M18 BARREL SAFETY SWITCH SPECIAL- SY CABLE VERSION

## INSTALLATION GUIDE

MS2

## 1) PART NUMBERS: M18 BARREL MOUNT SAFETY SWITCHES <br> MS2-10-AC MS2-10-DC <br> MS2-11-AC MS2-11-DC

Note: Cable length to be added to the part number


CAUTION

CONTENTS

This information is designed to help suitably qualified personnel install and operate Mechan Safety Switch equipment. Before using this product, read this guide thoroughly along with any relevant European and/or National standards e.g. Machinery Directive 89/392/EEC and it's amendments, Provision and Use of Work Equipment Regulations. Further information can be obtained from Mechan Controls Limited
***** KEEP THIS GUIDE FOR FUTURE REFERENCE *****

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## 2) DESCRIPTION

The MAGNASAFE safety switch is a magnetically operated non-contact safety switch for use in machine guarding applications. With correct fitting, it complies with the guidelines given in EN1088. When fitted to a machine guard as shown below, (5) the safety contact(s) will be closed when the guard door is closed and will open when the guard door is opened.
NOTE: The auxiliary contact is for indication purposes and will close when the guard door opens.
Mechan Controls also manufacture a range of tamper-resistant and tamper-proof safety systems which may be more suitable for some applications. For more information ask for details on the ISIS ; F-SERIES and CODEX safety systems.

## 3) CONNECTIONS

MS2-11-DC-SY-01M


## 4) CONTACTS \& FUSES

## Safety Contacts

MAGNASAFE DC rated switches must be used to switch DC loads

## DC Switch: External Fuse $=0.8 \mathrm{~A}$ Fast Actin

Fuses Each safety contact must be fused externally.

## 5) MOUNTING

The Magnasafe safety switches can approach each other from any angle as shown. When closed the targets on the printed face of the switch must be aligned.

Mount the switch on to the machine frame and the magnet on to the opening edge of the door.


Use a locking compound to fix the Nuts.
Always try to mount the switch on non-ferrous material. Ferrous material will reduce the switching distance.


Do not mount the switch on to the hinge side of the door.

## SLIDING DOORS

EN 1088 provides some mounting suggestions, see below.

When fixing the safety switch to a sliding door (A), ensure that when the door is opened (B) the switch is not easily accessible, helping prevent the system being overridden.

B:


## Mechan Controls plc



NOTE: All dimensions are in mm

## 7) TECHNICAL SPECIFICATIONS

| PART NUMBER | MS2-10-AC-SY-03M | MS2-11-AC-SY-03M | MS2-10-DC-SY-03M | MS2-11-DC-SY-03M |
| :---: | :---: | :---: | :---: | :---: |
| Switching Voltage | AC | AC | DC | DC |
| Safety Contacts | 1 | 1 | 1 | 1 |
| Auxiliary Contacts | 0 | 1 | 0 | 1 |
| Safety Contact : rating | 230vAC / 2A Inductive / Resistive |  | 30vDC / 1A Inductive / Resistive |  |
| Safety Contact : operating distance | 10 mm On / 25 mm Off |  | 10 mm On / 25mm Off |  |
| Safety Contact : close, drop, bounce | $3 \mathrm{~ms} / 2.1 \mathrm{~ms} / 0.7 \mathrm{~ms}$ |  | $3 \mathrm{~ms} / 2.1 \mathrm{~ms} / 0.7 \mathrm{~ms}$ |  |
| Auxiliary Contact : rating | 15W / 10VA |  | 15W / 10VA |  |
| Auxiliary Contact : operating distance | $8 \mathrm{~mm} \mathrm{On} \mathrm{/} \mathrm{10mm} \mathrm{Off}$ |  | $10 \mathrm{~mm} \mathrm{On} \mathrm{/} \mathrm{25mm} \mathrm{Off}$ |  |
| Auxiliary Contact : close, drop, bounce | $0.5 \mathrm{~ms} / 0.3 \mathrm{~ms} / 0.7 \mathrm{~ms}$ |  | $0.5 \mathrm{~ms} / 0.3 \mathrm{~ms} / 0.7 \mathrm{~ms}$ |  |
| Internal Fuse | 2A Fast Acting |  | 1A Fast Acting |  |
| External Fuse (Customer Supplied) | 1.6A Fast Acting |  | 0.8A Fast Acting |  |
| IP Rating | IP67 |  |  |  |
| Vibration / Shock | 50 to $100 \mathrm{~Hz} / 10 \mathrm{~g}$ |  |  |  |
| Operating Temperature | $-10^{\circ} \mathrm{C}$ to $+55^{\circ} \mathrm{C}$ |  |  |  |
| Mounting \& Fixing | Target to Target, Fixing nuts supplied |  |  |  |
| Colour / Construction | Red ABS Case, Resin Filled |  |  |  |
| Cable | 2 Core SY | 4 Core SY | 2 Core SY | 4 Core SY |
|  |  |  |  |  |

## 8) ORDERING INFORMATION

When ordering the MAGNASAFE safety switch, our part number gives all the information required including:
Enclosure style; Number of safety contacts; Number of Auxiliary contacts, which voltage range it will switch: AC or DC and cable length
Note: The standard cable length is 3 metres, longer cables are available to order.
E.g.

MS2-10-DC-10M = M18 Switch, $1 \times$ Safety Contact, $0 \times$ Auxiliary Contact, DC Switching, 10 Metre cable.


CMechan Safety switches comply with the relevant EMC and Low Voltage Directives along with the Essential Health and Safety Requirements of the Machinery Directive (89/392/EEC \& amendments 91/368/EEC, 94/44/EEC) where required.

Copies of the Certificate of Conformity can be obtained from Mechan Controls Limited

In the interest of product development, specifications are subject to change without notice. Document No. - MS2SY-SPECIAL

It is the responsibility of the user to ensure compliance with any acts or by-laws in force.

All information regarding Mechan equipment is believed to be accurate at the time of printing. Responsibility cannot be accepted for errors or omissions.

