

Operating Instructions for EIN-14A Safety Switches

KEEP THIS GUIDE FOR FUTURE REFERENCE

This information is designed to help suitably qualified personnel install and operate these switches. Before using this product, read this guide thoroughly along with any relevant European and/or National Standards e.g. Machinery Directive 2006/42/EC and it's Amendments, Provision and Use of Work Equipment Regulations.

**Further information can be obtained from
BALPE S.A.S**

Description

EIN-14A safety switches are a magnet safety switch for use in machine guarding applications.

Designed for use where increased security is required, the magnetic actuator and cannot be fully operated with a single magnet.

The EIN-14A switches are designed to be connected to a safety control circuit which has less than 0.5 Amps inrush current.

The EIN-14A switches are manufactured in a robust ABS housing and fully sealed to IP67 and can be used in wet or dusty environments.

With correct installation, the EIN-14A safety switches comply with the guidelines given in EN1088.

Operation

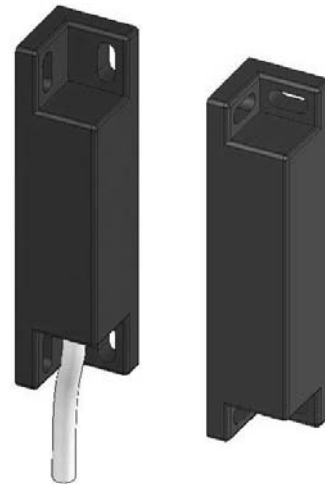
When installed on a machine guard, and the switch and actuator are within the specified operating range, the **N/O Contacts** will be closed and the **N/C Contact** will be open (See table on page 4 for switching distances)

When the actuator moves out of the operating range, the **N/O Contacts** will open. The **N/C Contact** will close.

The EIN-14A safety switch and actuator are designed to 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.

Applications

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



EIN 14A



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 2006/95/EC
Electromagnetic Compatibility Directive 2009/108/EC

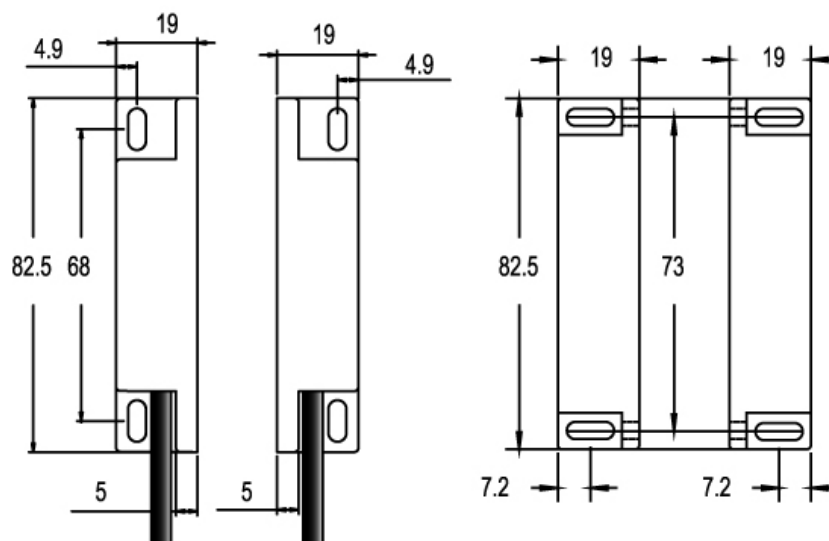
EUROPEAN STANDARDS

EN292	Safety of Machinery Basic concepts, general principles for design.
EN 60204	Safety of Machinery Electrical equipment of machines.
EN 954-1 EN ISO 13849-1	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.

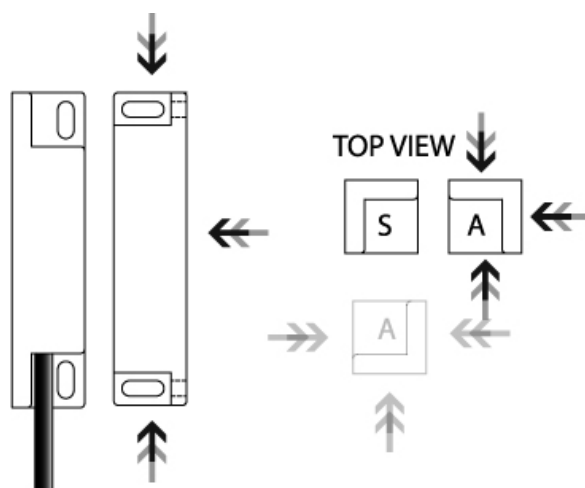
Declaration of Conformity

A Declaration of Conformity from can be obtained from
Balpe SAS

Dimensions



Operation



Mounting

The EIN-14A safety switch 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.

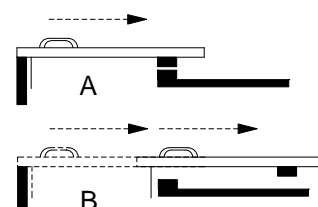
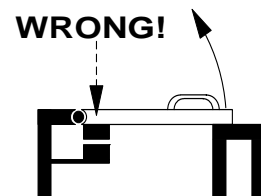
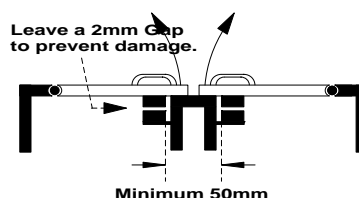
Do not use the safety switch as a door stop.

Leave a minimum of 50 mm between any adjacent switches.

EN 1088

Provides some mounting suggestions, see example opposite.

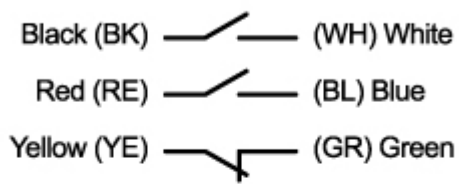
When fixing the safety switch to a sliding door (A), ensure that when the door is opened (B) it is not easily accessible, helping prevent the system being overridden.



CONNECTIONS

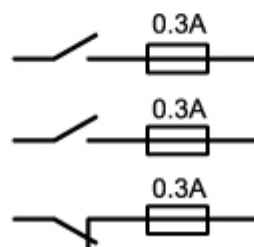
ABS - Pre-wired

EIN-14A



FUSES

EIN-14A



All Contacts

All external fuses should be a 'FAST ACTING'

Technical Specifications

PRODUCT	EIN-14A
Contact Arrangements	2 x N/O + 1 x N/C
N/O Safety Contact Rating	24Vdc / 0.3Amp Inductive/Resistive
N/O Safety Contact Operating Distance	7mm ON / 10mm OFF
N/O Safety Contact Close/Drop/Bounce	3ms / 2.1ms / 0.7ms
N/C Safety Contact Rating	24Vdc / 0.3Amp Inductive/Resistive
N/C Safety Contact Operating Distance	7mm OFF / 10mm ON
N/C Safety Contact Close/Drop/Bounce	0.5ms / 0.3ms / 0.7ms
External Fuse (Customer Supplied)	0.3 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

Specification Changes

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

Note

The N/O contacts of the switches are closed when the actuator is in place. The N/C contacts are closed when the guard is open.

BALPE S.A.S

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