

Battery Fuel Gauge Sensor - BFGS500-24-CAN



HDM's BFG500-24-CAN Battery Fuel Gauge Sensor provides real-time information for 24Vdc system battery performance via CAN-Bus: State-of-Health, State-of-Charge, Hour Remaining, Battery Voltage, Current¹, and Temperature¹. Patented tracking algorithm with automatic calibration precisely determines the state of the battery and eliminates guesswork on reserve capacity. Available in standard or ruggedized waterproof version, the BFG Battery Fuel Gauge will accurately monitor your battery performance at sea and on the road.

MODE	
Mode 1: SOH (State of Health) ²	95% Accuracy
Mode 2: SOC (State of Charge) ²	95% Accuracy
Mode 3: Hr (Hour Remaining) ²	90% Accuracy
Mode 4: V (Battery Voltage)	97% Accuracy
ELECTRICAL	
Nominal Voltage	24V _{DC}
Voltage Range	18 ~ 32V _{DC}
Shunt Value	500A _{DC}
Quiescent Current Draw	23mA _{DC} @ 24V _{DC}
External Fuse	ATC 3A/32V _{DC}
MECHANICAL	
Sensor Box and DC Shunt	Mounted at the Battery Bank
Dimensions (LxWxH)	86 x 76.2 x 24mm (3.4 x 3 x 0.94")
Weight	0.35kg (0.8 lbs)
Construction	Composite Plastic with Epoxy Filler
INTERFACE	
Sensor (To 24V Positive Connection)	550mm (21.7") 18AWG/3C with 3/8 Ring Terminal
Sensor (To Battery Negative, Load Negative Connections)	(2) M8-1.25x16mm Hex Bolt
Data I/O Port	525mm (20.7") 18AWG/3C with Deutsch DT04-3P Pin Connector
ENVIRONMENTAL	
Cooling	External Surface Cooling
Operating Temperature	-40 ~ +60°C
Storage Temperature	-40 ~ +85°C
MTBF Prediction ³	1.73 Mhrs



Industry-Leading Features

- Real-Time Battery Information Based On Continuous Data Measurement
- Self-Learn And Self-Calibration
- Load Dump And Voltage Transient Protection
- User Friendly And Easy Installation
- CAN-Bus Interface Provides Ability To Collect Data, Communicate Data

Reliable and Pertinent Information

- Battery State-Of-Health
- Battery State-Of-Charge
- Hour Remaining
- Battery Voltage
- Current¹
- Temperature¹
- Provides System-Level Information

Applicable Performance Requirements

- Designed to Meet IP65 Requirement
- Ruggedization For MIL-STD-810F/G
- Compliance For MIL-STD-1275D

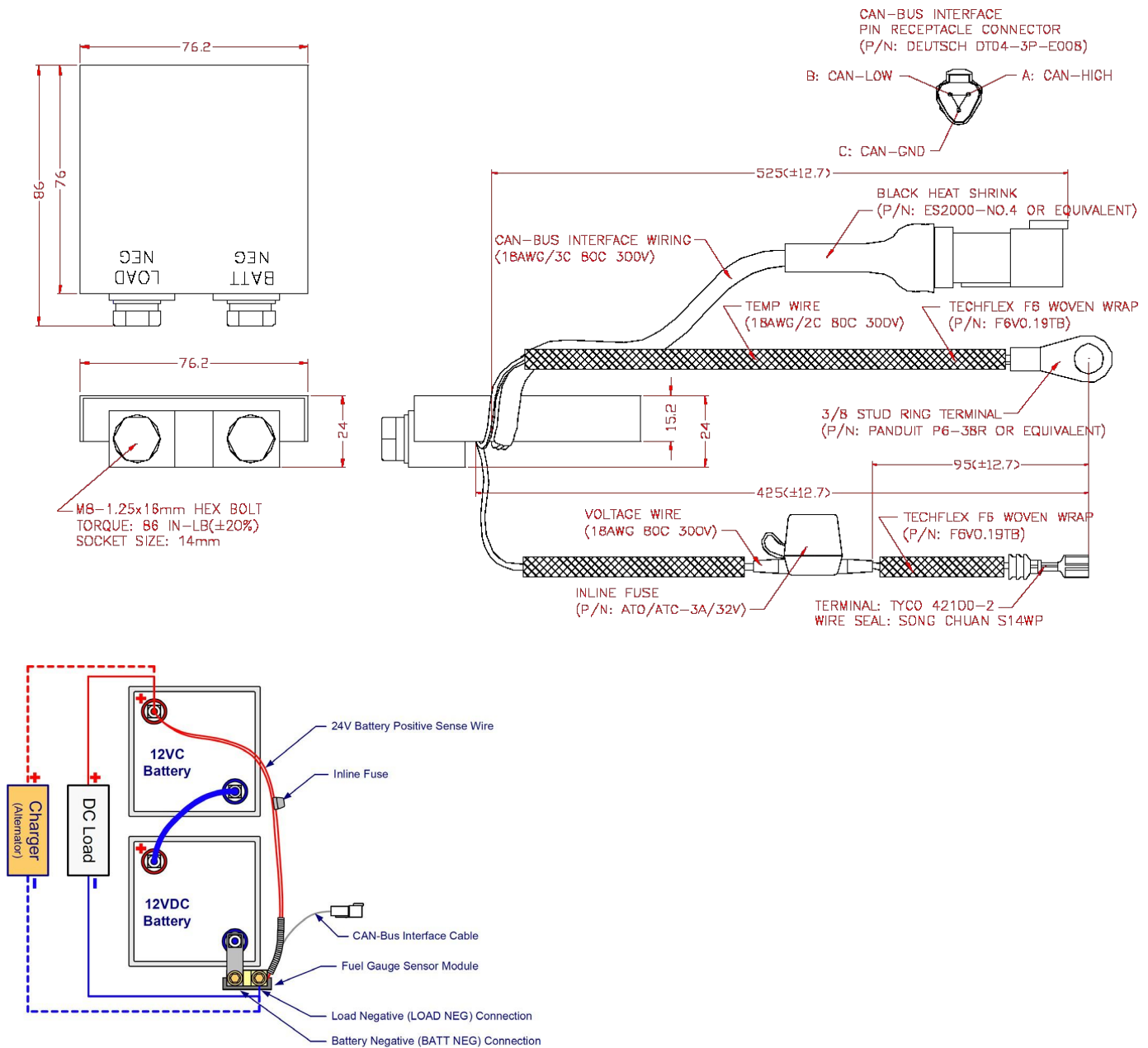
Specifications typical at 25°C unless otherwise stated and are subject to change without notice.

1. Current (-327 to +327A_{DC}) and temperature (-46 to +127°C) data are retrieved through CAN-Bus.
2. Accuracy is achieved after 2 discharge/charge cycles. For initial new battery calibration, start from 50% to 100% charge and subsequent discharge to 50% without prolonged resting period between charge and discharge cycle.
3. Calculated per Bellcore TR-NWT-000332 method. Products are covered by 1 year limited warranty.

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Battery Fuel Gauge Sensor Diagram



Model	Shunt Value	Voltage
BFGS500-24	500A _{bc} / 50mV _{bc}	24V _{dc}
Add suffix after model name for product feature.		
BFGS	Battery Fuel Gauge Sensor (Include Interface Option)	
-CAN	Sensor With CAN-Bus Interface Connector	

All dimensions in millimeters unless otherwise specified.

PB-BFGS500-24-CAN 20190523-1200

