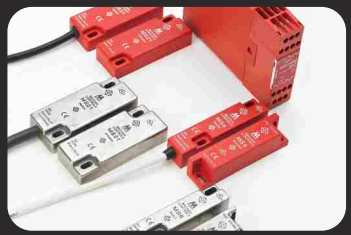
DESIGNED & MANUFACTURED IN GREAT BRITAIN

MACHINE GUARD
SAFETY SWITCHES &
SAFETY CONTROL UNITS

Product Catalogue

MECHAN CONTROLS



Complete range of non-contact safety switches for machine guarding

Contents

Safety Standards Information

Since 2006 machine owners and manufacturers have had the choice of complying with the old Machine Safety Directive, based on EN 954-1, or the new Standards, EN ISO 13849-1 and EN (IEC) 62061. Some have chosen to make the switch early, while others have opted to wait until the last minute – in this case 31st December 2011 – before adopting the new Directive.

The key issue here is EN 954-1 hasn't kept pace with the changes in the industry. In particular, it focuses on calculated risk using a simple category system, whereby system behaviours are set against categories. The issue, is the wider implementation of programmable electronics in safety systems means that such a simple system is no longer appropriate. Essentially the new Machinery Directive brings the regulations into line with what is already current practice and has the potential to improve safety.

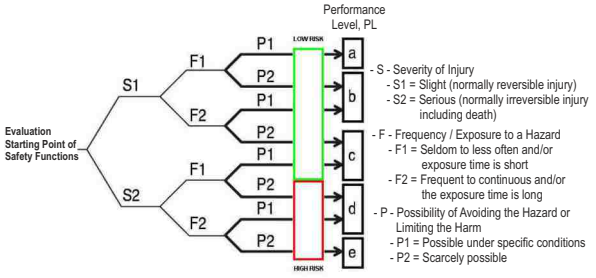
For example, while EN ISO 13849-1 takes its core from the familiar categories in EN 954-1:1996, it does so by examining complete safety functions, including all the components involved in their design and it takes things further. This is because it goes beyond this qualitative approach to include a quantitative assessment of the safety functions, based on a performance level (PL) that builds on the category approach.

The components and devices that make up the system require the following safety parameters:

- Category (structural requirement)
- PL: Performance Level
- MTTFd: Mean Time to Dangerous Failure
- B10d: Number of cycles by which 10% of a random sample of wearing components have failed dangerously
- DC: Diagnostic Coverage
- CCF: Common Cause Failure
- TM: Mission time

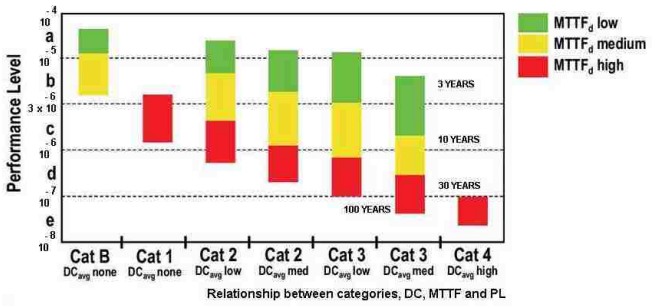
In addition, EN ISO 13849-1 includes a description of how to calculate the PL that can be achieved when several safety-related parts are combined into one overall system shown in the diagram below, a very important factor in integrated safety systems. Any deviations from EN ISO 13849-1 are referred to IEC 61508.

Safety-Related Parts of Control Systems
General Principles for Design
in Accordance with EN ISO 13849-1



Consequently, one of the major benefits of EN ISO 13849-1 is that it enables machine users to take advantage of the latest technologies.

Relationship between Category, DC, MTTF and PL, in Accordance with EN ISO 13849-1



EN 62061

It's also important to note EN ISO 13849-1 will operate in conjunction with EN 62061, which is a sector-specific standard under IEC 61508. EN 62061, which is based on quantitative and qualitative examinations of the safety-related control functions, examines the overall life cycle from the concept phase through to decommissioning. It also describes the implementation of safety-related electrical and electronic control systems on machinery.

In describing performance level, EN 62061 uses the safety integrity level (SIL) and Probability of Dangerous Failure per Hour (PFHD) parameters – and a number of safety sub-functions are derived from the risk analysis. This arrangement aligns to the sub-systems that make up a safety related control system, so that safety sub-functions are assigned to the software or hardware devices that are sub-systems or sub-system elements. Please see below diagram.

Safety Integrity Level (SIL) In accordance With EN IEC 62061	Probability of a dangerous failure per hour PFH/h
No special safety requirement	$10^{-5} < PFH < 10^{-4}$
1 (1 failure in 100 000 h)	$3 \times 10^{-6} < PFH < 10^{-5}$
1 (1 failure in 100 000 h)	$10^{-6} < PFH < 3 \times 10^{-6}$
2 (1 failure in 1000 000 h)	$10^{-7} < PFH < 10^{-6}$
3 (1 failure in 10 000 000 h)	$10^{-8} < PFH < 10^{-7}$

The calculated probability of failure (PFHD) of each SRECS must be less than the probability of failure required by the safety function. The required probability of failure, depending on the SIL, can be taken from the table. If this condition is not met, the safety function must be implemented differently. The achieved SIL can only be as high as the lowest SILCL (SIL Claim Limit) of a subsystem involved in performing the safety function.

Looking into the future of safety standards?

Safety is clearly of paramount importance and will be the overriding consideration. However, there are other benefits to early adoption of the new Machine Safety Directive. For example, compliance with the new Directive is likely to have broader acceptance throughout the European Union where machines may be moved between countries. Compliance is also likely to make CE marking more straight forward.

Mechan Controls

Mechan Controls was established in the early 1970's to design and manufacture non-contact machine guard safety switches for the harsh environments of the can making industry.

With the development of the first electronic non-contact safety switch in 1972, the company now has over 40 years of experience and tens of thousands of installations world-wide that prove the safety and reliability of Mechan safety systems.

With a dedicated technical team, Mechan Controls prides itself on its innovative approach to machine guard safety solutions, continuously developing new products and improving the existing range.

The range includes products that are suitable for use in all machine guarding environments and have been well tried and tested in various industries such as concrete block manufacturing with high levels of dirt, dust and vibration and food processing where high temperatures and high pressure wash down procedures are the norm.

To support our world-wide customer base, Mechan now has agents and distributors throughout the world and is able to provide bespoke solutions as well as the standard product range shown in this catalogue.

Anywhere there is a need for non-contact machine guard safety switches, Mechan Controls aims to provide the most reliable and therefore cost effective solution to your requirements.

Products

The growing demands for reliability and efficiency in the modern production environment have led to a large increase in the use of non-contact safety switches. Tolerance to misalignment and ease of installation, combined with an ability to cope with harsh conditions such as: wash-down procedures; concrete dust; machine swarf etc. non-contact safety switches are seen as one way to improve not only safety but also productivity.

Mechan Controls now manufactures a complete range of non-contact safety switches to suit nearly all environments.

From standard magnetic safety switches in both ABS and 316 Grade Stainless Steel, through coded magnetic safety switches complete with E'Stop control, right up to fully electronic safety switches with the option of up to 500,000 unique codes for the most secure systems.

The range of applications is endless and with ISO9000-2000,TUV and UL approvals Mechan Controls guarantees you peace of mind.

F-Series Electronic Safety System

F-Series

- CAT 4 SIL 3 PL-E Safety System
- Modular Control Unit
- Fully Electronic Safety Switches
- Monitor up to 30 Switches / E'Stops
- Unique Code Safety Switches (EN 14119 High Code)

Description

The F-SERIES, is the latest version of Mechan's unique electronic safety system which now has a record of over 30 YEARS reliability in all types of industrial applications.

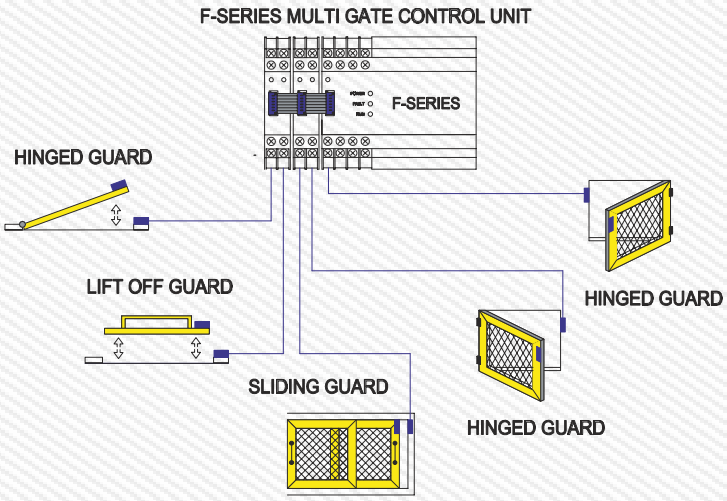
The DIN rail mounting safety control unit can monitor up to 30 Mechan Safety Switches and/or Emergency Stop Buttons in one system. The electronic non-contact safety switches are fully encapsulated, easy to install and tolerant to misalignment.

Together the switches and control module provide a safety system capable of meeting the requirements CAT 4 SIL 3 PL-e that can be used in the harshest environments, providing long term reliability.

Operation

The F-Series control modules are DIN rail mounted and connect together by the integral 6 way connector strap. Systems can be assembled to monitor up to 30 inputs (safety switches or emergency stop buttons) A typical system could monitor 7 guards and 4 emergency stop buttons each with individual indication for ease of monitoring.

The unique electronic non-contact safety switches connect to the control unit inputs using a simple twisted pair / screened cable. By using the unique Mechan dynamic signals to communicate between the control unit and the switch, the F Series system continuously monitors the whole system. Faults in the switch, cable or control unit are picked up immediately or on the next operation of the safety system to ensure a true CAT 4 SIL 3 performance.



Production lines need flexible solutions

Simple to install, tamper-proof, non-contact safety switches

Features

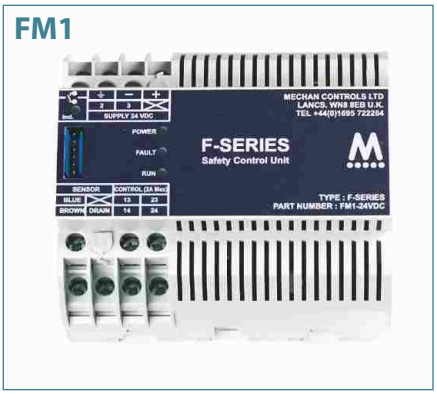
- Multi-gate monitoring
- Tamper-resistant safety switches
- Long term proven reliability
- Modular system
- Monitor up to 30 guards
- Guard status indication
- Simple to install and expand

Applications

- Food processing
- Dairies
- Bottling plants
- Pharmaceutical
- Concrete block/building material manufacture
- Multi-gate systems on large production lines

F-Series Safety Control Units

FM1



FX1

FX2

FM1

- Master Control Module
- 24V dc / 24V ac / 110V ac / 230V ac
- LED Diagnostics
- Dual Channel Output
- Automatic / Manual-Monitored Reset

The FM1 is the master control module for each F Series safety system. The FM1 provides 2 NO force guided contact safety outputs, internal and external relay monitoring circuit, LED system indication and the dynamic signal input for one Mechan safety switch sensor.

The FM1 can be ordered to operate with 24VDC, 24VAC, 110VAC or 230VAC supply.

FX1

- Single Gate Extender Module
- LED and Volt Free Contact Indication
- 35mm DIN Rail Mounting
- 17.5mm Width

The FX1 extender module adds one safety switch input to a F-Series safety system. Connects via a built in 6-way strap to the adjacent FM1 control module (or extender module) and has the indication output, LED and volt free contact, for that switch.

FX2

- Dual Safety Switch Extender Module
- LED and Volt Free Contact Indication
- 35mm DIN Rail Mounting
- 17.5mm Width

The FX2 extender module adds two safety switch inputs to a F-Series safety system. Connects via a built in 6-way strap to the adjacent FM1 control module (or extender module) and has the indication output, LED and volt free contact, for each switch.

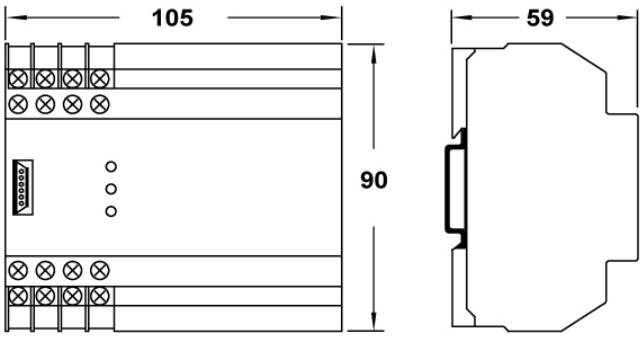
NOTE: An FX2 must have 2 Mechan safety switches connected to it to operate.

Examples of F-Series Safety System control unit combinations

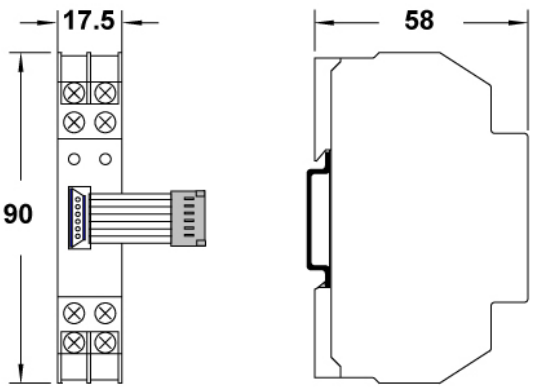
Number of Gates	FM1	FX1	FX2
2 Gate System	1	1	
5 Gate System	1		2
12 Gate System	1	1	5

System examples

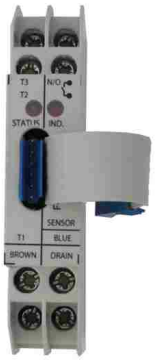
Dimensions: FM1



Dimensions: FX1 & FX2



F2HO



F2 Hand Override

- One Safety Switch Input
- Monitored 2 Button Input
- LED and Volt Free Contact Indication
- 35mm DIN Rail Mounting
- 17.5mm Width

The F2HO extender module provides the option of using a 2 button control station (not supplied) to override one Mechan safety switch in an F Series safety system.

Simple connection via a built in 6-way strap to the adjacent F Series module, the F2HO has the input for 1 Mechan safety switch and connections for the 2 Button override station. When fitted correctly the buttons can be used to override the Mechan switch connected to the F2HO. Both buttons need to be pressed to override the connected Mechan switch. Releasing either button activates the switch.

FLI

F Limited Inch

- One Safety Switch Input
- Monitored Limited Inch Button Input
- 2, 4 or 5secs Versions
- LED and Volt Free Contact Indication
- 35mm DIN Rail Mounting
- 17.5mm Width

The FLI extender module provides the option of using a Limited Inch Button (not supplied) to override one Mechan safety switch in an F Series safety system for a maximum set time.

Simple connection via a built in 6-way strap to the adjacent F Series module, the FLI has the input for 1 Mechan safety switch and connections for the Limited Inch Button. When fitted correctly the button can override the Mechan switch, connected to the FLI, for up to the maximum time allowed. Releasing the button or reaching the maximum allowed time activates the switch.

ESM

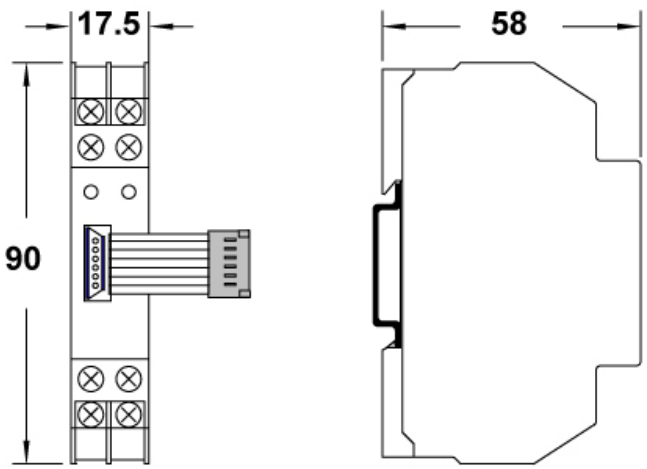
Emergency Stop Module

- Dual Channel Volt Free Contact Input
- Monitored Limited Inch Button Input
- LED and Volt Free Contact Indication
- 35mm DIN Rail Mounting
- 17.5mm Width

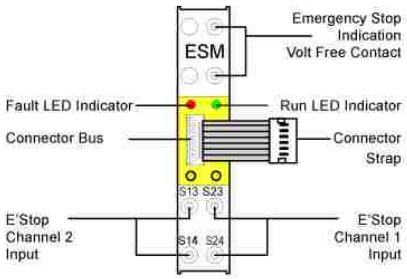
The ESM module gives the option to add Emergency Stop Buttons to the F-Series Safety System and maintain CAT4 SIL3 PLe performance.

The ESM connects via a built in 6-way strap to the adjacent F Series module and is a simple way to add Emergency Stop Buttons to an existing system. The ESM accepts 2 closed contact inputs from either an emergency stop button or mechanical safety switch (locking or non- locking) indicator. LED's on the ESM provide diagnostic information along with volt free contact status indicator for the emergency stop button.

Dimensions: F2HO / FLI / ESM



Layout: ESM



F-Series Safety Switches

FMA

FMA

- Electronic Safety Switch
- Fully Encapsulated, IP67
- Pre-wired, 5, 10, 15m Cable (max 100m)
- Built-in Liquid Tight Anaconda Adaptor

FMA electronic safety switches are part of our most robust design, with built in cable protection adaptors for the harshest environments.

Fully encapsulated into blue ABS housings, with 6mm fixing holes directly through the body of the switch and a consistent 10mm switching even when mounted on metal frames, the F-Type switches are easy to fit and offer exceptional physical strength for long term reliability.

FMG

FMG

- Electronic Safety Switch
- Fully Encapsulated, IP67
- Pre-wired, 5, 10, 15m Cable (max 100m)
- Built-in Cord Grip Gland

FMG electronic safety switches are part of our most robust design, with built in cable protection adaptors for the harshest environments.

Fully encapsulated into blue ABS housings, with 6mm fixing holes directly through the body of the switch and a consistent 10mm switching even when mounted on metal frames, the F-Type switches are easy to fit and offer exceptional physical strength for long term reliability.

FMT

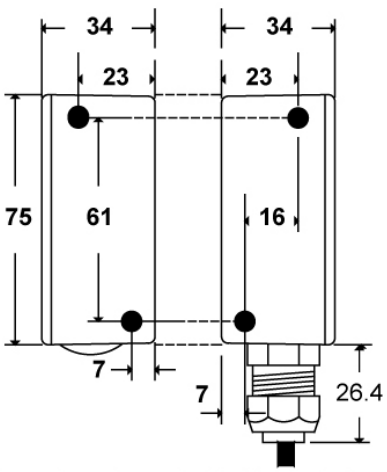
FMT

- Electronic Safety Switch
- Fully Encapsulated, IP67
- Pre-wired, 5, 10, 15m Cable (max 100m)
- Built in 20mm Brass Thread Conduit Gland

FMT electronic safety switches are part of our most robust design, with built in cable protection adaptors for the harshest environments.

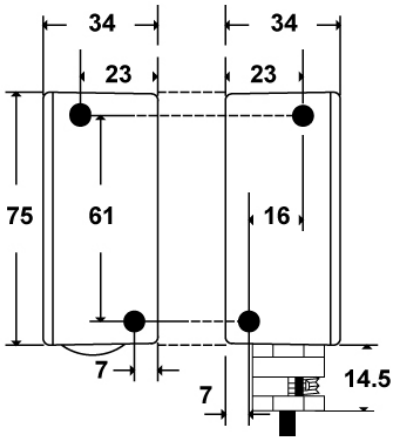
Fully encapsulated into blue ABS housings, with 6mm fixing holes directly through the body of the switch and a consistent 10mm switching even when mounted on metal frames, the F-Type switches are easy to fit and offer exceptional physical strength for long term reliability.

Dimensions: FMA



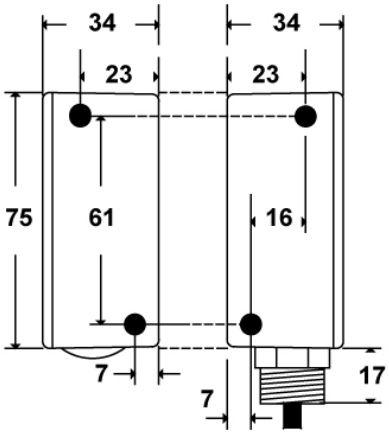
Dimension through the fixing holes 32mm.
Fixing hole diameter 6mm.

Dimensions: FMG



Dimension through the fixing holes 32mm.
Fixing hole diameter 6mm.

Dimensions: FMT



Dimension through the fixing holes 32mm.
Fixing hole diameter 6mm.

SFMA

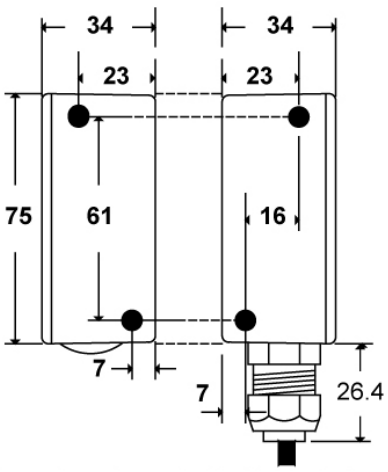
SFMA

- Electronic Safety Switch
- Enhanced EMC Immunity
- Fully Encapsulated, IP67
- Pre-wired, 5, 10, 15m Cable (max 100m)
- Built-in Liquid Tight Anaconda Adaptor

The SFMA electronic safety switches are the same robust design as the F-Type switches with additional protection for areas of high electronic noise pollution.

Fully encapsulated into white ABS housings, with 6mm fixing holes directly through the body of the switch and a consistent 10mm switching even when mounted on metal frames, the S-Type switches offer the same ease of fitting and long term reliability.

Dimensions: SFMA



Dimension through the fixing holes 32mm.
Fixing hole diameter 6mm.

SFMG

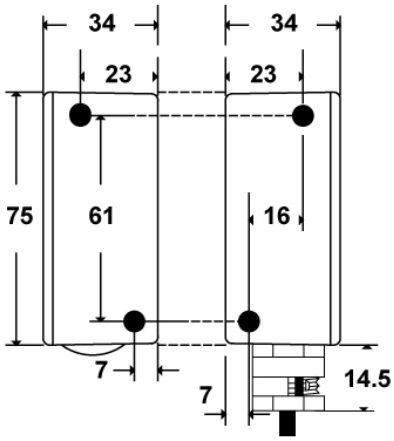
SFMG

- Electronic Safety Switch
- Enhanced EMC Immunity
- Fully Encapsulated, IP67
- Pre-wired, 5, 10, 15m Cable (max 100m)
- Built-in Cord Grip Gland

The SFMG electronic safety switches are the same robust design as the F-Type switches with additional protection for areas of high electronic noise pollution.

Fully encapsulated into white ABS housings, with 6mm fixing holes directly through the body of the switch and a consistent 10mm switching even when mounted on metal frames, the S-Type switches offer the same ease of fitting and long term reliability.

Dimensions: SFMG



Dimension through the fixing holes 32mm.
Fixing hole diameter 6mm.

SFMT

RMA

SFMT

- Electronic Safety Switch
- Enhanced EMC Immunity
- Fully Encapsulated, IP67
- Pre-wired, 5, 10, 15m Cable (max 100m)
- Built-in 20mm Brass Thread Conduit Gland

The SFMT electronic safety switches are the same robust design as the F-Type switches with additional protection for areas of high electronic noise pollution.

Fully encapsulated into white ABS housings, with 6mm fixing holes directly through the body of the switch and a consistent 10mm switching even when mounted on metal frames, the S-Type switches offer the same ease of fitting and long term reliability.

RMA

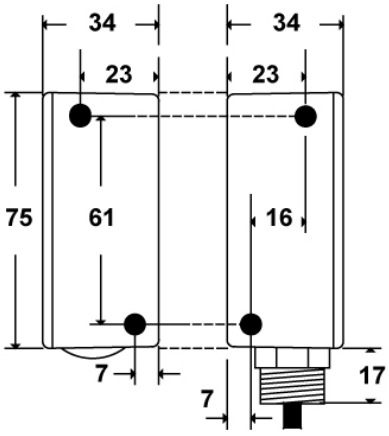
- Unique Code Electronic Safety Switch
- Fully Encapsulated, IP67
- Pre-wired, 5, 10, 15m Cable (max 100m)
- Built-in Liquid Tight Anaconda Adaptor
- Up to 2 Billion Codes
- Different Glands Available

The NEW RMA safety switches are uniquely coded electronic RFID safety switches.

Fully encapsulated into orange ABS housings the RMA safety switches have all the strengths of the F-Series switches with the additional benefit of unique coding.

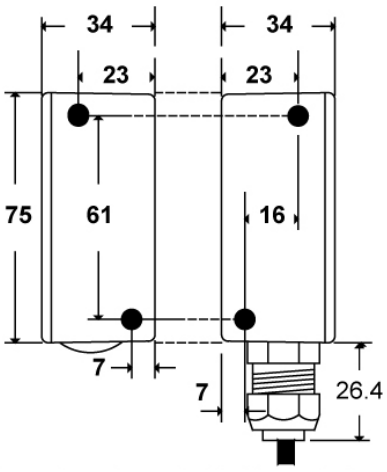
The R-Series meets the highest requirement of EN 14119, enabling unique switches to be mounted on every guarding position. The RMA can also be used along with the standard F-Type switches if only a few guards in the system need the additional security unique coding.

Dimensions: SFMT



Dimension through the fixing holes 32mm.
Fixing hole diameter 6mm.

Dimensions: RMA



Dimension through the fixing holes 32mm.
Fixing hole diameter 6mm.

FM6

FM7

BMS

BMR

FM6

- Electronic Safety Switch
- Fully Encapsulated, IP67
- Pre-wired, 5, 10, 15m Cable (max 100m)
- Slimline Housing for Retro-fit

The FM6 electronic safety switches have the same Mechan electronic safety switching fully encapsulated into industry standard slimline blue ABS housings.

Designed to make it even easier to upgrade from older magnetic safety switches to higher performance electronic switches, the FM6 can replace many standard safety switches without the need to change mounting brackets or fixing holes.

FM7

- Electronic Safety Switch
- Fully Encapsulated, IP67
- Pre-wired, 5, 10, 15m Cable (max 100m)
- 80mm Euro Standard Housing

The FM7 electronic safety switches have the same Mechan electronic safety switching fully encapsulated into industry standard 80mm Euro blue ABS housings.

Designed to make it even easier to upgrade from older magnetic safety switches to higher performance electronic switches, the FM7 can replace many standard safety switches without the need to change mounting brackets or fixing holes.

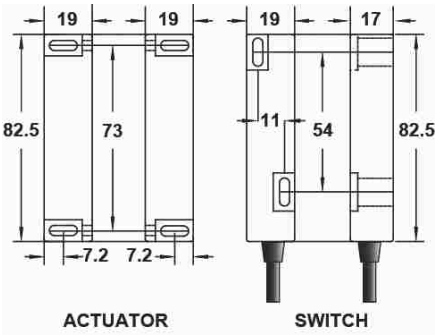
BMS / BMR

- Mid-sized Electronic Safety Switch
- Fully Encapsulated, IP67
- Pre-wired, 5, 10, 15m Cable (max 100m)
- Side / Rear Entry Cable

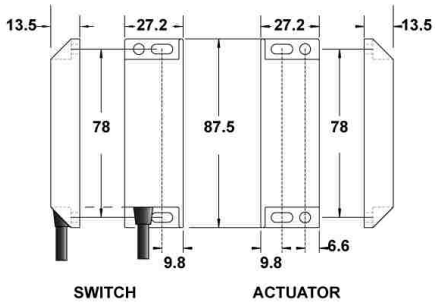
The BMR are mid-sized electronic switches with the same robust design features encapsulated in our 52x27x25 ABS housing. Ideal for use on a range of guarding where the compact design helps in hiding or mounting the switches.

With 4mm pre-drilled fixing holes directly through the body of the switch and a the same, consistent 10mm switching, even when mounted on metal frames, these B-Type switches offer easy fitting and long term reliability.

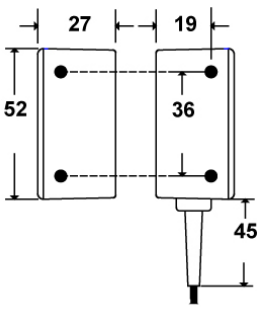
Dimensions: FM6



Dimensions: FM7

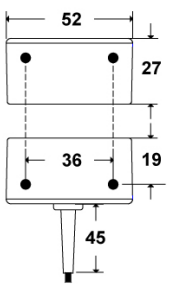


Dimensions: BMS



Dimension through the fixing holes 28mm.
Fixing hole diameter 4mm.

Dimensions: BMR



Dimension through the fixing holes 28mm.
Fixing hole diameter 4mm.

Our most robust design just got smaller!

DNK1-05M

DNK2-QD

DNK1-05M DINKY PRE-WIRED

- Smallest Electronic Safety Switch
- Fully Encapsulated, IP67
- Pre-wired, 5, 10, 15m Cable (max 100m)
- Uniquely Coded Available

The DNK1 electronic safety switches use the same electronic switching and robust design features encapsulated into our smallest ABS housing.

Ideal for use on lightweight guarding normally found on packing, filling and food processing machinery, the DNK switches offer the same long term reliability as the standard F-Series safety switches.

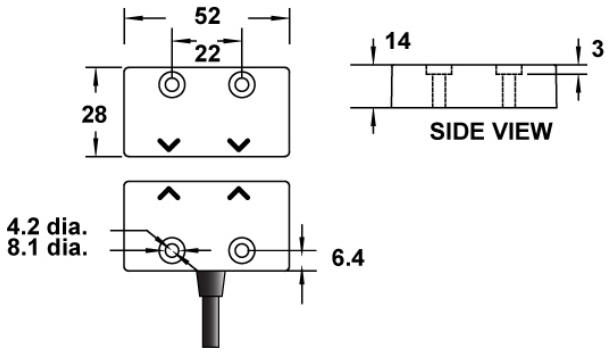
DNK2-QD DINKY QUICK DISCONNECT

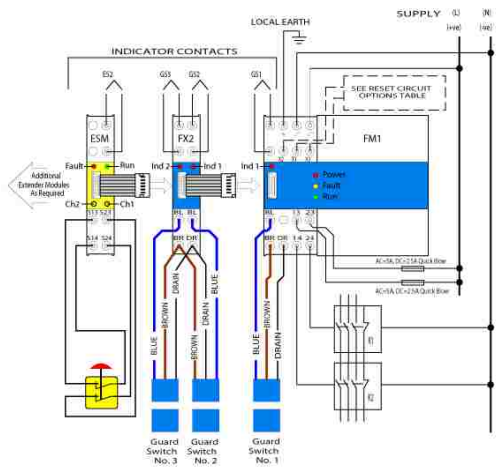
- Smallest Electronic Safety Switch
- Fully Encapsulated, IP67
- M8 Quick Disconnect
- 5 or 10m Cable
- Uniquely Coded Available

The DNK1 & DNK2 electronic safety switches use the same electronic switching and robust design features encapsulated into our smallest ABS housing.

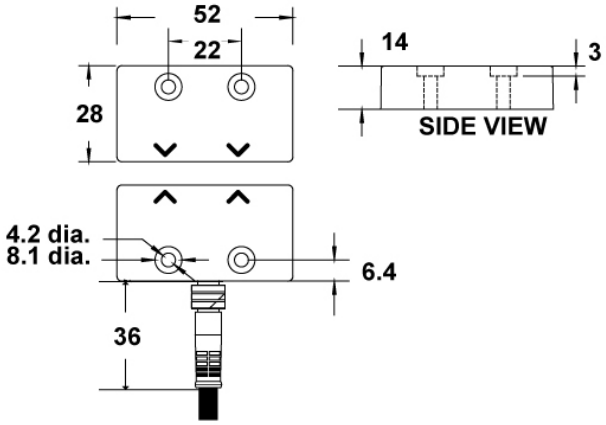
Ideal for use on light weight guarding normally found on packing, filling and food processing machinery, the DNK switches offer the same long term reliability as the standard F-Series safety switches.

Dimensions: DNK1-05M





Dimensions: DNK2-QD



The Mechan safety switch just got smaller again!

