

GENCON

The GENCON is an integrated Engine and Generator controller for Gensets. The unit incorporates both manual and auto start-initiated start and stop sequencing, monitors engine and alternator operating parameters and provides both engine and alternator protection, in a single integrated package. The Genset operating parameters are shown by scrolling screens on a backlit 128x64 GLCD. Alarms and warning messages are also shown on the GLCD, supplemented by a corresponding LED and Hooter output.



The unit provides comprehensive monitoring of the engine and generator operating parameters and provides automatic shutdown of the Genset in the event of damaging conditions. In addition to the usual engine safety protections, the unit monitors fuel level, engine temperature, and generator loading to provide even more comprehensive protection. In the factory environment, the unit is configured as per the individual "Part No." assigned to the GENCON unit. Field-specific parameters can be adjusted by using the front panel buttons and an inbuilt menu system.

Features:

- Easy to install, configure and use.
- Text & Graphics based GLCD Display.
- Power full ARM microcontroller.
- Auto (AMF, remote start /stop and cyclic modes) and Manual modes.
- True RMS Voltage and Current measurements.
- Generator & load power monitoring (kW, kVA, kVA_r, and pf).
- Generators overload kW & Amps protection.
- Engine speed protection, engine hour's counter, engine pre-heat, engine run-time scheduler, engine idle control for start/stop.
- Battery voltage monitoring.
- MODBUS (RS485) communication.
- Engine parameter monitoring.
- Battery voltage monitoring.
- Engine START/STOP- Time scheduler.
- Real Time Clock & Data Logging.
- Five Analog Inputs.
- Nine Digital Inputs.
- Eight Digital Outputs.
- Magnetic pick-up speed sensing.
- Mains/Generator A/C system Selection.
- Adjustable delay crank timer.

Key Benefits:

- Reduces system cost.
- Integrates engine gauges and AC metering into one unit.
- Minimizes control panel wiring offering reduced material and labor costs.
- Reduce warranty costs by providing comprehensive engine and generator protection and maintenance due timer.
- Flexible, the unit can be customized by PC cloning with application codes for individual Genset model characteristics and fitments.
- Hours counter provides accurate information for monitoring and maintenance periods.
- User-friendly set-up and button layout for ease of use.
- LCD alarm and warning indication. LED alarm and warning indication.
- Back-light power-save mode

Specification:

DIMENSIONS:

Overall Dimensions: 180 x 126 x 45 mm

Panel Cutout: 157 x 118 mm

Mounting Facility: Two Clamps

IP Rating: IP 56 Front Side

DC SUPPLY:

Supply Voltage: 8 VDC to 32 VDC Nominal Automotive

Supply Current: Standby \leq 35 mA (When GLCD's Back Light is "OFF").

Standby \leq 60 mA at 12V (When GLCD's Back Light is "ON").

Reverse Polarity Protection: -36 VDC

Operating Temperature: - 20°C to + 70°C

Storage Temperature: - 30°C to + 70°C

Relative Humidity: 90 % Non-Condensing

MAINS AND GENSET:

AC Voltage Range: L – N = 40 - 577 VRMS

L – L = 69 - 999 VRMS

Ac Frequency Range: 30Hz – 80Hz

CT Current Range: 0 – 5A

INPUTS:

Digital Input: 9-Digital Input

Digital Input Ratings: Whetting current 6 mA at 12 VDC. DC input protection for +30 VDC.

Input Reference: -0 VDC (i.e. Battery's Negative Terminal)

OUTPUTS:

Digital Output: 8-Digital Output

Ratings Of Outputs For Relay Coil Control

Relay Coil Control. 2A over load protected, Low – Side Driver

SENSORS SPECIFICATIONS:

- **OIL PRESSURE SENSOR TYPE**

- Switch: Close On Fault (C. O. F.), Resistive: 15 to 201 Ohms. User curve.
- OR
- Current: 4mA - 20mA
- Range: 0 to 10 Bar. User curve.

- **ENGINE TEMPERATURE SENSOR TYPE**

- Switch: Close On Fault (C. O. F.),
- Resistive (NTC): 19 to 503 ohms
- Range: - 40°C to 150°C. User curve.

- **FUEL LEVEL SENSOR TYPE**

- Switch: Close On Fault (C. O. F.),
- Resistive: 10 to 180 Ohms
- Range: 0% to 100%. User curve.

- **SPARE ANALOG INPUT**

- Resistive (NTC): 19 to 503 Ohms
- Range: - 40°C to 150°C. User curve.

- **MPU Input**

- Frequency 100 Hz to 8 KHz
- Communication: RS-485 (MODBUS)
- Event Log: Yes

COMPREHENSIVE FEATURE LIST TO SUIT A WIDE VARIETY OF ENGINE APPLICATIONS

