



# **DSE3110**

## **MANUAL & AUTO START CONTROL MODULE**



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 genset applications.

MPU/ALT. - For use with nonelectronic engines only (magnetic pick-up/alternator sensing).

- Optional frequency (Hz) sensing from main AC alternator for genset 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

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 maior axes 5 Hz to 8 Hz @ +/-7.5 mm, 8 Hz to 500 Hz @ 2 an

HUMIDITY

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

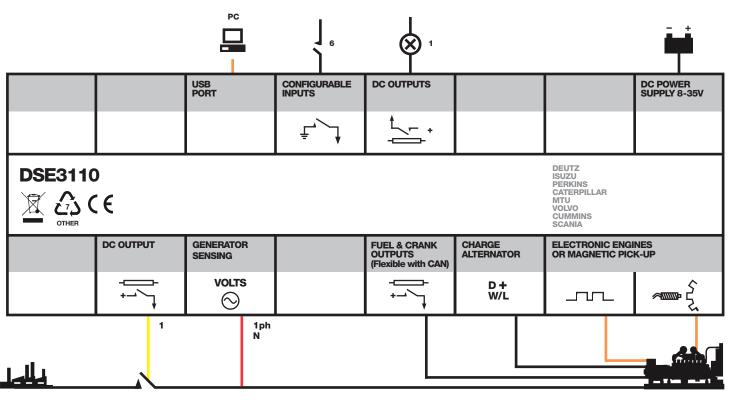
**SHOCK** BS EN 60068-2-27 Three shocks in each of three major axes 15 gn in 11 mS

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



















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#### SPECIFICATION

#### 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**

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"