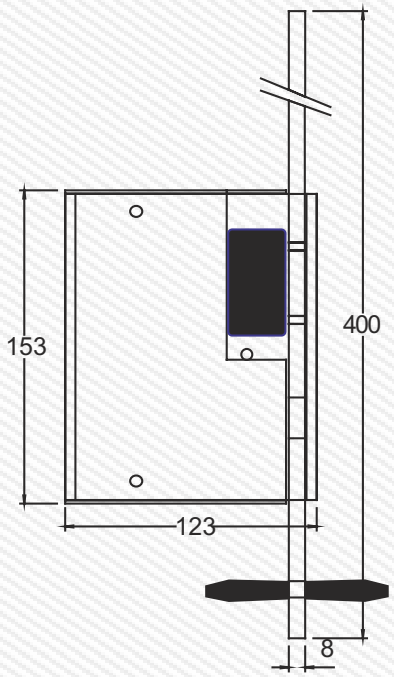
PLU

- Versions available for 'F' series Control Modules
- Compact, safe, simple to install
- Quick fit pneumatic connections
- Fail safe totally sealed cylinder
- Uniquely coded sensors available

Description

The Mechan PLU Air Operated Locking Unit is a complete, fail-safe system designed to lock a gate or access lid securely until it is safe to enter.

This can be determined either by a Motion Stop detector or a simple timer. It incorporates both a Bolt Position Sensor Switch and a Mechan Guard Switch to sense when the locking bar (not shown) is in position



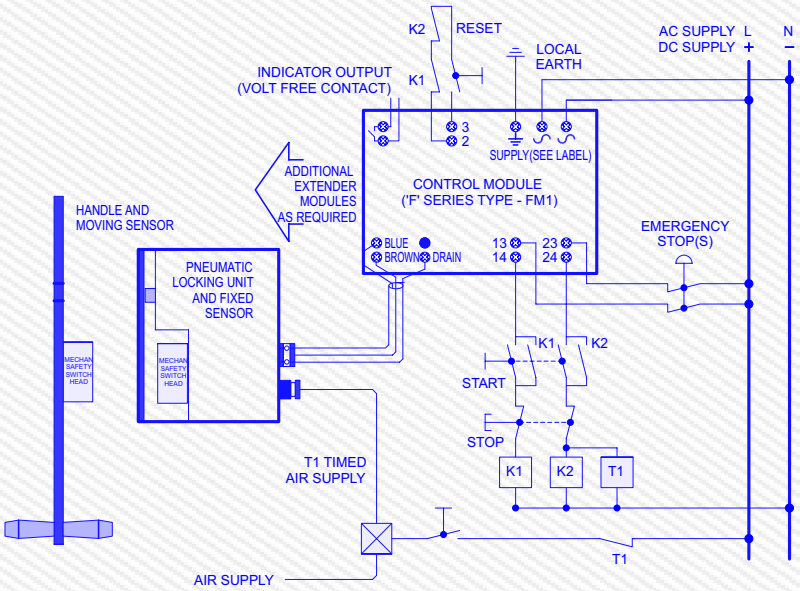
Operation

The Mechan Pneumatic Locking Unit (PLU) is connected to the Safety Switch Sensor input and a timed air supply as shown.

When the guard is closed, the Mechan Safety Switch Sensors are aligned and the pneumatic bolt fully extended locking the handle in position, the control module relays (13/14 and 23/24) can be energised by pressing the reset button.

When the timer relay T1 is energised the supply to the solenoid valve is removed and the solenoid bolt cannot be unlocked.

Pressing the stop button de-energises T1 and the air supply can be restored to the PLU via the time delay operated valve.



Robust pneumatic locking systems

Features

- Stainless steel housing
- Unique codes available
- Operator indication
- Wash down

Applications

- Food mixers
- Concrete block mixing
- Acoustic enclosures

Technical Specifications

	FM1	FX1	FX2	F2HO
Supply Voltage Options	24V DC / 24V AC / 110V AC / 230V AC	-	-	-
Power Consumption	6VA	3VA	3VA	-
Safety Output	2 NORMALLY OPEN	-	-	-
Safety Output Rating	4A/230V AC; 2A/24V DC (RES.) @COS=1	-	-	-
Cable/Connector	SCREW TERMINALS	SCREW TERMINALS	SCREW TERMINALS	SCREW TERMINALS
Cable Length	-	-	-	-
Coding	ELECTRONIC, GENERIC CODE	ELECTRONIC, GENERIC CODE	ELECTRONIC, GENERIC CODE	ELECTRONIC, GENERIC CODE
Input	1 ELECTRONIC SAFETY SWITCH	1 ELECTRONIC SAFETY SWITCH	2 ELECTRONIC SAFETY SWITCHES	1 ELECTRONIC SAFETY SWITCH + 2 HAND OVERRIDE
Reset Options	MANUAL / AUTOMATIC	-	-	-
Indication	LED'S FOR POWER, RUN & FAULT. GUARD STATUS LED	GUARD STATUS LED AND VOLT FREE CONTACT	2 x GUARD STATUS LED AND 2 x VOLT FREE CONTACT	GUARD STATUS LED AND VOLT FREE CONTACT
Dimensions of Switch (mm)	-	-	-	-
Dimensions of Actuator (mm)	-	-	-	-
Dimensions of Control Unit (mm)	105 x 90 x 59mm	17.5 x 90 x 58mm	17.5 x 90 x 58mm	17.5 x 90 x 58mm
Weight	DC = 290G AC = 420G	-	-	-
IP Rating	HOUSING IP30, TERMINALS IP20	HOUSING IP30, TERMINALS IP20	HOUSING IP30, TERMINALS IP20	HOUSING IP30, TERMINALS IP20
Construction	GREY PC-GF	GREY PC-GF	GREY PC-GF	GREY PC-GF
Mounting	35mm DIN RAIL	35mm DIN RAIL	35mm DIN RAIL	35mm DIN RAIL
Operating Temp.	0°C to 45°C	0°C to 45°C	0°C to 45°C	0°C to 45°C
Storage Temp.	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C

Safety Related Data

PL in Accordance with ENISO 13849-1	PL-E, CAT 4	PL-E, CAT 4	PL-E, CAT 4	-
SIL CL in Accordance with EN IEC 62061	SIL3	SIL3	SIL3	-
PFHD in Accordance with EN IEC 62061	6.0×10^{-9}	6.0×10^{-9}	6.0×10^{-9}	-
PFH	6.52×10^{-9}	6.52×10^{-9}	6.52×10^{-9}	-
B10D	2,000,000	2,000,000	2,000,000	-
MTTFD	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	-
TM	20 YEARS	20 YEARS	20 YEARS	-
DC	99%	99%	99%	-
SFF	99.50%	99.50%	99.50%	-

As part of an F Series system

Technical Specifications

	FLI	ESM	FMA / FMG / FMT	SFMA / SFMG / SFMT
Supply Voltage Options	-	FROM FM1	-	-
Power Consumption	-	-	-	-
Safety Output	-	-	-	-
Safety Output Rating	-	-	-	-
Cable/Connector	SCREW TERMINALS	SCREW TERMINALS	PRE-WIRED	PRE-WIRED
Cable Length	-	-	5, 10 or 15m LONGER TO ORDER	5, 10 or 15m LONGER TO ORDER
Coding	ELECTRONIC, GENERIC CODE	-	ELECTRONIC, GENERIC CODE	ELECTRONIC, GENERIC CODE
Input	1 ELECTRONIC SAFETY SWITCH + LIMITED INCH BUTTON	2 NORMALLY CLOSED -	-	-
Reset Options	-		AT CONTROL UNIT	AT CONTROL UNIT
Indication	GUARD STATUS LED AND VOLT FREE CONTACT	LEDs FOR FAULT, RUN, INPUT 1 AND 2	AT CONTROL UNIT	AT CONTROL UNIT
Dimensions of Switch (mm)	-	-	75 x 34 x 32mm	75 x 34 x 32mm
Dimensions of Actuator (mm)	-	-	75 x 34 x 32mm	75 x 34 x 32mm
Dimensions of Control Unit (mm)	17.5 x 90 x 58mm	17.5 x 90 x 58mm	-	-
Weight	-	-	-	-
IP Rating	HOUSING IP30, TERMINALS IP20	HOUSING IP30, TERMINALS IP20	IP67	IP67
Construction	GREY PC-GF	GREY PC-GF	BLUE ABS, RESIN FILLED	WHITE ABS, RESIN FILLED
Mounting	35mm DIN RAIL	35mm DIN RAIL	4 x M6 BOLTS	4 x M6 BOLTS
Operating Temp.	0°C to 45°C	0°C to 45°C	-25°C to 55°C	-25°C to 55°C
Storage Temp.	-20°C to 60°C	-20°C to 60°C	-25°C to 55°C	-25°C to 55°C

Safety Related Data

PL in Accordance with ENISO 13849-1	-	PL-E, CAT 4	PL-E, CAT 4	PL-E, CAT 4
SIL CL in Accordance with EN IEC 62061	-	SIL3	SIL3	SIL3
PFHD in Accordance with EN IEC 62061	-	6.0×10^{-9}	6.0×10^{-9}	6.0×10^{-9}
PFH	-	6.52×10^{-9}	6.52×10^{-9}	6.52×10^{-9}
B10D	-	2,000,000	2,000,000	2,000,000
MTTFD	-	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360days)
TM	-	20 YEARS	20 YEARS	20YEARS
DC	-	99%	99%	99%
SFF	-	99.50%	99.50%	99.50%
	As part of an F Series system	As part of an F Series system	As part of an F Series system	As part of an F Series system

Technical Specifications

	RMA	FM6	FM7	BMS
Supply Voltage Options	-	-	-	-
Power Consumption	-	-	-	-
Safety Output	-	-	-	-
Safety Output Rating	-	-	-	-
Cable/Connector	PRE-WIRED	PRE-WIRED	PRE-WIRED	PRE-WIRED
Cable Length	5, 10 or 15m LONGER TO ORDER	5, 10 or 15m LONGER TO ORDER	5, 10 or 15m LONGER TO ORDER	5, 10 or 15m LONGER TO ORDER
Coding	ELECTRONIC, UNIQUE CODE	ELECTRONIC, GENERIC CODE	ELECTRONIC, GENERIC CODE	ELECTRONIC, GENERIC CODE
Input	-	-	-	-
Reset Options	AT CONTROL UNIT	AT CONTROL UNIT	AT CONTROL UNIT	AT CONTROL UNIT
Indication	GUARD STATUS LED	AT CONTROL UNIT	AT CONTROL UNIT	AT CONTROL UNIT
Dimensions of Switch (mm)	75 x 34 x 32mm	82.5 x 19 x 17mm	78 x 27.2 x 13.5mm	52 x 27 x 28mm
Dimensions of Actuator (mm)	75 x 34 x 32mm	82.5 x 19 x 19mm	78 x 27.2 x 13.5mm	52 x 27 x 28mm
Dimensions of Control Unit (mm)	-	-	-	-
Weight	-	-	-	-
IP Rating	IP67	IP67	IP67	IP67
Construction	ORANGE ABS, RESIN FILLED	BLUE ABS, RESIN FILLED	BLUE ABS, RESIN FILLED	BLUE ABS, RESIN FILLED
Mounting	4 x M6 BOLTS	4 x M4 SECURITY SCREWS	4 x M4 SECURITY SCREWS	4 x M4
Operating Temp.	-20°C to 50°C	-20°C to 50°C	-20°C to 50°C	-25°C to 55°C
Storage Temp.	-20°C to 50°C	-20°C to 50°C	-20°C to 50°C	-25°C to 55°C

Safety Related Data

PL in Accordance with ENISO 13849-1	PL-E, CAT 4	PL-E, CAT 4	PL-E, CAT 4	PL-E, CAT 4
SIL CL in Accordance with EN IEC 62061	SIL3	SIL3	SIL3	SIL3
PFHD in Accordance with EN IEC 62061	6.0×10^{-9}	6.0×10^{-9}	6.0×10^{-9}	6.0×10^{-9}
PFH	6.52×10^{-9}	6.52×10^{-9}	6.52×10^{-9}	6.52×10^{-9}
B10D	2,000,000	2,000,000	2,000,000	2,000,000
MTTFD	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)
TM	20 YEARS	20 YEARS	20 YEARS	20 YEARS
DC	99%	99%	99%	99%
SFF	99.50%	99.50%	99.50%	99.50%
	As part of an F Series system	As part of an F Series system	As part of an F Series system	

Technical Specifications

	BMR	DNK1	DNK2	PLU
Supply Voltage Options	-	-	-	-
Power Consumption	-	-	-	-
Safety Output	-	-	-	AT CONTROL UNIT
Safety Output Rating	-	-	-	-
Cable/Connector	PRE-WIRED	PRE-WIRED	M8 QUICK DISCONNECT	PRE-WIRED
Cable Length	5, 10 or 15m LONGER TO ORDER	5, 10 or 15m LONGER TO ORDER	5 or 15m	5, 10 or 15m LONGER TO ORDER
Coding	ELECTRONIC, GENERIC CODE	ELECTRONIC, GENERIC CODE	ELECTRONIC, GENERIC CODE	ELECTRONIC, GENERIC CODE
Input	-	-	-	-
Reset Options	AT CONTROL UNIT	AT CONTROL UNIT	AT CONTROL UNIT	AT CONTROL UNIT
Indication	AT CONTROL UNIT	AT CONTROL UNIT	AT CONTROL UNIT	AT CONTROL UNIT
Dimensions of Switch (mm)	52 x 27 x 28mm	28 x 52 x 14mm	28 x 52 x 14mm	-
Dimensions of Actuator (mm)	52 x 27 x 28mm	28 x 52 x 14mm	28 x 52 x 14mm	-
Dimensions of Control Unit (mm)	-	-	-	SEE INSTALL GUIDE
Weight	-	-	-	-
IP Rating	IP67	IP67	IP67	IP67
Construction	BLUE ABS, RESIN FILLED	BLUE ABS, RESIN FILLED	BLUE ABS, RESIN FILLED	ALUMINIUM
Mounting	4 x M4	4 x M4 SECURITY SCREWS	4 x M4 SECURITY SCREWS	-
Operating Temp.	-25°C to 55°C	-25°C to 55°C	-25°C to 55°C	-
Storage Temp.	-25°C to 55°C	-25°C to 55°C	-25°C to 55°C	-

Safety Related Data

PL in Accordance with ENISO 13849-1	PL-E, CAT 4	PL-E, CAT 4	PL-E, CAT 4	-
SIL CL in Accordance with EN IEC 62061	SIL3	SIL3	SIL3	-
PFHD in Accordance with EN IEC 62061	6.0×10^{-9}	6.0×10^{-9}	6.0×10^{-9}	-
PFH	6.52×10^{-9}	6.52×10^{-9}	6.52×10^{-9}	-
B10D	2,000,000	2,000,000	2,000,000	-
MTTFD	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	-
TM	20 YEARS	20 YEARS	20 YEARS	-
DC	99%	99%	99%	-
SFF	99.50%	99.50%	99.50%	-
	As part of an F Series system	As part of an F Series system	As part of an F Series system	

EM1 Expandable Safety Relay

EM1

- CAT 4 SIL 3 PL-E Safety System
- Monitor up to 30 Emergency Stops / Switches
- Expandable Using ESM Module
- Guard Status Indication
- Advanced Fault Indication
- Eliminate Fault Masking
- Enhance Production
- No Programming Required

Description

The EM1 is designed to operate and monitor emergency stop buttons and any mechanical device with 2 normally closed outputs.

The EM1 can monitor individual E'stop devices via an ESM module up to 30 inputs.

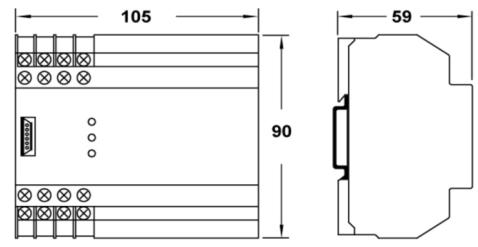
The EM1 is supplied with 24VDC as standard and features an internal resettable fuse.

The EM1 is perfect for anyone looking for a fully modular system that does not require programming. The EM1 is approved by TUV to CAT 4 SIL3 PLe.

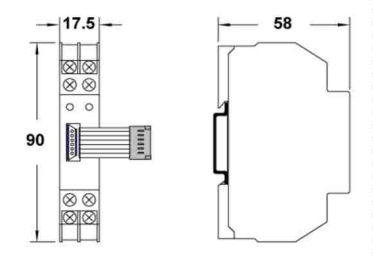
Operation

The EM1 control modules are DIN rail mounted and connected together by the integral 6-way connector strap. Systems can be assembled to monitors up to 30 inputs (emergency stops or any device with a 2 normally closed output). The EM1 features LED's for power, run and fault as well as guard status indication for easy operation. The EM1 also features both automatic and manual-monitored reset and internal and external relay monitoring circuit.

Dimensions: EM1



Dimensions: ESM



Features

- Multi-device monitoring
- Long term proven reliability
- Modular system
- Monitor up to 30 E'stops and/or switches
- Individual status indication
- Simple to install and expand

Applications

- Food processing
- Dairies
- Bottling plants
- Pharmaceutical
- Concrete block/building material manufacture
- Multi-gate systems on large production lines

SRL1

Safety Relay

- Safety Control Module
- 24Vac/dc Supply
- LED Diagnostics
- Dual Channel Output
- Automatic/Manual Monitored Reset

Description

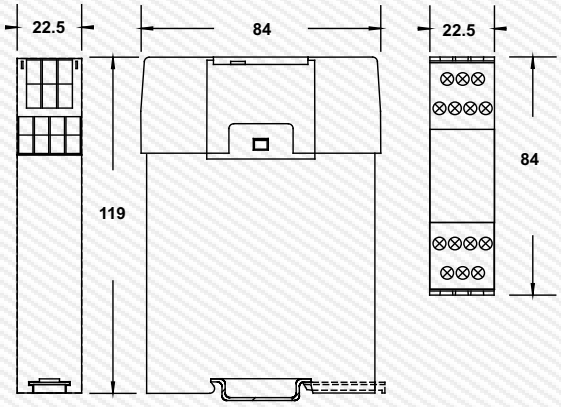
The SRL-1 Safety Relay has dual channel, low voltage inputs, two normally open control contact outputs and one normally closed indication contact.

With LED indication to speed up fault finding and a slim 22.5mm DIN rail mounting enclosure the SRL-1 takes up minimum control panel space.

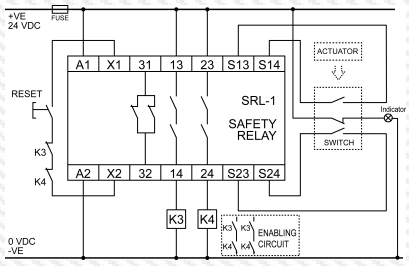
Designed for operation with the Mechan range of non-contact safety switches, the SRL-1 is also suitable for use with dual channel Emergency Stop buttons, or safety devices with 2 safety outputs e.g mechanical safety switches.

Depending on installation the SRL-1 can be used in CAT-4 / SIL 3 safety circuits.

Dimensions: SRL1



Connection: SRL1



Operation

POWER ON

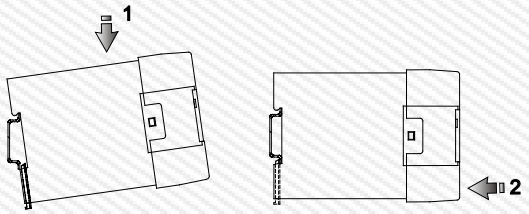
The SRL-1 Safety relay requires a 24Vdc or 24Vac power supply. When power is applied to the control unit POWER LED will be illuminated RED.

AUTOMATIC RESET

When the reset circuit X1/X2 is in automatic reset mode, closing the contacts on the input circuit S13/S14 and S23/S24 will illuminate the Green K1 and K2 LED's and energise the internal relays. The N/O outputs on terminals 13/14 and 23/24 will close and the N/C indication output on 31/32 will open.

MANUAL RESET

If the reset circuit is set to manual/monitored mode the outputs will only change when the input circuits are closed and the normally open, momentary reset button is operated.



The control modules are designed to be mounted in an IP55 (minimum) control cabinet.

The modules clip onto standard 35mm symmetric DIN-Rail.

Specifications

- Suitable for control circuits requiring CAT-4 / SIL 3 / PL-e performance
- Monitoring dual channel safety circuits including :
  Non-contact safety switches
  Mechanical safety switches
  Emergency stop buttons
  Light curtains

Technical Specifications

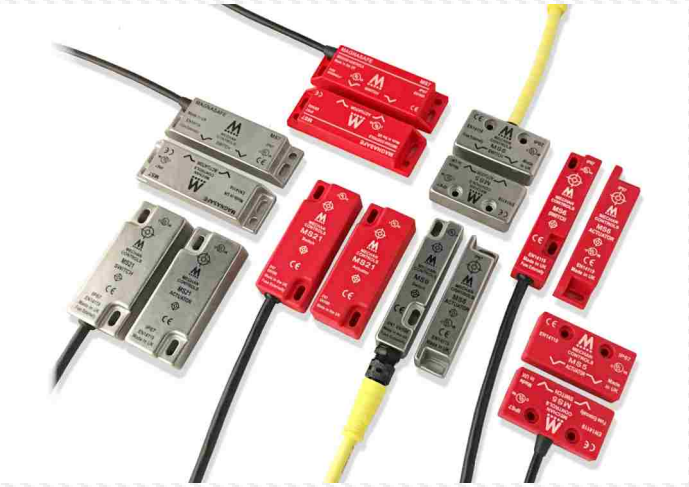
	EM1	SRL1
Supply Nominal Voltage	24V DC (+/-15%)	24V AC/DC (+/-15%)
Power Consumption	6VA	3VA
Safety Contacts	2 X NO	2 X NO
Auxiliary Contacts	1 X NC	1 X NC
Output Contact Rating (max)	4A / 230V AC; 2A / 24V DC (RES.)@COS=1	4A / 230V AC; 2A / 24V DC (RES.)@COS=1
Output Contact Rating (min)	10V / 10mA	10V / 10mA
Output Contact Fuse Rating	AC=5A; DC=2.5A; QUICK BLOW	AC=5A; DC=2.5A; QUICK BLOW
Drop Out Time	-	DEACTIVATION BY INPUTS, 13ms
Input	UP TO 30 ESM	UP TO 30 SAFETY SWITCHES
Reset Options	MANUAL / AUTOMATIC	MANUAL / AUTOMATIC
Max Conductor Size	2 x 1.5mm STRANDED W/SLEEVES, 2 x 2.5mm SOLID	1 x 2.5mm STRANDED W/SLEEVES, 1 x 4mm SOLID
Internal Fuse / Recovery Time	500mA RESETTABLE >2 secs	>2 secs
Indication	LED STATUS INDICATION	LED STATUS INDICATION
Enclosure Protection	HOUSING IP30, TERMINALS IP20	HOUSING IP40, TERMINALS IP20
Operating Temperature	0°C to 45°C (85% HUMIDITY MAX)	-10°C to 55°C
Storage Temperature	-20°C to 60°C	-20°C to 60°C
Mounting / Fixing	35mm SYMMETRIC DIN RAIL	35mm SYMMETRIC DIN RAIL

	ESM
Supply Voltage Options	FROM FM1
Power Consumption	-
Safety Output	-
Safety Output Rating	-
Cable/Connector	SCREW TERMINALS
Cable Length	-
Coding	-
Input	2 NORMALLY CLOSED -
Reset Options	
Indication	LEDs FOR FAULT, RUN, INPUT 1 AND 2
Weight	-
IP Rating	HOUSING IP30, TERMINALS IP20
Construction	GREY PC-GF
Mounting	35mm DIN RAIL
Operating Temp.	0°C to 45°C
Storage Temp.	-20°C to 60°C

Safety Related Data

PL in Accordance with ENISO 13849-1	PL-E, CAT 4	PL-E, CAT 4	PL-E, CAT 4
SIL CL in Accordance with EN IEC 62061	SIL 3	SIL 3	SIL 3
PFHD in Accordance with EN IEC 62061	6.0×10^{-9}	3.42×10^{-9}	6.0×10^{-9}
PFH	6.52×10^{-9}	4.43×10^{-9}	6.52×10^{-9}
B10D	2,000,000	2,000,000	2,000,000
MTTFD	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)
TM	>20 YEARS	>20 YEARS	>20 YEARS
DC	99%	96.5%	99%
SFF	99.5%	98.2%	99.5%

MAGNASAFE Magnetic Safety System



MAGNASAFE

Listed IND.CONT.EQ 2HAO

- Non-contact Operation
- IP67 Fully Sealed, Washdown
- ABS or Stainless Steel
- Max 2A Switching Capability
- Large Range of Sizes / Fittings
- Quick Disconnect Options

Description

The Mechan MAGNASAFE switches are magnetically operated safety switches. Easy to install and maintain, the MAGNASAFE switches are fully encapsulated non-contact switches ideal for long term for use in harsh / wet environments.

Available in a wide variety of sizes and contact configurations, MAGNASAFE switches are suitable for machine guarding applications where guard locking is not required.

Tolerant to misalignment, the MAGNASAFE range of non-contact safety switches are suitable for use in wash-down areas making them ideal for use in the food processing / filling and packing industries as well as many other non-locking machine guard applications.

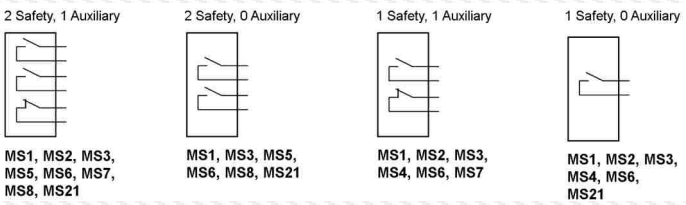
Operation

The Mechan MAGNASAFE safety switches are magnetically operated. When the actuator is within the operating range of the switch the Normally Open safety contacts will close and the Normally Closed indicator contacts will open. When the actuator is moved outside the operating area of the switch the Normally Open contacts will open and the Normally Closed contacts will close for indication.

Advantages

- AC and DC Versions
- 8-10mm Switching Distance
- 1 or 2 Safety Contacts
- Guard Indication Contact Available
- M18 or M30 Barrel Mounting Option
- 316 Stainless Steel Available Option
- Compliant with Relevant EU Directives

Contact Options



Simple to install non-contact safety switches

Features

- Ease of installation
- Tolerant to misalignment
- IP67 suitable for wet and wash-down areas
- Guard status indication available

Applications

- Food processing
- Dairies
- Packaging machinery
- Bottling plants
- Pharmaceutical

MS5 / MS5-SS

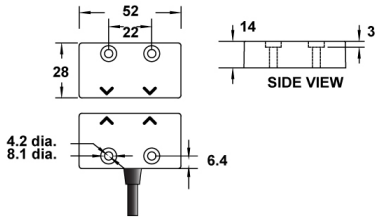
MS5 / MS5-SS

- Max Contacts 2 Safety 1 Auxiliary
- Contact Rating 0.3Amp / 24VDC
- Min 7mm Switching (10mm MS5-SS)
- Compact Housing / Stainless Steel Housing, 22mm Fixing
- Fully Sealed IP67

The MAGNASAFE MS5 are compact, non-contact safety switches designed for use with modern safety relays. Encapsulated into red ABS or 316 grade stainless steel housings, the MS5 safety switches are easy to install, tolerant to misalignment.

The non-contact operation has an 7–10mm switching distance helping to ensure a long and trouble free operating life.

Dimensions: MS5



MS5-SS-HT

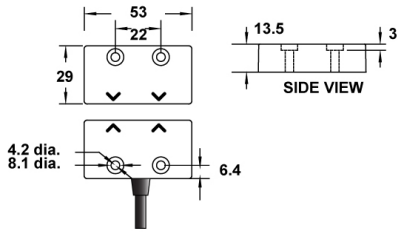
MS5-SS-HT

- Max Contacts 2 Safety 1 Auxiliary
- Contact Rating 0.3Amp 24VDC
- 125°C Operating Temp
- 10mm Switching
- Compact Stainless Steel Housing, 22mm Fixing
- Fully Sealed IP67

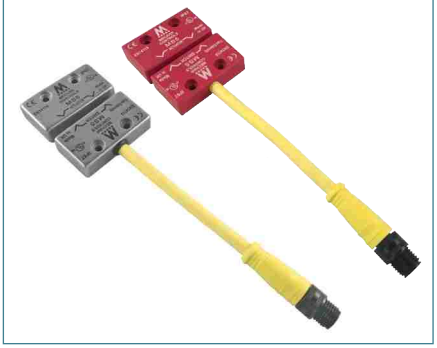
The MAGNASAFE MS5-SS-HT is a compact, non-contact safety switches designed for use with modern safety relays. Encapsulated into 316 grade stainless steel housings, the MS5-SS-HT are equipped with a special cable for use in high temperature environments, eg cooking / food processing.

The non-contact operation has a 7–10mm switching distance helping to ensure a long and trouble free operating life.

Dimensions: MS5-SS / MS5-SS-HT



MS5-LQD / MS5-SS-LQD



MS5-LQD / MS5-SS-LQD

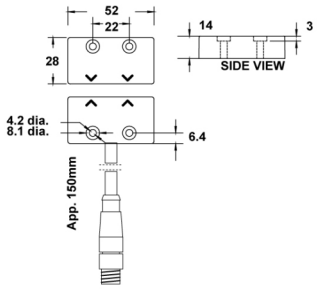
- Max Contacts 2 Safety 1 Auxiliary
- Contact Rating 0.3Amp 24VDC
- Min 7mm Switching
- Compact Housing, 22mm Fixing
- M12 Connector

The MAGNASAFE MS5-LQD are compact, non-contact safety switches designed for use with modern safety relays. Encapsulated into red ABS housings, the MS5 safety switches are easy to install, tolerant to misalignment.

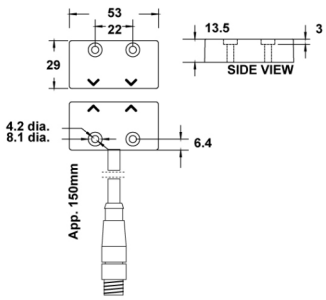
The non-contact operation has an 7–10mm switching distance helping to ensure a long and trouble free operating life.

The LQD version has 150mm connecting cable with M12, 6 pole connector, and can be supplied with 5 or 10 metre matching cable.

Dimensions: MS5-LQD



Dimensions: MS5-SS-LQD



Magnasafe safety switches can approach each other from most directions.

When closed the targets printed on the front face of the switches must be aligned.

Check out our installation instructions for further information at www.mechancontrols.com.

MS6 / MS6-SS

MS6-SS-HT

MS6-QD / MS6-SS-QD

MS6 / MS6-SS

- Max Contacts 2 Safety 1 Auxiliary
- Contact Rating 2Amp 230VAC / 1Amp 24VDC
- Pre-wired 3, 6 or 10metre (Longer available to order)
- 10mm Switching
- Slimline ABS or Steel Housing, Fully Sealed IP67

The MAGNASAFE MS6 non-contact safety switches are an industry standard, slimline, space saving design. Encapsulated into red ABS or 316 grade stainless steel housings, the MS6 safety switches are easy to install, tolerant to misalignment.

The non-contact operation has a 10mm switching distance helping to ensure a long and trouble free operating life.

MS6-SS-HT

- Max Contacts 2 Safety 1 Auxiliary
- Contact Rating 2Amp 230VAC / 1Amp 24VDC
- Temperature range -25°C to +125°C
- Pre-wired 3, 6 or 10metre (Longer available to order)
- 10mm Switching
- Slimline Stainless Steel Housing, Fully Sealed IP67

The MAGNASAFE MS6 non-contact safety switches are an industry standard, slimline, space saving design. Encapsulated into 316 grade stainless steel housings, the MS6 safety switches are easy to install, tolerant to misalignment.

The non-contact operation has a 10mm switching distance helping to ensure a long and trouble free operating life.

