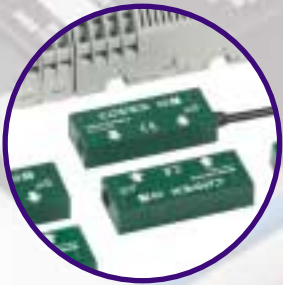


M MECHAN SAFETY SWITCHES



Product Catalogue
MECHAN CONTROLS PLC

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 30 years 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.

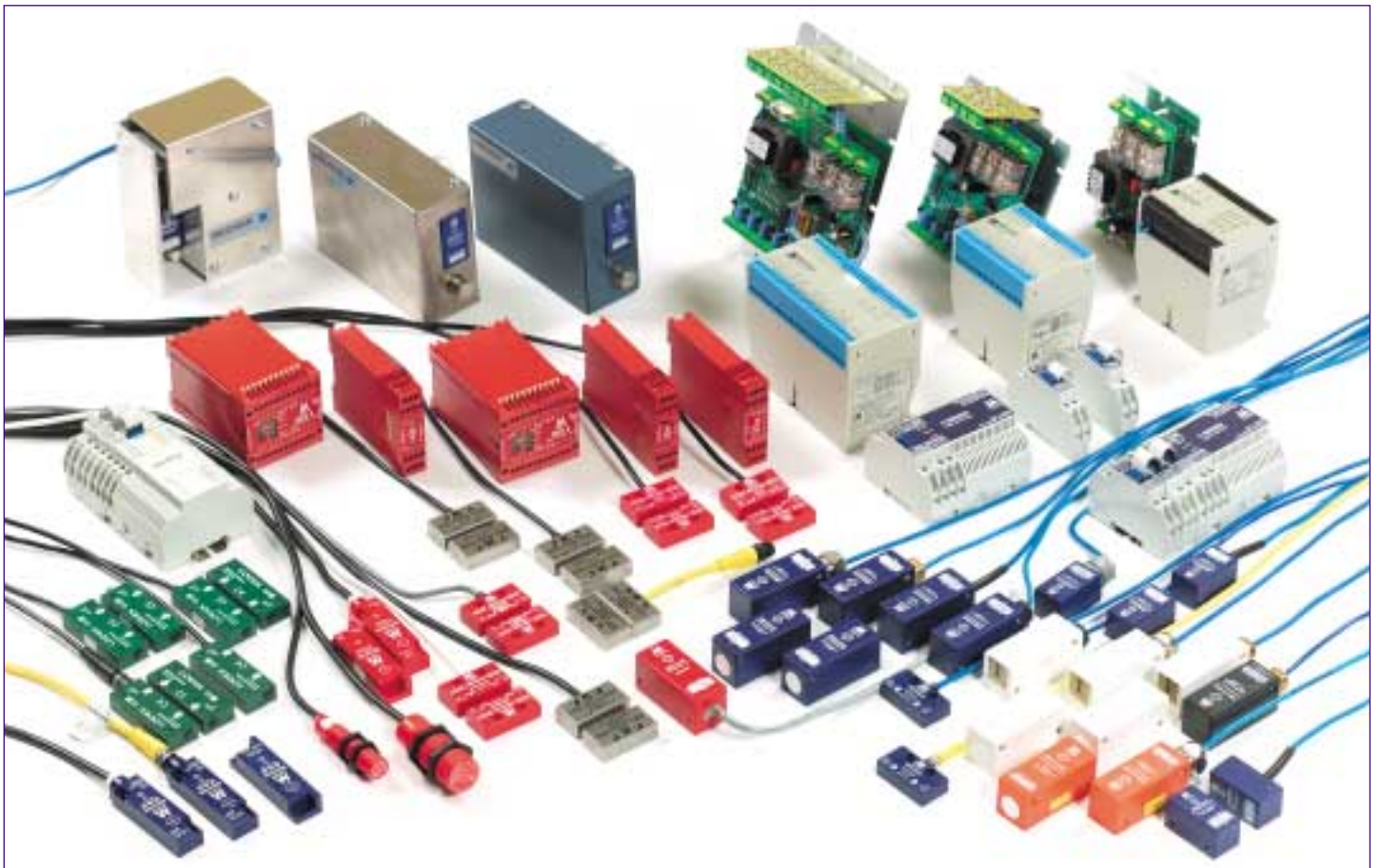
Anywhere there is a need for non-contact machine guard safety switches Mechan Controls aims to provide the most reliable and therefore cost effective solution to your requirements.

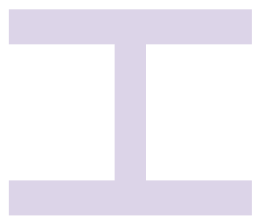
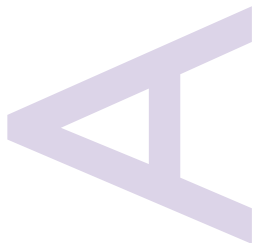
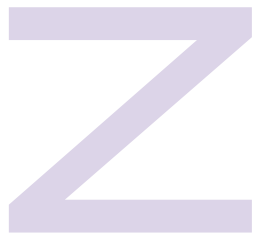
Products

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 guarantee you peace of mind.





F-SERIES

	Page
F-SERIES Overview	4
F-SERIES Safety Control Modules	5
F-TYPE Safety Switches	6
B TYPE Safety Switches	7
S-TYPE Safety Switches	8
C-TYPE Safety Switches, Unique Codes	8
DINKY Safety Switches	9
F-SERIES Installation	10
F-SERIES Specifications	11

CODEX

CODEX Overview	12
CODEX Safety Control Modules	13
CS-TYPE Safety switches	14
CODEX Installation	15
CODEX UNIQUE CODE Overview	16
CODEX UNIQUE CODES Safety Components	16
CODEX UNIQUE CODE Installation	17
CODEX Specifications	18

ISIS

ISIS Overview	19
ISIS Safety Control Modules	20
ISIS Safety Switches	21
ISIS Installation	22
ISIS Specifications	23

SSS

SSS Overview	24
SSS Safety Switches	25
SSS Connections	26
SSS Specifications	26

MAGNASAFE

MAGNASAFE Overview	27
MAGNASAFE Safety Switches	28

LOCKING UNITS

LOCKING UNITS Overview	31
MLU	32
PLU	32

MPX

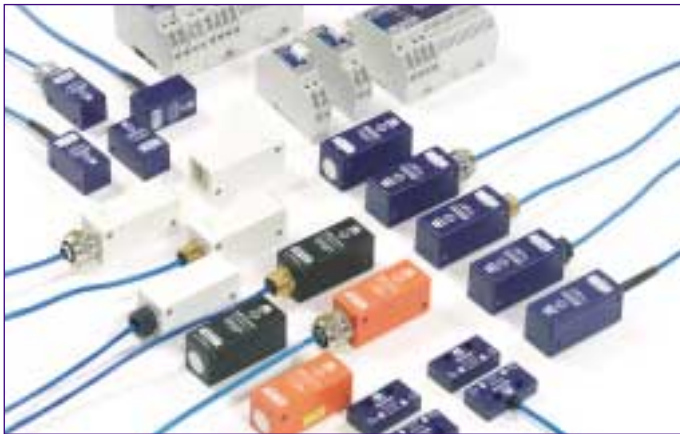
MPX Safety Control Units	33
MPX/DIN Safety Control Units	34

CUSTOM BUILT SYSTEM

Custom Built Systems	35
--------------------------------	----

ORDERING INFORMATION

Mechan Part Numbers	36
-------------------------------	----



Description

Mechan Controls developed the electronic non-contact safety switch in 1973. The **F-SERIES**, is the latest version of this product which now has a record of more than **30 YEARS** proven safety and reliability.

The **F-SERIES** is a uniquely flexible DIN rail mounting safety control unit designed for monitoring up to 30 Mechan safety switches.

The main control module (FM1) contains the power supply, dual safety contacts and a monitoring circuit for easy integration into your control circuits along with the input and indication for one safety switch.

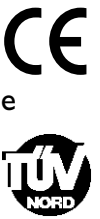
The extender modules provide inputs for 1 (FX1) or 2 (FX2) Mechan safety switches and provide both LED and volt free contact indication from each of the safety switches enabling fast, easy diagnosis of open gates or faults.

