

C/O4 - Data Sheet

Overview

C/O4 is a heavy duty reed switch based sensor housed in a robust zinc casting. For use as a general purpose position, movement or limit switch. The C/O4 switch should **not** be used in safety related applications.

Principles of operation and use

The C/O4's contacts change over when in the presence of a magnetic actuator, providing both n/o and n/c contacts. The non contact operation of these sensors make them suited to applications where misalignment or contamination from dust and solids are a concern. The switch may be operated through a non ferrous skin such as non magnetic stainless steel, plastic, aluminium and non ferrous castings etc. C/O4 sensors may be operated from three sides.

Loads

Maximum ratings in the "Specification and ratings" table are for dc voltage and resistive loads. Protect against inductive, capacitive or reactive loads. For maximum contact life and reliability, ensure the ratings are not exceeded.

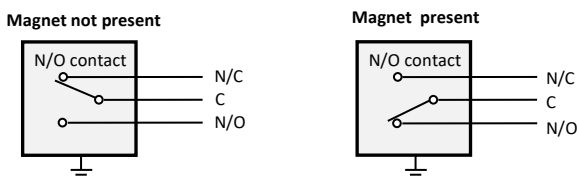
Fitting and adjustment

When considering fixing positions refer to "Principles of operation and use". Ensure vibration and shock limits will not be exceeded both in normal and in any foreseen abnormal operation. When mounted on or near ferrous surfaces the operating distance will be reduced. Avoid close proximity to strong magnetic fields i.e. electric motors and solenoids. To help reduce the effects of vibration or shock the sensor unit may be mounted on a rubber pad or foam tape. The switch and actuator should be fixed so that they move parallel to each other, see "Operating Positions". When adjusting the C/O4 sensor for maximum operation distance it is recommended that it is magnetically overdriven by at least 25% i.e. With an application that gives a maximum operating distance of 16 mm it should be considered that the maximum distance is actually 16mm less 25% = 12mm, therefore, to operate the sensor correctly the actuator magnet should be within 12 mm of the switch. Consideration should be given to the safe routing of the connecting cable, avoid tight bends and allow a minimum of 50mm of straight cable from the sensor housing before any bends. See "Schematic diagram" for electrical connections; check the contact ratings are not exceeded.

Maintenance

Ensure that the installation is in a safe condition with the power off before any maintenance is carried out. To clean, wipe with a damp cloth, do not immerse in water or cleaning fluid. The C/O4 sensor should be routinely checked for correct operation.

Schematic diagram



Product codes

Code	Heavy Duty Reed Switch Sensors
C/O4	Change over switch 60VA
AM/5	Standard actuator magnet
AM/9	Extra power actuator magnet, in polycarbonate case

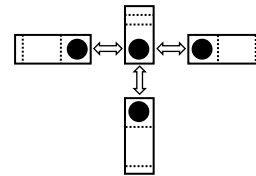
Longer cable lengths are available. The order code for C/O4 with a 5 metre cable would be C/O4/5M

Specifications and ratings

Specification	C/O4
Contact Form	C/O change over
Max contact rating	60 W/VA ²
Max switching voltage	400 VDC
Min breakdown voltage	1000 VDC
Max switching current resistive	1 Amp ¹
Max carry current	2.0 Amps
Capacitance	1 pF
Contact Resistance	100 mΩ
Temperature range	-40° to +70°C
Max vibration (10-1000Hz)	35 g
Max shock (11ms)	50 g
Resonant frequency	-
Pull in time, nominal	1.5ms
Release time, nominal	1.5ms
Environmental protect	IP64
Operating distance AM/5	13 mm nominal
Operating Distance AM/9	25 mm nominal
Cable	0.7 metres of 3184Y 0.75 ² mm
Dimensions	L79.8 x W19.1 x H9.65 mm
Connections	grey = com black = n/o brown = n/c green/yellow = earth

Notes
 1) Switching inductive, capacitive or reactive loads will reduce life expectancy.
 2) Do not exceed the product of voltage x amps.

Operating positions



Switch is in the centre with magnets indicating each of the three possible operating positions.

The actuator magnet should move in parallel to the switch.

Image



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