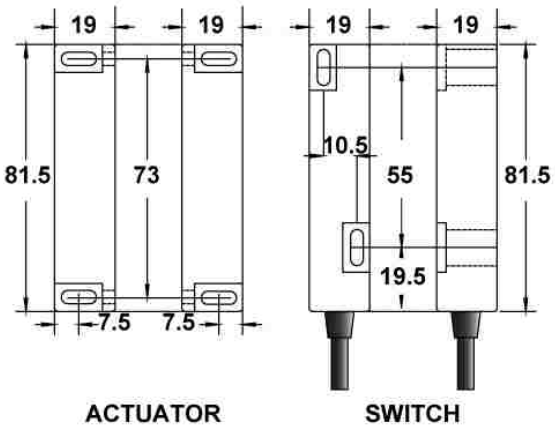
MS6-QD

- Max Contacts 2 Safety 1 Auxiliary
- Contact Rating 2Amp 230VAC / 1Amp 24VDC
- M12 Quick Disconnect
- 10mm Switching
- Slimline ABS or Steel Housing, Fully Sealed IP67

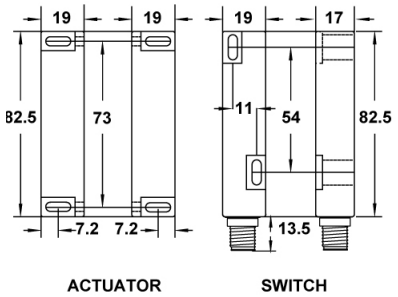
The MAGNASAFE MS6 non-contact safety switches are an industry standard, slimline, space saving design. Encapsulated into red ABS or 316 grade stainless steel housings, the MS6 safety switches are easy to install, tolerant to misalignment.

The non-contact operation has an 8–10mm switching distance helping to ensure a long and trouble free operating life.

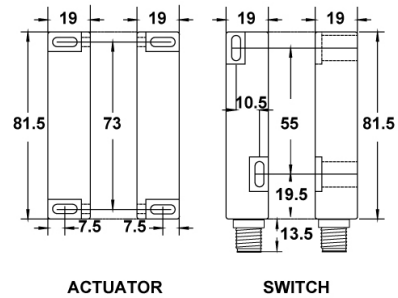
Dimensions: MS6 / MS6-SS / MS6-SS-HT



Dimensions: MS6-QD



Dimensions: MS6-SS-QD



MAGNASAFE Safety Switches

MS7

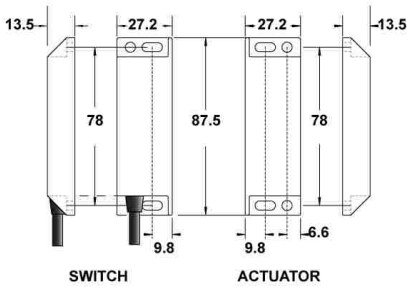
MS7

- Max Contacts 2 Safety 1 Auxiliary
- Contact Rating 0.3Amp 24VDC
- 7mm Switching
- ABS Euro Standard Housing
- Fully Sealed IP67

The MAGNASAFE MS7 safety switches are tamper resistant magnetic safety switches suitable for use in machine guarding applications. Encapsulated into red ABS housings, the MS7 safety switches are easy to install, tolerant to misalignment.

The magnetic non-contact operation has a minimum 7mm switching distance helping to ensure a long and trouble free operating life.

Dimensions: MS7



MS7-SS

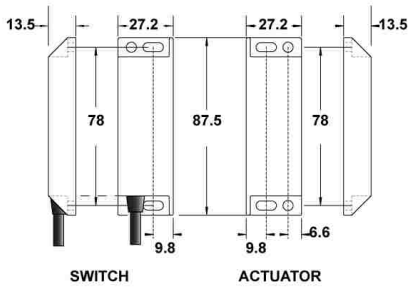
MS7-SS

- Max Contacts 2 Safety 1 Auxiliary
- Contact Rating 0.3Amp 24VDC
- 7mm Switching
- Stainless Steel Euro Standard Housing
- Fully Sealed IP67

The MAGNASAFE MS7 safety switches are tamper resistant magnetic safety switches suitable for use in machine guarding applications. Encapsulated into 361 Grade stainless steel housings, the MS7 safety switches are easy to install, tolerant to misalignment.

The magnetic non-contact operation has a minimum 7mm switching distance helping to ensure a long and trouble free operating life.

Dimensions: MS7-SS



MS7-LQD

MS7-LQD

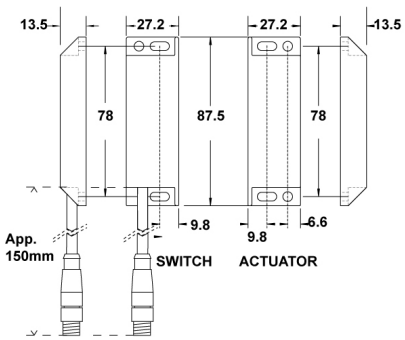
- Max Contacts 2 Safety 1 Auxiliary
- Contact Rating 0.3Amp 24VDC
- Min 7mm Switching
- Compact Housing, 22mm Fixing
- M12 Connector

The MAGNASAFE MS7-LQD are compact, non-contact safety switches designed for use with modern safety relays. Encapsulated into red ABS housings, the MS7 safety switches are easy to install, tolerant to misalignment.

The non-contact operation has a 7–10mm switching distance helping to ensure a long and trouble free operating life.

The LQD version has 150mm connecting cable with M12, 6 pole connector, and can be supplied with 5 or 10metre matching cable.

Dimensions: MS7-LQD



MAGNASAFE Safety Switches

MS8

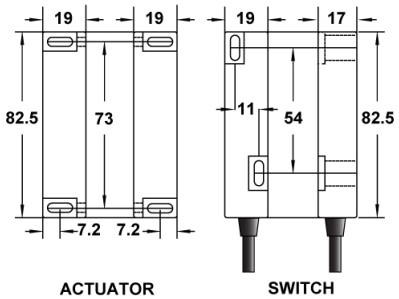
MS8

- Max Contacts 2 Safety 1 Auxiliary
- Contact Rating 0.3Amp 24VDC
- 15-25mm Switching
- 3 Operating Faces
- ABS Slimline Housing
- Fully Sealed IP67

The MAGNASAFE MS8 non-contact safety switches are an industry standard, slim-line, space saving housing made from Red ABS. Fully encapsulated, the MS8 safety switches have been designed with a larger than standard switching distance to ensure easy to install, tolerant to misalignment.

The non-contact operation has a 15–25mm switching distance helping to ensure a long and trouble free operating life where guarding alignment is an issue.

Dimensions: MS8



MS8-SS

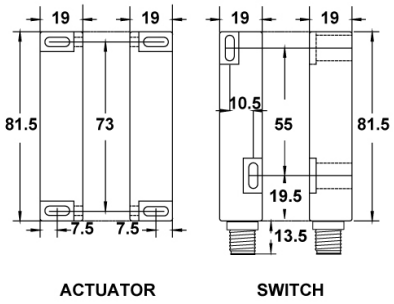
MS8-SS

- Max Contacts 2 Safety 1 Auxiliary
- Contact Rating 0.3Amp 24VDC
- 15-25mm Switching
- 3 Operating Faces
- Stainless Steel Slimline Housing
- Fully Sealed IP67

The MAGNASAFE MS8-SS non-contact safety switches are an industry standard, slim-line, space saving housing made from 316 Grade Stainless Steel. Fully Encapsulated, the MS8 safety switches have been designed with a larger than standard switching distance to ensure easy to install, tolerant to misalignment.

The non-contact operation has a 15–25mm switching distance helping to ensure a long and trouble free operating life where guarding alignment is an issue.

Dimensions: MS8-SS



MS8-SS-QD

MS8-SS-QD

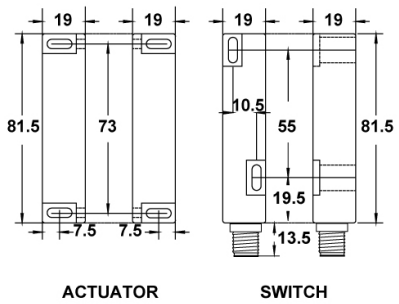
- Max Contacts 2 Safety 1 Auxiliary
- Contact Rating 0.3Amp 24VDC
- 15-25mm Switching
- 3 Operating Faces
- Stainless Steel Slimline Housing
- M12 Connector

The MAGNASAFE MS8-SS-QD non-contact safety switches are an industry standard, slim-line, space saving housing made from 316 Grade Stainless Steel. Fully Encapsulated, the MS8 safety switches have been designed with a larger than standard switching distance to ensure easy to install, tolerant to misalignment.

The non-contact operation has a 15–25mm switching distance helping to ensure a long and trouble free operating life where guarding alignment is an issue.

The QD version has 150mm connecting cable with M12, 6 pole connector, and can be supplied with 5 or 10 metre matching cable

Dimensions: MS8-SS-QD



MAGNASAFE Safety Switches

MS21

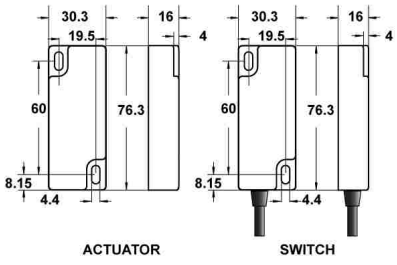
MS21

- Max Contacts 2 Safety 1 Auxiliary
- Contact Rating 2Amp 230VAC / 1Amp 24VDC
- Pre-wired 3, 6 or 10metre (Longer available to order)
- 10mm Switching
- ABS Housing, Fully Sealed IP67

The MAGNASAFE MS21 safety switches are fully encapsulated into an ABS wide bodied housing.

The MS21 safety switches are easy to install, tolerant to misalignment and the non-contact operation has a 10mm switching distance helping to ensure a long and trouble free operating life.

Dimensions: MS21



MS21-SS

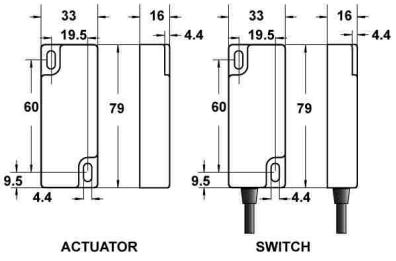
MS21-SS

- Max Contacts 2 Safety 1 Auxiliary
- Contact Rating 2Amp 230VAC / 1Amp 24VDC
- Pre-wired 3, 6 or 10 metre (Longer available to order)
- 10mm Switching
- Slimline Stainless Steel Housing,
- Fully Sealed IP67

The MAGNASAFE MS21 safety switches are fully encapsulated into a 316 Grade stainless steel wide bodied housing.

The MS21 safety switches are easy to install, tolerant to misalignment and the non-contact operation has a 10mm switching distance helping to ensure a long and trouble free operating life.

Dimensions: MS21-SS



MS21-QD / MS21-SS-QD

MS21-QD / MS21-SS-QD

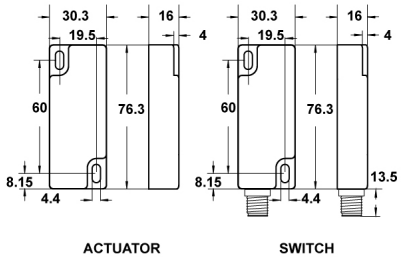
- Max Contacts 2 Safety 1 Auxiliary
- Contact Rating 0.3Amp 24VDC
- 15mm Switching
- 3 Operating Faces
- ABS / 316 Grade Stainless Steel, Wide Bodied Housing
- M12 Connector

The MAGNASAFE MS21-QD non-contact safety switches are an industry standard, ABS wide bodied housing. Fully encapsulated, the MS21 safety switches have been designed with a larger than standard switching distance to ensure easy to install, tolerant to misalignment.

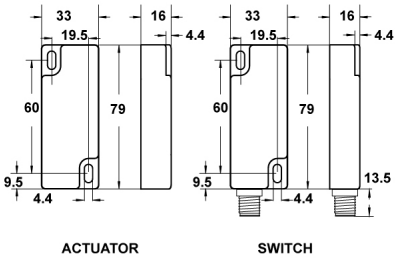
The non-contact operation has a 15–25mm switching distance helping to ensure a long and trouble free operating life where guarding alignment is an issue.

The QD version has an M12, 6 pole connector, and can be supplied with 5 or 10 metre matching cable.

Dimensions: MS21-QD



Dimensions: MS21-SS-QD



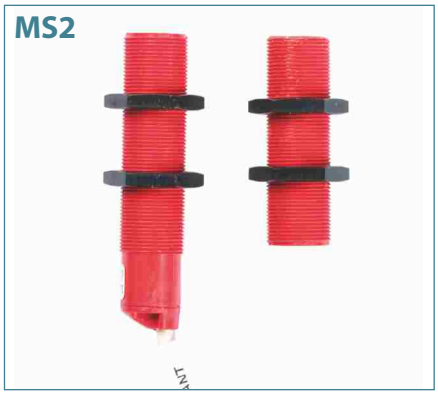
MAGNASAFE Safety Switches

MS1

- Max Contacts 2 Safety 1 Auxiliary
- Contact Rating 2Amp 230VAC / 1Amp 24VDC (3A 110VAC Version Available)
- 10mm Switching
- Fully Sealed IP67

The MAGNASAFE MS1 are magnetically operated safety switches, suitable for use in machine guarding applications. Encapsulated into red ABS housings, the MS1 safety switches are easy to install, tolerant to misalignment.

With an 8–10mm switching distance helping to ensure a long and trouble free operating life.



MS2

- Max Contacts 1 Safety 1 Auxiliary
- Contact Rating 2Amp 230VAC / 1Amp 24VDC
- 10mm Switching
- M18 Housing
- Fully Sealed IP67
- Armoured Cable Option

The MAGNASAFE MS2 are 'barrel' mounted, magnetically operated safety switches. Encapsulated into M18 dia. housings, these safety switches are easy to install, and adjust and are tolerant to misalignment.

With an 10mm switching distance helping to ensure a long and trouble free operating life.

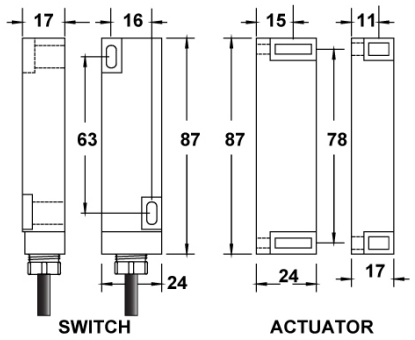
MS3

- Max Contacts 2 Safety 1 Auxiliary
- Contact Rating 2Amp 230VAC / 1Amp 24VDC
- 10mm Switching
- M30 Housing
- Fully Sealed IP67

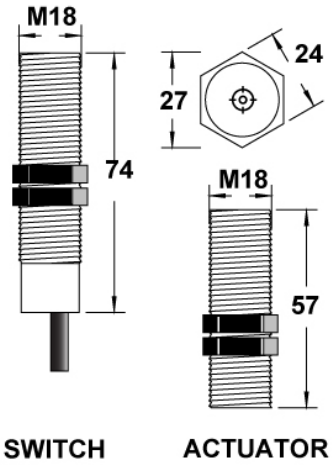
The MAGNASAFE MS3 are 'barrel' mounted magnetically operated safety switches. Encapsulated into M30 dia. housings, these safety switches are easy to install, and adjust and are tolerant to misalignment.

With a 10mm switching distance helping to ensure a long and trouble free operating life.

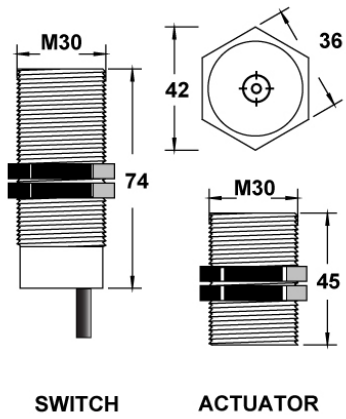
Dimensions: MS1



Dimensions: MS2



Dimensions: MS3



MS4

MS4-SS

MS4

- Max Contacts 1 Safety 1 Auxiliary
- Contact Rating 2Amp 110VAC / 1Amp 24VDC
- 10mm Switching
- Compact Housing, 22mm Fixing
- Fully Sealed IP67

The MAGNASAFE MS4 are magnetically operated safety switches, suitable for use in machine guarding applications.

Encapsulated into red ABS housings, the MS4 safety switches have a 10 mm switching distance, are easy to install and tolerant to misalignment, ensuring a long and trouble free operating life.

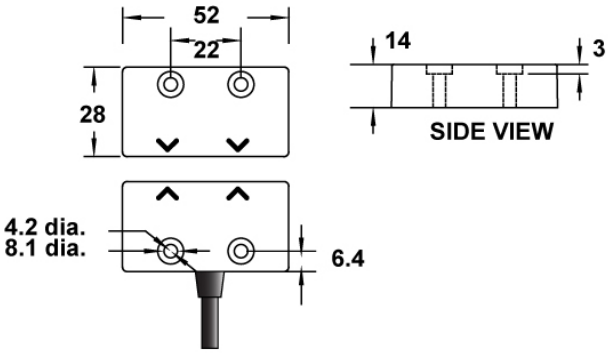
MS4-SS

- Max Contacts 1 Safety 1 Auxiliary
- Contact Rating 1Amp 24VDC
- 10mm Switching
- Compact Stainless Steel Housing, 22mm Fixing
- Fully Sealed IP67

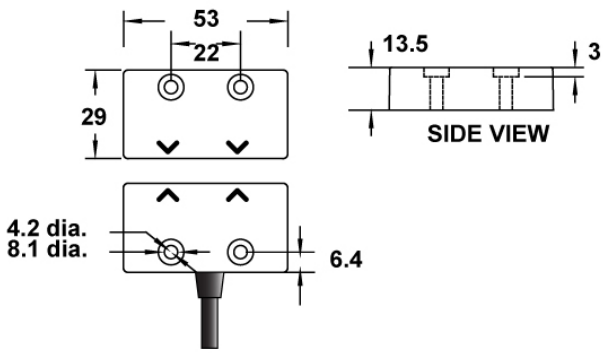
The MAGNASAFE MS4 are magnetically operated safety switches, suitable for use in machine guarding applications.

Encapsulated into a 316 grade stainless steel housing, the MS4 safety switches have an 8mm switching distance, are easy to install and tolerant to misalignment, ensuring a long and trouble free operating life.

Dimensions: MS4



Dimensions: MS4-SS



A small switch with large current capabilities!

Technical Specifications

	MS1	MS2	MS3	MS4 / MS4-SS	MS5 / MS5-SS
Supply Voltage Options	-	-	-	-	-
Power Consumption	-	-	-	-	-
Auxiliary Output Rating	15W / 10V AC	15W / 10V AC	15W / 10V AC	15W / 10V AC	15W / 10V AC
Auxiliary Output	UP TO 1 X NC	UP TO 1 X NC	UP TO 1 X NC	UP TO 1 X NC	UP TO 1 X NC
Safety Output	UP TO 2 X NO	1 X NO	1 X NO	1 X NO	UP TO 2 X NO
Safety Output Rating	230V AC / 2Amps or 30V DC / 1 Amp INDUCTIVE / RESISTIVE	230V AC / 2Amps or 30V DC / 1 Amp INDUCTIVE / RESISTIVE	230V AC / 2Amps or 30V DC / 1 Amp INDUCTIVE / RESISTIVE	230V AC / 2Amps or 30V DC / 1 Amp INDUCTIVE / RESISTIVE	24V DC / 300MA
Cable Connector	PRE-WIRED	PRE-WIRED	PRE-WIRED	PRE-WIRED	PRE-WIRED
Cable Length	3, 6 or 10m	3m - LONGER MADE TO ORDER	3, 6 or 10m	3, 6 or 10m	3, 6 or 10m
Coding	NONE	NONE	NONE	NONE	TAMPER RESISTANT
Input	MAGNETIC	MAGNETIC	MAGNETIC	MAGNETIC	MAGNETIC
Reset Options	-	-	-	-	-
Indication	-	-	-	-	-
Dimensions of Switch (mm)	87 x 24 x 17mm	M18 x 74mm	M30 x 74mm	52 x 28 x 14mm	52 x 28 x14mm / 53x 29 x 13.5mm
Dimensions of Actuator (mm)	87 x 24 x 17mm	M18 x 57mm	M30 x 45mm	52 x 28 x 14mm	52 x 28 x14mm / 53x 29 x 13.5mm
Dimensions of Controls Unit (mm)	-	-	-	-	-
Weight	-	-	-	-	-
IP Rating	IP67	IP67	IP67	IP67	IP67
Construction	RED ABS, RESIN FILLED	RED ABS, RESIN FILLED	RED ABS, RESIN FILLED	RED ABS / 316 GRADE STAINLESS STEEL, RESIN FILLED	RED ABS / 316 GRADE STAINLESS STEEL, RESIN FILLED
Mounting	4 x M4 SECURITY SCREWS	4 x M4 SECURITY SCREWS	4 x M4 SECURITY SCREWS	4 x M4 SECURITY SCREWS	4 x M4 SECURITY SCREWS
Operating Temp.	-10°C to 55°C	-10°C to 55°C	-10°C to 55°C	-10°C to 55°C	-10°C to 55°C
Storage Temp.	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C

Safety Related Data

PL in Accordance with ENISO 13849-1	PL-E, CAT 3	PL-E, CAT 3	PL-E, CAT 3	PL-E, CAT 3	PL-E, CAT 3
SIL CL in Accordance with EN IEC 62061	SIL 3	SIL 3	SIL 3	SIL 3	SIL 3
PFHD in Accordance with EN IEC 62061	4.3×10^{-8}	4.3×10^{-8}	4.3×10^{-8}	4.3×10^{-8}	4.3×10^{-8}
PFH	6.52×10^{-8}	6.52×10^{-8}	6.52×10^{-8}	6.52×10^{-8}	6.52×10^{-8}
B10D	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
MTTFD	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)
TM	20 YEARS	20 YEARS	20 YEARS	20 YEARS	20 YEARS
DC	99%	99%	99%	99%	99%
SFF	98%	98%	98%	98%	98%

Technical Specifications

	MS5-LQD / MS5-SS-LQD	MS5-SS-HT	MS6 / MS6-SS	MS6-QD / MS6-SS-QD	MS6-SS-HT
Supply Voltage Options	-	-	-	-	-
Power Consumption	-	-	-	-	-
Auxiliary Output Rating	15W / 10V AC	15W / 10V AC	15W / 10V AC	15W / 10V AC	15W / 10V AC
Auxiliary Output	UP TO 1 X NC	UP TO 1 X NC	UP TO 1 X NC	UP TO 1 X NC	UP TO 1 X NC
Safety Output	UP TO 2 X NO	UP TO 2 X NO	UP TO 2 X NO	UP TO 2 X NO	UP TO 2 X NO
Safety Output Rating	24V DC / 300mA	24V DC / 300mA	230V AC / 2Amps or 110V DC / 3 Amps or 24V DC / 1 Amp	230V AC / 2Amps or 110V DC / 3 Amps or 24V DC / 1 Amp	230V AC / 2Amps or 110V DC / 3 Amps or 24V DC / 1 Amp
Cable Connector	LEADED QUICK DISCONNECT	PRE-WIRED	PRE-WIRED	QUICK DISCONNECT	PRE-WIRED
Cable Length	0, 5 or 10m	5 or 10m	3, 6 or 10m	0, 3, 6 or 10m	5 or 10m
Coding	TAMPER RESISTANT	TAMPER RESISTANT	NONE	NONE	NONE
Input	MAGNETIC	MAGNETIC	MAGNETIC	MAGNETIC	MAGNETIC
Reset Options	-	-	-	-	-
Indication	-	-	-	-	-
Dimensions of Switch (mm)	52 x 28 x 14mm / 53 x 29 x 13.5mm	53 x 29 x 13.5mm	82.5 x 19 x 17mm / 81.5 x 19 x 19mm	82.5 x 19 x 17mm / 81.5 x 19 x 19mm	81.5 x 19 x 19mm
Dimensions of Actuator (mm)	52 x 28 x 14mm / 53 x 29 x 13.5mm	53 x 29 x 13.5mm	82.5 x 19 x 17mm / 81.5 x 19 x 19mm	82.5 x 19 x 17mm / 81.5 x 19 x 19mm	81.5 x 19 x 19mm
Dimensions of Controls Unit (mm)	-	-	-	-	-
Weight	-	-	-	-	-
IP Rating	IP67	IP67	IP67	IP67	IP67
Construction	RED ABS / 316 GRADE STAINLESS STEEL, RESIN FILLED	316 GRADE STAINLESS STEEL, RESIN FILLED	RED ABS / 316 GRADE STAINLESS STEEL, RESIN FILLED	RED ABS / 316 GRADE STAINLESS STEEL, RESIN FILLED	316 GRADE STAINLESS STEEL, RESIN FILLED
Mounting	4 x M4 SECURITY SCREWS	4 x M4 SECURITY SCREWS	4 x M4 SECURITY SCREWS	4 x M4 SECURITY SCREWS	4 x M4 SECURITY SCREWS
Operating Temp.	-10°C to 55°C	-25°C to 125°C	-10°C to 55°C	-10°C to 55°C	-25°C to 125°C
Storage Temp.	-20°C to 60°C	-25°C to 125°C	-20°C to 60°C	-20°C to 60°C	-25°C to 125°C

Safety Related Data

PL in Accordance with ENISO 13849-1	PL-E, CAT 3	PL-E, CAT 3	PL-E, CAT 3	PL-E, CAT 3	PL-E, CAT 3
SIL CL in Accordance with EN IEC 62061	SIL 3	SIL 3	SIL 3	SIL 3	SIL 3
PFHD in Accordance with EN IEC 62061	4.3×10^{-8}	4.3×10^{-8}	4.3×10^{-8}	4.3×10^{-8}	4.3×10^{-8}
PFH	6.52×10^{-8}	6.52×10^{-8}	6.52×10^{-8}	6.52×10^{-8}	6.52×10^{-8}
B10D	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
MTTFD	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)
TM	20 YEARS	20 YEARS	20 YEARS	20 YEARS	20 YEARS
DC	99%	99%	99%	99%	99%
SFF	98%	98%	98%	98%	98%

Technical Specifications

	MS7 / MS7-SS	MS7-LQD	MS8 / MS8-SS	MS8- SS-QD	MS21 / MS21-SS
Supply Voltage Options	-	-	-	-	-
Power Consumption	-	-	-	-	-
Auxiliary Output Rating	15W / 10V AC	15W / 10V AC	15W / 10V AC	15W / 10V AC	15W / 10V AC
Auxiliary Output	UP TO 1 X NC	UP TO 1 X NC	UP TO 1 X NC	UP TO 1 X NC	UP TO 1 X NC
Safety Output	UP TO 2 X NO	UP TO 2 X NO	UP TO 2 X NO	UP TO 2 X NO	UP TO 2 X NO
Safety Output Rating	24V DC / 300MA	24V DC / 300MA	24V DC / 400MA	24V DC / 400MA	230V AC / 2Amps or 24V DC / 1 Amp
Cable Connector	PRE-WIRED	LEADED QUICK DISCONNECT	PRE-WIRED	QUICK DISCONNECT	PRE-WIRED
Cable Length	3, 6 or 10m	0, 5or 10m	3 or 6m	0, 5or 10m	3, 6 or 10m
Coding	TAMPER RESISTANT	TAMPER RESISTANT	NONE	NONE	NONE
Input	MAGNETIC	MAGNETIC	MAGNETIC	MAGNETIC	MAGNETIC
Reset Options	-	-	-	-	-
Indication	-	-	-	-	-
Dimensions of Switch (mm)	87.5 x 27.2 x 13.5mm	87.5 x 27.2 x 13.5mm	81.5 x 19 x 19mm	81.5 x 19 x 19mm	76.3 x 30.3 x 16mm / 79 x 33 x 16mm
Dimensions of Actuator (mm)	87.5 x 27.2 x 13.5mm	87.5 x 27.2 x 13.5mm	81.5 x 19 x 19mm	81.5 x 19 x 19mm	76.3 x 30.3 x 16mm / 79 x 33 x 16mm
Dimensions of Controls Unit (mm)	-	-	-	-	-
Weight	-	-	-	-	-
IP Rating	IP67	IP67	IP67	IP67	IP67
Construction	RED ABS / 316 GRADE STAINLESS STEEL, RESIN FILLED	RED ABS, RESIN FILLED	RED ABS / 316 GRADE STAINLESS STEEL, RESIN FILLED	316 GRADE STAINLESS STEEL, RESIN FILLED	RED ABS / 316 GRADE STAINLESS STEEL, RESIN FILLED
Mounting	4 x M4 SECURITY SCREWS	4 x M4 SECURITY SCREWS	4 x M4 SECURITY SCREWS	4 x M4 SECURITY SCREWS	4 x M4 SECURITY SCREWS
Operating Temp.	-25°C to 55°C	-25°C to 55°C	-10°C to 55°C	-10°C to 55°C	-10°C to 55°C
Storage Temp.	-25°C to 60°C	-25°C to 60°C	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C

Safety Related Data

PL in Accordance with ENISO 13849-1	PL-E, CAT 3	PL-E, CAT 3	PL-E, CAT 3	PL-E, CAT 3	PL-E, CAT 3
SIL CL in Accordance with EN IEC 62061	SIL 3	SIL 3	SIL 3	SIL 3	SIL 3
PFHD in Accordance with EN IEC 62061	4.3×10^{-8}	4.3×10^{-8}	4.3×10^{-8}	4.3×10^{-8}	4.3×10^{-8}
PFH	6.52×10^{-8}	6.52×10^{-8}	6.52×10^{-8}	6.52×10^{-8}	6.52×10^{-8}
B10D	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
MTTFD	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)
TM	20 YEARS	20 YEARS	20 YEARS	20 YEARS	20 YEARS
DC	99%	99%	99%	99%	99%
SFF	98%	98%	98%	98%	98%

Technical Specifications

	MS21-QD / MS21-SS-QD
Supply Voltage Options	-
Power Consumption	-
Auxiliary Output Rating	15W / 10V AC
Auxiliary Output	UP TO 1 X NC
Safety Output	UP TO 2 X NO
Safety Output Rating	230V AC / 2Amps or 24V DC / 1 Amp
Cable Connector	QUICK DISCONNECT
Cable Length	0,5 or 10m
Coding	NONE
Input	MAGNETIC
Reset Options	-
Indication	-
Dimensions of Switch (mm)	76.3 x 30.3 x 16mm / 79 x 33 x 16mm
Dimensions of Actuator (mm)	76.3 x 30.3 x 16mm / 79 x 33 x 16mm
Dimensions of Controls Unit (mm)	-
Weight	-
IP Rating	IP67
Construction	RED ABS / 316 GRADE STAINLESS STEEL, RESIN FILLED
Mounting	4 x M4 SECURITY SCREWS
Operating Temp.	-10°C to 55°C
Storage Temp.	-20°C to 60°C

Safety Related Data

PL in Accordance with ENISO 13849-1	PL-E, CAT 3
SIL CL in Accordance with EN IEC 62061	SIL 3
PFHD in Accordance with EN IEC 62061	4.3×10^{-8}
PFH	6.52×10^{-8}
B10D	2,000,000
MTTFD	HIGH>100 YEARS (based on usage rate of 360 days)
TM	20 YEARS
DC	99%
SFF	98%

HE-Series

Listed IND.CONT.EQ 2HAO

- Cat 4 Sil 3 PL-E Safety System
- Solid State Coded Magnetic Switches
- Dual Colour Indication on the Switch
- Unique Double Door Safety Switches
- Standalone Safety Switches
- Can Be Sold as a System with the SCU

Description

The Mechan HE-Series is a coded magnetic safety system.

Made up of a slimline Safety Control Unit and fully encapsulated solid state safety switches.

The HE-Series is designed to combine the ease of use and maintenance of a simple magnetic safety switch along with the improved security, performance levels and indication of Mechan's electronic switching.

The fully encapsulated HE switches withstand vibration, wash down and most harsh environments, making them ideal for use in the food processing / filling and packing industries as well as many other non-locking machine guard applications.

Applications

- Food processing
- Dairies
- Bottling plants
- Pharmaceutical
- Concrete block/building material manufacture

Features

- Shock proof
- Tamper-resistant
- IP67
- Quick disconnect option
- Guard status indication
- Easy to install

Operation

CONTROL MODULE

The SCU-1 is a 22.5mm wide, DIN rail mounting safety control unit, tested and approved by TUV to work with the HE-Series safety switches.

Operating voltage is 24V AC/DC the SCU-1 has 2 NO + 1 NC outputs rated at 4A/230V AC or 2A 24V DC. With switch selectable manual or automatic reset function, and LED indication of Power and each input channel the SCU-1 is a simple control unit link into your existing safety system

SAFETY SWITCHES

The HE safety switches are fully encapsulated into a variety of shapes and sizes, in either ABS or 316 grade stainless steel housings, helping to make installation on all types of guarding systems / applications as easy as possible. The unique HED dual switch, capable of monitoring 2 doors with one switch makes monitoring double doors even easier.

