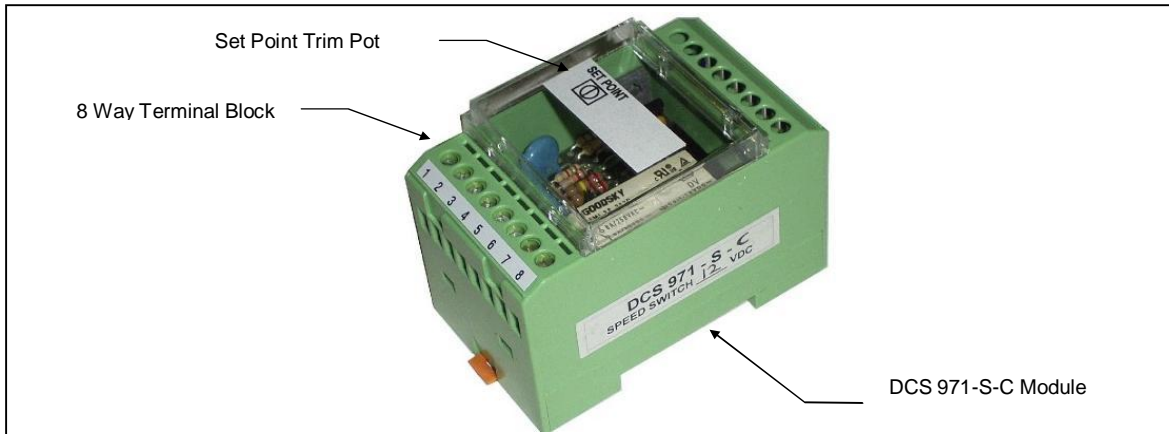


## DCS 971S SERIES SPEED SWITCH



### DESCRIPTION

The DCS 971S Series Speed Switch Modules are designed to monitor the speed of an engine by detecting pulses from a magnetic- pick up or a charging alternator output before the rectifier. The sensing signal generated can be in the order of 0.7 to 100 volts R.M.S. The impedance is approximately 500K $\Omega$ . The loading of the pick- up is of no significance, enabling a number of speed switches to be connected to the same pick- up.

The length of signal cable is not limited, use of shielded cable is advisable. The shield of the signal cable must be grounded one end only.

The unit is enclosed in a robust DIN rail mount plastic housing with indication for Supply On and Relay Operation LED's.

Setting and programming links are accessible by unclipping the clear front cover. The printed circuit board and components are tropicalised.

The DCS 971S speed switch is available in two combinations...

### DCS 971S-C

#### CRANK CUT-OUT SPEED SWITCH

The unit has a very large differential and in addition time delayed on run down to ensure that the engine has come to a complete standstill before the relay de-energises. For this function apply permanent +Ve supply to terminal 3. Speed setting is adjustable by the Set Point trim pot. The programming link A is for selecting magnetic pick- up or alternator sensing.

#### SENSING RANGE

ALT. (Low Range): 20 - 300 Hz  
 MAG. P/UP (High Range): 300 - 2400 Hz

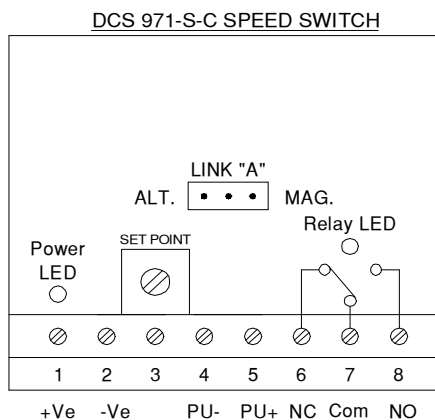


Figure 1 – Typical Wiring Diagram

## DCS 971S-H

### UNDER OR OVER SPEED SWITCH

The unit has a minimal differential only and is not time delayed. It is intended for monitoring under or over speed. Speed setting is adjustable. Set Point trim pot. The Coarse trim pot only needs to be adjusted if the speed is outside the Set Point trim pot range. The programming link A is for selecting low or high range.

### SENSING RANGE

ALT. (Low Range): 120 Hz - 650 Hz  
MAG P/UP (High Range): 1.2 kHz - 6.2 kHz

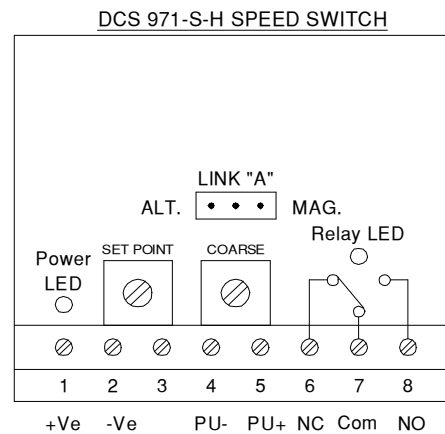


Figure 2 – Typical Wiring Diagram

## SPECIFICATIONS

DC Supply: 12v (8-16.5v)  
24v (16-33v)  
Operating Current: 80mA (approx.)  
Case Material: Thermoplastic  
Operating Temperature: -10 to 60° Celsius  
Relay Contacts: One voltage free change over, max 5 amp resistive  
Dimensions: 53h x 45w x 75d  
Protection against polarization errors