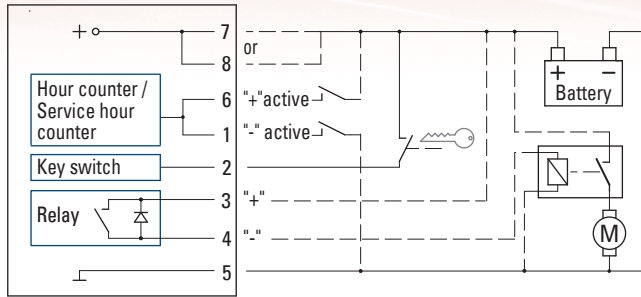
**Compatible with all Battery technologies** – The discharge curve selector allows optimisation of the Powergauge for all applications.

**Opportunity partial recharge recognition** – The superior monitoring algorithms are able to track battery state of charge following opportunity partial recharges irrespective of if the Powergauge remains connected during the charging process.

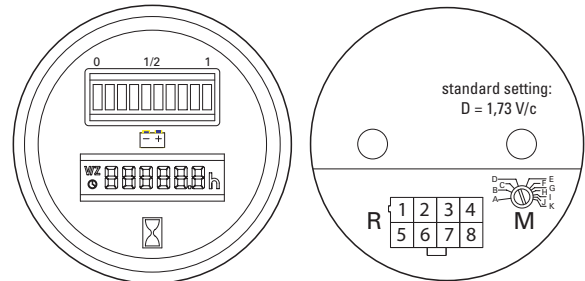
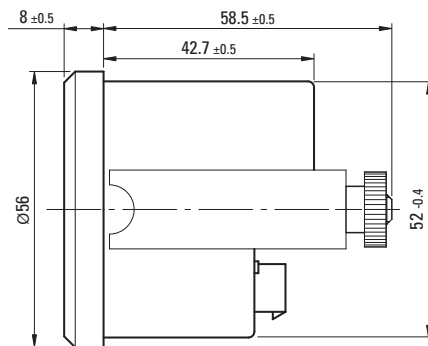
## Technical Specifications

| Part Number        | 900/30001                                                                     | 900/30002 | 900/30003 |
|--------------------|-------------------------------------------------------------------------------|-----------|-----------|
| Op. Voltage ±25%   | 24 VDC                                                                        | 36 VDC    | 48 VDC    |
| Max. consumption   | 35 mA                                                                         | 35 mA     | 25 mA     |
| LCD Display        | 6 digits, numeral size 4.5 mm                                                 |           |           |
| LED Displays       | 10 (5 green, 3 yellow, 2 red)                                                 |           |           |
| Counting range     | 0-99999.9 h                                                                   |           |           |
| Partial recharges  | are displayed                                                                 |           |           |
| Dtaa storage       | EEPROM                                                                        |           |           |
| Relay contact      | Voltage free, opens when reaching discharge voltage                           |           |           |
| Switching capacity | 5 A                                                                           | 3 A       | 2 A       |
| Relay restart      | After relay cutoff one single restart for 30 s possible                       |           |           |
| Signal input       | Min. pulse time 0.5 s                                                         |           |           |
| Housing            | Plastic (black)                                                               |           |           |
| Front              | Plastic with beveled black bezel                                              |           |           |
| Weight, approx.    | 100 g                                                                         |           |           |
| Connector          | 8-pole Molex Mini-fit Junior                                                  |           |           |
| Protection class   | IP65                                                                          |           |           |
| Vibration          | EN60068-2-34 (1g, 10-500 Hz) / SAE J1378 (20g, 10-80 Hz)                      |           |           |
| Shock              | EN60068-2-27 (30g, 18 ms) / EN60068-2-29 (25g, 6 ms) / SAE J1378 (55g, 10 ms) |           |           |
| EMC                | EN55011, EN61000-6-2                                                          |           |           |
| Amb. temp.         | -30°C to +70°C                                                                |           |           |
| Storage temp.      | -40°C to +80°C                                                                |           |           |

## Connection Diagram



## Dimensions



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