The HE safety switches have a coded magnetic input ensuring the switch cannot be overridden by a simple magnet / piece of metal / screwdriver etc and 8–10 mm switching distance makes the HE safety switches easy to install, tolerant to misalignment and providing a long and trouble free operating life.

Each switch has up to 2 x N/O + 1 N/C bi-directional solid state outputs. The electronic activation of all three contacts simultaneously eliminates the problem of 'lockout' and ensures the correct operation of the safety circuits every time.

The HE switches have built in dual colour LED indicators for easy identification of switch status and fault diagnostics.

When installed and power is applied, and the switch and actuator are within the specified operating range, the N/O Outputs will be closed, the N/C Output will be open. When the actuator moves out of the operating range, the N/O Outputs will open, the N/C Output will close.

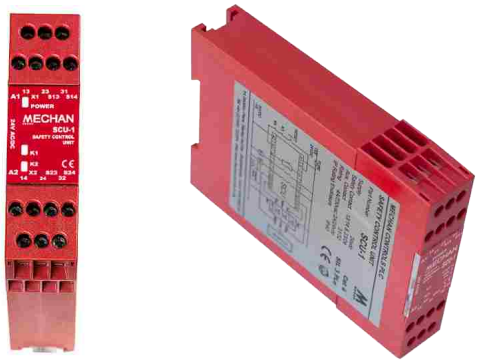
The HE safety switches are available with a pre-wired 3/5 or 10m cable. Longer cables can be ordered if required. Some versions are available with an M12 Leaded Quick Disconnect option.

The HE safety switches have been designed to connect to the SCU-1 Safety Control Unit but can also work with other safety relay products.

(Please check input specification first)

HE-Series Control Module

SCU

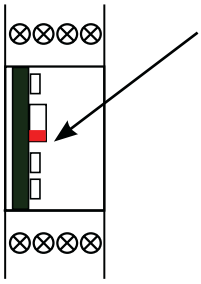


- CAT 4 SIL 3 PL-E
- Safety Control Unit
- 24Vac/dc Supply
- LED Diagnostics
- Dual Channel Output
- Automatic/Manual Monitored Reset

SCU

The SCU is the control unit for the HE Series safety switches. The SCU provides 2 NO force guided contact safety outputs, internal and external relay monitoring circuit, LED system indication.

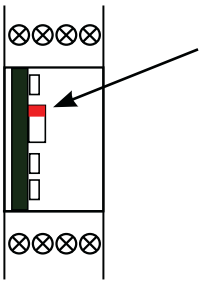
The SCU requires 24V AC/DC power supply and has 2 NO safety contact outputs capable of switching up to 4Amps @ 230V AC.



MANUAL RESET

Internal switch is set to the LOWER position.

Circuit X1/X2 requires a momentary N/O button to initialise rest.



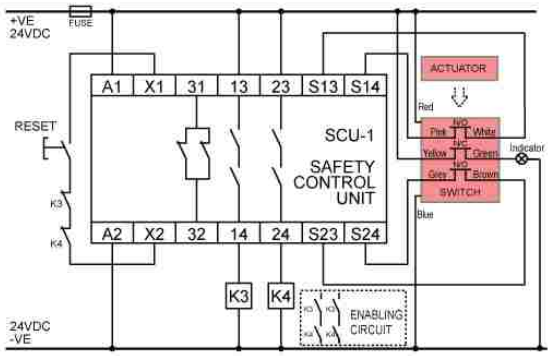
AUTOMATIC RESET

Internal switch is set to the UPPER position.

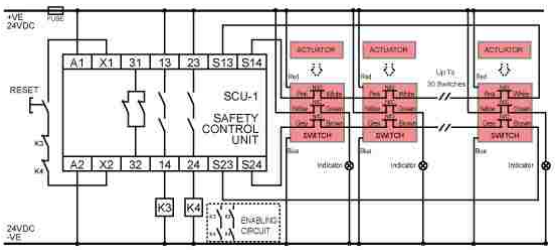
Circuit X1/X2 requires a link.

Closed contacts on K3 and K4 can still be monitored.

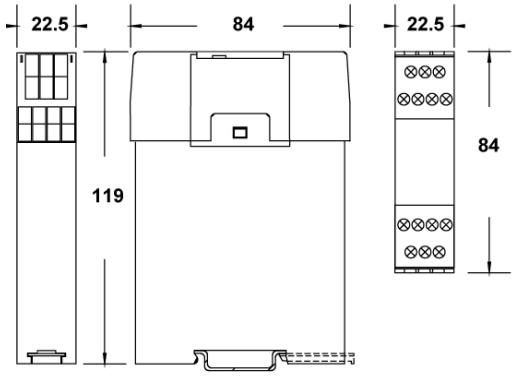
SCU CONNECTION DRAWING 1

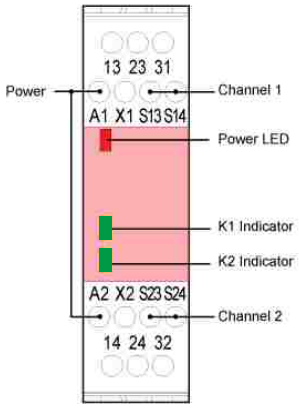


SCU CONNECTION DRAWING 2



Dimensions: SCU





HE1 / HE1-SS

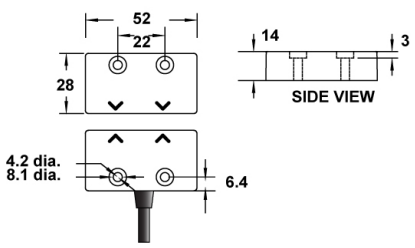
HE1 / HE1-SS

- Coded Magnetic Operation
- ABS or Stainless Steel Housing
- 2 Normally Open + 1 Normally Closed Output
- Solid State Bi-directional Outputs
- 24V DC Operation
- LED Indication

The HE safety switches have up to 2 x N/O + 1 N/C bidirectional solid state outputs along with a built in LED(s) for indication. When installed on a machine guard, power is applied, and the switch and actuator are within the specified operating range, the N/O Outputs will be closed, the N/C Output will be open.

The HE safety switches are fully encapsulated into an ABS housing and are available with 5, 10 or 15m pre-wired cable. With a 7mm switching distance the actuator can approach the switch from most angles. When the switch is closed the targets on the printed face of the switch must be aligned.

Dimensions: HE1 / HE1-SS



HE2 / HE2-SS

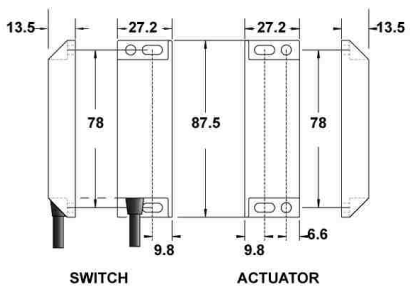
HE2 / HE2-SS

- Coded Magnetic Operation
- ABS or Stainless Steel Housing
- 2 Normally Open + 1 Normally Closed Output
- Solid State Bi-directional Outputs
- 24V DC Operation
- LED Indication

The HE safety switches have up to 2 x N/O + 1 N/C bidirectional solid state outputs along with a built in LED(s) for indication. When installed on a machine guard, power is applied, and the switch and actuator are within the specified operating range, the N/O Outputs will be closed, the N/C Output will be open.

The HE safety switches are fully encapsulated into an ABS housing and are available with 5, 10 or 15m pre-wired cable. With a 7mm switching distance the actuator can approach the switch from most angles. When the switch is closed the targets on the printed face of the switch must be aligned.

Dimensions: HE2 / HE2-SS



HE2-SS-LQD

HE2-SS-LQD

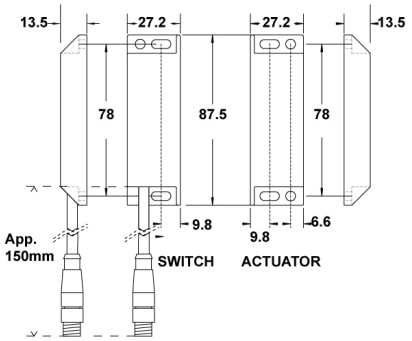
- Coded Magnetic Operation
- Stainless Steel Housing
- 2 Normally Open + 1 Normally Closed Output
- Solid State Bi-directional Outputs
- 24V DC Operation
- LED Indication
- M12 Leaded Quick Disconnect

The HE safety switches have up to 2 x N/O + 1 N/C bidirectional solid state outputs along with a built in LED(s) for indication. When installed on a machine guard, power is applied, and the switch and actuator are within the specified operating range, the N/O Outputs will be closed, the N/C Output will be open.

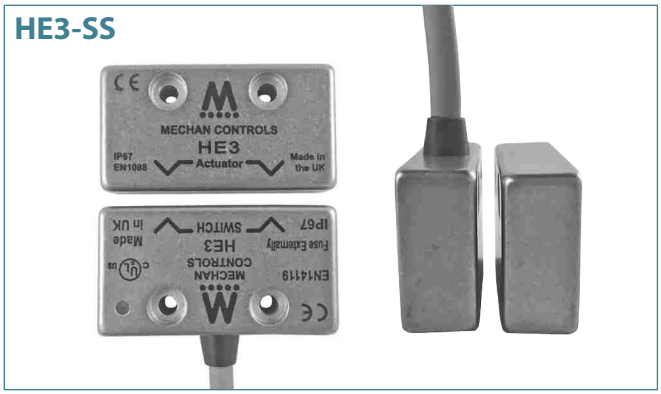
The HE safety switches are fully encapsulated into a 316 Grade stainless steel housing. The LQD version is supplied with a M12 leaded connector and a 5 or 10m cable.

With a 7mm switching distance the actuator can approach the switch from most angles. When the switch is closed the targets on the printed face of the switch must be aligned.

Dimensions: HE2-SS-LQD



HE3-SS



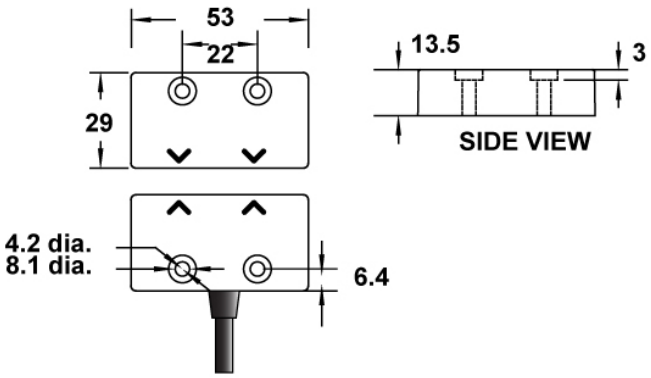
HE3-SS

- Coded Magnetic Operation
- ABS or Stainless Steel Housing
- 2 Normally Open + 1 Normally Closed Output
- Solid State Bi-directional Outputs
- 24V DC Operation
- LED Indication
- Face-to-Face Switch Operation

The HE safety switches have up to 2 x N/O + 1 N/C bidirectional solid state outputs along with a built in LED(s) for indication. When installed on a machine guard, power is applied, and the switch and actuator are within the specified operating range, the N/O Outputs will be closed, the N/C Output will be open.

The HE safety switches are fully encapsulated into a 316 grade stainless steel housing and available with 5, 10 or 15m pre-wired cable. With a 7mm switching distance the actuator can approach the switch from most angles. When the switch is closed the targets on the printed face of the switch must be aligned.

Dimensions: HE3-SS



HE4 / HE4-SS

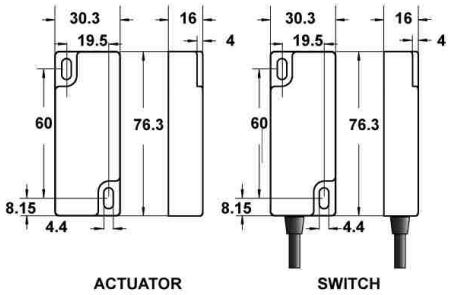
HE4 / HE4-SS

- Coded Magnetic Operation
- ABS or Stainless Steel Housing
- 2 Normally Open + 1 Normally Closed Output
- Solid State Bi-directional Outputs
- 24V DC Operation
- LED Indication

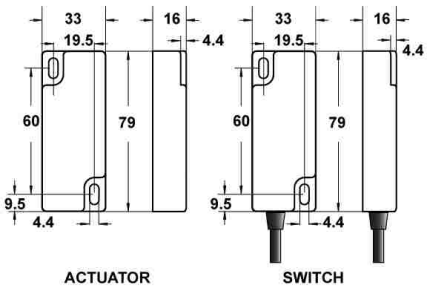
The HE safety switches have up to 2 x N/O + 1 N/C bidirectional solid state outputs along with a built in LED(s) for indication. When installed on a machine guard, power is applied, and the switch and actuator are within the specified operating range, the N/O Outputs will be closed, the N/C Output will be open.

The HE safety switches are fully encapsulated into an ABS housing and are available with 5, 10 or 15m pre-wired cable. With a 7mm switching distance the actuator can approach the switch from most angles. When the switch is closed the targets on the printed face of the switch must be aligned.

Dimensions: HE4



Dimensions: HE4-SS



HE6-SS

HEM40

HE6-SS

- Coded Magnetic Operation
- Stainless Steel Housing
- 2 Normally Open + 1 Normally Closed Output
- Solid State Bi-directional Outputs
- 24V DC Operation
- LED Indication

The HE safety switches have up to 2 x N/O + 1 N/C bidirectional solid state outputs along with a built in LED(s) for indication. When installed on a machine guard, power is applied, and the switch and actuator are within the specified operating range, the N/O Outputs will be closed, the N/C Output will be open.

The HE safety switches are fully encapsulated into a 316 grade stainless steel housing and available with 5, 10 or 15 m pre-wired cable. With a 7mm switching distance the actuator can approach the switch from most angles. When the switch is closed the targets on the printed face of the switch must be aligned.

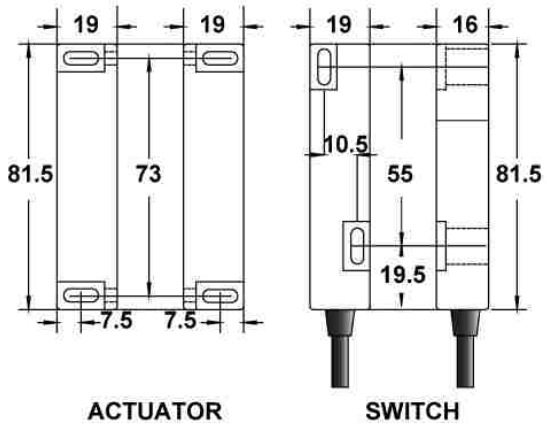
HEM40

- Coded Magnetic Operation
- Stainless Steel Housing
- 2 Normally Open + 1 Normally Closed Output
- Solid State Bi-directional Outputs
- 24V DC Operation
- No LED Indication

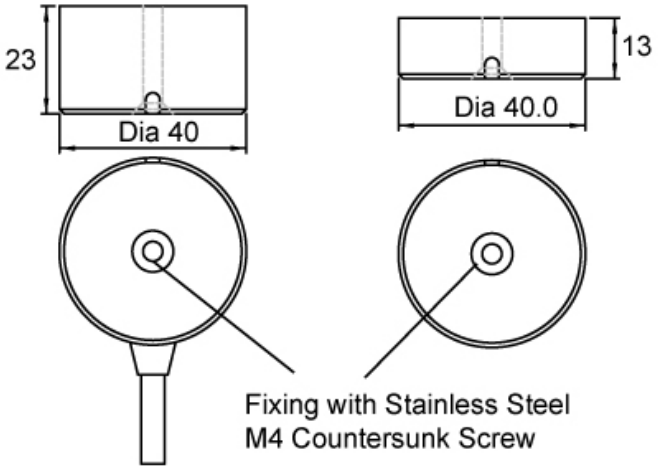
The HE safety switches have up to 2 x N/O + 1 N/C bidirectional solid state outputs along with a built in LED(s) for indication. When installed on a machine guard, power is applied, and the switch and actuator are within the specified operating range, the N/O Outputs will be closed, the N/C Output will be open.

The HEM40 safety switches are fully encapsulated into a 316 grade stainless steel 40mm barrel housing and available with 6m pre-wired cable. With a 7mm switching distance the actuator can approach the switch from most angles. When the switch is closed the targets on the printed face of the switch must be aligned.

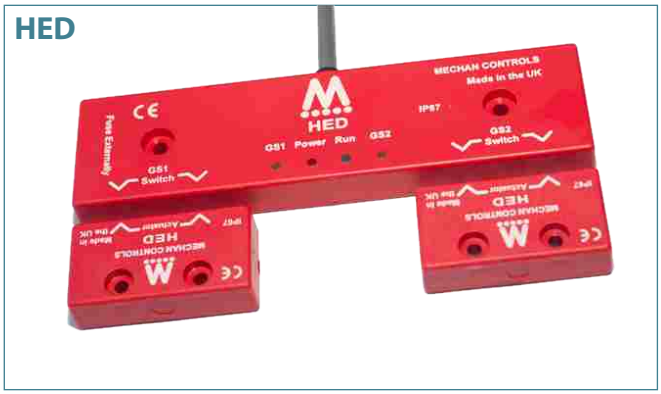
Dimensions: HE6-SS



Dimensions: HEM40



HED



- Coded Magnetic Operation, ABS Housing
- Dual Switch, Monitors 2 Doors
- 2 Normally Open + 1 Normally Closed Output
- Solid State Bi-directional Outputs
- 24Vdc Operation
- LED Indication
- Also Available in Leaded Quick Disconnect

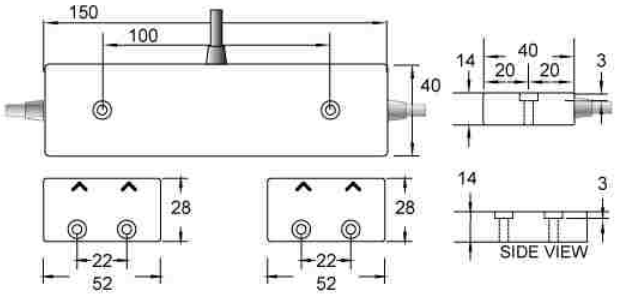
HED

The HED safety switch monitors 2 adjacent doors with only one switch, saving on installation time, cabling and cost.

With 2 x N/O + 1 N/C bidirectional solid state outputs along with a built in LED(s) for indication. When installed on a machine guard, power is applied, and the switch and actuator are within the specified operating range, the N/O Outputs will be closed, the N/C Output will be open.

The HE safety switches are fully encapsulated into an ABS steel housing and available with 5, 10 or 15m pre-wired cable. With a 7mm switching distance the actuator can approach the switch from most angles. When both switches are closed the targets on the printed face of the switch must be aligned.

Dimensions: HED

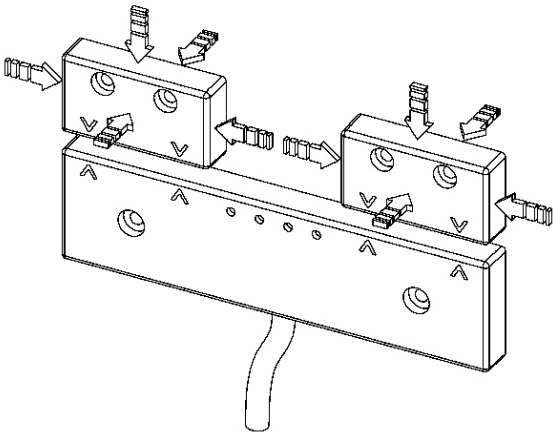


One switch, two doors,
half the wires,
half the cost!

Application

The HED double switch is designed to monitor two adjacent doors.

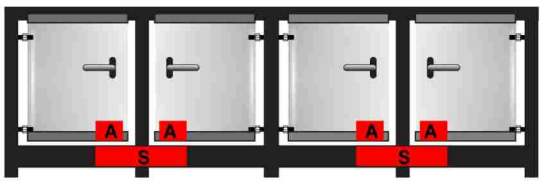
Both actuators need to be in place to close the NO output contacts and open the NC auxiliary contact. Removing one actuator will open the NO contacts and close the NC contact.



2 Gate Operation

HED switches are designed to monitor 2 doors with one switch and 2 actuators. Simplifying installation by reducing wiring to the control panel, and the number of brackets required for the switches.

Both gates must be closed to enable the NO contacts of the switch to close and the NC indication contact to be open. Opening either gate will open the NO contacts and close the NC contact. LED indication is available on the switch to help fault diagnosis.



Technical Specifications

	HE1 / HE1-SS	HE2 / HE2-SS	HE2SS-LQD	HE3-SS	HE4 / HE4-SS
Supply Voltage Options	24V DC (+/-15%)	24V DC (+/-15%)	24V DC (+/-15%)	24V DC (+/-15%)	24V DC (+/-15%)
Power Consumption	-	-	-	-	-
Auxiliary Output Rating	24V DC / 400mA	24V DC / 400mA	24V DC / 400mA	24V DC / 400mA	24V DC / 400mA
Auxiliary Output	UP TO 1 X NC	UP TO 1 X NC	UP TO 1 X NC	UP TO 1 X NC	UP TO 1 X NC
Safety Output	UP TO 2 X NO	UP TO 2 X NO	UP TO 2 X NO	UP TO 2 X NO	UP TO 2 X NO
Safety Output Rating	24V DC / 400mA	24V DC / 400mA	24V DC / 400mA	24V DC / 400mA	24V DC / 400mA
Cable Connector	PRE-WIRED	PRE-WIRED	LEADED QUICK DISCONNECT	PRE-WIRED	PRE-WIRED
Cable Length	3, 6 or 10m	3, 6 or 10m	0,5 or 10m	3, 6 or 10m	3, 6 or 10m
Coding	SOLID STATE, SINGLE CODE	SOLID STATE, SINGLE CODE	SOLID STATE, SINGLE CODE	SOLID STATE, SINGLE CODE	SOLID STATE, SINGLE CODE
Input	CODED MAGNETIC	CODED MAGNETIC	CODED MAGNETIC	CODED MAGNETIC	CODED MAGNETIC
Reset Options	AT CONTROL UNIT	AT CONTROL UNIT	AT CONTROL UNIT	AT CONTROL UNIT	AT CONTROL UNIT
Indication	GUARD STATUS LED & VOLT FREE CONTACT	GUARD STATUS LED & VOLT FREE CONTACT	GUARD STATUS LED & VOLT FREE CONTACT	GUARD STATUS LED & VOLT FREE CONTACT-	GUARD STATUS LED & VOLT FREE CONTACT
Dimensions of Switch (mm)	28 x 52 x 14mm / 29 x 53 x 13.5mm	27.2 x 87.5 x 13.5mm	27.2 x 87.5 x 13.5mm	28 x 52 x 14mm	76.3 x 30.3 x 16mm / 79 x 33 x 16mm
Dimensions of Actuator (mm)	28 x 52 x 14mm / 29 x 53 x 13.5mm	27.2 x 87.5 x 13.5mm	27.2 x 87.5 x 13.5mm	28 x 52 x 14mm	76.3 x 30.3 x 16mm / 79 x 33 x 16mm
Dimensions of Controls Unit (mm)	SEE SCU1	SEE SCU1	SEE SCU1	SEE SCU1	SEE SCU1
Weight	-	-	-	-	-
IP Rating	IP67	IP67	IP67	IP67	IP67
Construction	RED ABS / 316 GRADE STAINLESS STEEL, RESIN FILLED	RED ABS / 316 GRADE STAINLESS STEEL, RESIN FILLED	316 GRADE STAINLESS STEEL, RESIN FILLED	316 GRADE STAINLESS STEEL, RESIN FILLED	RED ABS / 316 GRADE STAINLESS STEEL, RESIN FILLED
Mounting	4 x M4 SECURITY SCREWS	4 x M4 SECURITY SCREWS	4 x M4 SECURITY SCREWS	4 x M4 SECURITY SCREWS	4 x M4 SECURITY SCREWS
Operating Temp.	-25°C to 55°C	-25°C to 55°C	-25°C to 55°C	-25°C to 55°C	-25°C to 55°C
Storage Temp.	-25°C to 55°C	-25°C to 55°C	-25°C to 55°C	-25°C to 55°C	-25°C to 55°C

Safety Related Data

PL in Accordance with ENISO 13849-1	PL-E, CAT 4	PL-E, CAT 4	PL-E, CAT 4	PL-E, CAT 4	PL-E, CAT 4
SIL CL in Accordance with EN IEC 62061	SIL 3	SIL 3	SIL 3	SIL 3	SIL 3
PFHD in Accordance with EN IEC 62061	3.62×10^{-9}	3.62×10^{-9}	3.62×10^{-9}	3.62×10^{-9}	3.62×10^{-9}
PFH	4.43×10^{-9}	4.43×10^{-9}	4.43×10^{-9}	4.43×10^{-9}	4.43×10^{-9}
B10D	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
MTTFD	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)
TM	>20 YEARS	>20 YEARS	>20 YEARS	>20 YEARS	>20 YEARS
DC	96.50%	96.50%	96.50%	96.50%	96.50%
SFF	98.2%	98.2%	98.2%	98.2%	98.2%

Technical Specifications

	HE6-SS	HED	HEM40
Supply Voltage Options	24V DC (+/-15%)	24V DC (+/-15%)	24V DC (+/-15%)
Power Consumption	-	-	-
Auxiliary Output Rating	24V DC / 400mA	24V DC / 400mA	24V DC / 400mA
Auxiliary Output	UP TO 1 X NC	UP TO 1 X NC	UP TO 1 X NC
Safety Output	UP TO 2 X NO	UP TO 2 X NO	UP TO 2 X NO
Safety Output Rating	24V DC / 400mA	24V DC / 400mA	24V DC / 400mA
Cable Connector	PRE-WIRED	PRE-WIRED	PRE-WIRED
Cable Length	3, 6 or 10m	3, 6 or 10m	3, 6 or 10m
Coding	SOLID STATE, SINGLE CODE	SOLID STATE, SINGLE CODE	SOLID STATE, SINGLE CODE
Input	CODED MAGNETIC	CODED MAGNETIC	CODED MAGNETIC
Reset Options	AT CONTROL UNIT	AT CONTROL UNIT	AT CONTROL UNIT
Indication	GUARD STATUS LED & VOLT FREE CONTACT	GUARD STATUS LED & VOLT FREE CONTACT	-
Dimensions of Switch (mm)	81.5 x 19 x 19mm	150 x 40 x 14mm	-
Dimensions of Actuator (mm)	81.5 x 19 x 19mm	52 x 28 x 14mm (x2)	-
Dimensions of Controls Unit (mm)	SEE SCU1	SEE SCU1	SEE SCU1
Weight	-	-	-
IP Rating	IP67	IP67	IP67
Construction	316 GRADE STAINLESS STEEL, RESIN FILLED	RED ABS, RESIN FILLED	316 GRADE STAINLESS STEEL, RESIN FILLED
Mounting	4 x M4 SECURITY SCREWS	6 x M4 SECURITY SCREWS	4 x M4 SECURITY SCREWS
Operating Temp.	-25°C to 55°C	-25°C to 55°C	-25°C to 55°C
Storage Temp.	-25°C to 55°C	-25°C to 55°C	-25°C to 55°C

	SCU1
Supply Voltage Options	24V AC/ DC (+/-15%)
Power Consumption	3VA
Auxiliary Output Rating	4A / 230V AC; 2A / 24v DC (RES.)@COS=1
Auxiliary Output	1 X NC
Safety Output	2 X NO
Safety Output Rating	4A / 230V AC; 2A / 24v DC (RES.)@COS=1
Cable Connector	-
Cable Length	-
Coding	-
Input	UP TO 30 SAFETY SWITCHES
Reset Options	MANUAL / AUTOMATIC
Indication	LEDs FOR POWER & OUTPUT K1 & K2
Dimensions of Switch (mm)	-
Dimensions of Actuator (mm)	-
Dimensions of Controls Unit (mm)	22.5 x 84 x 119mm
Weight	-
IP Rating	HOUSING IP40, TERMINALS IP20
Construction	RED POLYCARBONATE
Mounting	35MM DIN RAIL
Operating Temp.	-10°C to 55°C
Storage Temp.	-20°C to 60°C

Safety Related Data

PL in Accordance with ENISO 13849-1	PL-E, CAT 4	PL-E, CAT 4	PL-E, CAT 4
SIL CL in Accordance with EN IEC 62061	SIL 3	SIL 3	SIL 3
PFHD in Accordance with EN IEC 62061	3.62×10^{-9}	3.62×10^{-9}	3.62×10^{-9}
PFH	4.43×10^{-9}	4.43×10^{-9}	4.43×10^{-9}
B10D	2,000,000	2,000,000	2,000,000
MTTFD	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)
TM	>20 YEARS	>20 YEARS	>20 YEARS
DC	96.50%	96.50%	96.50%
SFF	98.2%	98.2%	98.2%

Safety Related Data

PL in Accordance with ENISO 13849-1	PL-E, CAT 4
SIL CL in Accordance with EN IEC 62061	SIL 3
PFHD in Accordance with EN IEC 62061	3.62×10^{-9}
PFH	4.43×10^{-9}
B10D	2,000,000
MTTFD	HIGH>100 YEARS (based on usage rate of 360 days)
TM	>20 YEARS
DC	96.50%
SFF	98.2%

S-Type Electronic Safety System

S-Type

- Tamper-proof Electronic Safety Switches
- Unique Code Versions Available
- 10mm Switching Distance
- Guard Status Indication
- Quick Disconnect Option

Description

The S-Type are electronically operated safety switches. Based on Mechan's unique frequency operated switching system the S-Type safety switches provide a more secure non-contact safety switch, with precise switching and indication on the switch for reliable operation is assured along with easy operator identification of guard status.

The S-Type safety switches are available in three sizes with up to 2NO safety contacts and 1 NC auxiliary contact.

CSS type switches are available with uniquely coded actuators.

Operation

Mechan S-Type safety switches can approach each other from most directions. When closed the targets printed on the front face of the switches must be aligned. (Large target to large target and small target to small target). When the power is on and the switch and actuator are apart the Normally Open contact(s) will be open and the Normally Closed contact will be closed. When the actuator is brought within the specified switching distance the Normally Open contact(s) will close and the Normally Closed contact will open.

The SSS has a green LED which is illuminated when the switch is powered and the gate is closed. The SS-R and SS-C have a dual colour LED (red & green) red when the power is on and gate open, green when the gate is closed.

SS-C & SS-R LQD
M12 leaded quick disconnect with
150mm connecting lead to the switch.

Simple to install stand-alone, tamper-proof, non-contact safety switches

Features

- Tamper-proof
- IP67
- Reliable electronic switching
- Quick disconnect option
- 8-10mm switching distance
- Guard status indication
- East to install

Applications

- Food processing
- Dairies
- Packaging Industry
- Bottling plants
- Pharmaceutical

SSC / SSC-LQD

SSR / SSR-LQD

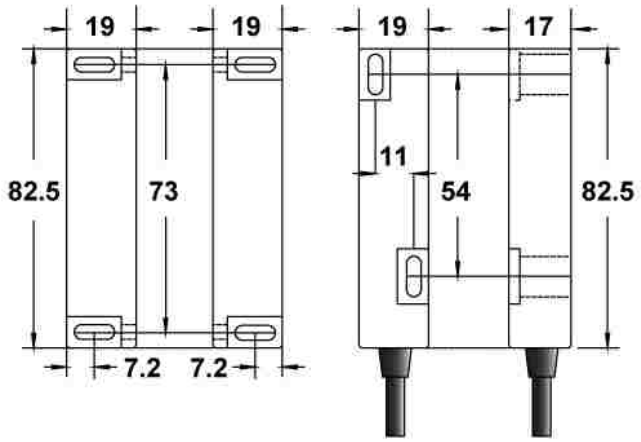
SSC / SSC-LQD

- Electronic Safety Switch
- 2 NO or 1NO + 1NC Contacts
- Fully Encapsulated, IP67
- M12 Quick Disconnect
- Dual Colour LED Indication

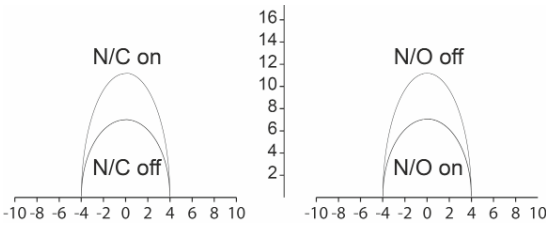
SS-C safety switches are standalone electronic, non-contact, safety switches. With 2NO or 1NO + 1NC contacts, capable of switching 500mA at 30Vdc or 110Vac.

