

DSEULTRA[®] STARTING WITH QUALITY.

DSE701 & DSE702 AUTO & MANUAL START CONTROL MODULES



DSE701



DSE702



The DSE701 is available in Manual and Auto Start versions, offering an excellent range of engine monitoring and protection features.

The module has been designed to monitor low oil pressure, high engine temperature, over speed and a user defined auxiliary input.

It also has the capability to monitor battery charging by utilising the WL terminal on the charge alternator. When the module detects a fault condition it automatically shuts down the engine.

The DSE702 is available in Manual and Auto Start versions including all the features of the DSE701 plus a tamper proof engine hours counter.

Both modules include a remote start signal input. This input allows the module to be started from a pre-defined remote location.

FEATURES


- Manual start
- Engine pre-heat
- Engine monitoring and protection features
- Protected solid state (PSS) outputs
- Front panel mounting
- Tamper proof engine hours counter
- Remote start
- LED indicators

BENEFITS


- Hours counter provides accurate information for monitoring maintenance and warranty periods
- Multiple engine parameters are monitored simultaneously

OPERATION

MANUAL MODE

- The module is started using the on-board key/buttons
- The user turns the key to the  position
- The engine pre-heat button is then pressed for the required time
- The start button is then pressed to start the engine
- To stop the engine the key needs to be turned to the off position

AUTOMATIC MODE

- The key needs to be permanently left in the  position
- The module is powered up by the remote start signal
- The pre-heat function is automatically carried out and then the engine is started
- To stop the engine the remote switch is turned to the 'off' position

OVERSPEED PROTECTION

The engine over speed trip setting can be calibrated at the rear of the module for 50Hz or 60Hz nominal operation (57Hz or 68Hz trip respectively).

During engine cranking and for the first 10 seconds after the engine starts running, all alarm conditions are suspended (overspeed is enabled) to allow the engine to reach its optimum running speed.

SPECIFICATION

DC SUPPLY

8V to 35V continuous

CRANKING DROPOUTS

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

ALTERNATOR INPUT FREQUENCY

50Hz – 60Hz at rated engine speed
(minimum:15V Overspeed: nominal frequency +14% (+24% overshoot)

ALTERNATOR INPUT RANGE

15-305 V AC RMS (+20%)

START OUTPUT

Solid state 1.2A negative grounding

RUN OUTPUT

Solid state 1.2A negative grounding terminal

PRE-HEAT OUTPUT

Solid state 1.2A negative grounding terminal

DSE701 DIMENSIONS

72mm x 72mm x 38mm
2.8" x 2.8" x 1.5"
Excludes key switch

DSE701 CUT OUT

68mm x 68mm
2.7" x 2.7"

DSE702 DIMENSIONS

84mm x 72mm x 34.9mm
3.3" x 2.8" x 1.4"
Excludes key switch

DSE702 CUT OUT

80mm x 68mm
3.1" x 2.7"

ENVIRONMENTAL TESTING STANDARDS

ELECTRO MAGNETIC CAPABILITY

BS EN 61000-6-2
EMC Generic Emission Standard for the Industrial Environment
BS EN 61000-6-4
EMC Generic Emission Standard for the Industrial Environment