Mechan safety switches are available in a variety of sizes to suit all applications. They are tamper-proof, i.e. only a Mechan actuator will operate the system, and with an 8-10mm switching distance, they are easy to install, tolerant to misalignment and guard wear. Designed to withstand the harshest environments, the electronic switching is encapsulated into an ABS housing making the Mechan safety switches immune to water, hot hosing, dust or oil etc.

F-SERIES

Electronic Safety System

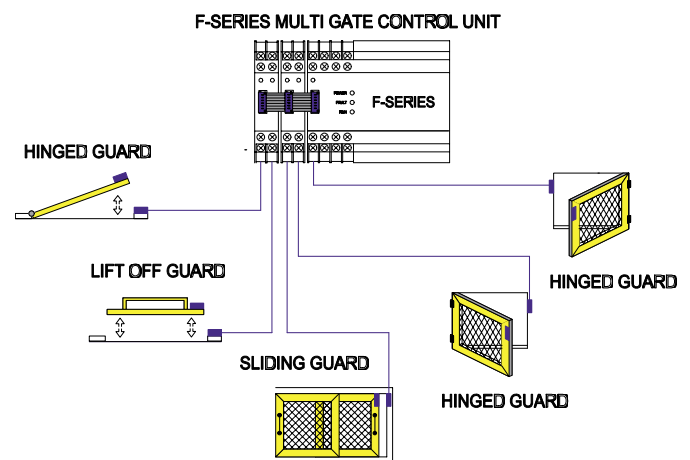
- Tamper-proof, safety switches
- Multi-gate monitoring system
- Category 3 or 4 safety system performance
- Guard status indication
- 35mm DIN rail mounting control units
- EMC tested
- Compliant with relevant EU Directives
- Up to 500,000 unique codes available



Operation

When the safety switch actuator is brought within the operating range of the sensor (8-10mm target to target), a signal is generated and transmitted to the safety control unit. The control unit evaluates this signal and if all monitored gates are closed and the control module's internal self-check is completed, the Mechan safety contacts will close.

Big 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



FMI

All Mechan 'F' series systems start with the FMI.

The FMI contains the regulated power supply, 2 safety contact outputs (PGC), external/internal relay monitoring/reset circuit and system indication along with the input for one safety switch sensor and it's indication outputs.

The FMI and one Mechan Safety Switch Sensor are all that is required for a system monitoring one guard. Simply clip the FMI into a suitable control cabinet, fit the safety switch sensor to the guard and connect the supply and the volt free control contacts as shown in the installation guide.

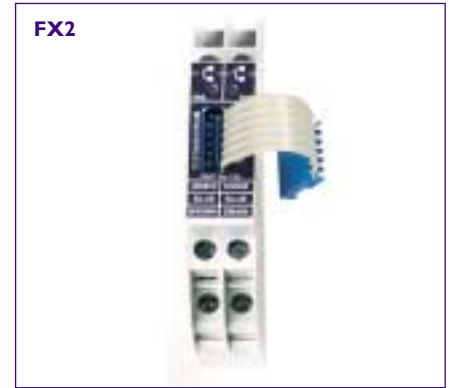
For larger systems see FXI & FX2 Extender units.



FXI

The FXI is a 17.5mm wide extender module which clips onto 35mm DIN rail and connects to the main control module (FMI) via a 6-way connector strap.

The FXI adds 1 gate switch input and corresponding LED and volt free contact indicator output.



FX2

The FX2 is a 17.5mm wide extender module which clips onto 35mm DIN rail and connects to the main control module (FMI) via a 6-way connector strap.

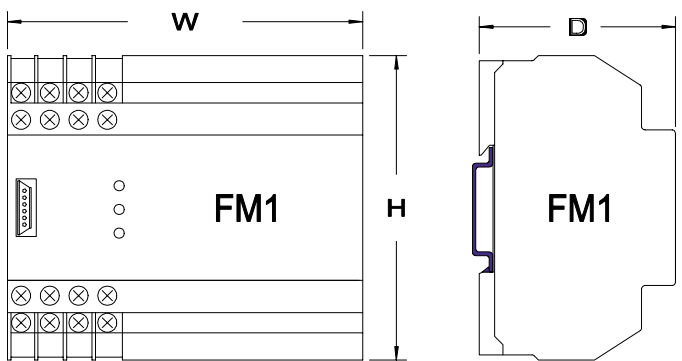
The FX2 adds 2 gate switch inputs and corresponding LED and volt free contact indicator outputs.

Examples of F-SERIES Safety System control unit combinations.

F-SERIES Safety System			
No. of Gates	FMI	FX2	FXI
2 Gate System	1		1
5 Gate System	1	2	
12 Gate System	1	5	1

System examples

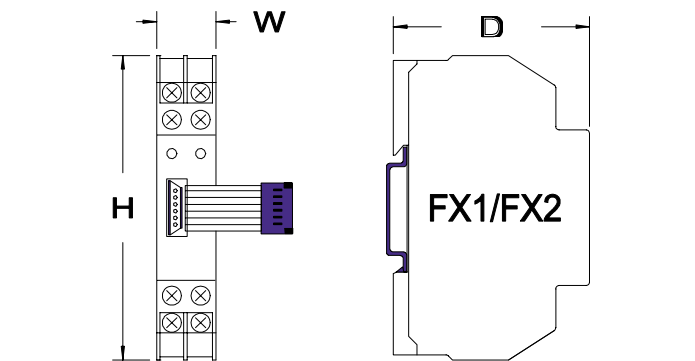
Dimensions: FMI



Dimensions	FMI (All voltages) (mm / inches)
W	105 / 4.12
H	90 / 3.53
D	59 / 2.33

Information only

Dimensions: FXI & FX2



Dimensions	FXI & FX2 (mm / inches)
W	17.5 / 0.69
H	90 / 3.53
D	58 / 2.28

Information only



F-TYPE SAFETY SWITCHES

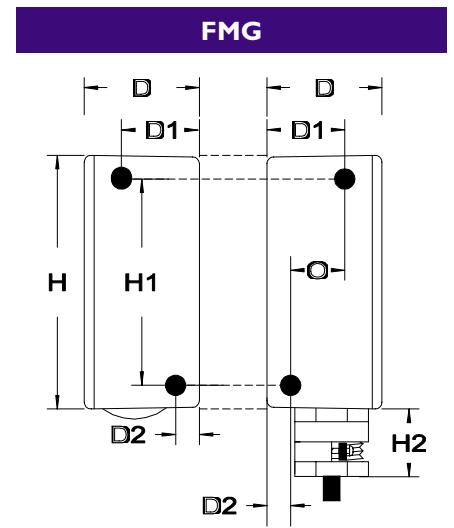
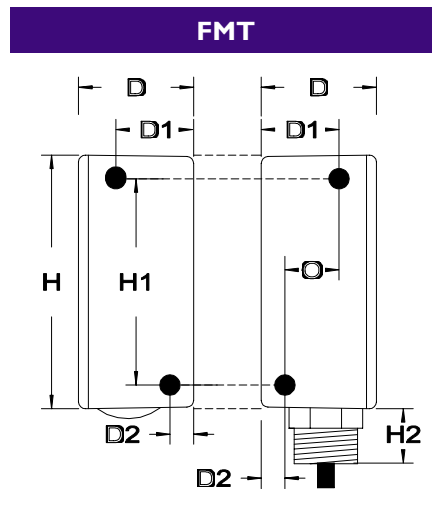
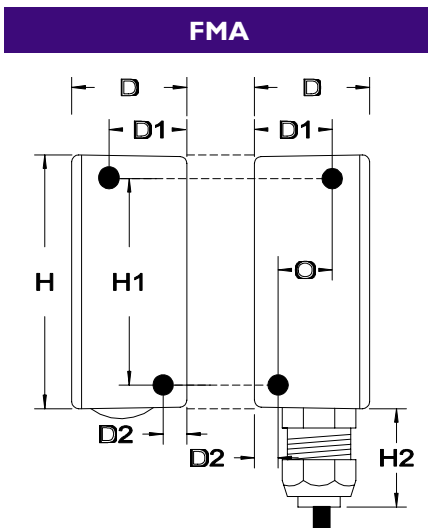
The Mechan F-TYPE safety switches are a special type of electronic switch designed for use with our range of safety control modules.

These totally encapsulated (IP67), fail safe, electronic safety switches can only be operated by the Mechan Actuator. They are designed to work in the harshest of conditions, and with an 8-10mm switching distance, they are easy to install and tolerant to guard misalignment and wear.