With tamper resistant, electronic switching, the SS-C are suitable for use with most modern, low inrush current, safety relays. A dual colour, built in LED, helps the operator in speedy fault diagnosis. The SS-C safety switches are available with M12 quick disconnect and 5 or 10m cables.

Dimensions: SSC / SSC-LQD



Switching Characteristics



The chart shows the switching points in mm.

SSR / SSR-LQD

- Electronic Safety Switch
- 2 NO + 1NC Contacts
- Fully Encapsulated, IP67
- Pre-wired, 3, 5, 6, 10 or 15m Cable
- Dual Colour LED Indication

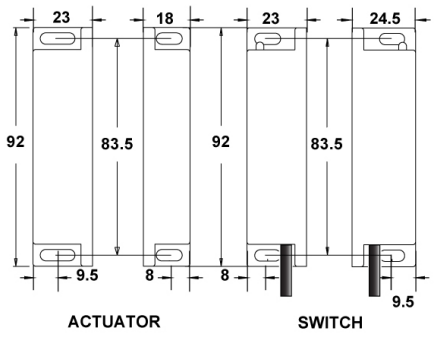
SS-R safety switches are standalone electronic, non-contact, safety switches. With 2NO + 1NC contacts, capable of switching 2A at 30Vdc or 110Vac.

With tamper resistant, electronic switching, the SS-R are suitable for use with most safety relays. A dual colour, built in LED, helps the operator in speedy fault diagnosis.

The SS-R safety switches are available with 3, 5, 6, 10 or 15m pre-wired cables which are fully sealed and suitable for use in most wet / harsh environments.

The SS-R safety switches are available with M12 quick disconnect and 5 or 10m cables.

Dimensions: SSR / SSR-LQD



SSS / SSS-QD

- Electronic Safety Switch
- 2 NO or 1NO + 1NC Contacts
- Fully Encapsulated, IP67
- LED Indication

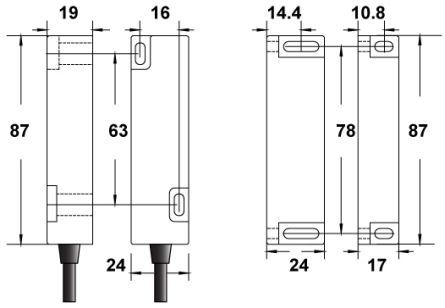
The SSS and SSSQD safety switches are standalone electronic, non-contact, safety switches. With 2NO or 1NO + 1NC contacts, capable of switching 2A at 30V dc or 230V ac.

These tamper resistant, non-contact safety switches are suitable for use with most safety relays and have a built in LED to assist the operator in speedy fault diagnosis.

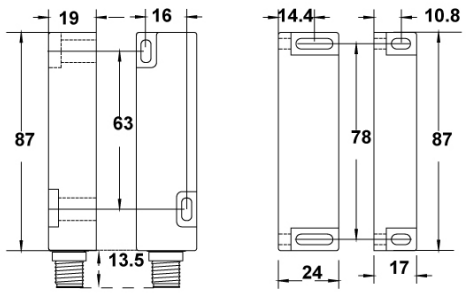
The SSS is available with 3, 6 or 10m pre-wired cables and is fully sealed and suitable for use in most wet / harsh environments.

The SSSQD has an M12 connector with 5 or 10m cables.

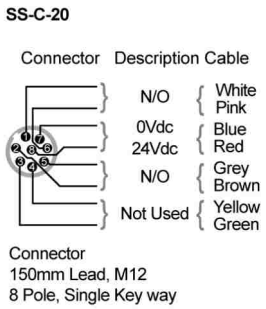
Dimensions: SSS



Dimensions: SSS-QD

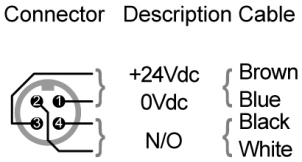


Leaded Quick Disconnect: 2 Normally Open Contacts



Connector
150mm Lead, M12
8 Pole, Single Key way

Quick Disconnect: 1 Normally Open Contact

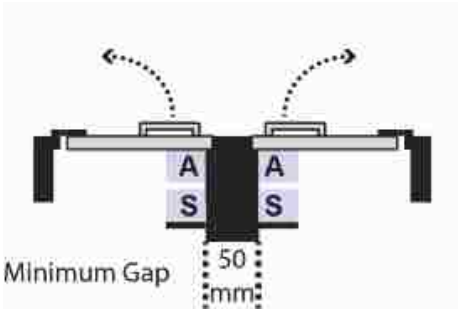


Connector
M12
4 Pole, Single Key way

Mounting

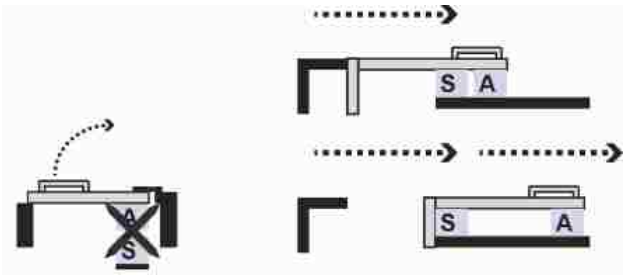
Do not use safety switches as a stop. 1mm separation when closed provides the best results.

Minimum separation 50mm between adjacent switches.



DO NOT mount on hinged side of the guard.

EN1088 : Hide the actuator where possible.



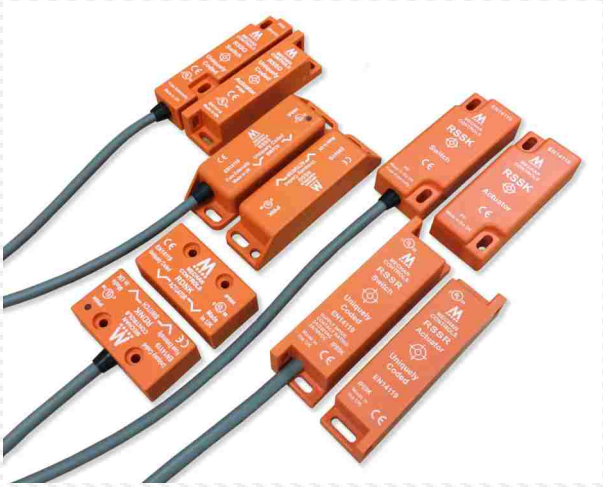
Technical Specifications

	SSS / SSS-QD	SSR / SSR-LQD	SSC / SSC-LQD
Supply Voltage Options	24V DC	24V DC	24V DC
Power Consumption	-	-	-
Safety Output	UP TO 2 X NO.	UP TO 2 X NO.	UP TO 2 X NO.
Safety Output Rating	230V AC / 2 AMPS or 30V DC / 2 AMPS	230V AC / 2 AMPS or 30V DC / 2 AMPS	110V AC / 500MA or 24V DC / 500MA
Auxiliary Output	UP TO 1 X NC	UP TO 1 X NC	UP TO 1 X NC
Auxiliary Output Rating	230V AC / 2 AMPS or 30V DC / 2 AMPS	230V AC / 2 AMPS or 30V DC / 2 AMPS	110V AC / 500MA or 24V DC / 500MA
Cable/Connector	PRE-WIRED / QUICK DISCONNECT	PRE-WIRED / LEADED QUICK DISCONNECT	PRE-WIRED / LEADED QUICK DISCONNECT
Cable Length	3, 6 or 10m	3, 5, 6, 10 or 15m	3, 5 or 10m
Coding	ELECTRONIC, GENERIC CODE	ELECTRONIC, GENERIC CODE	ELECTRONIC, GENERIC CODE
Input	-	-	-
Reset Options	-	-	-
Indication	GREEN LED	DUAL COLOUR LED	DUAL COLOUR LED
Dimensions of Switch (mm)	87 x 24 x 19mm	92 x 24.5 x 23mm	87 x 24 x 19mm
Dimensions of Actuator (mm)	87 x 24 x 17mm	92 x 23 x 18mm	87 x 24 x 17mm
Dimensions of Control Unit (mm)	-	-	-
Weight	-	-	-
IP Rating	IP67	IP67	IP67
Construction	BLUE ABS, RESIN FILLED	BLUE ABS, RESIN FILLED	BLUE ABS, RESIN FILLED
Mounting	4 X M4 SECURITY SCREWS	4 X M4 SECURITY SCREWS	4 X M4 SECURITY SCREWS
Operating Temp.	-25°C to 55°C	-25°C to 55°C	-25°C to 55°C
Storage Temp.	-25°C to 55°C	-25°C to 55°C	-25°C to 55°C

Safety Related Data

PL in Accordance with ENISO 13849-1			
SIL CL in Accordance with EN IEC 62061			
PFHD in Accordance with EN IEC 62061	4.3×10^{-8}	4.3×10^{-8}	4.3×10^{-8}
PFH	6.52×10^{-8}	6.52×10^{-8}	6.52×10^{-8}
B10D	2,000,000	2,000,000	2,000,000
MTTFD	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)
TM	>20 YEARS	>20 YEARS	>20 YEARS
DC	99%	99%	99%
SFF	98%	98%	98%
	Based on dual channel wiring according to CAT3 diagnostic coverage provided by downstream control logic DC - medium, the MTTFD = 100 years	Based on dual channel wiring according to CAT3 diagnostic coverage provided by downstream control logic DC - medium, the MTTFD = 100 years	Based on dual channel wiring according to CAT3 diagnostic coverage provided by downstream control logic DC - medium, the MTTFD = 100 years

RSS-Series Uniquely Coded Safety Switches



RSS-Series

Listed IND.CONT.EQ 2HAO

- Standalone Non-contact Operation
- IP 67 / IP69K Fully Sealed
- ABS, Resin Filled
- Uniquely Coded (4,000,000,000 Codes)
- EN 14119 Type 4 High Code
- Dual LED Guard Indication
- Large Range of Sizes / Fittings

Description

The RSS series safety switches applies radio frequency identification technology (RFID) in a variety of housings.

The non-contact operation makes the RSS easy to install and tolerant to misalignment. They are individually coded for high security applications providing a simple more reliable solution to machine guard interlocking.

The RSSR and RSSG safety switches are designed to work with any safety relay on the market. Whereas the RDNK, RSSO and RSSK are designed to be connected to a safety control circuit which has less than 0.5 Amps inrush current.

The RSS series provides additional security with up to 4 billion unique codes achieving type 4 high level coding according to EN 14119 safety standard.

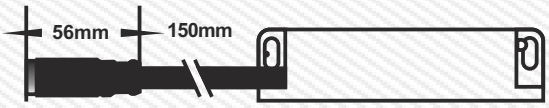
These safety switches are available in 5 sizes, the RDNK, RSSO, RSSK, RSSR and RSSG and are rated to IP67 & IP69K for use in wet or dusty environments.

Operation

Mechan RSS series safety switches can approach each other from most directions. When the power is on and the switch and actuator are apart the normally open contact(s) will be open and the normally closed contact will be closed. When the actuator is brought within the specified switching distance the normally open contact(s) will close and the normally closed contact will open.

The RSS Series have a dual colour LED, red when the power is on and gate open, green when the gate is closed. The switch will flash red when the incorrect coded actuator is introduced.

All RSS-Series safety switches are available with M12 Leaded quick disconnect with 150mm connecting lead to the switch.



RSS-Series features volt free technology for greater compatibility with most safety relays on the market

Features

- Tamper-proof
- IP67 & IP69K
- Reliable electronic switching
- M12 leaded quick disconnect options
- 8mm switching distance
- Guard status indication
- Easy to install

Applications

- Food processing
- Dairies
- Packaging Industry
- Bottling plants
- Pharmaceutical

RDNK

RDNK

- RFID Safety Switch
- 2 NO + 1 NC Contacts
- Fully Encapsulated, IP69K
- Pre-wired, 3, 6 or 10m Cable
- M12 Leaded Quick Disconnect
- Dual Colour LED Indication

RDNK safety switches are standalone RFID, non-contact, safety switches. With 2 NO + 1 NC contacts, capable of switching 500mA at 24Vdc.

With tamper proof, RFID switching, the RDNK are suitable for use with safety relays with a low inrush current.

RSSO

RSSO

- Uniquely Coded RFID Safety Switch
- 2 NO + 1 NC Contacts
- Fully Encapsulated, IP69K
- Pre-wired, 3, 6 or 10m Cable
- M12 Leaded Quick Disconnect
- Dual Colour LED Indication

RSSO safety switches are standalone RFID, non-contact, safety switches. With 2 NO + 1 NC contacts, capable of switching 500mA at 24Vdc.

With tamper proof, RFID switching, the RSSO are suitable for use with most modern, low inrush current, safety relays.

RSSK

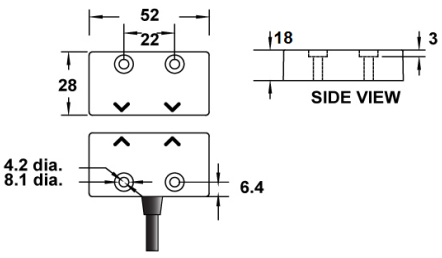
RSSK

- Uniquely Coded RFID Safety Switch
- 2 NO + 1 NC Contacts
- Fully Encapsulated, IP69K
- Pre-wired, 3, 6 or 10m Cable
- M12 Leaded Quick Disconnect
- Dual Colour LED Indication

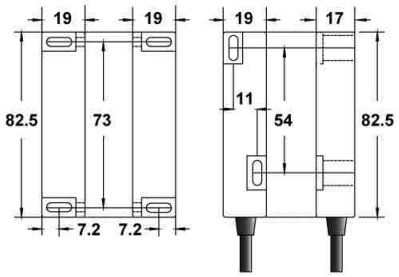
RSSK safety switches are standalone RFID, non-contact, safety switches. With 2 NO + 1 NC contacts, capable of switching 500mA at 24Vdc.

With tamper proof, RFID switching, the RSSK are suitable for use with most modern, low inrush current, safety relays.

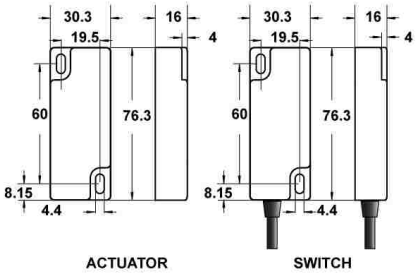
Dimensions: RDNK



Dimensions: RSSO



Dimensions: RSSK



RSSR

RSSG

RSSR

- Uniquely Coded RFID Safety Switch
- 2 NO + 1 NC Contacts
- Fully Encapsulated, IP69K
- Pre-wired, 3, 6 or 10m Cable
- M12 Leaded Quick Disconnect
- Dual Colour LED Indication
- Contact Rating 3A at 24Vdc & 230Vac

RSSR safety switches are standalone RFID, non-contact, safety switches. With 2 NO + 1 NC contacts, capable of switching 3A at 24Vdc & 230Vac.

With tamper proof, RFID switching, the RSSR are suitable for use with all safety relays.

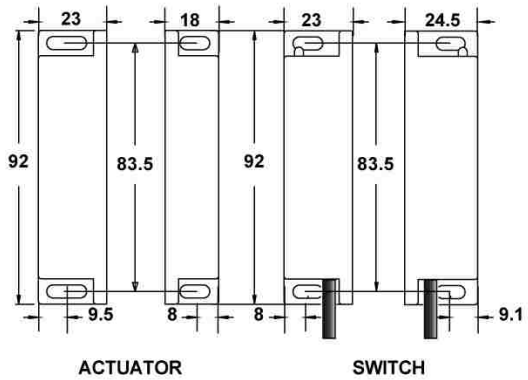
RSSG

- Uniquely Coded RFID Safety Switch
- 2 NO + 1 NC Contacts
- Fully Encapsulated, IP69K
- Pre-wired, 3, 6 or 10m Cable
- M12 Leaded Quick Disconnect
- Dual Colour LED Indication
- Contact Rating 3A at 24Vdc & 230Vac

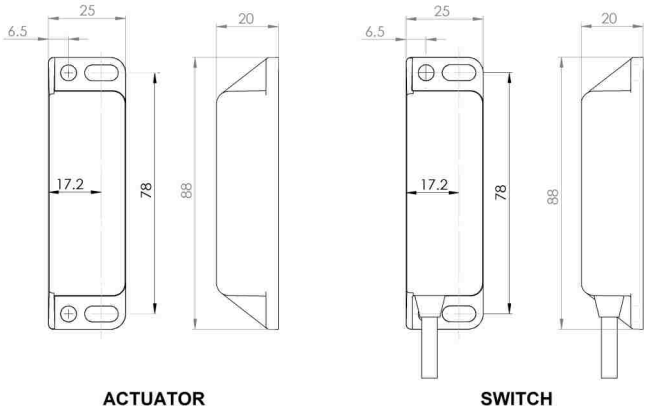
RSSR safety switches are standalone RFID, non-contact, safety switches. With 2 NO + 1 NC contacts, capable of switching 3A at 24Vdc & 230Vac.

With tamper proof, RFID switching, the RSSR are suitable for use with all safety relays.

Dimensions: RSSR



Dimensions: RSSG



Technical Specifications

	RDNK	RSSO	RSSR	RSSK	RSSG
Supply Nominal Voltage	24V DC (+/-15%)	24V DC (+/-15%)	24V DC (+/-15%)	24V DC (+/-15%)	24V DC (+/-15%)
Power Consumption	3W	3W	3W	3W	3W
Contacts	2 X NO / 1 X NC	2 X NO / 1 X NC	2 X NO / 1 X NC	2 X NO / 1 X NC	2 X NO / 1 X NC
Safety Contact Rating	24V DC / 500mA	24V DC / 500mA	24V DC / 3A	24V DC / 500mA	230V AC / 3A
Safety Contact Switching	12mm ON / 15mm OFF	12mm ON / 15mm OFF	12mm ON / 15mm OFF	12mm ON / 15mm OFF	12mm ON / 15mm OFF
Misalignment Actuator	8mm (Max)	8mm (Max)	8mm (Max)	8mm (Max)	8mm (Max)
Auxiliary Contact Rating (Max)	24V DC / 500mA	24V DC / 500mA	24V DC / 2 AMPS	24V DC / 500mA	24V DC / 2 AMPS
Auxiliary Contact Switching	12mm ON / 15mm OFF	12mm ON / 15mm OFF	12mm ON / 15mm OFF	12mm ON / 15mm OFF	12mm ON / 15mm OFF
External Fuse Fast Acting	300 mA FAST ACTING	300 mA FAST ACTING	3 AMPS FAST ACTING	300 mA FAST ACTING	3 AMPS FAST ACTING
Construction	ORANGE ABS, RESIN	ORANGE ABS, RESIN	ORANGE ABS, RESIN	ORANGE ABS, RESIN	ORANGE ABS, RESIN
Indication	DUAL COLOUR LED	DUAL COLOUR LED	DUAL COLOUR LED	DUAL COLOUR LED	DUAL COLOUR LED
Coding	INDIVIDUALLY CODED	INDIVIDUALLY CODED	INDIVIDUALLY CODED	INDIVIDUALLY CODED	INDIVIDUALLY CODED
Operating Temp.	-10°C to 60°C	-10°C to 60°C	-25°C to 60°C	-10°C to 60°C	-25°C to 60°C
Storage Temp.	-20°C to 70°C	-20°C to 70°C	-25°C to 70°C	-20°C to 70°C	-25°C to 70°C
IP Rating	IP67 / IP69K	IP67 / IP69K	IP67 / IP69K	IP67 / IP69K	IP67 / IP69K
Fixing	M4 TORX SECURITY SCREWS TIGHTENING TORQUE 1.0NM	M4 TORX SECURITY SCREWS TIGHTENING TORQUE 1.0NM	M4 TORX SECURITY SCREWS TIGHTENING TORQUE 1.0NM	M4 TORX SECURITY SCREWS TIGHTENING TORQUE 1.0NM	M4 TORX SECURITY SCREWS TIGHTENING TORQUE 1.0NM
Shock / Vibration	30g/11ms 10...55HZ AMPLITUDE 1MM	30g/11ms 10...55HZ AMPLITUDE 1MM	30g/11ms 10...55HZ AMPLITUDE 1MM	30g/11ms 10...55HZ AMPLITUDE 1MM	30g/11ms 10...55HZ AMPLITUDE 1MM
Connection	PRE-WIRED & M12 QUICK DISCONNECT	PRE-WIRED & M12 QUICK DISCONNECT	PRE-WIRED & M12 QUICK DISCONNECT	PRE-WIRED & M12 QUICK DISCONNECT	PRE-WIRED & M12 QUICK DISCONNECT

Safety Related Data

PL in Accordance with ENISO 13849-1	PL-E, CAT 4	PL-E, CAT 4	PL-E, CAT 4	PL-E, CAT 4	PL-E, CAT 4
SIL CL in Accordance with EN IEC 62061	SIL 3	SIL 3	SIL 3	SIL 3	SIL 3
PFHD in Accordance with EN IEC 62061	4.3×10^{-8}	4.3×10^{-8}	4.3×10^{-8}	4.3×10^{-8}	4.3×10^{-8}
PFH	6.52×10^{-8}	6.52×10^{-8}	6.52×10^{-8}	6.52×10^{-8}	6.52×10^{-8}
B10D	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
MTTFD	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)
TM	> 20 YEARS	> 20 YEARS	> 20 YEARS	> 20 YEARS	> 20 YEARS
DC	99%	99%	99%	99%	99%
SFF	98%	98%	98%	98%	98%

ISIS Coded Magnetic Safety System

ISIS

- CAT 3 SIL 3 PL-E Safety System
- Control Unit Monitors Safety Switches & E'Stops
- Guard Status Indication
- Tamper Resistant
- Coded Magnetic
- Simple 2 Wire Connection

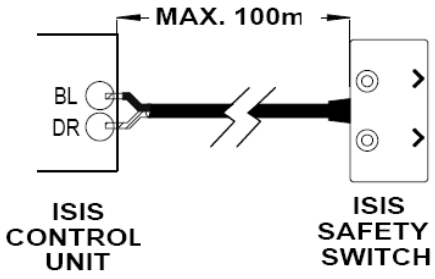
Description

The ISIS safety system is a tamper resistant non-contact safety switch system, suitable for use in most types of machine guarding applications where guard locking is not required.

The ISIS Safety control units can monitor 2 (ISIS-2) or 4 (ISIS-4) safety switches with the ISIS-E being used to add more safety switch inputs to a system. The ISIS-4 can also be used to monitor the Emergency Stop button.

The non-contact safety switches are available in stainless steel or ABS and have a simple 2 wire connection to the control unit which can detect open and short circuit faults as they happen.

Maximum Cable Length

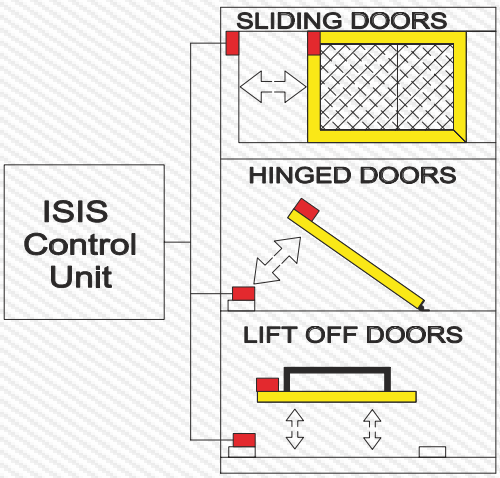


Operation

The ISIS system comprises of a control unit and 1 or more safety switches. (The ISIS-4 can also monitor and E'Stop inputs).

Each ISIS safety switch has a 2-wire connection to the control unit. The safety switch is continuously monitored by the control unit, detecting both open and short circuit faults immediately and returning the control unit to the off state even if the gate is not operated.

Using one of the ISIS control unit and one or more ISIS Extender modules, systems can be assembled to monitor up to 30 inputs.



Simple to install tamper-resistant, non-contact safety switches

Features

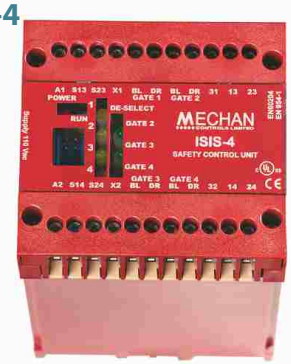
- Multi-gate monitoring
- Tamper-resistant safety switches
- Long term proven reliability
- Modular system
- Monitor up to 30 guards
- Guard status indication

Applications

- Food processing
- Dairies
- Bottling plants
- Pharmaceutical
- Concrete block/building material manufacture
- Multi-gate systems on large production lines

ISIS Coded Magnetic Control Units

ISIS-4



ISIS-2

ISIS-E

ISIS-4

- 4 Gate Safety Control Module
- Integrated E'Stop function
- 24V AC/DC, 110V AC or 230V AC
- LED Diagnostics
- Dual Channel Output + Auxiliary
- Automatic / Manual-Monitored Reset

The ISIS-4 is a combined Safety Switch and E-Stop control unit. Along with the ability to monitor up to four ISIS safety switches it can also monitor the normally closed contacts of emergency stop buttons or mechanical safety switches in dual channel control circuits.

The ISIS-4 has 2 normally open safety contact outputs and 1 normally closed auxiliary output, an external re-set/proving circuit and LED indication for 'Power', 'Run' and the status of each activated gate switch.

ISIS-2

- 2 Gate Safety Control Module
- 24V AC/DC
- LED Diagnostics
- Dual Channel Output + Auxiliary
- Automatic / Manual-Monitored Reset

The ISIS-2 control unit is a 24V AC/DC system that can monitor up to 2 ISIS safety switches.

The ISIS-2 has 2 normally open safety contact outputs and 1 normally closed auxiliary output, an external re-set/proving circuit and LED indication for 'Power', 'Run' and the status of each activated gate switch.

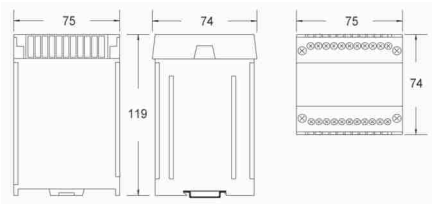
ISIS-E

- 5 Gate Safety Extender Module
- 24V AC/DC
- LED Diagnostics

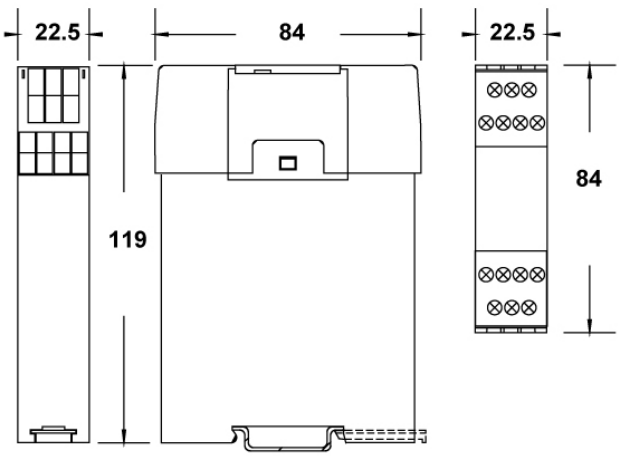
The ISIS-E Extender module is a 24V AC/DC unit that can be added to either the ISIS-4 or ISIS-2 to monitor an additional 5 ISIS safety switches.

Connection to the main control unit is by a simple 2-wire bus connection. The status of each guard switch is shown by the YELLOW LED's. Additional ISIS-E extender modules can be added to monitor larger systems.

Dimensions: ISIS-4



Dimensions: ISIS-2 / ISIS-E



ISIS Coded Magnetic Safety Switches

ISIS / ISIS-SS

- Coded Magnetic Safety Switch
- ABS or 316 Stainless Steel Housing
- Fully Encapsulated, IP67
- M8 Quick Disconnect, 5 or 10m Cables

The ISIS safety switches are non-contact, tamper resistant safety switches. Resin encapsulated into an ABS housing, providing environmental protection to IP67. The switches can withstand most conditions including: water, dust and high pressure hose cleaning.

The 2-wire connection to each safety switch is monitored by the control unit, detecting both open and short circuit faults immediately and returning the control unit to the off state even if the gate is not operated.

ISIS-SS-HT

- Coded Magnetic Safety Switch
- 316 Grade Stainless Steel Housing
- High Temp Rating -10°C to +125°C
- Fully Encapsulated, IP67
- Pre-wired, 3m Cable (longer to order)

The ISIS safety switches are non-contact, tamper resistant safety switches. Resin encapsulated into a stainless steel housing, providing environmental protection to IP67. The switches can withstand most conditions including: water, dust and high pressure hose cleaning.

The 2-wire connection to each safety switch is monitored by the control unit, detecting both open and short circuit faults immediately and returning the control unit to the off state even if the gate is not operated.

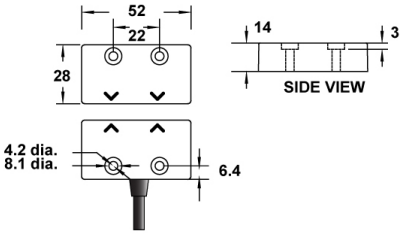
ISIS-QD / ISIS-SS-QD

- Coded Magnetic Safety Switch
- ABS or 316 Grade Stainless Steel Housing
- Fully Encapsulated, IP67
- M8 Quick Disconnect, 5 or 10m Cables

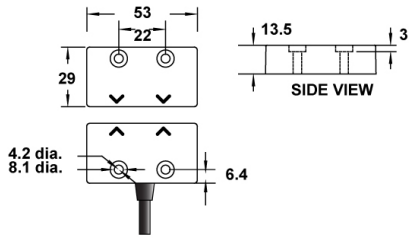
The ISIS safety switches are non-contact, tamper resistant safety switches. Resin encapsulated into an ABS or 316 grade stainless steel housing, providing environmental protection to IP67, The switches can withstand most conditions including: water, dust and high pressure hose cleaning.

The 2-wire connection to each safety switch is monitored by the control unit, detecting both open and short circuit faults immediately and returning the control unit to the off state even if the gate is not operated.

