

KEEP THIS GUIDE FOR FUTURE REFERENCE

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

Description

The MS IFS 103 53 switches are magnetically operated non-contact safety switch for use in machine guarding applications.

The non-contact operation makes the MS IFS 103-53 easy to install and tolerant to misalignment, providing a simple reliable solution to machine guard interlocking.

The MS IFS switch and actuator are fully sealed to IP67 and can be used in wet or dusty environments
With correct installation, the MS IFS safety switches comply with the guidelines given in EN1088.

The MS IFS 103-53 Switches are designed to be connected To safety control circuit which has less than 0.5 Amps inrush current.

Operation

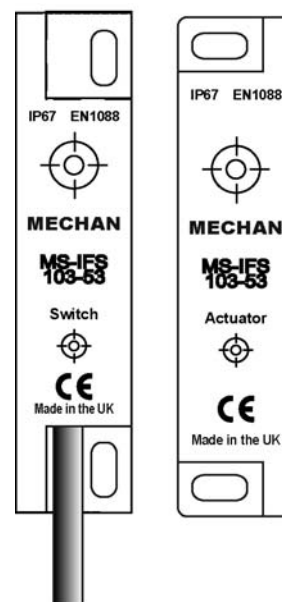
When installed on a machine guard, and the switch and actuator are within the specified operating range (See table on page 3 for switching distances), the **Safety Contact** will be closed.

When the actuator moves out of the operating range, the **Safety Contact** will open.

The MS IFS switch and actuator are designed to approach each other from most angles. When the switch is closed the targets on the printed face of the switch must be aligned.

Applications

Interlocked guards where door locking is not required.
Food and Beverage packing/filling systems
Diary
Pharmaceutical
Paper Industry
Can Forming and Filling, (Aluminum, Steel, Plastic)
Semiconductor Manufacture/Assembly.



MS IFS 103-53



Approvals

CE	Complies with the relevant sections of the CE marking directive.
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EUROPEAN DIRECTIVES

Machinery Directive 2006/42/EC

Low Voltage Directive 73/23/EC

EUROPEAN STANDARDS

EN292	Safety of Machinery Basic concepts, general principles for design.
EN 60204	Safety of Machinery Electrical equipment of machines.
EN 954-1	Safety of Machinery Safety related parts of controls systems
EN 1088	Interlocking devices associated with guards.
EN 60947-5-3	Safety of Machinery Specification for low voltage switchgear and control gear.

Certificate of Conformity

A Certificate of Conformity may be obtained from Mechan Controls PLC, Tel +44(0)1695 722264
or from the Mechan Web Site at www.mechancontrols.co.uk

Mounting

The MS IFS safety switches can approach each other from most angles. When the guard is closed the targets on the printed face of the switch and actuator must be aligned.

Mount the switch on to the machine frame and the Actuator on to the opening edge of the door. Always try to mount the switch on non-ferrous material. (*Ferrous materials may reduce the switching distance.*)

Use the tamper proof screws provided to make more secure.

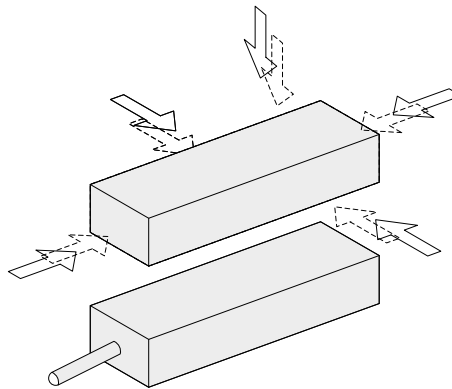
Do not use the safety switch as a door stop.

Leave a minimum of 50 mm between any adjacent switches.

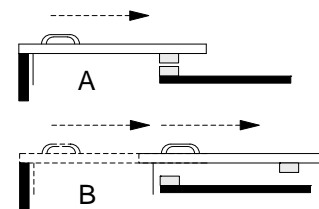
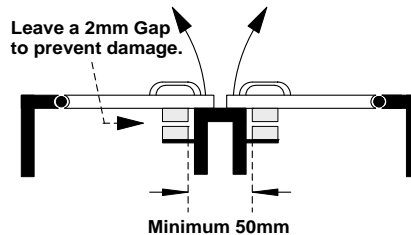
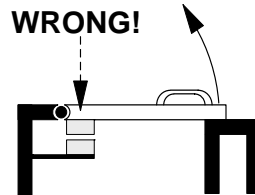
EN 1088

Provides some mounting suggestions, see example opposite.

