

## GLOBAL MESSENGER



When housed in the Deutsch weatherproof enclosure, the Global Messenger connects to the ECU through a single Deutsch 12-conductor wiring harness. The GSM and GPS antenna connections are on either side of the 12-conductor plug.



Plug and Play Antenna connect each monitored unit to automatically transmit to the GLOBAL Tracking system on a periodic basis and/or whenever a condition exceeds the desired limits. Along with each transmission is the GPS location of each unit so that they can be easily viewed on an interactive map.

The Global Messenger is an integrated remote telemetry hardware device that allows customers to collect and track multiple types of information about their diesel engine based equipment — from machine location and service usage hours to health and productivity information.

Designed specifically as an integrated telemetry and alarm notification system, the Global Messenger works seamlessly with electronic engine controllers, ECUs and other devices that support CANbus communications. The Global Messenger gathers data from a machine's on-board system and transmits it wireless to the network operations center providing you critical information on your machinery in near real-time! As diagnostic messages are generated from the engine and put on the J1939 CANbus the Global Messenger is capable of notifying you of these occurrences, right when they happen, with location, date and time.

By providing remote access to machine information owners can now manage their field equipment assets more effectively. The results are improved fuel efficiency, lower operating costs and a better return on investment!

### SYSTEM FEATURES

Global Messenger allows for easy remote monitoring of equipment and engine parameter via wireless telemetry, phone (voice and text), e-mail, and Internet with GPS mapping.

#### FEATURES

Display J1939 fault codes/PGNs in plain text

Diagnose/troubleshoot engine or equipment problems

Compact, rugged, weatherproof design

Simple plug-and-play installation

Works with any brand diesel engine

Customizable

Affordable web based virtual real time monitoring and GPS tracking service

Supports serial communication

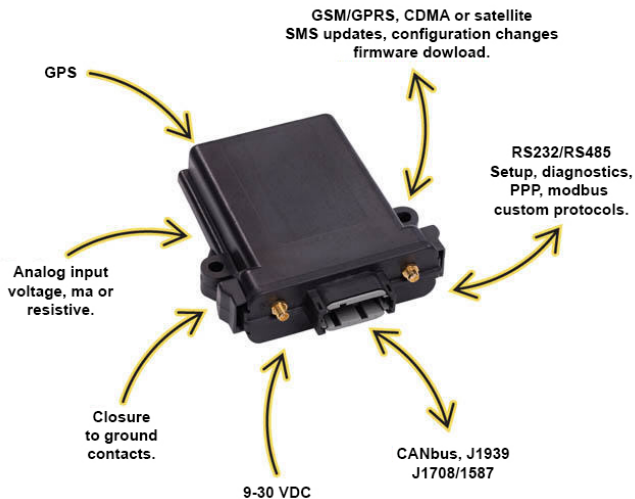
Optional embedded wireless telemetry

**MESSENGER BOARD SPECIFICATIONS**

- 3.25" x 3.95"
  - GSM/GPS board piggy-backs on top of Global Messenger board
  - 4 mounting holes
- CAN controller
  - Supports protocol version 2.0 part A and B Active
  - Bit rates up to 1.25M bit/second
  - 32 independent PGN message objects
- Port 1 – RS232 or RS485 – Modbus RTU Slave
- Port 2 – RS232 or RS485 – Modbus RTU Master or Special
- Battery Backed up Real-Time Clock, event log, data log, and more – 10 year life
- SM-GPRS with SIM card holder embedded on Global Messenger
- Certified with FCC, PTCRB and ATT for GSM/GPRS end-user applications
- Extreme low power mode when engine is not running or other user-specified mechanism
- 32-bit processor

**TYPICAL CONDITIONS MONITORED**

- GPS Coordinates (location)
  - 1 – General purpose on/off input
  - 1 – Analog input
- Standard values read via CANbus
  - Engine hours, RPM, Battery Voltage, Oil Pressure, Fuel Level, Oil Level, Oil Temperature, Coolant Level and Coolant Temperature
  - All fault conditions reported by PGN 65226 (DM1 - Diagnostic Message)
  - All fault conditions reported by PGN 60416 (TPCM used to report multiple diagnostic messages in a single CAN message )
- Optional values read via CANbus
  - Up to 8 User-specified PGN/FMI analog values
  - Up to 32 User-specified PGN/FMI on/off values
- FLASH memory for application – downloadable via serial port or via GSM connection – 512K
- Low-low power SRAM – 512K – battery backed up
- DIP switches to select
  - Serial port function w Modbus Slave, Debug, None
  - Serial port interface w RS232 or RS485 per port
  - Modbus Slave ID w 126-133
  - Port 2 baud rate w 4800-38400
- Event logger accessible via serial port or via GSM connection
- 8 LEDs on-board indicate
  - GSM status
  - GPS status
  - CAN status
  - Serial port status
  - Power
  - 2 available for user-specified conditions
- General purpose inputs
  - 1 digital/1analog on 12-pin Deutsch connector
  - 3 digital/1analog on 16-pin pluggable connector
  - Digital inputs are contact closures to ground
  - Analog input is 10-bit, 0-3VDC or 0-20ma or resistive input for fuel sender
- Receive SMS messages for reconfiguration or on-demand reporting



**OEM CAPABILITIES**

The Global Messenger is designed to provide a highly configurable, robust platform for OEM applications. The powerful 32-bit processor, FLASH and SRAM on the Global Messenger allow for:

**OEM CAPABILITIES**

- Virtual real-time transfer of monitored conditions
- Local computations from monitored conditions
- User-specified PGNs to be monitored
- Event and data logging
- Exception reporting to Internet-based applications
- Tunneling into the Global Messenger or equipment attached to the Global Messenger via a wireless connection
- SMS messaging sent on monitored conditions
- Parameter setting via SMS messaging

**PHYSICAL CHARACTERISTICS**

Sleep Mode	12VDC @ 20mA
Monitoring Mode	12VDC @ 120mA
GPRS Transmit Mode	12VDC @ 800ma peak Temp.
Industrial Temp. Range	-40 to +70C
NEMA 4X Enclosure	5.5"H x 5"W x 1.3"D, with mounting holes



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