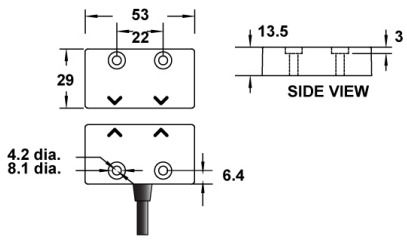
DIMENSIONS: ISIS



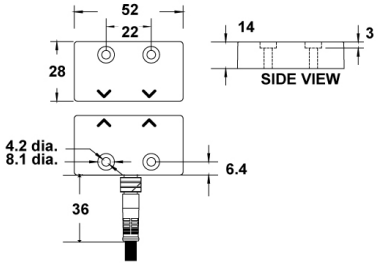
DIMENSIONS: ISIS-SS



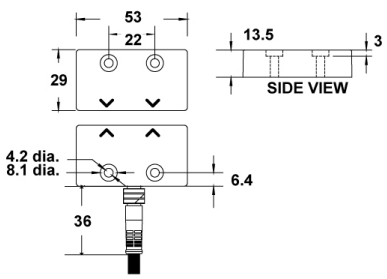
DIMENSIONS: ISIS-SS-HT



DIMENSIONS: ISIS-QD



DIMENSIONS: ISIS-SS-QD



Technical Specifications

	ISIS-4	ISIS-2	ISIS-E
Supply Voltage Options	110V AC or 24V AC/DC (+/- 15%)	24V AC/DC (+/- 15%)	24V AC/DC (+/- 15%)
Power Consumption	6VA	3VA	3VA
Auxiliary Output Rating	4A / 230V AC; 2A / 24V DC (RES.)@COS=1	4A / 230V AC; 2A / 24V DC (RES.)@COS=1	-
Auxiliary Output	UP TO 1 X NC	UP TO 1 X NC	-
Safety Output	UP TO 2 X NO	UP TO 2 X NO	-
Safety Output Rating	4A / 230V AC; 2A / 24V DC (RES.)@COS=1	4A / 230V AC; 2A / 24V DC (RES.)@COS=1	-
Cable Connector	-	-	-
Cable Length	-	-	-
Coding	-	-	-
Input	UP TO 4 ISIS SWITCHES + 1 E'STOP	UP TO 2 ISIS SWITCHES	UP TO 5 ISIS SWITCHES
Reset Options	MANUAL / AUTOMATIC	MANUAL / AUTOMATIC	AT CONTROL UNIT
Indication	POWER & RUN LEDs + GUARD SELECT & STATUS LEDs	POWER & RUN LEDs + GUARD SELECT & STATUS LEDs	POWER & RUN LEDs + GUARD SELECT & STATUS LEDs
Dimensions of Switch (mm)	-	-	-
Dimensions of Actuator (mm)	-	-	-
Dimensions of Controls Unit (mm)	75 x 74 x 119mm	22.5 x 84 x 119mm	22.5 x 84 x 119mm
Weight	-	-	-
IP Rating	HOUSING IP40, TERMINALS IP20	HOUSING IP40, TERMINALS IP20	HOUSING IP40, TERMINALS IP20
Construction	RED POLYCARBONATE HOUSING AND TERMINALS	RED POLYCARBONATE HOUSING AND TERMINALS	RED POLYCARBONATE HOUSING AND TERMINALS
Mounting	35MM DIN RAIL	35MM DIN RAIL	35MM DIN RAIL
Operating Temp.	-10°C to 55°C	-10°C to 55°C	-10°C to 55°C
Storage Temp.	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C

Safety Related Data

PL in Accordance with ENISO 13849-1	PL-E, CAT 3	PL-E, CAT 3	PL-E, CAT 3
SIL CL in Accordance with EN IEC 62061	SIL 3	SIL 3	SIL 3
PFHD in Accordance with EN IEC 62061	3.37×10^{-8}	3.37×10^{-8}	3.37×10^{-8}
PFH	5.63×10^{-8}	5.63×10^{-8}	5.63×10^{-8}
B10D	20,000,000	20,000,000	20,000,000
MTTFD	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)
TM	20 YEARS	20 YEARS	20 YEARS
DC	99%	99%	99%
SFF	99.40%	99.40%	99.40%
	As part of an ISIS system	As part of an ISIS system	As part of an ISIS system

Technical Specifications

	ISIS / ISIS-SS	ISIS-QD / ISIS-SS-QD	ISIS-SS-HT
Supply Voltage Options	-	-	-
Power Consumption	-	-	-
Auxiliary Output Rating	-	-	-
Auxiliary Output	-	-	-
Safety Output	-	-	-
Safety Output Rating	-	-	-
Cable Connector	PRE-WIRED	QUICK DISCONNECT	PRE-WIRED
Cable Length	3, 6 or 10m	0, 5 or 10m	3, 6 or 10m
Coding	CODED MAGNETIC, SINGLE CODE	CODED MAGNETIC, SINGLE CODE	CODED MAGNETIC, SINGLE CODE
Input	-	-	-
Reset Options	-	-	-
Indication	AT CONTROL UNIT	AT CONTROL UNIT	AT CONTROL UNIT
Dimensions of Switch (mm)	52 x 28 x 14mm / 53 x 29 x 13.5mm	52 x 28 x 14mm / 53 x 29 x 13.5mm	53 x 29 x 13.5mm
Dimensions of Actuator (mm)	52 x 28 x 14mm / 53 x 29 x 13.5mm	52 x 28 x 14mm / 53 x 29 x 13.5mm	53 x 29 x 13.5mm
Dimensions of Controls Unit (mm)	-	-	-
Weight	-	-	-
IP Rating	IP67	IP67	IP67
Construction	RED ABS / 316 GRADE STAINLESS STEEL, RESIN FILLED	RED ABS / 316 GRADE STAINLESS STEEL, RESIN FILLED	316 GRADE STAINLESS STEEL, RESIN FILLED
Mounting	4 x M4 SECURITY SCREWS	4 x M4 SECURITY SCREWS	4 x M4 SECURITY SCREWS
Operating Temp.	-10°C to 55°C	-10°C to 55°C	-10°C to 125°C
Storage Temp.	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C

Safety Related Data

PL in Accordance with ENISO 13849-1	PL-E, CAT 3	PL-E, CAT 3	PL-E, CAT 3
SIL CL in Accordance with EN IEC 62061	SIL 3	SIL 3	SIL 3
PFHD in Accordance with EN IEC 62061	3.37×10^{-8}	3.37×10^{-8}	3.37×10^{-8}
PFH	5.63×10^{-8}	5.63×10^{-8}	5.63×10^{-8}
B10D	20,000,000	20,000,000	20,000,000
MTTFD	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)	HIGH>100 YEARS (based on usage rate of 360 days)
TM	20 YEARS	20 YEARS	20 YEARS
DC	99%	99%	99%
SFF	99.40%	99.40%	99.40%
	As part of an ISIS system	As part of an ISIS system	As part of an ISIS system

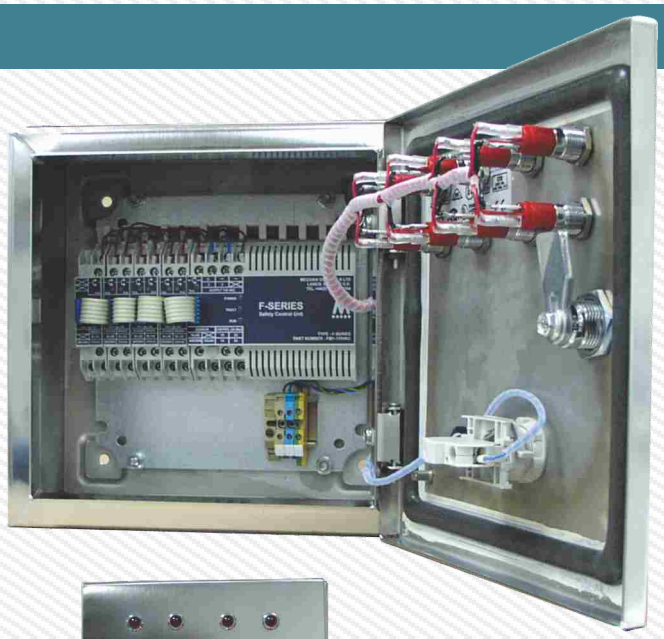
Custom Built Systems

Mechan Controls can also provide 'turn-key' solutions to your safety requirements.

Any of the Mechan safety systems can be ordered ready to install. They can be supplied complete in IP67 Stainless Steel or Painted Steel enclosures with a MIMIC panel or just 10mm LEDs for guard status indication.

Our custom built systems can be designed using any of our products shown in the catalogue and on our website.

Please see the questions below to identify what type of system you require.



8 Gate Safety System
for food filling machine

Mimic panels to your design...

System Specification

The following questions will help us provide you with a quotation for the system you require:

1.	System Type	F-SERIES, EM1 & ISIS
2.	Supply Voltage	24vDC / 24vAC / 110v AC / 230vAC
3.	Enclosure	Painted Steel / Stainless Steel
4.	Number of Safety Switches	
5.	Safety Switch Cable Length	5 / 10 / 15metres (longer if required)
6.	Buffer Relays Required	Yes / No
7.	Reset Button	Yes / No Local / Remote
8.	LEDs in Enclosure	Yes / No
9.	Mimic Panel	Send Drawing

If you have any further requirements, please contact our technical department who will be glad to help you to choose your system
Tel: +44 (0)1695 722264

MPX Safety System

- High Performance Safety System
- DIN Rail or Chassis Mounting
- Fully Electronic Safety Switches
- Monitor Up To 8 Electronic Safety Switches
- Unique Code Option (EN 14119)

Description

The MPX range comprises a choice of cost effective, simple to use safety control units that have been specially developed for monitoring Mechan's electronic safety switches.

The control units feature dual relay safety outputs, a monitoring circuit and on-board LED indication, and they are available as 24Vdc, 24Vac, 110Vac or 230Vac options. They can be supplied mounted on a chassis plate or within a steel or stainless steel enclosure.

- The SSP is a safety control unit designed for monitoring a single safety switch.
- The MPX4 monitors 2 to 4 Mechan electronic safety switches.
- The MPX8 monitors 4 to 8 Mechan electronic safety switches.
- The MPX8/DIN monitors 5 to 8 Mechan electronic safety switches.
- Additional indicator boards are available for the SSP, MPX4 and MPX8 safety control units, giving remote LED, lamp, or volt-free contact indication.

Operation

The Mechan MPX4/DIN Control Unit takes signals from the unique Mechan Safety Switch heads and processes them using 'Dynamic Fail Safe Amplifiers'.

The Dual Output Relays are driven directly by this dynamic signal resulting in a system which is inherently proof against total semiconductor failure. Each of the output relays has two contacts in series with the load. The Proving Relay is also powered from the Mechan signal and provides monitoring of the output relays every time they operate.

In the event of a faulty (welded) contact, or even a total relay failure, full system safety is maintained and a re-start is prevented. The "FAULT" LED indicates relay failure.

Simple, cost effective safety monitoring

Mechan safety control units have been monitoring 1000's of Mechan electronic safety switches of over 40 years. Proving to be safe, reliable and easy to install, the MPX range is a cost effective way to continuously monitor all your safety switches.

Available in chassis mount or 35mm DIN rail mount each control unit has dual safety outputs, and indication from each switch. Works with all current switches in the F-Series safety switch range.

Features

- 1, 2-4 or 4-8 gate operation
- Dual channel switching
- On-board diagnostic LEDs
- Monitoring circuit
- Volt free and LED guard status indication
- Can be used with Mechan electronic safety switches (F-TYPE, B-TYPE, C-TYPE & DINKY)

Benefits

- Readily up-scalable
- Fast and easy operation diagnostics
- No false indications or unnecessary downtime

MPX Safety Control Units

SSP

SSP

- 1 Safety Switch Input
- Dual Channel Output & Monitoring
- 35mm DIN Rail Mounting
- Fully Electronic Safety Switches
- Unique Code Option (EN 14119)

The SSP has 2 NO safety output contacts and a reset/monitoring circuit for simple connection to existing control systems. Designed to monitor 1 fully electronic, Mechan safety switch, the SSP can be added to other MPX safety control units to monitor larger systems. Mounted on a chassis plate the SSP is designed for easy fitting into a control panel. Optional indicator boards give the safety switch input LED, TFR or volt free contact status indication.

The SSP control units are designed to work with the F-Type, B-Type, S-Type, Dinky electronic safety switches and the unique code R-Series electronic safety switches.

MPX4

MPX4

- 2-4 Safety Switch Inputs
- Dual Channel Output & Monitoring
- 35mm DIN Rail Mounting
- Fully Electronic Safety Switches
- Unique Code Option (EN 14119)

The MPX4 has 2 NO safety output contacts and a reset/monitoring circuit for simple connection to existing control systems. A DIP switch mounted on the PCB of the MPX4 can set the unit to monitor between 2 and 4 fully electronic, Mechan safety switches. Mounted on a chassis plate the MPX4 is designed for easy fitting into a control panel. Optional indicator boards give each safety switch input LED, TFR or volt free contact status indication.

The MPX control units are designed to work with the F-Type, B-Type, S-Type, Dinky electronic safety switches and the unique code R-Series electronic safety switches.

MPX8

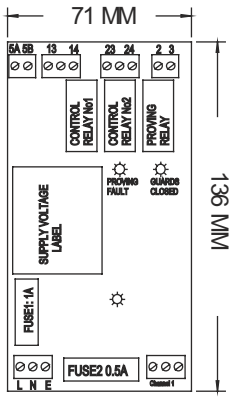
MPX8

- 4-8 Safety Switch Inputs
- Dual Channel Output & Monitoring
- 35mm DIN Rail Mounting
- Fully Electronic Safety Switches
- Unique Code Option (EN 14119)

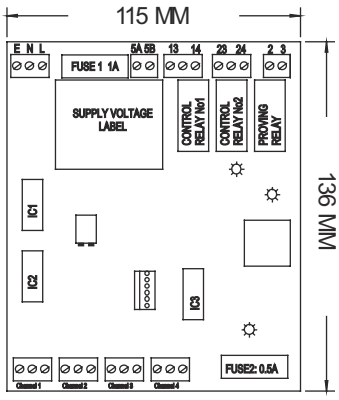
The MPX8 has 2 NO safety output contacts and a reset/monitoring circuit for simple connection to existing control systems. A DIP switch mounted on the PCB of the MPX8 can set the unit to monitor between 4 and 8 fully electronic, Mechan safety switches. Mounted on a chassis plate the MPX8 is designed for easy fitting into a control panel. Optional indicator boards give each safety switch input LED, TFR or volt free contact status indication.

The MPX control units are designed to work with the F-Type, B-Type, S-Type, Dinky electronic safety switches and the unique code R-Series electronic safety switches.

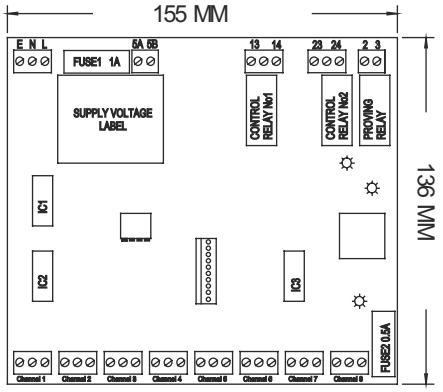
Dimensions: SSP



Dimensions: MPX4



Dimensions: MPX8

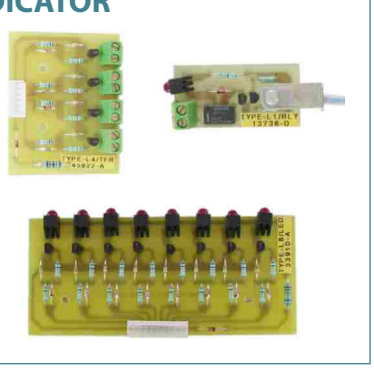


MPX Safety Control Units

MPX4/DIN

MPX8/DIN

INDICATOR



MPX4/DIN

- 1-4 Safety Switch InputS
- Dual Channel Output & Monitoring
- 35mm DIN Rail Mounting
- Fully Electronic Safety Switches
- Unique Code Option (EN 14119)

The MPX4/DIN has 2 NO safety output contacts and a reset/monitoring circuit for simple connection to existing control systems. A DIP switch mounted under the lid of the MPX4/DIN can set the unit to monitor between 1 and 4 fully electronic, Mechan safety switches. Each safety switch input has a LED status indicator on the control unit and a volt free contact for remote signalling to PLC or mimic panel.

The MPX/DIN control units are designed to work with the F-Type, B-Type, S-Type, Dinky electronic safety switches and the unique code R-Series electronic safety switches.

MPX8/DIN

- 5-8 Safety Switch Inputs
- Dual Channel Output & Monitoring
- 35mm DIN Rail Mounting
- Fully Electronic Safety Switches
- Unique Code Option (EN 14119)

The MPX8/DIN has 2 NO safety output contacts and a reset/monitoring circuit for simple connection to existing control systems. A DIP switch mounted under the lid of the MPX8/DIN can set the unit to monitor between 5 and 8 fully electronic, Mechan safety switches. Each safety switch input has a LED status indicator on the control unit and a volt free contact for remote signalling to PLC or mimic panel.

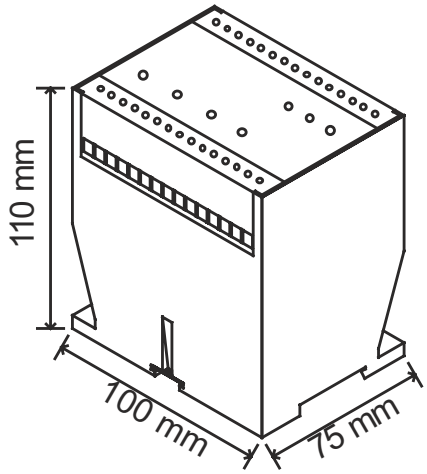
The MPX/DIN control units are designed to work with the F-Type, B-Type, S-Type, Dinky electronic safety switches and the unique code R-Series electronic safety switches.

INDICATOR

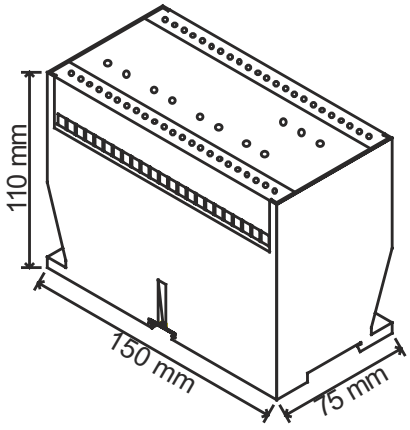
- Add-on Indicator for MPX Chassis Mount
- 1, 4 or 8 Way Versions
- Simple Plug Connection
- LED - On-board LED
- TFR - Remote 24V Lamp
- RLY - Relay, Volt Free Contact Outputs

The MPX indicator boards are a simple add-on to the chassis mounted MPX safety control units. Providing each safety switch input with either LED, lamp or relay output for easy indication of fault/gate status to the operator, or signalling to PLC for system monitoring.

MPX4/DIN



MPX8/DIN



INDICATOR

Dimensions currently unavailable

Technical Specifications

	MPX4DIN	MPX8DIN	MPX4	MPX8
Supply Voltage Options	24V DC / 24V AC / 110V AC / 230V AC	24V DC / 24V AC / 110V AC / 230V AC	24V DC / 24V AC / 110V AC / 230V AC	24V DC / 24V AC / 110V AC / 230V AC
Power Consumption	6VA	6VA	6VA	6VA
Safety Output	2 NORMALLY OPEN	2 NORMALLY OPEN	2 NORMALLY OPEN	2 NORMALLY OPEN
Safety Output Rating	2A / 240V AC / 2A 30V DC	2A / 240V AC / 2A 30V DC	2A / 240V AC / 2A 30V DC	2A / 240V AC / 2A 30V DC
Cable/Connector	-	-	-	-
Cable Length	-	-	-	-
Coding	ELECTRONIC, GENERIC CODE	ELECTRONIC, GENERIC CODE	ELECTRONIC, GENERIC CODE	ELECTRONIC, GENERIC CODE
Input	1 TO 4 ELECTRONIC SAFETY SWITCHES	5 TO 8 ELECTRONIC SAFETY SWITCHES	2 TO 4 ELECTRONIC SAFETY SWITCHES	4 TO 8 ELECTRONIC SAFETY SWITCHES
Reset Options	EXTERNAL PROVING / RESET CONNECTION	EXTERNAL PROVING / RESET CONNECTION	EXTERNAL PROVING / RESET CONNECTION	EXTERNAL PROVING / RESET CONNECTION
Indication	LEDs FOR POWER, RUN & FAULT GUARD STATUS LED	LEDs FOR POWER, RUN & FAULT GUARD STATUS LED	LEDs FOR POWER, RUN & FAULT GUARD STATUS LED	LEDs FOR POWER, RUN & FAULT GUARD STATUS LED
Dimensions of Switch (mm)	-	-	-	-
Dimensions of Actuator (mm)	-	-	-	-
Dimensions of Control Unit (mm)	100 X 75 X 110MM	150 X 75 X 110MM	PCB ONLY 136(D) X 115(W) X 40(H)MM / CHASSIS PLATE	PCB ONLY 136(D) X 155(W) X 40(H)MM / CHASSIS PLATE
Weight	-	-	-	-
IP Rating	HOUSING 1P40, TERMINALS IP20	HOUSING 1P40, TERMINALS IP20	TERMINALS IP20	TERMINALS IP20
Construction	GREY PC - BLUE TERMINALS	GREY PC - BLUE TERMINALS	OPEN PCB	OPEN PCB
Mounting	35MM DIN RAIL	35MM DIN RAIL	CHASSIS PLATE	CHASSIS PLATE
Operating Temp.	0°C to 45°C	0°C to 45°C	0°C to 45°C	0°C to 45°C
Storage Temp.	-20°C to 50°C	-20°C to 50°C	-20°C to 60°C	-20°C to 60°C

Safety Related Data

PL in Accordance with ENISO 13849-1	-	-	-	-
SIL CL in Accordance with EN IEC 62061	-	-	-	-
PFHD in Accordance with EN IEC 62061	-	-	-	-
PFH	-	-	-	-
B10D	-	-	-	-
MTTFD	-	-	-	-
TM	-	-	-	-
DC	-	-	-	-
SFF	-	-	-	-

Technical Specifications

	SSP	INDICATOR
Supply Voltage Options	24V DC / 24V AC / 110V AC / 230V AC	-
Power Consumption	6VA	-
Safety Output	2 NORMALLY OPEN	-
Safety Output Rating	2A / 240V AC / 2A 30V DC	-
Cable/Connector	-	PRE-WIRED CONNECTOR TO CONTROL BOARD
Cable Length	-	-
Coding	ELECTRONIC, GENERIC CODE	-
Input	1 ELECTRONIC SAFETY SWITCH	-
Reset Options	EXTERNAL PROVING / RESET CONNECTION	-
Indication	ON BOARD LEDs FOR POWER, RUN & FAULT OPTIONAL IND	-
Dimensions of Switch (mm)	-	-
Dimensions of Actuator (mm)	-	-
Dimensions of Control Unit (mm)	PCB ONLY 137(D) X 71(W) X 40(H)MM / CHASSIS PLATE	-
Weight	-	
IP Rating	-	-
Construction	OPEN PCB	OPEN PCB
Mounting	CHASSIS PLATE	RIGHT ANGLE BRACKET
Operating Temp.	0°C to 45°C	0°C to 45°C
Storage Temp.	-20°C to 60°C	-20°C to 60°C

Safety Related Data

PL in Accordance with ENISO 13849-1	-	-
SIL CL in Accordance with EN IEC 62061	-	-
PFHD in Accordance with EN IEC 62061	-	-
PFH	-	-
B10D	-	-
MTTFD	-	-
TM	-	-
DC	-	-
SFF	-	-

Legacy: CODEX Coded Electronic Safety System

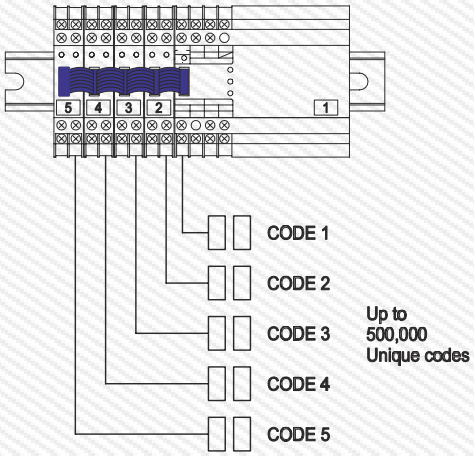
CODEX

- CAT 4 SIL 3 PL-E Safety System
- Modular Control Unit
- Digital Electronic Safety Switches
- Monitor up to 30 Switches
- Safety Switches with Unique Code Option (EN 14119)
- To be sold for replacement parts only. For new builds, please refer to the F-Series

Description

CODEX is a multi-gate safety switch monitoring system. Easy to install and expand, it can be used to monitor up to 30 gates with one control unit.

The fully electronic safety switches connect to the control unit and when power up are continuously monitored for faults in the switch or the connecting cable. Each switch has an LED and volt free contact indicator output at the control unit ensuring easy identification of open gates or faults.



The CODEX System is also available in uniquely coded.

Operation

The CODEX system uses both Dynamic Signal Processing and Dual Channel/Cross Monitoring techniques to provide a failsafe system which may be used in either single or dual channel control circuits.

The SENSORS: Are solid state electronic devices with no magnets, contacts or moving parts. They are resin encapsulated into an ABS case to provide a fully sealed, IP67, sensor which can withstand the most arduous of conditions. Water, dust, oil, machine vibration and even steam cleaning have little or no effect on their performance.

The CODEX Safety Switches differ from existing Mechan systems in that the actuator (moving sensor) transmits a code to the control module to be decoded. This code can be changed during manufacture to provide uniquely coded sensors, which can provide additional security or be used as 'Electronic Key' systems. (See additional information in CM9/CX9/CS9 installation guide).

The CONTROL MODULES: All systems start with the CM1. This contains the power supply regulation, dual PGC relay outputs, the external re-set/proving circuit and system indication along with the input for one safety switch sensor and it's volt free indicator output.

The CM1 and a CS type safety switch are all that is required for a system monitoring one guard. For larger systems, simply connect the required number of one or two channel extender modules, CX1 or CX2, to the CM1. The extenders modules provide connections for the safety switch inputs, and a volt free indicator output.

Features

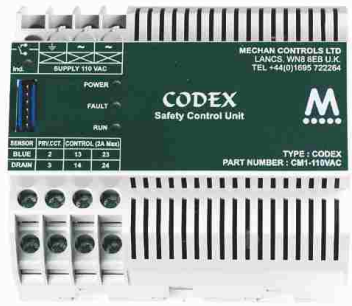
- Multi-gate monitoring
- Tamper-resistant safety switches
- Long term proven reliability
- Modular system
- Monitor up to 30 guards
- Guard status indication

Applications

- Food processing
- Dairies
- Bottling plants
- Pharmaceutical
- Concrete block/building material manufacture
- Multi-gate systems on large production lines

Legacy: CODEX Control Modules

CM1



CX1

CX2

CM1

- Master Control Module
- 24V DC / 110V AC /230V AC
- LED Diagnostics
- Dual Channel Output
- Automatic/Manual-monitored Reset

The CM1 is the master control module for each CODEX safety system. The CM1 provides 2 NO force guided contact safety outputs, internal and external relay monitoring circuit, LED system indication and the dynamic digital signal input for one Mechan safety switch sensor.

The CM1 can be ordered to operate with 24Vdc, 24Vac, 110Vac or 230Vac supply.

CX1

- Single Gate Extender Module
- LED and Volt Free Contact Indication
- 35mm DIN Rail Mounting
- 17.5mm Wide

The CX1 extender module adds one safety switch input to a CODEX safety system. Connects via a built in 6-way strap to the adjacent CM1 control module (or extender module) and has the indication output, LED and volt free contact, for that switch.

CX2

- Dual Safety Switch Extender Module
- LED and Volt Free Contact Indication
- 35mm DIN Rail Mounting
- 17.5mm Wide

The CX2 extender module adds two safety switch inputs to a CODEX safety system. Connects via a built in 6-way strap to the adjacent CM1 control module (or extender module) and has the indication output, LED and volt free contact, for each switch.

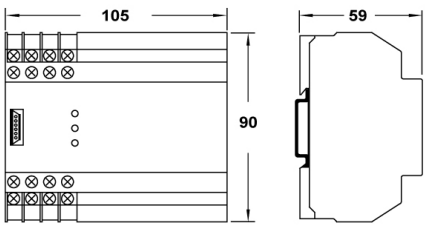
NOTE. An CX2 must have 2 Mechan safety switches connected to it to operate.

Examples of CODEX Safety System control unit combinations

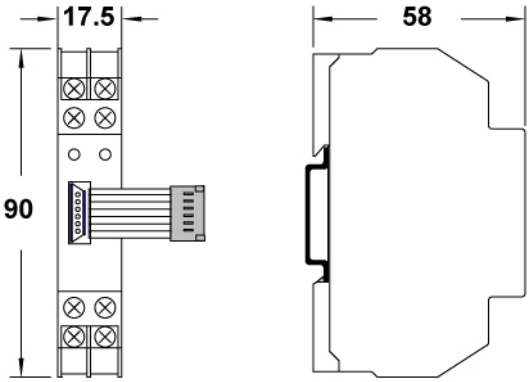
Number of Gates	CM1	CX1	CX2
2 Gate System	1	1	0
5 Gate System	1	0	2
9 Gate System	1	0	4

System examples

Dimensions: CM1



Dimensions: CX1 / CX2



Legacy: CODEX Control Modules

CLI

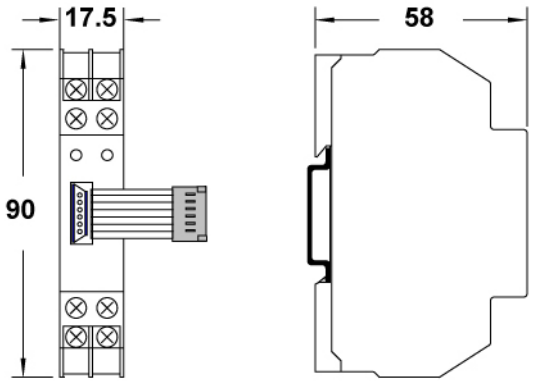
CLI

- One Mechan Safety Switch Input
- Monitored Limited Inch Button Input
- 2 or 4sec Versions
- LED and Volt Free Contact Indication
- 35mm DIN Rail Mounting
- 17.5mm Wide

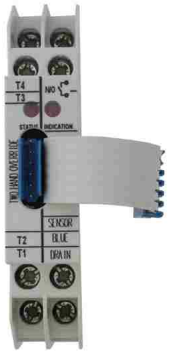
The CLI extender module provides the option of using a limited inch button control (not supplied) to override one Mechan safety switch in a CODEX safety system for a pre-set maximum time.

Simple connection via a built in 6-way strap to the adjacent CODEX module, the CLI has the input for 1 Mechan safety switch and connections for the limited inch button. When fitted correctly the button can override the Mechan switch, connected to the CLI, for up to the maximum time allowed. Releasing the button or reaching the maximum allowed time re-activates the switch.

Dimensions: CLI



C2HO



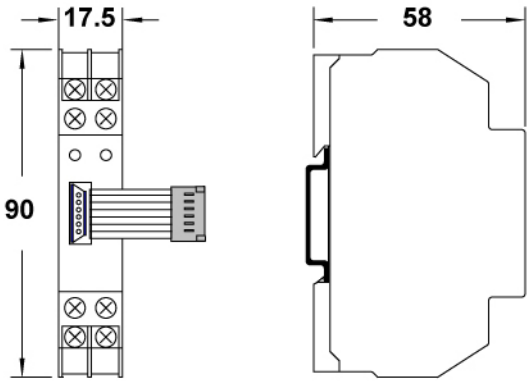
C2HO

- One Mechan Safety Switch Input
- Monitored 2 Button Control Input
- LED and Volt Free Contact Indication
- 35mm DIN Rail Mounting
- 17.5mm Wide

The C2HO extender module provides the option of using a 2 button control station (not supplied) to override one Mechan safety switch in a CODEX safety system.

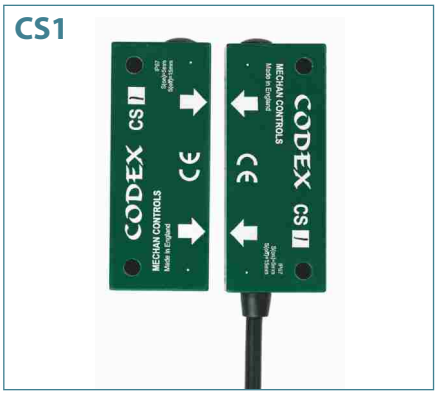
Simple connection via a built in 6-way strap to the adjacent CODEX module, the C2HO has the input for 1 Mechan safety switch and connections for the 2 button override station. When fitted correctly the buttons can be used to override the Mechan switch connected to the C2HO. Both buttons need to be pressed to override the connected Mechan switch. Releasing either button re-activates the switch.

Dimensions: C2HO



Legacy: CODEX Safety Switches

CS1



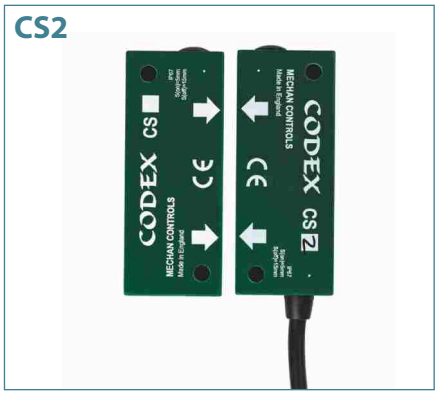
CS1

- Electronic Safety Switch
- Fully Encapsulated, IP67
- Pre-wired, 5, 10, 15m Cable (Max 100m)
- Built-in Cable Strain Relief

CS1 digital electronic safety switches are part of the CODEX safety system. Fully encapsulated into green ABS housings, with pre-drilled fixing holes directly through the body of the switch for additional strength and a consistent 10mm switching even when mounted on metal frames.

The CODEX safety switches are easy to fit and offer exceptional physical strength for long term reliability.

CS2



CS2

- Electronic Safety Switch
- Fully Encapsulated, IP67
- Pre-wired, 5, 10, 15m Cable (Max 100m)
- Built-in Cable Strain Relief

CS2 digital electronic safety switches are part of the CODEX safety system. Fully encapsulated into green ABS housings, with off-set, pre-drilled fixing holes directly through the body of the switch for additional strength and a consistent 10mm switching even when mounted on metal frames.

The CODEX safety switches are easy to fit and offer exceptional physical strength for long term reliability.

