

# DSE3110

## MANUAL & AUTO START CONTROL MODULE

### FEATURES

The DSE3110 can be utilised 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 DSE3110 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.
  - Optional frequency (Hz) sensing from main AC alternator for gen-set applications.

**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 60950  
Safety of Information Technology Equipment, including Electrical Business Equipment

#### TEMPERATURE

BS EN 60068-2-1  
Ab/Ae Cold Test -30 °C  
BS EN 60068-2-2  
Bb/Be 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 gn

#### 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

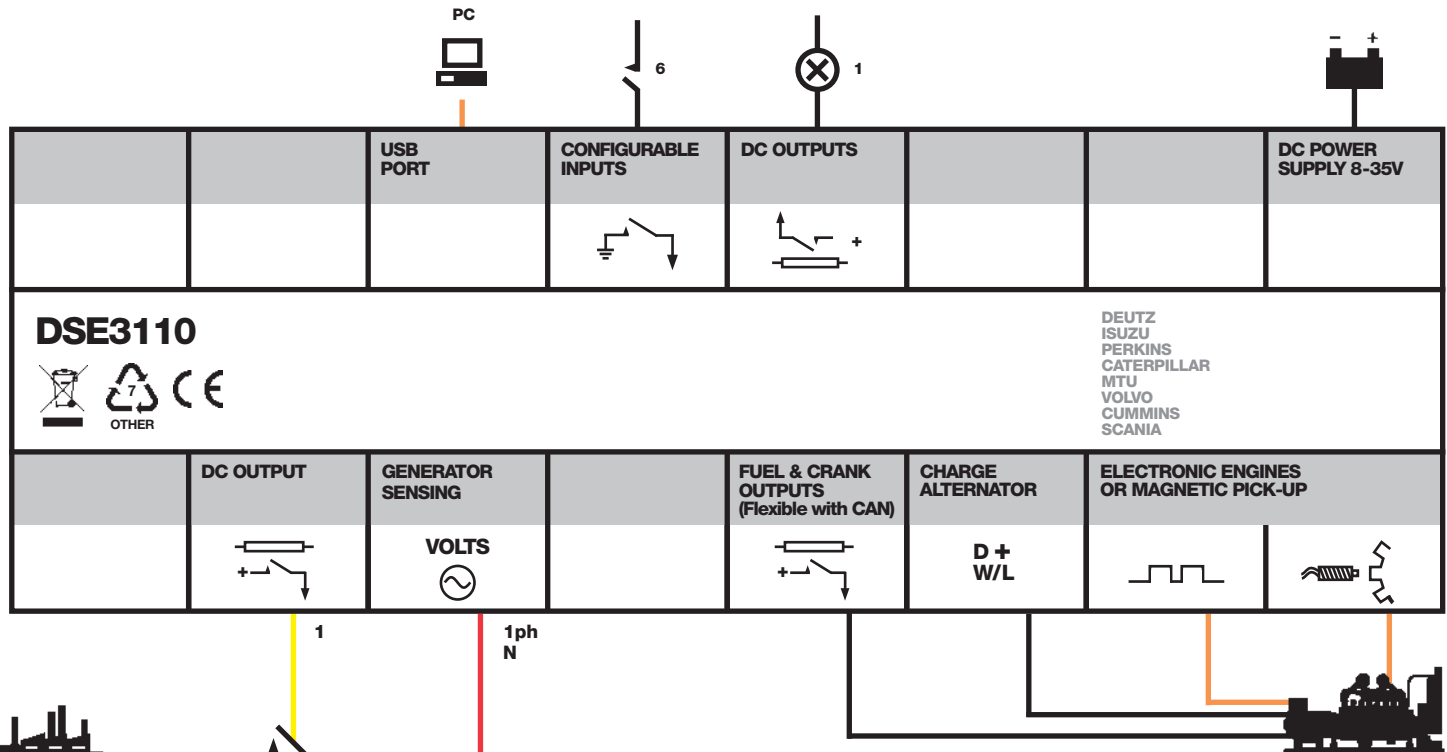
#### SHOCK

BS EN 60068-2-27  
Three shocks in each of three major axes  
15 gn in 11 mS

#### DEGREES OF PROTECTION PROVIDED BY ENCLOSURES

BS EN 60529  
IP65 - Front of module when installed into the control panel with the supplied sealing gasket.

## COMPREHENSIVE FEATURE LIST TO SUIT A WIDE VARIETY OF GEN-SET APPLICATIONS



# DSE3110

## MANUAL & AUTO START CONTROL MODULE

### FEATURES



### KEY 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

### 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"

### RELATED MATERIALS

#### TITLE

DSE7310 Installation Instructions  
DSE7320 Installation Instructions  
DSE7200/7300 Quick Start Guide  
DSE7200/7300 Operator Manual  
DSE7200/7300 Configuration Suite PC Manual

#### PART NO'S

053-028  
053-029  
057-101  
057-074  
057-077

### DEEP SEA ELECTRONICS PLC UK

Highfield House, Hunmanby Industrial Estate, Hunmanby YO14 0PH  
**TELEPHONE** +44 (0) 1723 890099 **FACSIMILE** +44 (0) 1723 893303  
**EMAIL** sales@deepseapl.com **WEBSITE** www.deepseapl.com

### DEEP SEA ELECTRONICS INC USA

3230 Williams Avenue, Rockford, IL 61101-2668 USA  
**TELEPHONE** +1 (815) 316 8706 **FACSIMILE** +1 (815) 316 8708  
**EMAIL** sales@deepseausa.com **WEBSITE** www.deepseausa.com