The F-TYPE switches have 2 pre-drilled fixing holes for 6mm bolts and are supplied pre-wired with 5 / 10 or 15 metre cables. The cable can be extended up to 100 metres using Mechan specified cable or the switches can be purchased direct with longer cable lengths already encapsulated.

There are tens of thousands of Mechan safety switches being used around the world in applications from food processing to concrete block manufacture, giving years of trouble free operation and reducing costly down-time.

- IP67 sensor
- 10 mm switching
- Impervious to Dust & Water
- Easy to install, tolerant to misalignment
- 5, 10 or 15 metre cable
- Choice of cable protection adaptor
- Safety switch sensor cable may be extended (up to 100 metres)



Dimensions	F-TYPE Safety Switches (mm / inches)		
	FMA	FMT	FMG
H	75 / 2.95	75 / 2.95	75 / 2.95
H1	61 / 2.40	61 / 2.40	61 / 2.40
H2	26.4 / 1.03	17 / 0.65	14.5 / 0.57
D	34 / 1.34	34 / 1.34	34 / 1.34
D1	23 / 0.91	23 / 0.91	23 / 0.91
D2	7 / 0.27	7 / 0.27	7 / 0.27
O	16 / 0.63	16 / 0.63	16 / 0.63

Dimension through fixing holes 32 / 1.25 Fixing holes 6mm diameter



B-TYPE SAFETY SWITCHES

The B-Type safety switches have all the advantages of the F-Type, built into a smaller ABS housing.

The B-Type are fully electronic safety switches containing no moving parts to stick or wear out. They are resin encapsulated into an ABS case to provide a fully sealed, IP67 sensor; and with an 8-10 mm switching distance, they are easy to install and tolerant to misalignment / machine guard vibration.

The B-TYPE switches have 2 pre-drilled fixing holes and are supplied pre-wired with 5 / 10 or 15 metre cables. The cable can be extended up to 100 metres using Mechan specified cable or the switches can be purchased direct with longer cable lengths already encapsulated.

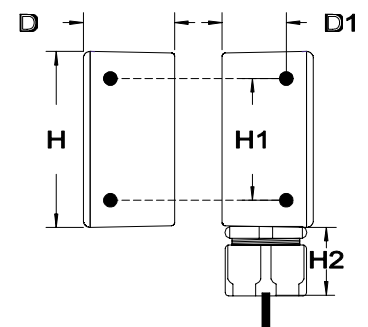
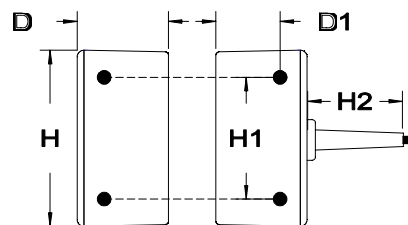
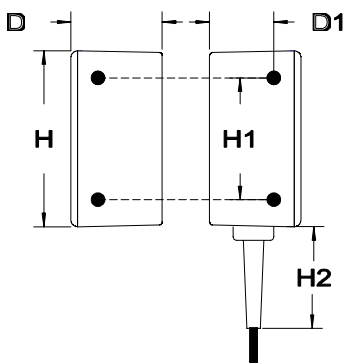
The smaller ABS housing makes them suitable for 'light weight' guarding such as perspex or makralon giving years of trouble free operation even in areas where high pressure hosing, hot hosing, CIP are the norm.

- IP67 sensor
- 10 mm switching
- Impervious to Dust & Water
- Easy to install, tolerant to misalignment
- 5, 10 or 15 metre cable
- Choice of cable protection adaptor
- Safety switch sensor cable may be extended (up to 100 metres)

BMS

BMR

BMG



Dimensions	B-TYPE Safety Switches (mm / inches)		
	BMS	BMR	BMG
H	52 / 2.05	52 / 2.05	52 / 2.05
H1	36 / 1.42	36 / 1.42	36 / 1.42
H2	45 / 1.77	45 / 1.77	21 / 0.83
D	27 / 1.06	27 / 1.06	27 / 1.06
D1	19 / 0.75	19 / 0.75	19 / 0.75

Dimension through fixing holes 28 / 1.10 Fixing holes 4mm diameter



SFMA

CMA

HIGH IMMUNITY SWITCH

The Mechan ‘SFMA’ safety switches are similar in operation to the F-TYPE. Totally encapsulated (IP67), into ABS housings, the SFMA safety switch is fail safe, electronic switch that can only be operated by the Mechan Actuator.

Like the F-TYPE, they are designed to work in the harshest of conditions, and with an 8-10mm switching distance, they are easy to install and tolerant to guard misalignment and wear.

With additional protection especially designed for situations of high electrical noise, the SFMA safety switches exceed the requirements of the current heavy industrial EMC standard.

UNIQUELY CODED SAFETY SWITCH

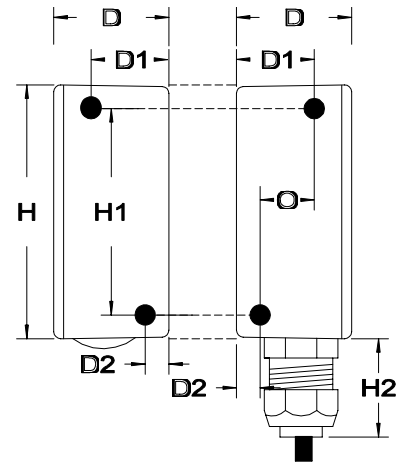
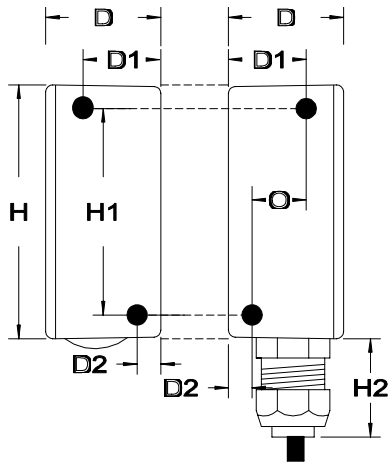
The Mechan ‘CMA’ safety switches are uniquely coded versions of the standard F-Type and will work with any of the standard Mechan safety control units. (excluding CODEX™ and ISIS)

With up to 500,000 unique codes available, they are ideal for situations where the highest security against tampering is required.

The CMA safety switch can also be used as a ‘Master Key’ in a control panel to prevent start up when personnel are in dangerous areas.

Dimensions: SFMA

Dimensions: CMA



Dimensions	SFMA & CMA (mm / inches)	
	SFMA	CMA
H	75 / 2.95	75 / 2.95
H1	61 / 2.40	61 / 2.40
H2	26.4 / 1.03	26.4 / 1.03
D	34 / 1.34	34 / 1.34
D1	23 / 0.91	23 / 0.91
D2	7 / 0.27	7 / 0.27
Ø	16 / 0.63	16 / 0.63

Dimension through fixing holes 32 / 1.25 Fixing holes 6mm diameter



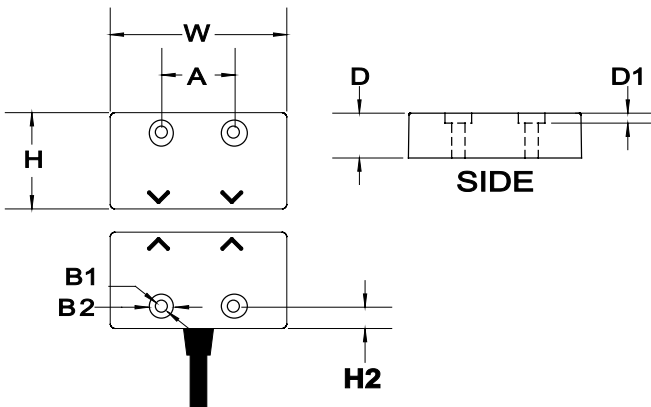
DINKY PRE-WIRED

The increasing need for fast, safe access to hazardous areas has led to the use of more safety interlocked access points on machinery. With the **dinky** safety switch it is now possible to interlock even the smallest guards with our reliable electronic safety system.

Like all Mechan safety switches, the **dinky** are designed for use in most environments. Available pre-wired with 5/10 or 15 metre cables encapsulated into the ABS housing, the **dinky** safety switch is immune to water, hot hosing, dust or oil etc. and the small size makes it easy to hide or to use on very small access points.

