

REED SWITCH

Cat: EM2800-001 reed switch

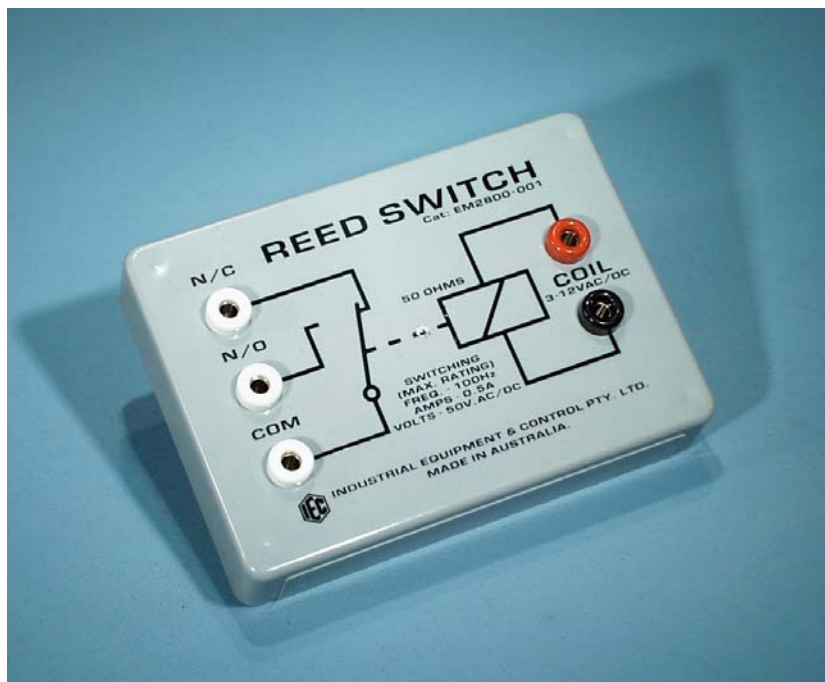
DESCRIPTION: how it works.....

A Reed Switch is a small metal vane mounted inside an evacuated glass tube. When a magnetic field is brought close to the glass tube, the vane deflects one direction to touch a small electrode and to make an electrical contact. When the magnetic field is removed from near or around the glass tube, the vane deflects back again and joins to another metal contact. When one single contact moves one way or the other way to join to one contact or another, the switching action is called 'Single Pole, Double Throw'. The contact joined to the vane when the magnetic field is not present is called the 'Normally Closed' contact (N/C). The contact that is joined only when the magnetic field is present is called the 'Normally Open' contact (N/O). The vane contact that joins to one or the other is called the 'Common Contact' (COM).

The IEC **Reed Switch** consists of a Single Pole Double Throw magnetic switch mounted co-axially inside an operating coil. When this coil carries current, the Reed Switch switches from the N/C contact to the N/O contact. Both the small solenoid coil and the Reed Switch are mounted to a printed circuit board. If a repetitive ON/OFF signal is applied to the coil, the switch operates to match the frequency of the signal applied to the coil.

Because of its very small mass, a Reed Switch is capable of much faster switching actions than any other type of mechanical switch and the sealed glass envelope makes the switch safe to use in flammable atmospheres. In the evacuated glass envelope, electric arc cannot occur because there is no air to form the arc of ionised gas.

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Physical size: 115x80x20mm LxWxH

Weight: 0.07 kg

**SPECIFICATIONS:**

- Operating voltage range: 3-12 Volt AC. or 6-12 Volt DC. applied to coil.
- Coil resistance: approx. 50 ohm.
- Max. switching Voltage: 50 Volt AC. or DC.
- Max. switching Frequency: in excess of 400 Hz.
- Max. switching Current: 1A at less than 10 Hz.
250 mA at greater than 10 Hz.

This switch is useful when a large voltage or current must be quickly switched by a signal of a much smaller voltage or current. Can be used in the Capacitor charge / discharge experiments by driving the switch from a signal generator and charging and discharging to capacitors through the contacts.

Designed and manufactured in Australia