The DSE 3110 can be utilized as a Manual or Auto Start Module for single gen-set applications or engine only applications. The module has been designed to work with electronic and non-electronic engines, providing advanced engine monitoring and protection features.

The DSE 3110 includes a back-lit icon LCD display which clearly shows the status of the engine at all times.

The module monitors engine speed, frequency, voltage and engine run hours and also displays the warning and shutdown status.

The module includes fixed and flexible outputs as well as configurable inputs making this product ideal for a wide variety of applications. The module can either be programmed using the front panel or by using the DSE Configuration Suite PC software.

The module is available in two variants:
- CAN – For use with electronic engines only.
- MPU/ALT. – For use with non-electronic engines only (magnetic pick-up/alternator sensing).

**Features**

**MPU/ALT.** – For use with non-electronic engines only (magnetic pick-up/alternator sensing).
- Optional frequency (Hz) sensing from main AC alternator for gen-set applications.
- Optional Magnetic Pickup speed sensing.

**Environmental Testing Standards**

- Electro-Magnetic Compatibility
  - BS EN 61000-6-2: EMC Generic Immunity Standard for the Industrial Environment
  - BS EN 61000-6-4: EMC Generic Emission Standard for the Industrial Environment

- Electrical Safety
  - BS EN 60068-2-1
    - Ab/Ae Cold Test -30 °C
  - BS EN 60068-2-2
    - Bb/Bc Dry Heat +70 °C

- Vibration
  - BS EN 60068-2-6
    - Ten sweeps in each of three major axes
    - 5 Hz to 8 Hz @ +/-7.5 mm,
    - 8 Hz to 500 Hz @ 2 g

- Humidity
  - BS EN 60068-2-30
    - Db Damp Heat Cyclic 20/55°C ± 95% RH 48 Hours
  - BS EN 60068-2-78
    - Cab Damp Heat Static 40 °C @ 93% RH 48 Hours

- Shock
  - BS EN 60068-2-27
    - Three shocks in each of three major axes
    - 15 g in 11 m/s

- Degrees of Protection Provided by Enclosures
  - BS EN 60529
    - IP65 - Front of module when installed into the control panel with the supplied sealing gasket.
DSE3110
MANUAL & AUTO START CONTROL MODULE

FEATURES
- Back-lit icon LCD display
- Front panel editing
- LED and LCD alarm indication
- Power Save mode
- CAN and Magnetic Pick-up/Alt. versions available (specify on ordering)
- PC configurable
- 6 Digital inputs
- 4 Outputs (2 configurable on Magnetic Pick-up/Alt., 4 configurable on CAN version)
- Configurable timers and alarms
- Alternative configuration
- Remote Start input
- Generator voltage display
- Generator frequency display
- Battery voltage display
- Engine speed display
- Hours counter
- Engine pre-heat
- Comprehensive shutdown or warning on fault condition

KEY BENEFITS
- Tamper-proof hours counter provides accurate information for monitoring and maintenance periods
- Multiple engine parameters are monitored simultaneously
- Module can be configured to suit individual applications
- Suitable for engine only applications
- Compatible with a wide range of CAN engines
- Uses DSE Configuration Suite PC software for simplified configuration
- IP65 rating (with optional gasket) offers increased resistance to water ingress
- Licence-free PC software

RELATED MATERIALS

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Deep Sea Electronics Plc maintains a policy of continuous development and reserves the right to change the details shown on this data sheet without prior notice. The contents are intended for guidance only.

SPECIFICATION

DC SUPPLY
CONTINUOUS VOLTAGE RATING
8 V to 35 V Continuous

CRANKING DROPOUTS
Able to survive 0 V for 50 mS, providing supply was at least 10 V before dropout and supply recovers to 5 V. This is achieved without the need for internal batteries

CHARGE FAIL/ EXCITATION
8 V to 35 V fixed power source 2.5 W

NOMINAL STANDBY CURRENT
23 mA at 12 V, 18 mA at 24 V

MAXIMUM OPERATING CURRENT
35 mA at 12 V, 30 mA at 24 V

OUTPUTS
OUTPUT A (FUEL)
2 A DC at supply voltage

OUTPUT B (START)
2 A DC at supply voltage

AUXILIARY OUTPUTS C,D
2 A DC at supply voltage

GENERATOR
VOLTAGE RANGE
15 V - 333 V AC (L-N)

FREQUENCY RANGE
3.5 Hz to 75 Hz

MAGNETIC PICK UP
VOLTAGE RANGE
+/- 0.5 V to 70 V

FREQUENCY RANGE
10,000 Hz (max)

DIMENSIONS
OVERALL
98 mm x 79 mm x 40 mm
3.9” x 3.1” x 1.6”

PANEL CUT-OUT
80 mm x 68 mm
3.1” x 2.7”

MAXIMUM PANEL THICKNESS
8 mm
0.3”