

Engine Controller (ENGCON)

The ENGCON is an easy to use and designed to provide flexible control with built in monitoring and protection.

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 Engine 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 operating parameters and provides automatic shutdown of the engine in the event of damaging conditions. In addition to the usual engine safety protections the unit monitors fuel level, engine temperature and engine loading to provide even more comprehensive protection.

The ENGCON is fully configurable for a wide range of applications such as engine driven pumps and compressors.

In the factory environment, the unit is configured as per the individual "Part No." assigned to the ENGCON 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 (Remote start /stop and cyclic modes) and Manual modes.
- Engine speed protection, engine hour's counter, engine pre-heat, engine run-time scheduler, engine idle control for start/stop.
- MODBUS (RS485) communication.
- Engine parameter monitoring.
- Battery voltage monitoring.
- Engine START/STOP – Time Schedule.
- Real time clock & Data Logging.
- Five Analog Inputs.
- Six Digital Outputs.
- Five Digital Inputs.
- Two Magnetic pick-up speed sensing.
- Adjustable delay crank timer.

Benefits:

- Reduces system cost.
- Integrates engine gauges into one unit.
- Minimizes control panel wiring offering reduced material and labor costs.
- Reduce warranty costs by providing comprehensive engine protection and maintenance due timer.
- Flexible, the unit can be customized by PC cloning with application codes for individual engine 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: 30°C to + 70°C

RELATIVE HUMIDITY 90 % Non Condensing

OUTPUTS:

DIGITAL OUTPUT: 6

RATINGS OF OUTPUTS FOR RELAY COIL CONTROL:

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

INPUTS:

DIGITAL INPUT: 5

DIGITAL INPUT RATINGS: Wetting current 6 mA at 12 VDC. DC input protection for \pm 30 VDC.

INPUT REFERENCE: DC- 0 VDC (i.e. Battery's Negative Terminal)

SENSORS:

OIL PRESSURE SENSOR TYPE

Switch: Close On Fault (C. O. F.), Resistive: - 15 to 201 Ohms. User curve.

OR

Current: 4 -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

DIGITAL INPUTS	DC OUTPUTS	ANALOGUE SENDERS	DC POWER SUPPLY 8-32V	
				
ENGCON				
RS485	FUEL & START OUTPUTS	CHARGE ALTERNATOR	MAGNETIC PICK-UP (SPARE)	MAGNETIC PICK-UP
		D+ W/L	