



# DSE103 MKII

## SPEED SWITCH CONTROLLER



### KEY FEATURES

- Configurable trip points
- Configurable nominal speed
- Trip points can be configured to be latching or non-latching
- Analogue meter output
- Potted enclosure
- Spade terminals for easy connection

### KEY BENEFITS

- Can be used for magnetic pick-up or alternator frequency sensing
- Intuitive manual set-up procedure for nominal speed and trip points
- Comprehensive PC configuration using DSE Configuration Suite Lite PC Software
- Compact design

### SPECIFICATIONS

#### 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.

#### MAXIMUM OPERATING CURRENT

95 mA at 12 V, 100 mA at 24 V

#### MINIMUM OPERATING CURRENT

21 mA at 12 V, 22 mA at 24 V

#### OUTPUTS

##### TRIP 1 & 2

16 A at 35 V DC/AC

#### TACHOMETER

1 mA full scale

#### ALTERNATOR

##### VOLTAGE Range

15 V - 333 V AC (L-N) RMS

#### FREQUENCY RANGE

3.5 Hz to 75 Hz

#### MAGNETIC PICK UP

##### VOLTAGE RANGE

+/- 0.7 V to 70 V RMS

#### FREQUENCY RANGE

10,000 Hz (max)

#### DIMENSIONS

##### OVERALL

88 mm x 72 mm x 26 mm  
3.4" x 2.8" x 1.0"

### RELATED MATERIALS

#### TITLE

DSE103MKII Installation Instructions  
DSE103MKII Operator Manual  
DSE103MKII Software Manual

#### PART NO.

053-124  
057-135  
057-136

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# DSE103 MKII

## SPEED SWITCH CONTROLLER

The DSE103MKII Speed Switch Controller has been designed to monitor the speed of an engine by detecting pulses from a magnetic pick-up device or alternative output.

The speed switch can be set to operate the independent relays at different speed settings. Both relays can be adjusted to operate from between 0% and 400% of the engine's rated running speed.

This flexibility allows the module to be used for many different applications including under speed or over speed protection or crank disconnect.

The nominal speed input can be set on the unit meaning that the majority of applications will not require any PC software configuration.

Meter calibration can be achieved using the pre-set potentiometer or the PC software. Configuration enables the meter output to be scaled to match the optional RPM meter. The speed switch is presented in a durable ABS plastic enclosure and is fully potted to protect against the harshest environments.

### 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

## COMPREHENSIVE FEATURE LIST TO SUIT A WIDE VARIETY OF APPLICATIONS