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



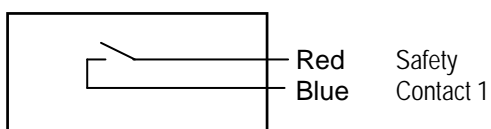
WRONG!



Contacts & Connections

PRE-WIRED

MS IFS 103 53

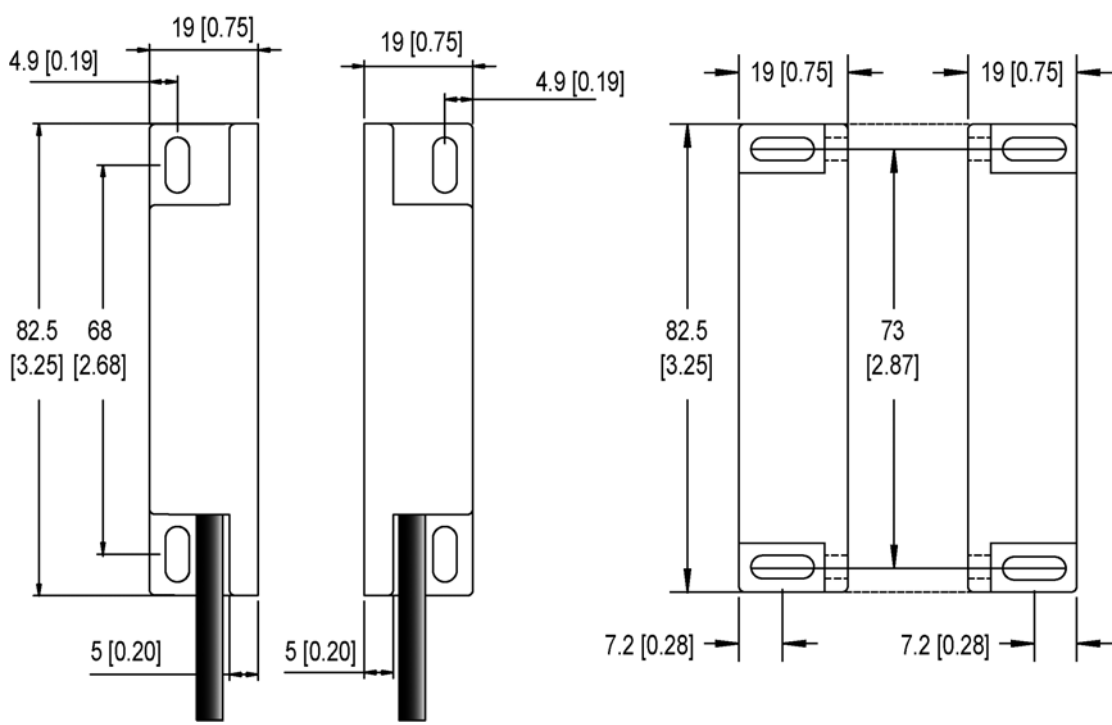


All Safety Contacts require an external fuse.

Dimensions

MS IFS 103 53
RED ABS HOUSING

Dimensions in mm and [inches
in brackets]



Technical Specifications

MS-IFS-103-53			DC Switching
Safety Contact Rating			24Vdc / 0.5 Amp Inductive/Resistive
Safety Contact Operating Distance			8mm ON / 25mm OFF
Safety Contact Close/Drop/Bounce			3ms / 2.1ms / 0.7ms
Internal Fuse			0.5 Amp Fast Acting
IP Rating			IP67
Vibration / Shock			50—100Hz / 10g
Operating Temperature			-10 to +55C
Mounting & Fixture			Target to Target
Connection			Pre-wired
Construction			Red ABS Resin Filled
LONGER CABLES AVAILABLE			

Part Numbers

PART NUMBER	DESCRIPTION	STOCK CODE
PRE-WIRED		
MS-IFS-103-53	1 x N/O, DC, ABS, Safety Switch & Actuator, 1 metre Pre-wired	355.013



Specification Changes

In the interest of product development, specifications are subject to change without notice.

It is the responsibility of the user to ensure compliance with any acts or by-laws that may be 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.

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