TEMPERATURE

BS EN 60068-2-2
Test Ab to +70°C 60067-2-2 Hot
Test Ab to -30°C 60068-2-1 Cold

VIBRATION

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

HUMIDITY

BS 2011 part 2.1 60068-2-30
Test Cb Ob Cyclic
93% RH @ 40°C for 48 hours

SHOCK

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

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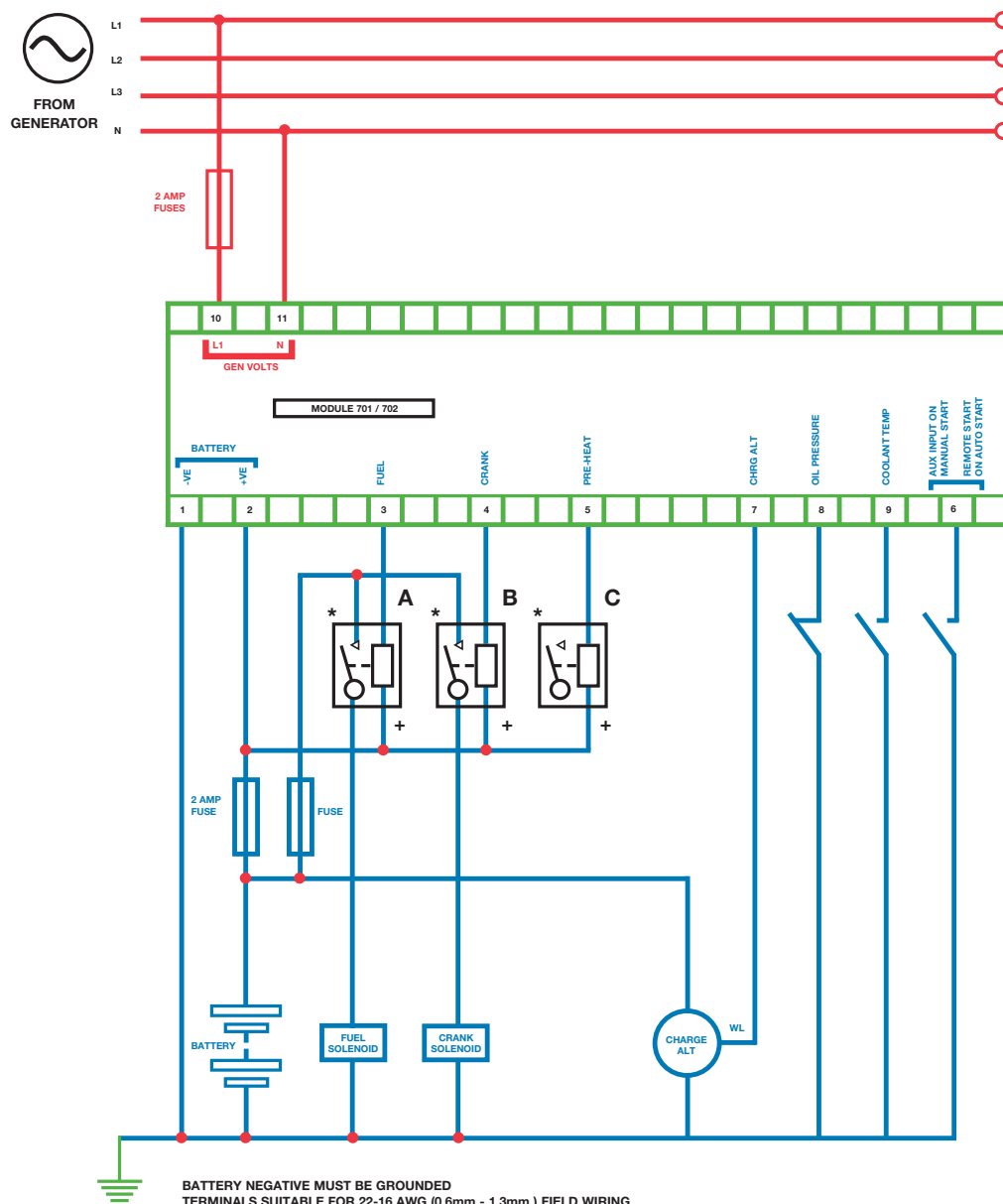
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DSE701 & DSE702



BATTERY NEGATIVE MUST BE GROUNDED
TERMINALS SUITABLE FOR 22-16 AWG (0.6mm - 1.3mm) FIELD WIRING
TIGHTENING TORQUE = 0.8Nm (7lb-in)
* NOTE. ALL THE OUTPUTS ARE SOLID STATE AND ARE NEGATIVE SWITCHING
**NOTE. THIS SWITCH MUST BE CAPABLE OF SWITCHING THE TOTAL LOAD
OPERATED BY RELAYS A,B AND C

RELATED MATERIALS

TITLE	PART NO'S
DSE701/702NK Installation Instructions	053-002
DSE701/702K Installation Instructions	053-003
DSE701/702 Manual Key Installation Instructions	053-016

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