The 8-10mm switching distance means that the dinky safety switches are just as tolerant to misalignment and guard wear over their long operational life as the bigger F & B Type.

Dimensions: DINKY PRE-WIRED



DINKY QUICK DISCONNECT

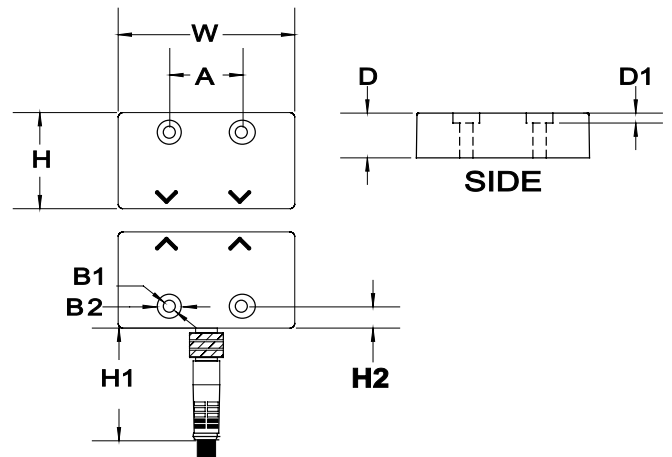
For ease of installation and maintenance, Mechan can now offer the **dinky** safety switches with the option of Brad Harrison M8 quick disconnect.

Like the Pre-Wired version, the safety switch electronics are encapsulated into an ABS housing along with the Brad Harrison M8 connector.

The **dinky**, quick disconnect, safety switches can be ordered with 5 or 15 metre Brad Harrison cables.

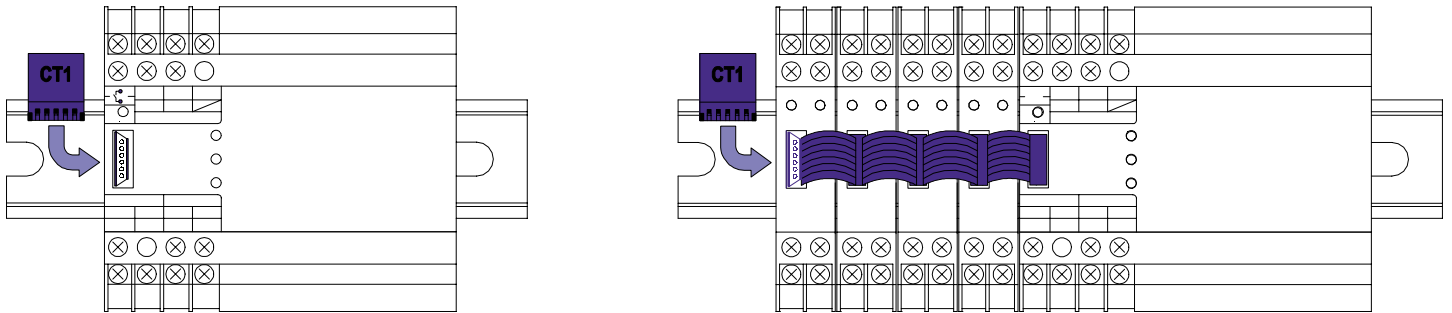
'The Mechan safety switch just got smaller again!'

Dimensions: DINKY QUICK DISCONNECT



Dimensions	DNKI (mm / inches)	DNK2-QD (mm / inches)
H	28 / 1.1	28 / 1.1
H1	-	36 / 1.42
H2	6.4 / 0.25	6.4 / 0.25
D	14 / 0.55	14 / 0.55
D1	3 / 0.11	3 / 0.11
B1	4.2 / 0.16 dia.	4.2 / 0.16 dia.
B2	8.1 / 0.32 dia.	8.1 / 0.32 dia.
A	22 / 0.86	22 / 0.86
W	52 / 2.04	52 / 2.04

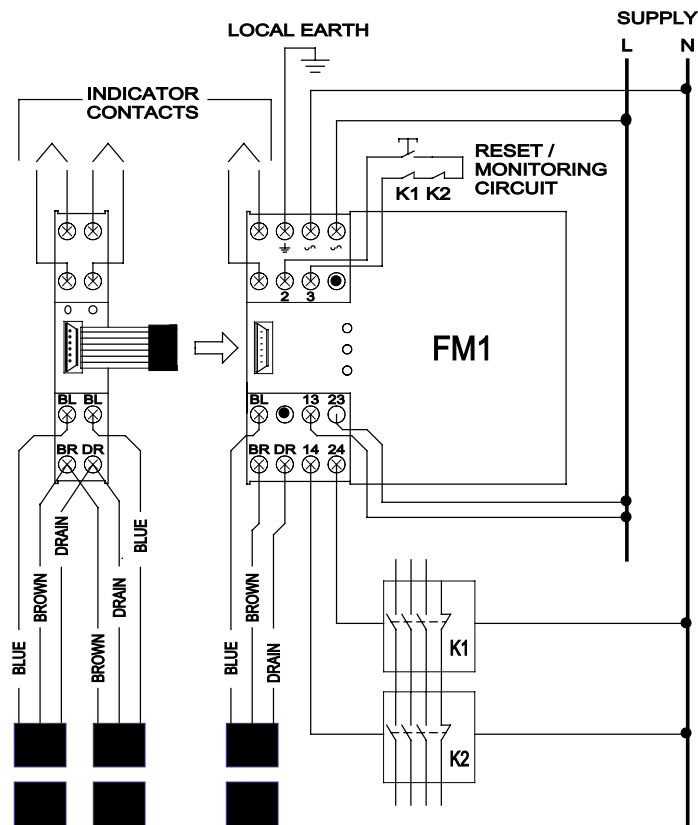
F-SERIES SYSTEM ASSEMBLY



The FMI control module monitors one gate switch. If no further gate switches are to be monitored, ensure the CT1 (Terminator plug, supplied with the FMI) is fitted as shown.

Where more than one safety switch is to be monitored, connect the required number of FX2's and/or FX1's to the main control module (FMI). Ensure that the CT1 (Terminator plug, supplied with the FMI) is fitted to the last unit as shown.

F-SERIES CONNECTION



Standard F-SERIES safety system for a dual channel control circuit. The FMI is switching two output contactors which have their normally closed contacts monitored by the FMI reset circuit (terminals 2 & 3). If one of the contactors welds closed, the second contactor will operate normally on the next demand on the safety system, and the reset circuit will prevent a restart.

Additional safety switches can be added by connecting FX1 or FX2 extender modules to the main control module (FMI)

See installation guide for full details.

SPECIFICATION	F-SERIES CONTROL MODULES		
Part Number	FMI	FXI	FX2
Supply Voltages	24V dc, 24/110/230V ac	-	-
Power Consumption	100mA / 6VA	20mA	40mA
Output Safety Contacts	2 x N/O	-	-
Safety Contact Switching (Max)	2A@230V ac or 30V dc	-	-
Safety Switch Inputs	1	1	2
Mounting	35mm DIN Rail	35mm DIN Rail	35mm DIN Rail
Dimensions	See page 5	See page 5	See page 5
IP Rating : Housing :Terminals	IP40 IP20	IP40 IP20	IP40 IP20
Indication	Power, Fault, Run Gate LED + Volt Free Contact	Gate LED + Volt Free Contact	2 x Gate LEDs + 2 x Volt Free Contacts
<i>Systems can be assembled to monitor up to 30 gates using 1 x FMI and the required number of FX2's and FXI's. See table below for more details.</i>			

SPECIFICATION	F-SERIES SAFETY SWITCHES				
	F-TYPE	B-TYPE	DINKY	CMA	SFMA
Construction	ABS Case, Resin Filled				
IP Rating	IP67	IP67	IP67	IP67	IP67
Colour	Blue	Blue	Blue	Orange	White
Switching Distance	8 - 10mm	8 - 10mm	8 - 10mm	8 - 10mm	8 - 10mm
Cable Lengths Available	5/10/15 metre	5/10/15 metre	5/10/15 metre	5/10/15 metre	5/10/15 metre
Dimensions	See page 6	See page 7	See page 9	See page 8	See page 8
Cable Protection Adaptors	-	-	Not Applicable	-	-
16mm Liquid Tight Conduit	FMA	-	-	CMA	SFMA
20mm Male Brass Thread	FMT	-	-	-	SFMT
Nylon Cord grip 4-11mm	FMG	-	-	-	-
Tapered Grommet Side Entry	-	BMS	-	-	-
Tapered Grommet Rear Entry	-	BMR	-	-	-
16mm Flexible Conduit Gland	-	BMG	-	-	-

The **F-SERIES** is designed to make the assembly and the extension of multi-gate safety systems easier.