CS3

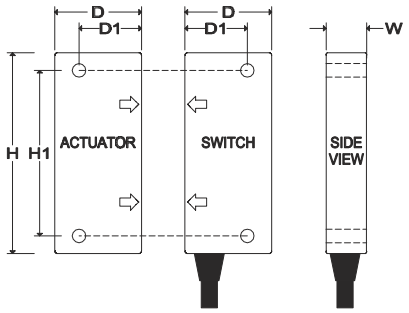
CS3

- Electronic Safety Switch
- Fully Encapsulated, IP67
- Quick Disconnect 5 or 10m Cable

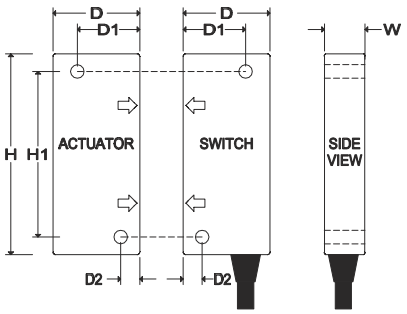
CS3 digital electronic safety switches are part of the CODEX safety system. Fully encapsulated into green ABS housings, with pre-drilled fixing holes directly through the body of the switch for additional strength and a consistent 10mm switching even when mounted on metal frames. The CS3 version has 2-pole connector to enable easy installation and change if required.

The CODEX safety switches are easy to fit and offer exceptional physical strength for long term reliability.

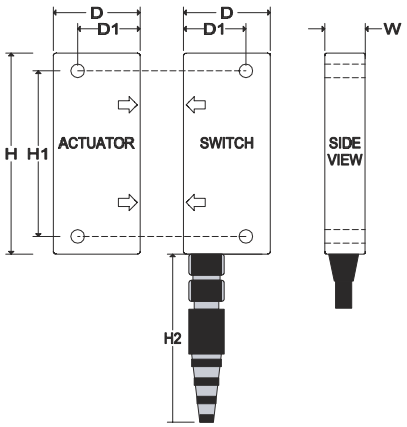
Dimensions: CS1



Dimensions: CS2



Dimensions: CS3



If you haven't already noticed,
the CS2 is identical to the CS1 in every way
apart from the diagonal fixing centres.
Please bear this in mind when ordering!

Technical Specifications

	CM1	CX1	CX2	CLI
Supply Voltage Options	24V DC / 24V AC / 110V AC / 230V AC	-	-	-
Power Consumption	AC=6VA; DC=100MA + 20MA/CHANNEL	-	-	-
Safety Output	2 NORMALLY OPEN	-	-	-
Safety Output Rating	2A / 240V AC / 2A 30V DC	-	-	-
Auxiliary Output	1 NORMALLY OPEN	-	-	-
Auxiliary Output Rating	-0.5A @ 125V AC	-	-	-
Coding	DIGITAL ELECTRONIC, GENERIC CODE	ELECTRONIC, GENERIC CODE	DIGITAL ELECTRONIC, GENERIC CODE	DIGITAL ELECTRONIC, GENERIC CODE
Input	1 CODEX SAFETY SWITCH	1 CODEX SAFETY SWITCH	2 CODEX SAFETY SWITCHES	1 CODEX SAFETY SWITCH + LIMITED INCH BUTTON
Reset Options	MANUAL / AUTOMATIC	-	-	-
Indication	LEDs FOR POWER, RUN & FAULT GUARD STATUS LED	GUARD STATUS LED AND VOLT FREE CONTACT	GUARD STATUS LEDs AND VOLT FREE CONTACTS	GUARD STATUS LED AND VOLT FREE CONTACT
Dimensions of Switch (mm)	-	-	-	-
Dimensions of Actuator (mm)	-	-	-	-
Dimensions of Control Unit (mm)	105 X 90 X 59MM	17.5 X 90 X 58MM	17.5 X 90 X 58MM	17.5 X 90 X 58MM
Weight	-	-	-	-
IP Rating	HOUSING 1P40, TERMINALS IP20	HOUSING 1P40, TERMINALS IP20	TERMINALS IP40, TERMINALS IP20	HOUSING IP40, TERMINALS IP20
Construction	GREY PC - GF	GREY PC - GF	GREY PC - GF	GREY PC - GF
Mounting	35MM DIN RAIL	-	35MM DIN RAIL	35MM DIN RAIL
Operating Temp.	0°C to 45°C	0°C to 45°C	0°C to 45°C	0°C to 45°C
Storage Temp.	-20°C to 50°C	-20°C to 50°C	-20°C to 50°C	-20°C to 50°C

Safety Related Data

PL in Accordance with ENISO 13849-1	CAT 4	CAT 4 -	CAT 4	CAT 4
SIL CL in Accordance with EN IEC 62061	-	-	-	-
PFHD in Accordance with EN IEC 62061	-	-	-	-
PFH	-	-	-	-
B10D	-	-	-	-
MTTFD	-	-	-	-
TM	-	-	-	-
DC	-	-	-	-
SFF	-		-	-
	As part of a CODEX system	As part of a CODEX system	As part of a CODEX system	As part of a CODEX system

Technical Specifications

	C2HO	CS1	CS2	CS3
Supply Voltage Options	-	-	-	-
Power Consumption	-	-	-	-
Safety Output	-	-	-	-
Safety Output Rating	-	-	-	-
Cable / Connector	-	PRE-WIRED	PRE-WIRED	DEUTSCH 2 PIN QUICK DISCONNECT
Cable Length	-	5, 10 or 15m	5, 10 or 15m	5, 10 , 15 or 20m
Coding	DIGITAL ELECTRONIC, GENERIC CODE	DIGITAL ELECTRONIC, GENERIC CODE	DIGITAL ELECTRONIC, GENERIC CODE	DIGITAL ELECTRONIC, GENERIC CODE
Input	1 CODEX SAFETY SWITCH + 2 HAND OVERRIDE	-	-	-
Reset Options	-	AT CONTROL UNIT	AT CONTROL UNIT	AT CONTROL UNIT
Indication	GUARD STATUS LED AND VOLT FREE CONTACT	AT CONTROL UNIT	AT CONTROL UNIT -	AT CONTROL UNIT
Dimensions of Switch (mm)	-	74 X 30 X 15MM	74 X 30 X 15MM	74 X 30 X 15MM
Dimensions of Actuator (mm)	-	74 X 30 X 15MM	74 X 30 X 15MM	74 X 30 X 15MM
Dimensions of Control Unit (mm)	17.5 X 90 X 58MM	-	-	-
Weight	-	-	-	-
IP Rating	HOUSING IP40 X TERMINALS IP20	IP67	IP67	IP67
Construction	GREY PC - GF	GREEN ABS, RESIN FILLED	GREEN ABS, RESIN FILLED	GREEN ABS, RESIN FILLED
Mounting	35MM DIN RAIL	4 X M4	4 X M4	4 X M4
Operating Temp.	0°C to 45°C	0°C to 45°C	0°C to 45°C	0°C to 45°C
Storage Temp.	-20°C to 50°C	-20°C to 50°C	-20°C to 50°C	-20°C to 50°C

Safety Related Data

PL in Accordance with ENISO 13849-1	CAT 4	CAT 4 -	CAT 4	CAT 4
SIL CL in Accordance with EN IEC 62061	-	-	-	-
PFHD in Accordance with EN IEC 62061	-	-	-	-
PFH	-	-	-	-
B10D	-	-	-	-
MTTFD	-	-	-	-
TM	-	-	-	-
DC	-	-	-	-
SFF	-		-	-
	As part of a CODEX system	As part of a CODEX system	As part of a CODEX system	As part of a CODEX system

Ordering Information

F Series - Control Unit and Switches

Stock No.	Description	Part No.
327.000	FM1 24V DC Safety Control Unit	FM1-24V DC
327.001	FM1 24V AC Safety Control Unit	FM1-24V AC
327.002	FM1 110V AC Safety Control Unit	FM1-110V AC
327.003	FM1 240V AC Safety Control Unit	FM1-240V AC
328.000	FX1 Extender Module	FX1
328.001	FX2 Extender Module	FX2
330.003	ESM F-Series Emergency Stop Module	ESM
329.000	F2HO F-Series 2 Hand Override	F2HO
308.000	FMA-5M F-Type Safety Switch & Actuator	FMA-5M
308.001	FMA-10M F-Type Safety Switch & Actuator	FMA-10M
308.002	FMA-15M F-Type Safety Switch & Actuator	FMA-15M
308.003	FMG-5M F-Type Safety Switch & Actuator	FMG-5M
308.004	FMG-10M F-Type Safety Switch & Actuator	FMG-10M
308.005	FMG-15M F-Type Safety Switch & Actuator	FMG-15M
308.006	FMT-5M F-Type Safety Switch & Actuator	FMT-5M
308.007	FMT-10M F-Type Safety Switch & Actuator	FMT-10M
308.008	FMT-15M F-Type Safety Switch & Actuator	FMT-15M
312.013	FMS-5M F-Type Safety Switch & Actuator	FMS-5M
312.014	FMS-10M F-Type Safety Switch & Actuator	FMS-10M
310.002	FM7-5M F-Type Safety Switch & Actuator	FM7-05M
310.003	FM7-10M F-Type Safety Switch & Actuator	FM7-10M
310.004	FM7-15M F-Type Safety Switch & Actuator	FM7-15M
309.000	BMS-5M B-Type Safety Switch & Actuator	BMS-5M
309.001	BMS-10M B-Type Safety Switch & Actuator	BMS-10M
309.002	BMS-15M B-Type Safety Switch & Actuator	BMS-15M
309.003	BMR-5M B-Type Safety Switch & Actuator	BMR-5M
309.004	BMR-10M B-Type Safety Switch & Actuator	BMR-10M
309.005	BMR-15M B-Type Safety Switch & Actuator	BMR-15M
309.021	BMP-5M B-Type Safety Switch & Actuator	BMP-5M
309.022	BMP-10M B-Type Safety Switch & Actuator	BMP-10M
309.023	BMP-15M B-Type Safety Switch & Actuator	BMP-15M
309.024	BMQD-5M Quick Disconnect B-Type Safety Switch (with 5M cable)	BMQD-5M
309.025	BMQD-15M Quick Disconnect B-Type Safety Switch (with 15M cable)	BMQD-15M
374.000	DNK1-5M DINKY Safety Switch & Actuator	DNK1-5M
374.001	DNK1-10M DINKY Safety Switch & Actuator	DNK1-10M
374.002	DNK1-15M DINKY Safety Switch & Actuator	DNK1-15M
374.004	DNK1-20M DINKY Safety Switch & Actuator	DNK1-20M
374.050	DNK2-QD DINKY Safety Switch & Actuator (M8-3PIN)	DNK2-QD
374.052	DNK2-QD-05M DINKY Quick Disconnect Switch & Actuator	DNK2-QD-05M
374.053	DNK2-QD-15M DINKY Quick Disconnect Switch & Actuator	DNK2-QD-15M

If you'd like to enquire about ordering the RFID switches please contact the office on 01695 722264
or email info@mechancontrols.co.uk

F Series Switches with Enhanced EMC Immunity / Limited Inch

Stock No.	Description	Part No.
312.000	SFMA-5M S-Type Safety Switch & Actuator	SFMA-5M
312.001	SFMA-10M S-Type Safety Switch & Actuator	SFMA-10M
312.002	SFA-5M S-Type Safety Switch & Actuator	SFA-5M
312.003	SFA-10M S-Type Safety Switch & Actuator	SFA-10M
312.004	SFMG-5M S-Type Safety Switch & Actuator	SFMG-5M
312.005	SFMG-10M S-Type Safety Switch & Actuator	SFMG-10M
312.006	SFG-5M S-Type Safety Switch & Actuator	SFG-5M
312.007	SFG-10M S-Type Safety Switch & Actuator	SFG-10M
312.008	SFMT-5M S-Type Safety Switch & Actuator	SFMT-5M
312.009	SFMT-10M S-Type Safety Switch & Actuator	SFMT-10M
312.010	SFT-5M S-Type Safety Switch & Actuator	SFT-5M
312.011	SFT-10M S-Type Safety Switch & Actuator	SFT-10M
312.015	SFMA-15M S-Type Safety Switch & Actuator	SFMA-15M
312.016	SFMA-20M S-Type Safety Switch & Actuator	SFMA-20M
312.017	SFMA-25M S-Type Safety Switch & Actuator	SFMA-25M
330.000	FLI-2 F-Series Limited Inch Safety Switch & Actuator	FLI-2
330.001	FLI-4 F-Series Limited Inch Safety Switch & Actuator	FLI-4
330.002	FLI-5 F-Series Limited Inch Safety Switch & Actuator	FLI-5

F Series Pneumatic Locking Unit

Stock No.	Description	Part No.
318.001	PLU Pneumatic Locking Unit Complete	PLU
318.004	BMS-PLU-15M Safety Switch for PLU Locking Unit	BMS-PLU-15M

MAGNASAFE Safety Switches

Stock No.	Description	Part No.
350.000	MS1-10-AC-03M MAGNASAFE Safety Switch & Actuator	MS1-10-AC-03M
350.015	MS1-10-AC-06M MAGNASAFE Safety Switch & Actuator	MS1-10-AC-06M
350.001	MS1-11-AC-03M MAGNASAFE Safety Switch & Actuator	MS1-11-AC-03M
350.002	MS1-20-AC-03M MAGNASAFE Safety Switch & Actuator	MS1-20-AC-03M
350.003	MS1-21-AC-03M MAGNASAFE Safety Switch & Actuator	MS1-21-AC-03M
350.004	MS1-10-110AC-03M MAGNASAFE Safety Switch & Actuator	MS1-10-110AC-03M
350.005	MS1-10-110AC-06M MAGNASAFE Safety Switch & Actuator	MS1-10-110AC-06M
350.006	MS1-11-AC-10M MAGNASAFE Safety Switch & Actuator	MS1-11-AC-10M
350.007	MS1-21-AC-10M MAGNASAFE Safety Switch & Actuator	MS1-21-AC-10M
350.008	MS1-10-AC-05M MAGNASAFE Safety Switch & Actuator	MS1-10-AC-05M
350.009	MS1-11-110AC-03M MAGNASAFE Safety Switch & Actuator	MS1-11-110AC-03M
350.050	MS1-10-DC-03M MAGNASAFE Safety Switch & Actuator	MS1-10-DC-03M
350.051	MS1-11-DC-03M MAGNASAFE Safety Switch & Actuator	MS1-11-DC-03M
350.052	MS1-20-DC-03M MAGNASAFE Safety Switch & Actuator	MS1-20-DC-03M
350.054	MS1-20-DC-05M MAGNASAFE Safety Switch & Actuator	MS1-20-DC-05M
350.053	MS1-21-DC-03M MAGNASAFE Safety Switch & Actuator	MS1-21-DC-03M
350.055	MS1-21-DC-10M MAGNASAFE Safety Switch & Actuator	MS1-21-DC-10M
351.000	MS2-10-AC-03M MAGNASAFE Safety Switch & Actuator	MS2-10-AC-03M
351.001	MS2-11-AC-03M MAGNASAFE Safety Switch & Actuator	MS2-11-AC-03M
351.050	MS2-10-DC-03M MAGNASAFE Safety Switch & Actuator	MS2-10-DC-03M
351.051	MS2-11-DC-03M MAGNASAFE Safety Switch & Actuator	MS2-11-DC-03M
351.052	MS2-11-DC-20M MAGNASAFE Safety Switch & Actuator	MS2-11-DC-20M
352.000	MS3-10-AC-03M MAGNASAFE Safety Switch & Actuator	MS3-10-AC-03M
352.001	MS3-11-AC-03M MAGNASAFE Safety Switch & Actuator	MS3-11-AC-03M
352.002	MS3-20-AC-03M MAGNASAFE Safety Switch & Actuator	MS3-20-AC-03M
352.003	MS3-21-AC-03M MAGNASAFE Safety Switch & Actuator	MS3-21-AC-03M
352.050	MS3-10-DC-03M MAGNASAFE Safety Switch & Actuator	MS3-10-DC-03M
352.051	MS3-11-DC-03M MAGNASAFE Safety Switch & Actuator	MS3-11-DC-03M
352.052	MS3-20-DC-03M MAGNASAFE Safety Switch & Actuator	MS3-20-DC-03M
352.053	MS3-21-DC-03M MAGNASAFE Safety Switch & Actuator	MS3-21-DC-03M

MAGNASAFE Safety Switches (cntd)

Stock No.	Description	Part No.
352.055	MS3-21-DC-10M MAGNASAFE Safety Switch & Actuator	MS3-21-DC-10M
353.001	MS4-10-DC-03M MAGNASAFE Safety Switch & Actuator	MS4-10-DC-03M
353.002	MS4-11-DC-03M MAGNASAFE Safety Switch & Actuator	MS4-11-DC-03M
353.003	MS4-10-DC-05M-SE MAGNASAFE Safety Switch (side exit cable)	MS4-10-DC-03M-SE
353.004	MS4-10-110AC-03M MAGNASAFE Safety Switch & Actuator	MS4-10-110AC-03M
353.005	MS4-SS-11-DC-03M MAGNASAFE Stainless Steel Safety Switch & Actuator	MS4-SS-11-DC-03M
353.006	MS4-SS-10-DC-03M MAGNASAFE Stainless Steel Safety Switch & Actuator	MS4-SS-10-DC-03M
353.009	MS4-SS-10-DC-10M MAGNASAFE Stainless Steel Safety Switch & Actuator	MS4-SS-10-DC-10M
353.008	MS4-SS-11-24AC-05M MAGNASAFE Stainless Steel Safety Switch & Actuator	MS4SS11-24AC-05M
353.007	MS4-SS-11-110AC-05M MAGNASAFE Stainless Steel Safety Switch & Actuator	MS4SS11-110AC05M
354.050	MS5-21-DC-03M MAGNASAFE Safety Switch & Actuator	MS5-21-DC-03M
354.059	MS5-21-DC-05M MAGNASAFE Safety Switch & Actuator	MS5-21-DC-05M
354.061	MS5-21-DC-10M MAGNASAFE Safety Switch & Actuator	MS5-21-DC-10M
354.064	MS5-20-DC-LQD MAGNASAFE Safety Switch & Actuator (no cable)	MS5-20-DC-LQD
354.056	MS5-21-DC-LQD MAGNASAFE Safety Switch & Actuator (no cable)	MS5-21-DC-LQD
354.051	MS5-SS-21-DC-03M MAGNASAFE Safety Switch & Actuator	MS5-SS-21-DC-03M
354.058	MS5-SS-21-DC-05M MAGNASAFE Safety Switch & Actuator	MS5-SS-21-DC-05M
354.060	MS5-SS-21-DC-10M MAGNASAFE Safety Switch & Actuator	MS5-SS-21-DC-10M
354.055	MS5-SS-21-DC-12M MAGNASAFE Safety Switch & Actuator	MS5-SS-21-DC-12M
354.052	MS5-SS-21-DC-LQD MAGNASAFE Safety Switch & Actuator (no cable)	MS5-SS-21-DC-LQD
354.057	MS5-SS-21-DC-05M MAGNASAFE Safety Switch & Actuator (high temperature)	MS5-SS-21-DC-5M-HT
354.063	MS5-SS-21-DC-10M MAGNASAFE Safety Switch & Actuator (high temperature)	MS5-SS-21-DC-10M-HT
356.000	MS6-10-DC-03M MAGNASAFE Safety Switch & Actuator	MS6-10-DC-03M
356.001	MS6-10-DC-06M MAGNASAFE Safety Switch & Actuator	MS6-10-DC-06M
356.002	MS6-11-DC-03M MAGNASAFE Safety Switch & Actuator	MS6-11-DC-03M
356.003	MS6-11-DC-06M MAGNASAFE Safety Switch & Actuator	MS6-11-DC-06M
356.004	MS6-20-DC-03M MAGNASAFE Safety Switch & Actuator	MS6-20-DC-03M
356.005	MS6-20-DC-06M MAGNASAFE Safety Switch & Actuator	MS6-20-DC-06M
356.006	MS6-21-DC-03M MAGNASAFE Safety Switch & Actuator	MS6-21-DC-03M
356.033	MS6-21-DC-10M MAGNASAFE Safety Switch & Actuator	MS6-21-DC-10M
356.007	MS6-21-DC-06M MAGNASAFE Safety Switch & Actuator	MS6-21-DC-06M
356.008	MS6-10-AC-03M MAGNASAFE Safety Switch & Actuator	MS6-10-AC-03M
356.009	MS6-10-AC-06M MAGNASAFE Safety Switch & Actuator	MS6-10-AC-06M
356.010	MS6-11-AC-03M MAGNASAFE Safety Switch & Actuator	MS6-11-AC-03M
356.011	MS6-11-AC-06M MAGNASAFE Safety Switch & Actuator	MS6-11-AC-06M
356.012	MS6-20-AC-03M MAGNASAFE Safety Switch & Actuator	MS6-20-AC-03M
356.013	MS6-20-AC-06M MAGNASAFE Safety Switch & Actuator	MS6-20-AC-06M
356.014	MS6-21-AC-03M MAGNASAFE Safety Switch & Actuator	MS6-21-AC-03M
356.015	MS6-21-AC-06M MAGNASAFE Safety Switch & Actuator	MS6-21-AC-06M
356.016	MS6-10-DC-QD MAGNASAFE Safety Switch & Actuator (no cable)	MS6-10-DC-QD
356.017	MS6-11-DC-QD MAGNASAFE Safety Switch & Actuator (no cable)	MS6-11-DC-QD
356.018	MS6-20-DC-QD MAGNASAFE Safety Switch & Actuator (no cable)	MS6-20-DC-QD
356.019	MS6-21-DC-QD MAGNASAFE Safety Switch & Actuator (no cable)	MS6-21-DC-QD
356.020	MS6-10-AC-QD MAGNASAFE Safety Switch & Actuator (no cable)	MS6-10-AC-QD
356.021	MS6-11-AC-QD MAGNASAFE Safety Switch & Actuator (no cable)	MS6-11-AC-QD
356.022	MS6-20-AC-QD MAGNASAFE Safety Switch & Actuator (no cable)	MS6-20-AC-QD
356.023	MS6-21-AC-QD MAGNASAFE Safety Switch & Actuator (no cable)	MS6-21-AC-QD
356.024	MS6-10-DC-QD-05M MAGNASAFE Safety Switch & Actuator (with 5m cable)	MS6-10-DC-QD-05M
356.025	MS6-11-DC-QD-05M MAGNASAFE Safety Switch & Actuator (with 5m cable)	MS6-11-DC-QD-05M
356.026	MS6-20-DC-QD-05M MAGNASAFE Safety Switch & Actuator (with 5m cable)	MS6-20-DC-QD-05M
356.027	MS6-21-DC-QD-05M MAGNASAFE Safety Switch & Actuator (with 5m cable)	MS6-21-DC-QD-05M
356.028	MS6-10-AC-QD-05M MAGNASAFE Safety Switch & Actuator (with 5m cable)	MS6-10-AC-QD-05M
356.029	MS6-11-AC-QD-05M MAGNASAFE Safety Switch & Actuator (with 5m cable)	MS6-11-AC-QD-05M
356.030	MS6-20-AC-QD-05M MAGNASAFE Safety Switch & Actuator (with 5m cable)	MS6-20-AC-QD-05M
356.031	MS6-21-AC-QD-05M MAGNASAFE Safety Switch & Actuator (with 5m cable)	MS6-21-AC-QD-05M
356.032	MS6-10-110AC-03M MAGNASAFE Safety Switch & Actuator	MS6-10-110AC-03M
356.036	MS6-10-110AC-06M MAGNASAFE Safety Switch & Actuator	MS6-10-110AC-06M
356.050	MS6-SS-10-DC-03M MAGNASAFE Safety Switch & Actuator	MS6-SS-10-DC-03M
356.058	MS6-SS-10-DC-06M MAGNASAFE Safety Switch & Actuator	MS6-SS-10-DC-06M
356.051	MS6-SS-11-DC-03M MAGNASAFE Safety Switch & Actuator	MS6-SS-11-DC-03M
356.052	MS6-SS-20-DC-03M MAGNASAFE Safety Switch & Actuator	MS6-SS-20-DC-03M
356.057	MS6-SS-20-DC-05M MAGNASAFE Safety Switch & Actuator	MS6-SS-20-DC-05M

MAGNASAFE Safety Switches (cntd)

Stock No.	Description	Part No.
356.053	MS6-SS-10-AC-03M MAGNASAFE Safety Switch & Actuator	MS6-SS-10-AC-03M
356.054	MS6-SS-10-AC-QD MAGNASAFE Safety Switch & Actuator	MS6-SS-10-AC-QD
356.055	MS6-SS-10-AC-QD-05M MAGNASAFE Safety Switch & Actuator	MS6-SS-10-AC-QD-05M
356.056	MS6-SS-10-AC-03M-HT MAGNASAFE Safety Switch & Actuator (high temperature)	MS6-SS-10-AC-03M-HT
356.059	MS6-SS-10-AC-06M MAGNASAFE Safety Switch & Actuator	MS6-SS-10-AC-06M
356.063	MS6-SS-21-DC-03M MAGNASAFE Safety Switch & Actuator	MS6-SS-21-DC-03M
356.064	MS6-SS-11-DC-QD MAGNASAFE Safety Switch & Actuator (no cable)	MS6-SS-11-DC-QD
356.065	MS6-SS-11-DC-QD-05M MAGNASAFE Safety Switch & Actuator (with 5m cable)	MS6-SS-11-DC-05M
356.066	MS6-SS-20-DC-10M MAGNASAFE Safety Switch & Actuator	MS6-SS-20-DC-10M
356.067	MS6-SS-21-DC-05M MAGNASAFE Safety Switch & Actuator	MS6-SS-21-DC-05M
356.068	MS6-SS-21-DC-10M MAGNASAFE Safety Switch & Actuator	MS6-SS-21-DC-10M
356.069	MS6-SS-21-DC-QD MAGNASAFE Safety Switch & Actuator (no cable)	MS6-SS-21-DC-QD
356.075	MS6-SS-20-DC-QD MAGNASAFE Safety Switch & Actuator (no cable)	MS6-SS-20-DC-QD
356.076	MS6-SS-20-DC-QD05 MAGNASAFE Safety Switch & Actuator	MS6-SS-20-DCQD05
356.078	MS6-SS-21-DC-06M MAGNASAFE Safety Switch & Actuator	MS6-SS-21-DC-06M
356.079	MS6-SS-11-DC-10M MAGNASAFE Safety Switch & Actuator	MS6-SS-11-DC-10M
356.080	MS6-SS-10-DC-10M MAGNASAFE Safety Switch & Actuator	MS6-SS-10-DC-10M
356.081	MS6-SS-21-DC-06M-HT MAGNASAFE Safety Switch (high temperature)	MS6-SS-21-DC-06M-HT
357.000	MS7-21-DC-03M MAGNASFE Safety Switch & Actuator	MS7-21-DC-03M
357.001	MS7-21-DC-06M MAGNASAFE Safety Switch & Actuator	MS7-21-DC-06M
357.004	MS7-21-DC-LQD MAGNASAFE Safety Switch & Actuator (with 5m cable)	MS7-21-DC-LQD-5M
357.005	MS7-30-DC-03M MAGNASFE Safety Switch & Actuator	MS7-30-DC-03M
357.006	MS7-11-DC-03M MAGNASFE Safety Switch & Actuator	MS7-11-DC-03M
357.008	MS7-21-DC-LQD MAGNASAFE Safety Switch & Actuator (with 10m cable)	MS7-21-DC-LQD-10M
357.009	MS7-21-DC-LQD MAGNASAFE Safety Switch & Actuator (no cable)	MS7-21-DC-LQD NC
357.010	MS7-11-DC-10M Safety Switch & Actuator	MS7-11-DC-10M
357.020	MS7-SS-21-DC-03M MAGNASAFE Safety Switch & Actuator	MS7-SS-21-DC-03M
357.021	MS7-SS-21-DC-05M MAGNASFE Safety Switch & Actuator	MS7-SS-21-DC-05M
358.010	MS8-20-DC-03M MAGNASAFE Safety Switch & Actuator	MS8-20-DC-03M
358.011	MS8-20-DC-06M MAGNASAFE Safety Switch & Actuator	MS8-20-DC-06M
358.000	MS8-SS-21-DC-05M MAGNASAFE Safety Switch & Actuator	MS8-SS-21-DC-05M
358.002	MS8-SS-21-DC-QD MAGNASAFE Safety Switch & Actuator (no cable)	MS8-SS-21-DC-QD
358.001	MS8-SS-21-DC-QD-05M MAGNASAFE Safety Switch & Actuator (with 5m cable)	MS8-SS-21-DC-5M
358.004	MS8-SS-21-DC-03M MAGNASAFE SSafety Switch & Actuator	MS8-SS-21-DC-03M
358.003	MS8-SS-21-DC-10M MAGNASAFE Safety Switch & Actuator	MS8-SS-21-DC-10M
359.000	MS21-11-DC-03M MAGNASAFE Safety Switch & Actuator	MS21-11-DC-03M
359.001	MS21-11-DC-06M MAGNASAFE Safety Switch & Actuator	MS21-11-DC-06M
359.002	MS21-20-DC-03M MAGNASAFE Safety Switch & Actuator	MS21-20-DC-03M
359.003	MS21-20-DC-06M MAGNASAFE Safety Switch & Actuator	MS21-20-DC-06M
359.004	MS21-21-DC-03M MAGNASAFE Safety Switch & Actuator	MS21-21-DC-03M
359.005	MS21-21-DC-06M MAGNASAFE Safety Switch & Actuator	MS21-21-DC-06M
359.006	MS21-11-AC-03M MAGNASAFE Safety Switch & Actuator	MS21-11-AC-03M
359.007	MS21-11-AC-06M MAGNASAFE Safety Switch & Actuator	MS21-11-AC-06M
359.008	MS21-20-AC-03M MAGNASAFE Safety Switch & Actuator	MS21-20-AC-03M
359.009	MS21-20-AC-06M MAGNASAFE Safety Switch & Actuator	MS21-20-AC-06M
359.010	MS21-21-AC-03M MAGNASAFE Safety Switch & Actuator	MS21-21-AC-03M
359.011	MS21-21-AC-06M MAGNASAFE Safety Switch & Actuator	MS21-21-AC-06M
359.017	MS21-11-DC-10M MAGNASAFE Safety Switch & Actuator	MS21-11-DC-10M
359.019	MS21-21-DC-10M MAGNASAFE Safety Switch & Actuator	MS21-21-DC-10M
359.021	MS21-11-AC-10M MAGNASAFE Safety Switch & Actuator	MS21-11-AC-10M
359.023	MS21-21-AC-10M MAGNASAFE Safety Switch & Actuator	MS21-21-AC-10M
359.025	MS21-11-DC-QD MAGNASAFE Safety Switch & Actuator (no cable)	MS21-11-DC-QD
359.026	MS21-20-DC-QD MAGNASAFE Safety Switch & Actuator (no cable)	MS21-20-DC-QD
359.027	MS21-21-DC-QD MAGNASAFE Safety Switch & Actuator (no cable)	MS21-21-DC-QD
359.029	MS21-11-AC-QD MAGNASAFE Safety Switch & Actuator (no cable)	MS21-11-AC-QD
359.030	MS21-20-AC-QD MAGNASAFE Safety Switch & Actuator (no cable)	MS21-20-AC-QD
359.031	MS21-21-AC-QD MAGNASAFE Safety Switch & Actuator (no cable)	MS21-21-AC-QD
359.068	MS21-SS-11-DC-03M MAGNASAFE Safety Switch & Actuator	MS21-SS-11-DC-03
359.073	MS21-SS-20-DC-10M MAGNASAFE Safety Switch & Actuator	MS21-SS-20-DC-10
359.074	MS21-SS-21-DC-03M MAGNASAFE Safety Switch & Actuator	MS21-SS-21-DC-03
359.075	MS21-SS-21-DC-06M MAGNASAFE Safety Switch & Actuator	MS21-SS-21-DC-06
359.076	MS21-SS-21-DC-10M MAGNASAFE Safety Switch & Actuator	MS21-SS-21-DC-10

MAGNASAFE Safety Switches (cntd)

