

DSE4410/20

AUTO START & AUTO MAINS FAILURE CONTROL MODULES

FEATURES



The DSE4410 is an Auto Start Control Module and the DSE4420 is an Auto Mains (Utility) Failure Control Module with 3 phase sensing, suitable for a wide variety of single, diesel or gas, gen-set applications.

Monitoring, speed, frequency, voltage, oil pressure, coolant temperature and fuel level, the modules will display warnings, shutdown and engine status information on the back-lit LCD screen and illuminated LED.

Both modules offer electronic (CAN) and non-electronic (magnetic pick-up/alternator sensing) engine versions and offer a number of flexible inputs, outputs and engine protections so the system can be easily adapted to suit a wide range of application demands.

The modules can be easily configured using the DSE Configuration Suite PC software. Selected front panel editing is also available.

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

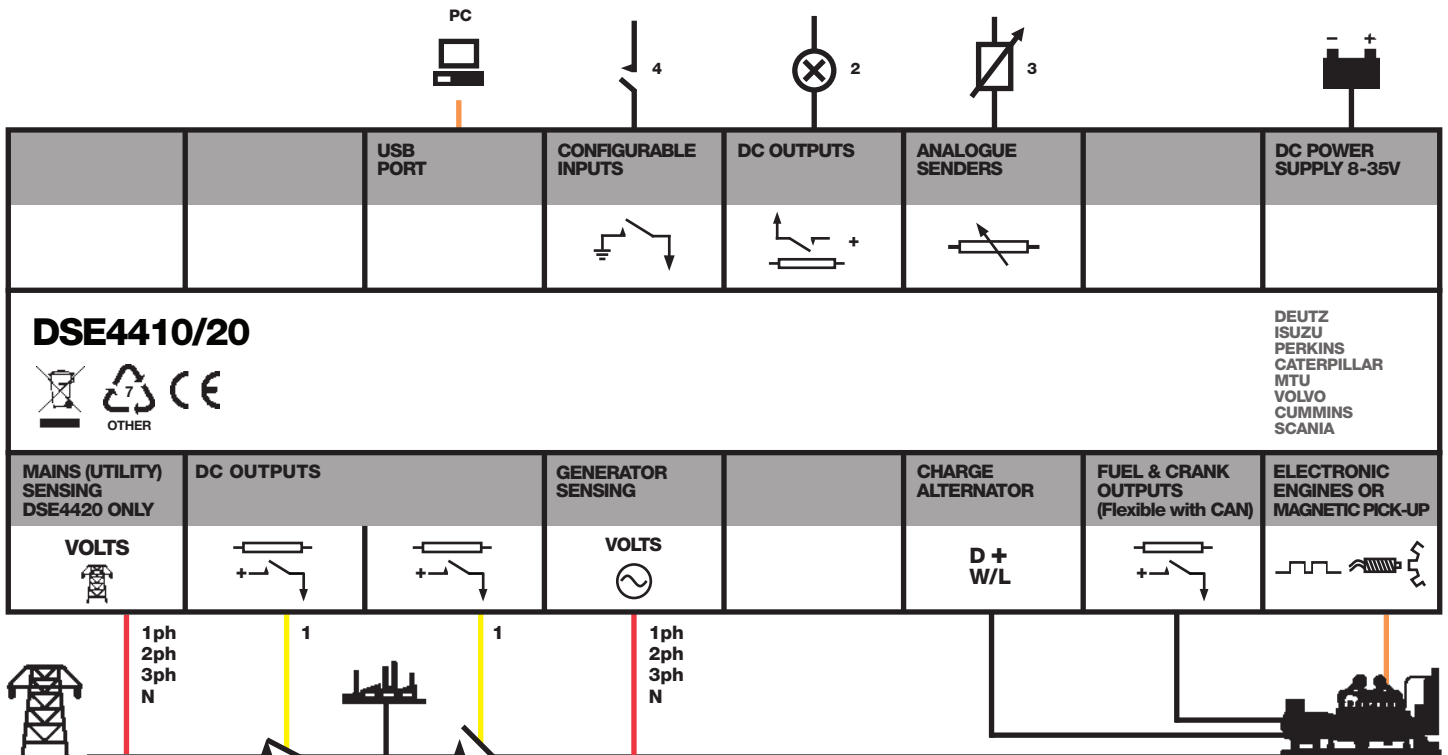
SHOCK

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



DSE4410/20

AUTO START & AUTO MAINS FAILURE CONTROL MODULES

FEATURES



DSE4410



DSE4420



KEY FEATURES

- CAN and magnetic pick-up/Alt. sensing versions (specify on ordering)
- 3 phase generator monitoring
- Four digital inputs/three analogue inputs
- Six outputs (all six configurable on CANbus version, four configurable on magnetic pick-up version)
- Three phase sensing
- Event log (5)
- 50/60 Hz calibration setting
- Configurable timers
- Automatic shutdown or warning when fault conditions are detected
- Overspeed protection
- Manual and remote start

- Engine pre-heat
- Protected Solid State Outputs (PSS)
- Advanced metering capability
- Front panel/PC programming
- Hours counter
- LED indicators
- Back-lit character icon LCD display

KEY BENEFITS

- Automatically transfers between mains (utility) and generator power (DSE4420 only)
- Hours counter provides accurate information for monitoring and maintenance periods
- User-friendly set-up and button layout

- Multiple engine parameters are monitored simultaneously
- Module can be configured to suit individual applications
- Compatible with a wide range of CAN engines
- IP65 rating offers advanced resistance to water ingress when the gasket is fitted
- License-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 10V before dropout and supply recovers to 5 V. This is achieved without the need for internal batteries. LEDs and backlight will not be maintained during cranking.

MAXIMUM OPERATING CURRENT

150 mA at 12 V, 80 mA at 24 V

MAXIMUM STANDBY CURRENT

50 mA at 12 V, 30 mA at 24 V

CHARGE FAIL/EXCITATION RANGE

0 V to 35 V

MAGNETIC PICK UP

VOLTAGE RANGE
+/- 0.5 V to 70 V

FREQUENCY RANGE

10,000 Hz (max)

OUTPUTS

OUTPUT A (FUEL)
2 Amp DC at supply voltage

OUTPUT B (START)
2 Amp DC at supply voltage

AUXILIARY OUTPUTS C,D,E,F
2 Amp DC at supply voltage

MAINS (UTILITY) DSE74420 ONLY

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

FREQUENCY RANGE

3.5 Hz to 75 Hz

GENERATOR

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

FREQUENCY RANGE

3.5 Hz to 75 Hz

DIMENSIONS

OVERALL
180 mm x 116 mm x 42 mm
7.1" x 4.6" x 1.7"

PANEL CUT-OUT

154 mm x 98 mm
6" x 3.9"

MAXIMUM PANEL THICKNESS

8 mm (0.3")

RELATED MATERIALS

TITLE

DSE4410 Installation Instructions
DSE4420 Installation Instructions
DSE4400 Quick Start Guide
DSE4400 Operator Manual
DSE4400 Configuration Suite PC Manual

PART NO'S

053-078
053-079
057-103
057-111
057-093

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