The table opposite shows the number of control modules and extender modules required to build systems up to 15 guards.

Larger systems can be assembled by adding more extender modules.

NOTE:

DC systems can monitor up to 30 guards.

AC systems can monitor up to 9 guards and then require a Mechan Power boost unit to power the next 10 guards. Another Power boost unit can be added for the next 10 guards if required.

DINKY safety switches with quick disconnect option are available with 5 and 15 metre cables

SYSTEM COMPONENTS REQUIRED FOR MULTI GATE SYSTEMS			
No. of Guards Required	FMI	FXI	FX2
1 Gate System	1	-	-
2 Gate System	1	1	-
3 Gate System	1	-	1
4 Gate System	1	1	1
5 Gate System	1	-	2
6 Gate System	1	1	2
7 Gate System	1	-	3
8 Gate System	1	1	3
9 Gate System	1	-	4
10 Gate System (See AC note)	1	1	4
11 Gate System (See AC note)	1	-	5
12 Gate System (See AC note)	1	1	5
13 Gate System (See AC note)	1	-	6
14 Gate System (See AC note)	1	1	6
15 Gate System (See AC note)	1	-	7



Description

CODEX™ is a fully electronic safety switch system which can be supplied with either the '**generic coding**' (i.e. each switch the same) or with '**unique coding**' where there is the option of up to 500,000 individually coded safety switches. The uniquely coded version is especially useful in areas where it is important to ensure no-one defeats the system by use of spare actuators.

The main control module (CMI / CM9) contains the power supply, dual safety contacts and a monitoring circuit for easy integration into your control circuits along with the input and indication for one safety switch.

The extender modules provide inputs for 1 (CX1 / CX9) or 2 (CX2) Mechan safety switches and provide both LED and volt free contact indication from each of the safety switches enabling fast, easy diagnosis of open gates or faults.

The safety control units are DIN rail mounting, and the modular design means systems monitoring up to 30 safety switches can be quickly assembled and installed.

The slim-line safety switches are totally encapsulated into ABS boxes making them immune to water, hot hosing, dust or oil etc. they also have an 8-10mm switching distance making them tolerant to misalignment and guard wear. The CS9 version are uniquely coded from one of 500,000 possible codes.

CODEX

Uniquely Coded Electronic Safety System



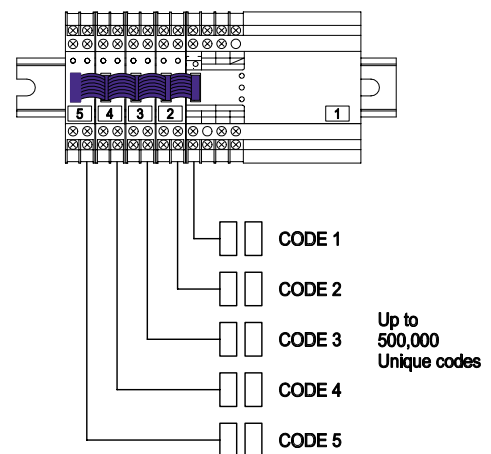
- Tamper-proof, safety switches
- 500,000 codes available
- Multi-gate monitoring system
- 35mm DIN rail mounting control units
- Guard status indication at all times
- Category 3-4 Safety system performance
- EMC tested
- Compliant with relevant EU Directives

Operation

When the moving part of the safety switch is brought within the operating range of the fixed part (10mm target to target), a code is transmitted from the moving switch, through the fixed switch and to the safety control unit.

The Mechan safety contacts will only close if all the **CODEX™** safety switches are closed and the system self-check is completed successfully.

With the uniquely coded version only the correct actuator will operate the matching input channel.



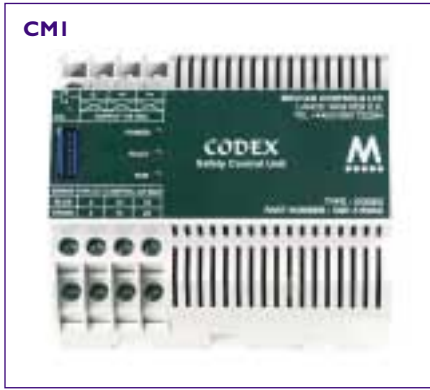
*'Only the **right** code will allow the safety control unit to operate'*

FEATURES

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

APPLICATIONS

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



CMI

All CODEX safety systems start with the CMI.

The CMI contains the regulated power supply, 2 safety contact outputs (PGC), external/internal relay monitoring circuit and system indication along with the input for one safety switch sensor and it's indication outputs.

The CMI and one CODEX Safety Switch Sensor are all that is required for a system monitoring one guard. Simply clip the CMI into a suitable control cabinet, fit the safety switch sensor to the guard and connect the supply and the volt free control contacts as shown in the installation guide.

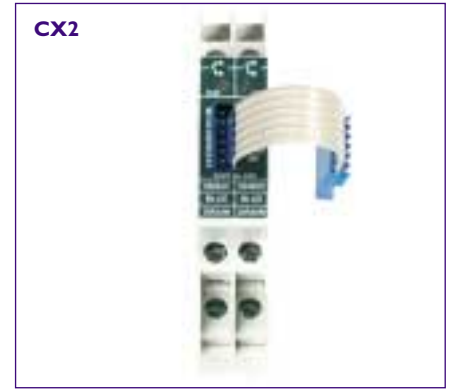
For larger systems see CX1 & CX2 Extender units.



CX1

The CX1 is a 17.5 mm wide extender module which clips onto 35mm DIN rail and connects to the main control module (CMI) via a 6-way connector strap.

The CX1 adds 1 gate switch input and corresponding LED and volt free contact indicator output.



CX2

The CX2 is a 17.5 mm wide extender module which clips onto 35mm DIN rail and connects to the main control module (CMI) via a 6-way connector strap.

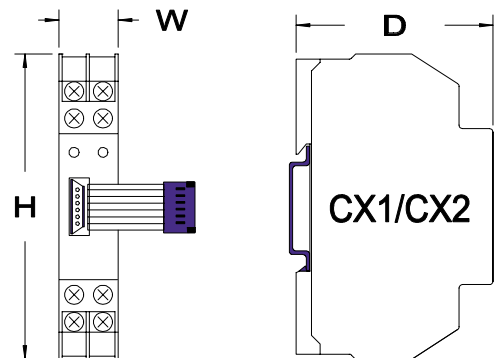
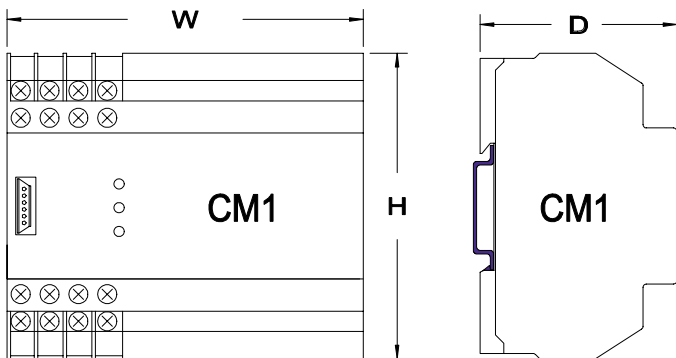
The CX2 adds 2 gate switch inputs and corresponding LED and volt free contact indicator outputs.

Examples of CODEX Safety System control unit combinations.