Stock No.	Description	Part No.
359.080	MS21-SS-11-AC-03M MAGNASAFE Safety Switch & Actuator	MS21-SS-11-AC-03
359.082	MS21-SS-11-AC-10M MAGNASAFE Safety Switch & Actuator	MS21-SS-11-AC-10
359.086	MS21-SS-21-AC-03M MAGNASAFE Safety Switch & Actuator	MS21-SS-21-AC-03
359.087	MS21-SS-21-AC-06M MAGNASAFE Safety Switch & Actuator	MS21-SS-21-AC-06
359.088	MS21-SS-21-AC-10M MAGNASAFE Safety Switch & Actuator	MS21-SS-21-AC-10
359.089	MS21-SS-21-DC-QD MAGNASAFE Safety Switch & Actuator (no cable)	MS21-SS-21-DC-QD
359.061	MS21-SS-11-AC-QD-05M MAGNASAFE Safety Switch & Actuator (with 5m cable)	MS21-SS-11AC-QD-5M

Safety Relay

Stock No.	Description	Part No.
307.004	SRL1 Safety Relay 24V AC/DC (MAGNASAFE/S-Type)	SRL1 24V
330.004	EM1-24V DC Expandable Safety Relay	EM1-24VDC
330.003	ESM Emergency Stop Module	ESM

S-Type Safety Switches

Stock No.	Description	Part No.
360.000	SSS-20-03M Safety Switch & Actuator	SSS-20-03M
360.001	SSS-11-03M Safety Switch & Actuator	SSS-11-DC-03M
360.007	SSS-11-10M Safety Switch & Actuator	SSS-11-10M
360.008	SSS-11-06M Safety Switch & Actuator	SSS-11-06M
360.009	SSS-20-10M Safety Switch & Actuator	SSS-20-10M
360.010	SSS-20-05M Safety Switch & Actuator	SSS-20-05M
360.011	SSS-20-06M Safety Switch & Actuator	SSS-20-06M
360.002	SSS-20-QD Safety Switch & Actuator	SSS-20-DC-QD
360.003	SSS-11-QD Safety Switch & Actuator (no cable)	SSS-11-DC-QD
360.005	SSS-20-QD-05M Safety Switch & Actuator	SSS-20-QD-05M
360.006	SSS-11-QD-05M Safety Switch & Actuator	SSS-11-QD-05M
362.000	SS-R-21-03M Safety Switch & Actuator	SS-R-21-03M
362.001	SS-R-21-10M Safety Switch & Actuator	SS-R-21-10M
362.004	SS-R-21-05M Safety Switch & Actuator	SS-R-21-05M
362.005	SS-R-21-06M Safety Switch & Actuator	SS-R-21-06M
362.006	SS-R-21-15M Safety Switch & Actuator	SS-R-21-15M
362.007	SS-R-21-LQD Safety Switch & Actuator (no cable)	SS-R-21-LQD
362.008	SS-R-21-LQD-05M Safety Switch & Actuator (with 5m cable)	SS-R-21-LQD-05
362.009	SS-R-21-LQD-10M Safety Switch & Actuator (with 10m cable)	MSS-R-21-LQD-10
363.002	SS-C-11-03M Safety Switch & Actuator	MSS-C-11-03
363.000	SS-C-11-05M Safety Switch & Actuator	MSS-C-11-05
363.001	SS-C-11-10M Safety Switch & Actuator	MSS-C-11-10
363.005	SS-C-20-03M Safety Switch & Actuator	MSS-C-20-03
363.003	SS-C-10-QD Safety Switch & Actuator (no cable)	MSS-C-10-QD
363.004	SS-C-20-LQD Safety Switch & Actuator (no cable)	SS-C-20-LQD

RSS-Series Safety Switches

Stock No.	Description	Part No.
364.000	RSSR-21-DC-03M Safety Switch & Actuator	RSSR-21-DC-03M
364.001	RSSR-21-DC-06M Safety Switch & Actuator	RSSR-21-DC-06M
364.002	RSSR-21-DC-10M Safety Switch & Actuator	RSSR-21-DC-10M
364.003	RSSR-21-DC-LQD-05M Safety Switch & Actuator	RSSR-21-DC-LQD-05M
364.004	RSSR-21-DC-LQD-10M Safety Switch & Actuator	RSSR-21-DC-LQD-10M
364.005	RSSR-21-DC-LQD No Cable Safety Switch & Actuator	RSSR-21-DC-LQD
364.015	RSSR-ACT Actuator Only	RSSR-ACT
364.020	RSSG-21-DC-03M Safety Switch & Actuator	RSSG-21-DC-03M
364.021	RSSG-21-DC-06M Safety Switch & Actuator	RSSG-21-DC-06M
364.022	RSSG-21-DC-10M Safety Switch & Actuator	RSSG-21-DC-10M
364.023	RSSG-21-DC-LQD-05M Safety Switch & Actuator	RSSG-21-DC-LQD-05M
364.024	RSSG-21-DC-LQD-10M Safety Switch & Actuator	RSSG-21-DC-LQD-10M
364.025	RSSG-21-DC-LQD No Cable Safety Switch & Actuator	RSSG-21-DC-LQD
364.035	RSSG-ACT Actuator Only	RSSG-ACT
364.040	RSSO-21-DC-03M Safety Switch & Actuator	RSSO-21-DC-03M
364.041	RSSO-21-DC-06M Safety Switch & Actuator	RSSO-21-DC-06M
364.042	RSSO-21-DC-10M Safety Switch & Actuator	RSSO-21-DC-10M
364.043	RSSO-21-DC-LQD-05M Safety Switch & Actuator	RSSO-21-DC-LQD-05M
364.044	RSSO-21-DC-LQD-10M Safety Switch & Actuator	RSSO-21-DC-LQD-10M
364.045	RSSO-21-DC-LQD No Cable Safety Switch & Actuator	RSSO-21-DC-LQD
364.055	RSSO-ACT Actuator Only	RSSO-ACT
364.060	RSSK-21-DC-03M Safety Switch & Actuator	RSSK-21-DC-03M
364.061	RSSK-21-DC-06M Safety Switch & Actuator	RSSK-21-DC-06M
364.062	RSSK-21-DC-10M Safety Switch & Actuator	RSSK-21-DC-10M
364.063	RSSK-21-DC-LQD-05M Safety Switch & Actuator	RSSK-21-DC-LQD-05M
364.064	RSSK-21-DC-LQD-10M Safety Switch & Actuator	RSSK-21-DC-LQD-10M
364.065	RSSK-21-DC-LQD No Cable Safety Switch & Actuator	RSSK-21-DC-LQD
364.075	RSSK-ACT Actuator Only	RSSK-ACT
364.080	RDNK-21-DC-03M Safety Switch & Actuator	RDNK-21-DC-03M
364.081	RDNK-21-DC-06M Safety Switch & Actuator	RDNK-21-DC-06M
364.082	RDNK-21-DC-10M Safety Switch & Actuator	RDNK-21-DC-10M
364.083	RDNK-21-DC-LQD-05M Safety Switch & Actuator	RDNK-21-DC-LQD-05M
364.084	RDNK-21-DC-LQD-10M Safety Switch & Actuator	RDNK-21-DC-LQD-10M
364.085	RDNK-21-DC-LQD No Cable Safety Switch & Actuator	RDNK-21-DC-LQD
364.095	RDNK-ACT Actuator Only	RDNK-ACT

Safety Control Unit

Stock No.	Description	Part No.
340.000	SCU1 Safety Control Unit 24 V DC (HE-Series)	SRL1 24V

HE-Series Safety Switches

Stock No.	Description	Part No.
341.000	HE1-11-DC-03M Safety Switch & Actuator	HE1-11-DC-03M
341.019	HE1-11-DC-10M Safety Switch & Actuator	HE1-11-DC-10M
341.001	HE1-20-DC-03M Safety Switch & Actuator	HE1-20-DC-03M
341.018	HE1-20-DC-10M Safety Switch & Actuator	HE1-20-DC-10M
341.002	HE1-21-DC-03M Safety Switch & Actuator	HE1-21-DC-03M

HE-Series Safety Switches (cntd)

Stock No.	Description	Part No.
341.010	HE1-21-DC-06M Safety Switch & Actuator	HE1-21-DC-06M
341.003	HE1-21-DC-LQD Safety Switch & Actuator	HE1-21-DC-LQD
341.004	HE1-21-DC-LQD-5M Safety Switch & Actuator (with 5m cable)	HE1-21-DC-LQD-5M
341.011	HE1-21-DC-LQD-10M Safety Switch & Actuator (with 10m cable)	HE1-21-DC-LQD-10M
341.005	HE1-SS-11-DC-03M Safety Switch & Actuator	HE1-SS-11-DC-03M
341.012	HE1-SS-11-DC-06M Safety Switch & Actuator	HE1-SS-11-DC-06M
341.006	HE1-SS-20-DC-03M Safety Switch & Actuator	HE1-SS-20-DC-03M
341.013	HE1-SS-20-DC-06M Safety Switch & Actuator	HE1-SS-20-DC-06M
341.007	HE1-SS-21-DC-03M Safety Switch & Actuator	HE1-SS-21-DC-03M
341.014	HE1-SS-21-DC-06M Safety Switch & Actuator	HE1-SS-21-DC-06M
341.008	HE1-SS-21-DC-LQD Safety Switch & Actuator	HE1-SS-21-DC-LQD
341.009	HE1-SS-21-DC-LQD-05M Safety Switch & Actuator (with 5m cable)	HE1-SS-21-DC-LQD
342.000	HE2-11-DC-03M Safety Switch & Actuator	HE2-11-DC-03M
342.001	HE2-20-DC-03M Safety Switch & Actuator	HE2-20-DC-03M
342.002	HE2-21-DC-03M Safety Switch & Actuator	HE2-21-DC-03M
342.011	HE2-21-DC-06M Safety Switch & Actuator	HE2-21-DC-06M
342.003	HE2-21-DC-LQD Safety Switch & Actuator	HE2-21-DC-LQD
342.004	HE2-21-DC-LQD-05M Safety Switch & Actuator	HE2-21-DC-LQD-05
342.005	HE2-SS-11-DC-03M Safety Switch & Actuator	HE2-SS-11-DC-03M
342.006	HE2-SS-20-DC-03M Safety Switch & Actuator	HE2-SS-20-DC-03M
342.007	HE2-SS-21-DC-03M Safety Switch & Actuator	HE2-SS-21-DC-03M
342.013	HE2-SS-21-DC-06M Safety Switch & Actuator	HE2-SS-21-DC-06M
342.010	HE2-SS-21-DC-10M Safety Switch & Actuator	HE2-SS-21-DC-10M
342.008	HE2-SS-21-DC-LQD Safety Switch & Actuator	HE2-SS-21-DC-LQD
342.009	HE2-SS-21-DC-LQD-05M Safety Switch & Actuator	HE2-SS-21-DC-LQD
344.000	HE3-SS-21-DC-03M Safety Switch & Actuator	HE3-SS-21-DC-03M
344.001	HE3-SS-21-DC-06M Safety Switch & Actuator	HE3-SS-21-DC-06M
344.002	HE3-SS-21-DC-10M Safety Switch & Actuator	HE3-SS-21-DC-10M
344.006	HE4-21-DC-03M Safety Switch & Actuator	HE4-21-DC-03M
344.007	HE4-21-DC-06M Safety Switch & Actuator	HE4-21-DC-06M
344.008	HE4-21-DC-10M Safety Switch & Actuator	HE4-21-DC-10M
344.003	HE4-SS-21-DC-03M Safety Switch & Actuator	HE4-SS-21-DC-03M
344.004	HE4-SS-21-DC-06M Safety Switch & Actuator	HE4-SS-21-DC-06M
344.005	HE4-SS-21-DC-10M Safety Switch & Actuator	HE4-SS-21-DC-10M
346.000	HE6-SS-21-DC-03M Safety Switch & Actuator	HE6-SS-21-DC-03M
346.001	HE6-SS-21-DC-04M Safety Switch & Actuator	HE6-SS-21-DC-04M
346.002	HE6-SS-11-DC-LQD Safety Switch & Actuator (no cable)	HE6-SS-11-DC-LQD
346.003	HE6-SS-11-DC-LQD-05M Safety Switch & Actuator	HE6-SS-11-DC-LQD-05M
346.004	HE6-SS-11-DC-LQD-10M Safety Switch & Actuator	HE6-SS-11-DC-LQD-10M
347.000	HEM40-SS-21-DC-06M Safety Switch & Actuator	HEM40-SS-21-DC-06M
343.000	HED-21-DC-03M-C Safety Switch & 2 Actuators	HED-21-DC-03M-C
343.001	HED-21-DC-06M-C Safety Switch & 2 Actuators	HED-21-DC-06M-C
343.002	HED-21-DC-10M-C Safety Switch & 2 Actuators	HED-21-DC-10M-C
343.003	HED-21-DC-LQD-C Safety Switch & 2 Actuators (no cable)	HED-21-DC-LQD-C
343.004	HED-21-DC-LQD-05M-C Safety Switch & 2 Actuators	HED-21-DC-LQD-05
343.005	HED-21-DC-LQD-10M-C Safety Switch & 2 Actuators	HED-21-DC-LQD-10
343.006	HED-21-DC-03M-L Safety Switch & 2 Actuators	HED-21-DC-03M-L
343.007	HED-21-DC-06M-L Safety Switch & 2 Actuators	HED-21-DC-06M-L
343.008	HED-21-DC-10M-L Safety Switch & 2 Actuators	HED-21-DC-10M-L
343.009	HED-21-DC-LQD-L Safety Switch & 2 Actuators (no cable)	HED-21-DC-LQD-L
343.010	HED-21-DC-LQD-05M-L Safety Switch & 2 Actuators	HED-21-DC-LQD-05
343.011	HED-21-DC-LQD-10M-L Safety Switch & 2 Actuators	HED-21-DC-LQD-10
343.012	HED-21-DC-03M-R Safety Switch & 2 Actuators	HED-21-DC-03M-R
343.013	HED-21-DC-06M-R Safety Switch & 2 Actuators	HED-21-DC-06M-R
343.014	HED-21-DC-10M-R Safety Switch & 2 Actuators	HED-21-DC-10M-R
343.015	HED-21-DC-LQD-R Safety Switch & 2 Actuators (no cable)	HED-21-DC-LQD-R
343.016	HED-21-DC-LQD-05M-R Safety Switch & 2 Actuators	HED-21-DC-LQD-05
343.017	HED-21-DC-LQD-10M-R Safety Switch & 2 Actuators	HED-21-DC-LQD-10

ISIS Control Unit & Switches

Stock No.	Description	Part No.
370.000	ISIS-4 24V AC/DC Safety Control Unit	ISIS-4-24V
370.001	ISIS-4 110V AC Safety Control Unit	ISIS-4-110V AC
370.002	ISIS-4 240V AC Safety Control Unit	ISIS-4-240V AC
371.000	ISIS-2 24V AC/DC Safety Control Unit	ISIS-2-24V DC
375.000	ISIS Extender	ISIS-EXT
372.000	ISIS-03M Safety Switch & Actuator	ISIS-03M
372.001	ISIS-05M Safety Switch & Actuator	ISIS-05M
372.002	ISIS-10M Safety Switch & Actuator	ISIS-10M
372.010	ISIS-SS-03M Stainless Steel Safety Switch & Actuator	ISIS-SS-03M
372.011	ISIS-SS-05M Stainless Steel Safety Switch & Actuator	ISIS-SS-05M
372.012	ISIS-SS-10M Stainless Steel Safety Switch & Actuator	ISIS-SS-10M
372.013	ISIS-SS-03M-HT Stainless Steel Safety Switch & Actuator	ISIS-SS-03M-HT
372.020	ISIS-QD-05M Quick Disconnect Safety Switch & Actuator (with 5m cable)	ISIS-QD-05M
372.021	ISIS-QD-15M Quick Disconnect Safety Switch & Actuator (with 15m cable)	ISIS-QD-15M
372.022	ISIS-SS-QD-05M ISIS Quick Disconnect Stainless Steel Safety Switch & Actuator (with 5m cable)	ISIS-QD-SS-05M
372.023	ISIS-SS-QD-15M ISIS Quick Disconnect Stainless Steel Safety Switch & Actuator (with 15m cable)	ISIS-SS-QD-15M

MPX Safety Control Units (Can be used with F-Type, B-Type, C-Type and DINKY switches)

Stock No.	Description	Part No.
301.000	MPX4/DIN 24V DC Safety Control Unit	MPX4/DIN 24V DC
301.001	MPX4/DIN 24V AC Safety Control Unit	MPX4/DIN 24V AC
301.002	MPX4/DIN 110V AC Safety Control Unit	MPX4/DIN110V AC
301.003	MPX4/DIN 240V AC Safety Control Unit	MPX4/DIN 240V AC
302.000	MPX8/DIN 24V DC Safety Control Unit	MPX8/DIN 24V DC
302.001	MPX8/DIN 24V AC Safety Control Unit	MPX8/DIN 24V AC
302.002	MPX8/DIN 110V AC Safety Control Unit	MPX8/DIN 110V AC
302.003	MPX8/DIN 240V AC Safety Control Unit	MPX8/DIN 240V AC
303.000	MPX4 24V DC Safety Control Unit Chassis Mounted	MPX4 24V DC
303.001	MPX4 24V AC Safety Control Unit Chassis Mounted	MPX4 24V AC
303.002	MPX4 110V AC Safety Control Unit Chassis Mounted	MPX4 110V AC
303.003	MPX4 240V AC Safety Control Unit Chassis Mounted	MPX4 240V AC
304.000	MPX8 24V DC Safety Control Unit Chassis Mounted	MPX8 24V DC
304.001	MPX8 24V AC Safety Control Unit Chassis Mounted	MPX8 24V AC
304.002	MPX8 110V AC Safety Control Unit Chassis Mounted	MPX8 110V AC
304.003	MPX8 240V AC Safety Control Unit Chassis Mounted	MPX8 240V AC
305.000	SSP 24V DC Safety Control Unit Chassis Mounted	SSP 24V DC
305.001	SSP 24V AC Safety Control Unit Chassis Mounted	SSP 24V AC
305.002	SSP 110V AC Safety Control Unit Chassis Mounted	SSP 110V AC
305.003	SSP 240V AC Safety Control Unit Chassis Mounted	SSP 240V AC

CODEX Control Unit & Switches

Stock No.	Description	Part No.
320.000	CM1 24V DC Safety Control Unit	CM1-24V DC
320.001	CM1 24V AC Safety Control Unit	CM1-24V AC
320.002	CM1 110V AC Safety Control Unit	CM1-110V AC
320.003	CM1 240V AC Safety Control Unit	CM1-240V AC
320.004	CM9 24V DC Safety Control Unit (unique code)	CM9-24V DC
320.005	CM9 24V AC Safety Control Unit (unique code)	CM9-24V AC
320.006	CM9 110V AC Safety Control Unit (unique code)	CM9-110V AC
320.007	CM9 240V AC Safety Control Unit (unique code)	CM9-240V AC
321.000	CX1 Extender Module	CX1
321.001	CX2 Extender Module	CX2
321.002	CX9 Extender Module (unique code)	CX9
325.000	C2HO CODEX 2 Hand Override	C2HO
322.000	CS1-5M CODEX Safety Switch & Actuator	CS1-5M
322.001	CS1-10M CODEX Safety Switch & Actuator	CS1-10M
322.002	CS1-15M CODEX Safety Switch & Actuator	CS1-15M
322.003	CS2-5M CODEX Safety Switch & Actuator	CS2-5M
322.004	CS2-10M CODEX Safety Switch & Actuator	CS2-10M
322.005	CS2-15M CODEX Safety Switch & Actuator	CS2-15M
322.006	CS3-5M CODEX Safety Switch & Actuator	CS3-5M
322.007	CS3-10M CODEX Safety Switch & Actuator	CS3-10M
322.008	CS3-15M CODEX Safety Switch & Actuator	CS3-15M
322.021	CS5-5M CODEX Safety Switch & Actuator	CS5-5M
322.022	CS5-15M CODEX Safety Switch & Actuator	CS5-15M
322.009	CS9-5M CODEX Safety Switch (unique code)	CS9-5M
322.030	CS9-10M CODEX Safety Switch (unique code)	CS9-10M
322.030	CS9-10M CODEX Safety Switch (unique code)	CS9-10M
324.000	CLI-2 CODEX Limited Inch Safety Switch & Actuator	CLI-2
324.001	CLI-4 CODEX Limited Inch Safety Switch & Actuator	CLI-4

Quality Assurance

The quality of Mechan products and service is an important part of the success of Mechan Controls which is why we were one of the first companies to be accredited to the new quality standard: ISO9000:2000 for the...

"Design, development and manufacture of electronic safety equipment including safety switches"

Stock & Delivery

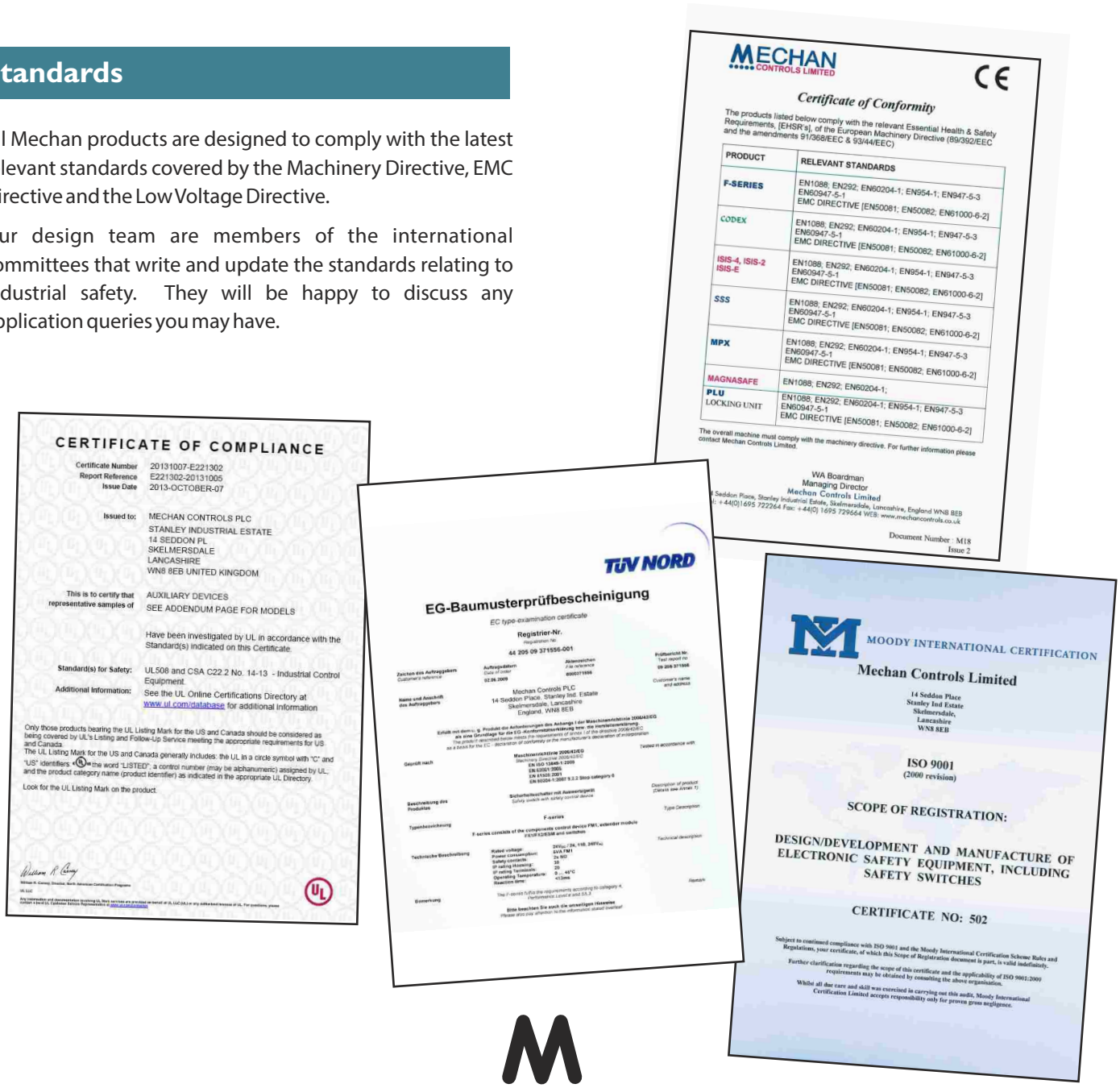
All Mechan products are manufactured by Mechan Controls in the UK and kept in stock at our factory in Skelmersdale, Lancashire.

Non-stock products can be built to order in 3-5 days and complete systems in enclosures with mimic panels and LEDs generally take no more than 3 weeks.

Standards

All Mechan products are designed to comply with the latest relevant standards covered by the Machinery Directive, EMC Directive and the Low Voltage Directive.

Our design team are members of the international committees that write and update the standards relating to industrial safety. They will be happy to discuss any application queries you may have.



MECHAN CONTROLS LIMITED

Certificate of Conformity

The products listed below comply with the relevant Essential Health & Safety Requirements, (EHSR's), of the European Machinery Directive (89/392/EEC and the amendments 91/368/EEC & 93/44/EEC)

PRODUCT	RELEVANT STANDARDS
F-SERIES	EN1088; EN292; EN60204-1; EN954-1; EN947-5-3 EN60947-5-1 EMC DIRECTIVE [EN50081; EN50082; EN61000-6-2]
CODEX	EN1088; EN292; EN60204-1; EN954-1; EN947-5-3 EN60947-5-1 EMC DIRECTIVE [EN50081; EN50082; EN61000-6-2]
ISIS-4, ISIS-2 ISIS-E	EN1088; EN292; EN60204-1; EN954-1; EN947-5-3 EN60947-5-1 EMC DIRECTIVE [EN50081; EN50082; EN61000-6-2]
SSS	EN1088; EN292; EN60204-1; EN954-1; EN947-5-3 EN60947-5-1 EMC DIRECTIVE [EN50081; EN50082; EN61000-6-2]
MPX	EN1088; EN292; EN60204-1; EN954-1; EN947-5-3 EN60947-5-1 EMC DIRECTIVE [EN50081; EN50082; EN61000-6-2]
MAGNASAFE	EN1088; EN292; EN60204-1;
PLU LOCKING UNIT	EN1088; EN292; EN60204-1; EN954-1; EN947-5-3 EN60947-5-1 EMC DIRECTIVE [EN50081; EN50082; EN61000-6-2]

The overall machine must comply with the machinery directive. For further information please contact Mechan Controls Limited.

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Managing Director
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Document Number : M18
Issue 2

CERTIFICATE OF COMPLIANCE

Certificate Number 20131007-E221302
Report Reference E221302-20131005
Issue Date 2013-OCTOBER-07

Issued to: MECHAN CONTROLS PLC
STANLEY INDUSTRIAL ESTATE
14 SEDDON PL
SKELMERSDALE
LANCASHIRE
WN8 8EB UNITED KINGDOM

This is to certify that representative samples of: AUXILIARY DEVICES
SEE ADDENDUM PAGE FOR MODELS

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL508 and CSA C22.2 No. 14-13 - Industrial Control Equipment.

Additional Information: See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Listing Mark for the US and Canada should be considered as being covered by UL's Listing and Follow-Up Service meeting the appropriate requirements for US and Canada.
The UL Listing Mark for the US and Canada generally includes: the UL in a circle symbol with "C" and "US" identifiers, the word "LISTED", a control number (may be alphanumeric) assigned by UL, and the product category name (product identifier) as indicated in the appropriate UL Directory.

Look for the UL Listing Mark on the product.

TÜV NORD

EG-Baumusterprüfbescheinigung

EC type-examination certificate

Registrier-Nr.
44 205 09 371556-001

Mechan Controls PLC
14 Seddon Place, Stanley Ind. Estate
Skelmersdale, Lancashire
England, WN8 8EB

F-series

MOODY INTERNATIONAL CERTIFICATION

Mechan Controls Limited

14 Seddon Place
Stanley Ind Estate
Skelmersdale,
Lancashire
WN8 8EB

ISO 9001
(2000 revision)

SCOPE OF REGISTRATION:

DESIGN/DEVELOPMENT AND MANUFACTURE OF ELECTRONIC SAFETY EQUIPMENT, INCLUDING SAFETY SWITCHES

CERTIFICATE NO: 502

Subject to continued compliance with ISO 9001 and the Moody International Certification Scheme Rules and Regulations, your certificate, of which this Scope of Registration document is part, is valid indefinitely.

Further clarification regarding the scope of this certificate and the applicability of ISO 9001:2000 requirements may be obtained by consulting the above organisation.

Whilst all due care and skill was exercised in carrying out this audit, Moody International Certification Limited accepts responsibility only for proven gross negligence.

Mechan Controls

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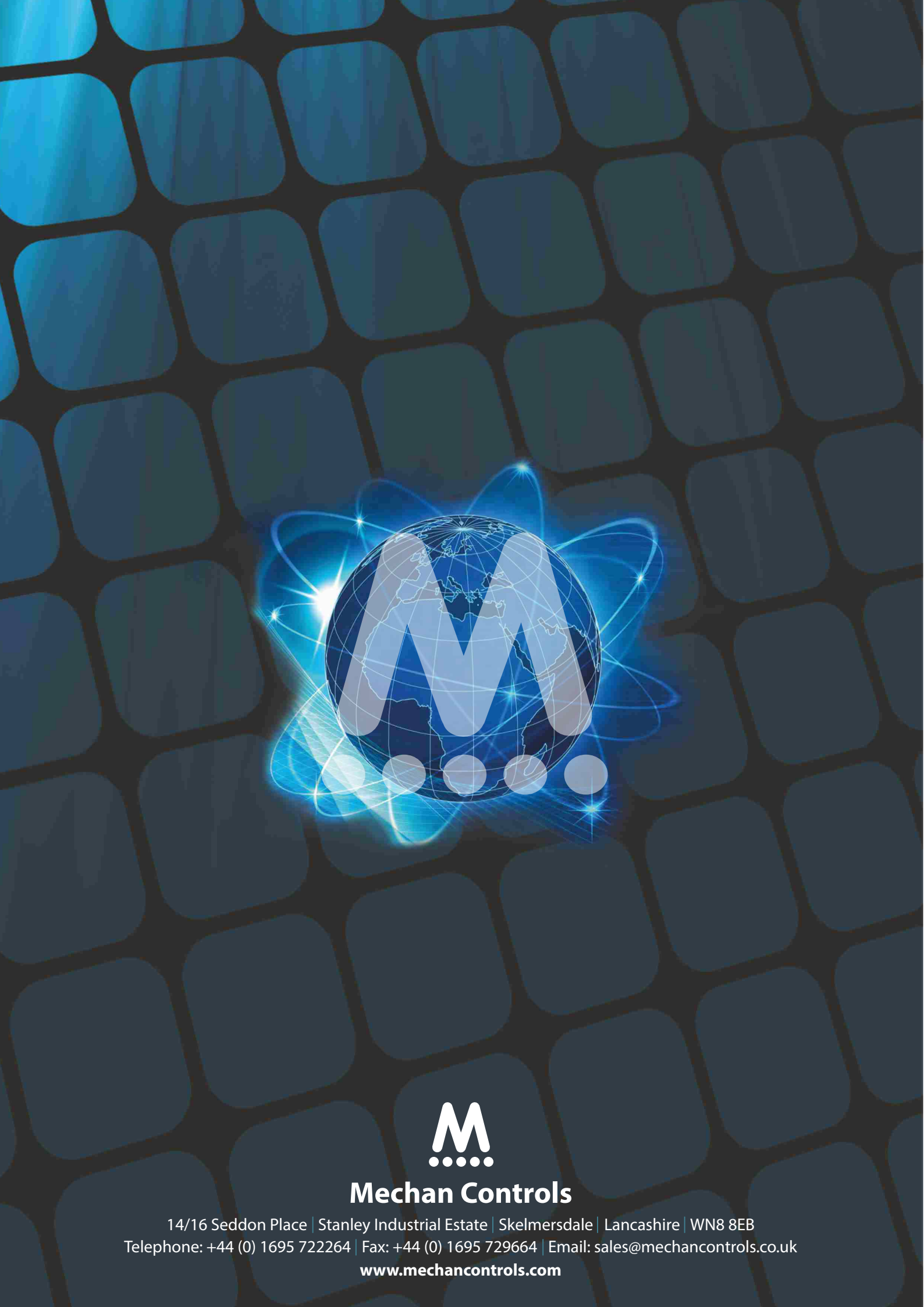
www.mechancontrols.com

In the interest of product development, specifications are subject to change without prior notice.
All information regarding Mechan Controls equipment is believed to be accurate at the time of printing.
Responsibility cannot be accepted for errors or omissions.
It is the responsibility of the user to ensure compliance with all relevant acts or by-laws in force.

Document No. C2003v1



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