CODEX Safety System			
No. of Gates	CMI	CX2	CX1
2 Gate System	1	0	1
5 Gate System	1	2	0
9 Gate System	1	4	0

Dimensions: CMI

Dimensions: CX1 & CX2



Dimensions	CMI (All voltages) (mm / inches)
W	105 / 4.12
H	90 / 3.53
D	59 / 2.33
Information only	

Dimensions	CX1 & CX2 (mm / inches)
W	17.5 / 0.69
H	90 / 3.53
D	58 / 2.28
Information only	



CS-TYPE SAFETY SWITCHES

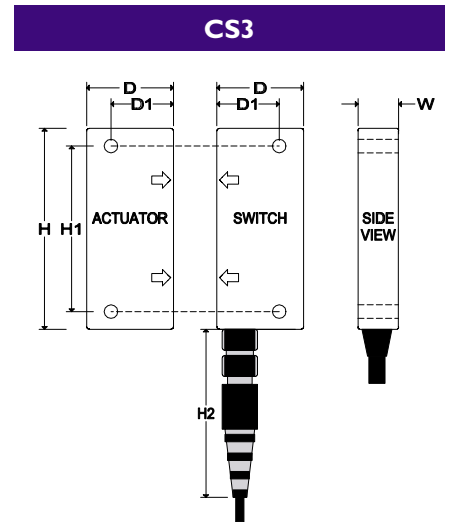
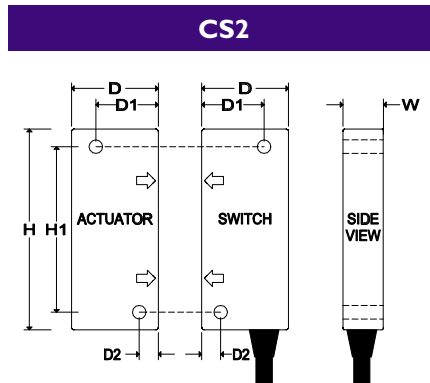
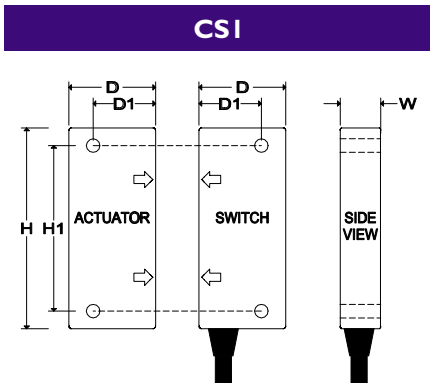
The CODEX safety switches are a fully electronic switch designed for use with the CODEX range of safety control modules.

These totally encapsulated (IP67), fail safe, electronic safety switches can only be operated by the Codex actuator. They are designed to work in the harshest of conditions, and with an 8-10mm switching distance they are easy to install and tolerant to guard misalignment and wear.

The CS1 & CS2 are 'generic code' switches and are pre-wired with 5 / 10 or 15 metre cables. The cable can be extended up to 100 metres using Mechan specified cable or the switches can be purchased direct with longer cable lengths already encapsulated.

The CS3 safety switches have the added advantage of an IP67 quick disconnect for ease of fitting and maintenance.

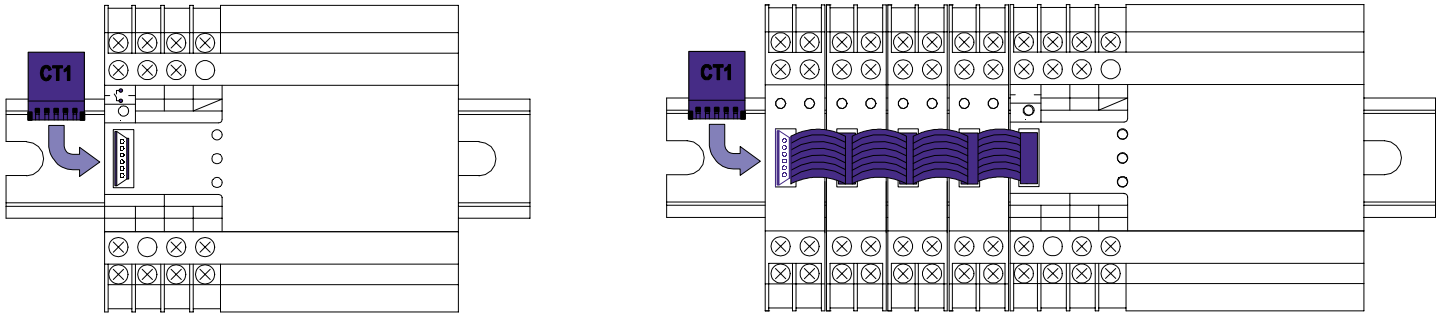
- IP67 sensor
- 8-10 mm switching
- 500,000 Unique Codes available (CS9)
- Impervious to Dust & Water
- Easy to install, tolerant to misalignment
- 5, 10 or 15 metre cable
- Safety switch sensor cable may be extended (up to 100 metres)



Dimensions	CODEX Safety Switches (mm / inches)		
	CS1	CS2	CS3
H	74 / 2.91	74 / 2.91	74 / 2.91
H1	61 / 2.40	61 / 2.40	61 / 2.40
H2	-	-	62 / 2.44
D	30 / 1.18	30 / 1.18	30 / 1.18
D1	23 / 0.90	23 / 0.90	23 / 0.90
D2	-	7 / 0.27	-
W	15 / 0.59	15 / 0.59	15 / 0.59

Information only

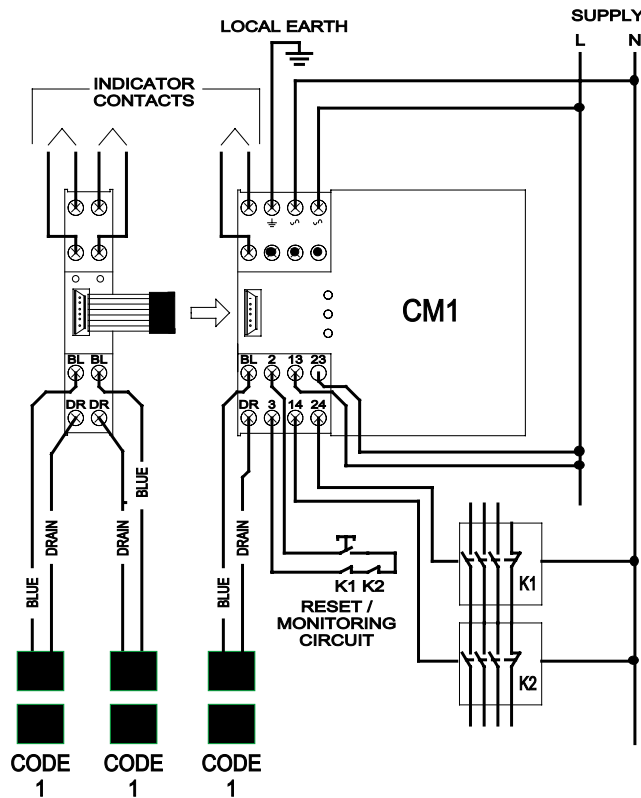
CODEX SYSTEM ASSEMBLY



The CMI control module monitors one gate switch. If no further gate switches are to be monitored, ensure the CT1 (Terminator plug, supplied with the CMI) is fitted as shown.

Where more than one safety switch is to be monitored, connect the required number of CX2's and/or CX1's to the main control module (CMI). Ensure that the CT1 (Terminator plug, supplied with the CMI) is fitted to the last unit as shown.

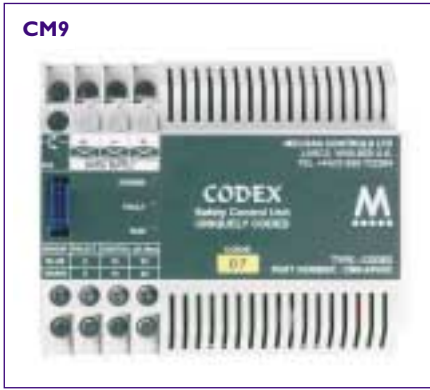
CODEX CONNECTION



Standard CODEX safety system for a dual channel control circuit. The CMI is switching two output contactors which have their normally closed contacts monitored by the CMI reset circuit (terminals 2 & 3). If one of the contactors welds closed, the second contactor will operate normally on the next demand on the safety system, and the reset circuit will prevent a restart.

Additional safety switches can be added by connecting CX1 or CX2 extender modules to the main control module (CMI)

See installation guide for full details.



UNIQUELY CODED SAFETY SYSTEM

The CODEX 'unique code' safety system ensures that there is only one safety switch actuator able to operate a specific guard switch input within your factory. With the possibility of 500,000 codes, duplicate keys will never be a problem.

Each CODEX CM9 Control Module or CX9 Extender Module is manufactured to accept one specific code. Each module is supplied with a CS9 CODEX Safety Switch, the Actuator part being coded to match the input channel. **Only the correct actuator will operate each input channel.**

As with all Mechan Safety Switches, the CODEX CS9 are IP67, making them suitable for use in wet or dusty environments where standard mechanical key operated switches may have problems of clogging with product or dust. They also have a 10mm switching distance making them easy to install and tolerant to misalignment and helping to provide years of trouble free operation.

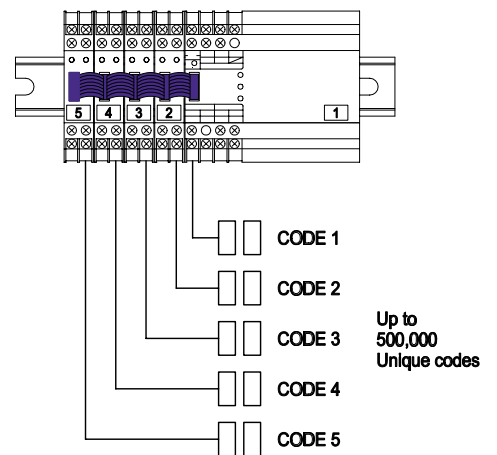
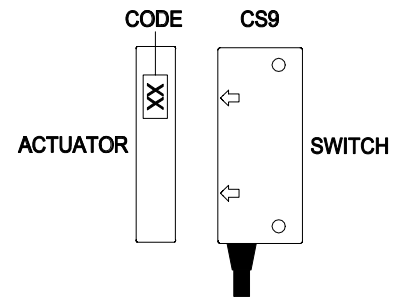
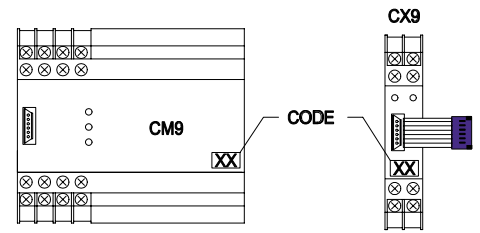
The CM9, CX9 and CS9 are all marked with a code for ease of identification.

MIXED SYSTEMS

Some guarding systems may not require unique coding on every guard. The CODEX bus system allows combinations of uniquely coded modules to be used along side the standard generic code modules. For example, a machine may require 10 guard switches, two of which must not be overridden by spare actuators for either operational or safety reasons. By using a combination of 'generic code' and 'unique code' safety modules a system can quickly be installed to suit most requirements.

KEY ACCESS SYSTEMS

The CODEX unique code system can be used to allow an operator safe access to a restricted area. By having an additional 'Master' switch with removable coded actuator at the main control panel, an operator can stop the machine, remove the 'Master' actuator and then enter the restricted area keeping the actuator with him. This ensures that even if all the gates are closed, the 'Master' actuator will prevent the system from resetting. This system has the security of a key operated system with all the advantages of non-contact safety switches in harsh and dusty environments.



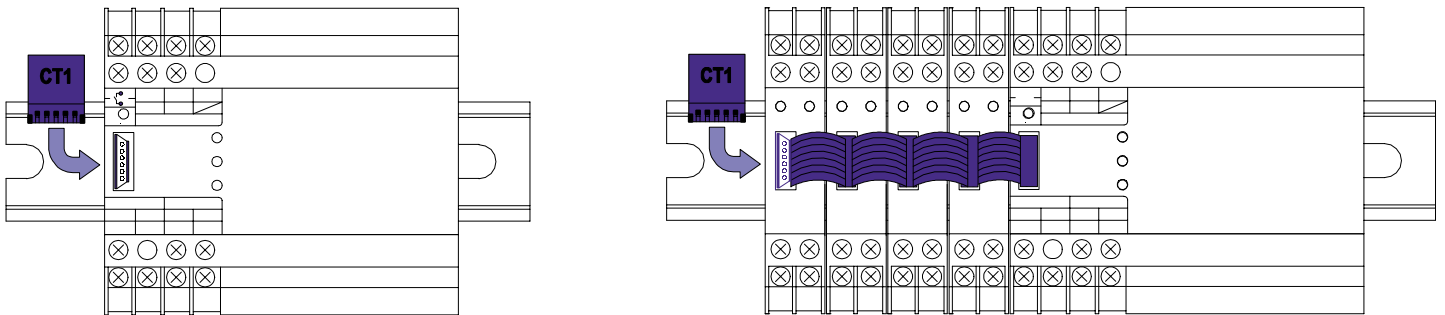
Dimensions: CM9 & CX9

Same as the CMI and CXI, see page 13

Dimensions: CS9

Same as the CSI, see page 14

CODEX SYSTEM ASSEMBLY

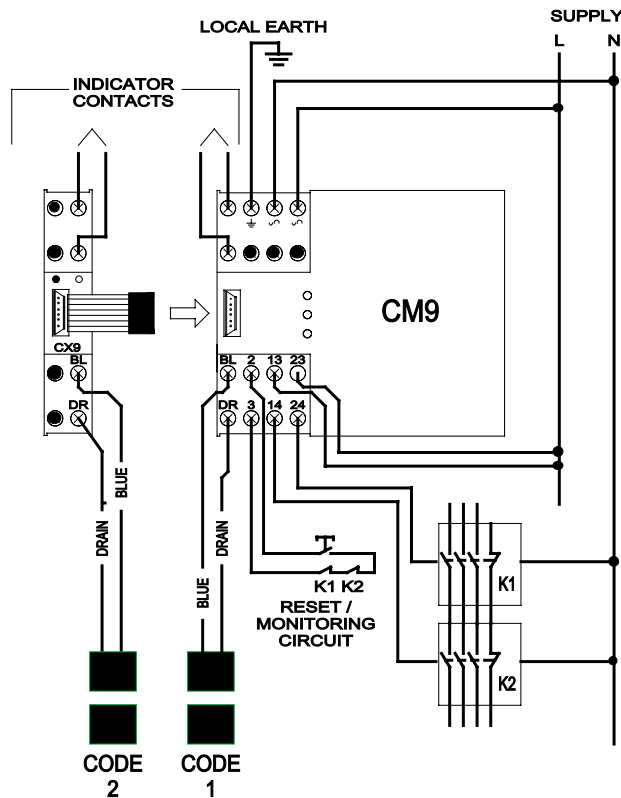


The CM9 control module monitors one uniquely coded gate switch. If no further gate switches are to be monitored, ensure the CTI (Terminator plug, supplied with the CM9) is fitted as shown.

Where more than one safety switch is to be monitored, connect the required number of CX9's to the main control module (CM9). Ensure that the CTI (Terminator plug, supplied with the CM9) is fitted to the last unit as shown.

Note that the CX9 only accepts one CS9 Safety Switch

CODEX CONNECTION



The uniquely coded CODEX system is installed in the same way as the generic code systems. Shown above switching two output contactors which have their normally closed contacts monitored by the CM9 reset circuit (terminals 2 & 3). If one of the contactors welds closed, the second contactor will operate normally on the next demand on the safety system, and the reset circuit will prevent a restart.

Additional safety switches can be added by connecting CX9 extender modules to the main control module (CM9)

See installation guide for full details.

Part Number	CMI / CM9	CXI / CX9	CX2
Power Consumption	100mA / 6VA	20mA	40mA
Safety Contact Switching (Max)	2A@230V ac or 30V dc	-	-
Coding	Generic / Unique	Generic / Unique	Generic
Dimensions	See page 13	See page 13	See page 13
Indication	Power, Fault, Run Gate LED + Volt Free Contact	Gate LED + Volt Free Contact	2 x Gate LEDs + 2 x Volt Free Contacts

*Systems can be assembled to monitor up to 30 gates using 1 x CMI and the required number of CX2's and CX1's.
See table below for more details.*

SPECIFICATION	CODEX SAFETY SWITCHES			
	CSI	CS2	CS3	CS9
Construction	ABS Case, Resin Filled			
IP Rating	IP67	IP67	IP67	IP67
Unique Code	Generic	Generic	Generic	Unique
Colour	Green	Green	Green	Green
Switching Distance	8-10mm	8-10mm	8-10mm	8-10mm
Cable Lengths Available	5/10/15 metre	5/10/15 metre	5 or 15 metre	5/10/15 metre
Dimensions	See page 14	See page 14	See page 14	See page 14

The **CODEX** Safety System is designed to make the assembly and the extension of multi-gate safety systems easier.

The table opposite shows the number of control modules and extender modules required to build systems up to 9 guards.

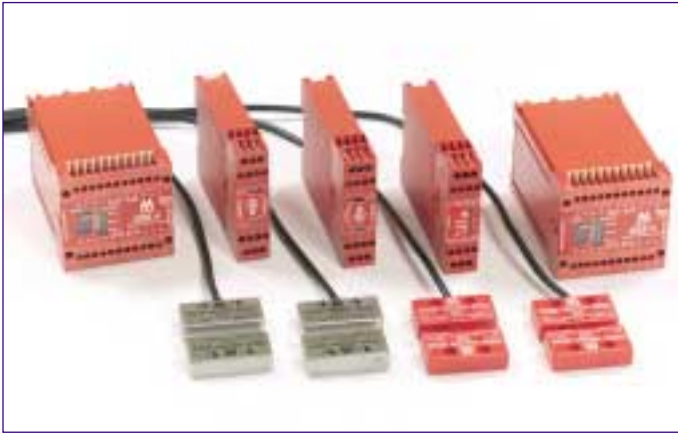
Larger systems can be assembled by adding more extender modules.

NOTE:

DC systems can monitor up to 30 guards.

AC systems can monitor up to 9 guards and then require a Mechan Power boost unit to power the next 10 guards. Another Power boost unit can be added for the next 10 guards if required.

SYSTEM COMPONENTS REQUIRED FOR MULTI GATE SYSTEMS	GENERIC CODE SYSTEM			UNIQUE CODE SYSTEM	
	CMI	CXI	CX2	CM9	CX9
No. of Guards Required					
1 Gate System	1	-	-	1	-
2 Gate System	1	1	-	1	1
3 Gate System	1	-	1	1	2
4 Gate System	1	1	1	1	3
5 Gate System	1	-	2	1	4
6 Gate System	1	1	2	1	5
7 Gate System	1	-	3	1	6
8 Gate System	1	1	3	1	7
9 Gate System	1	-	4	1	8



Description

With the growing demand for simple, efficient and yet more secure safety systems, the **ISIS** system offers the ideal solution.

Available in a range of voltages, the **ISIS** control units provide two normally open safety contacts, one normally closed auxiliary contact.

A major advantage of the **ISIS** safety system is that it detects both open and short circuit faults in the connections to the safety switches when they occur, giving immediate indication and moving the control unit to a safe state. This eliminates the possibility of faults accumulating without being detected.

The ISIS-4 control unit can also be used to monitor the emergency stop buttons or mechanical safety switches, combining both safety functions into one DIN rail mounting unit.

The ISIS-E Extender module can be added to either the ISIS-4 or ISIS-2 control units giving more **ISIS** switch inputs for monitoring larger systems.

The **ISIS** safety switches use coded magnet technology, are compact, tamper-resistant, and yet still have 8mm switching and IP67 environmental protection. This makes them ideal for all types of applications where additional security is required.

ISIS

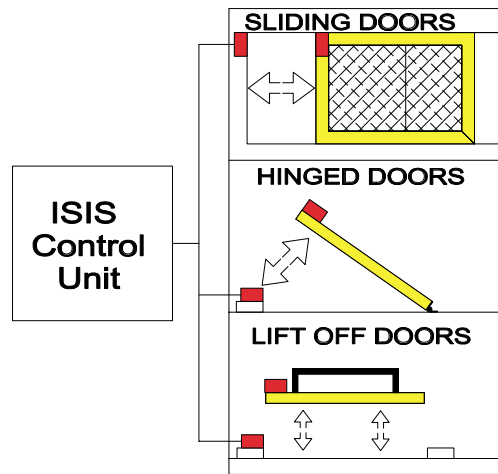
Coded Magnetic Safety System

- Tamper-resistant safety switches
- Multi-gate monitoring system
- 35mm DIN rail mounting control units
- Guard status indication at all times
- Category 3 Safety system performance
- EMC tested, TUV & UL approved
- Compliant with relevant EU Directives



Operation

Connect the required number of safety switches to the ISIS control unit (an internal switch is used to select how many are in operation). With the power on and all the safety switches closed, the system self-check is performed. The output safety contacts will only close if all activated safety switches are operating correctly and the internal self-check is completed successfully.



'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-4

The ISIS-4 control unit is available in 4 different input voltages and can monitor up to 4 ISIS safety switches.

The easy to install, 35mm DIN Rail mounting housing provides 2 x safety and 1 x auxiliary output contacts (4A / 230V ac). Indicator LED's in the ISIS-4 lid show the number of gates that have been selected, gate status, power and run.

A DIP switch located beneath the lid is used to select the number of active safety switches (note: The selector switch and number of safety switches must match or the control unit will not operate.)

ISIS-2

The ISIS-2 control unit can monitor up to 2 ISIS safety switches and is housed in a slim-line (22.5mm), DIN Rail mounting housing.

This unit can accept either 24V ac or dc supply, and provides 2 x safety and 1 x auxiliary output contacts (4A / 230V ac). Indicator LED's in the ISIS-2 lid show power, run and gate status.

Like the ISIS-4, a DIP switch located beneath the lid selects the number of active safety switches (note: The selector switch and number of safety switches must match or the control unit will not operate.)

ISIS-E

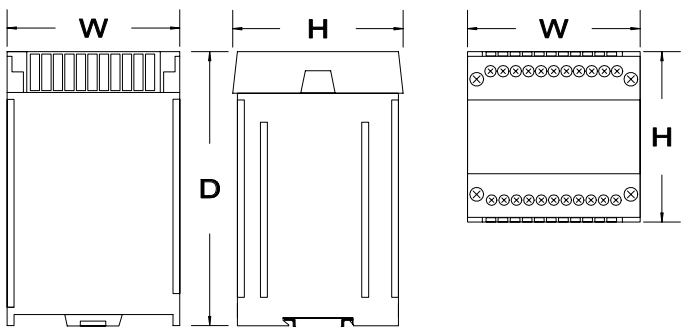
The ISIS-E Extender module provides 5 safety switch inputs to an ISIS control unit (ISIS-2 or ISIS-4)

Multiple ISIS-E extender modules can be connected together into one system, making it possible to monitor large numbers of machine guards or to add gates to an existing system at a later date.

The ISIS-E requires 24V ac/dc supply and a simple 2 wire connection from the ISIS-E to any active ISIS safety switch input.

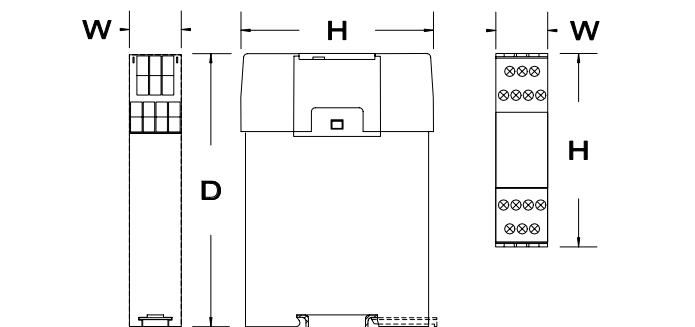
LED indication is available from all gate switches showing guard status.

Dimensions: ISIS-4



Dimensions	ISIS-4 (All voltages) (mm / inches)
W	75 / 2.95
H	74 / 2.91
D	119 / 4.68
Information only	

Dimensions: ISIS-2 & ISIS-E



Dimensions	ISIS-2 & ISIS-E (mm / inches)
W	22.5 / 0.88
H	84 / 3.3
D	119 / 4.68
Information only	



PRE-WIRED



M8 QUICK DISCONNECT

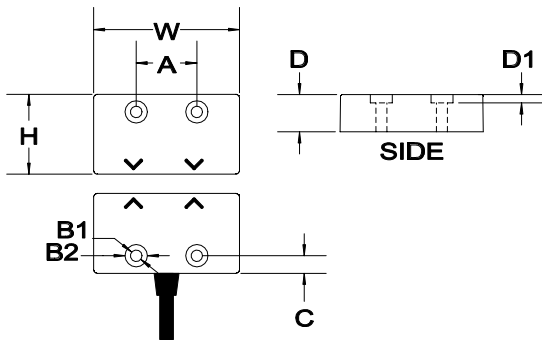
The ISIS safety switches are suitable for use in most types of machine guarding applications. Based on ‘coded magnet’ technology they are easy to install, reliable in operation and difficult to defeat.

The connection to each safety switch is monitored and detects immediately any short or open circuit as required by the higher performance categories in EN954-1. This simplifies installation and reduces cabling required.

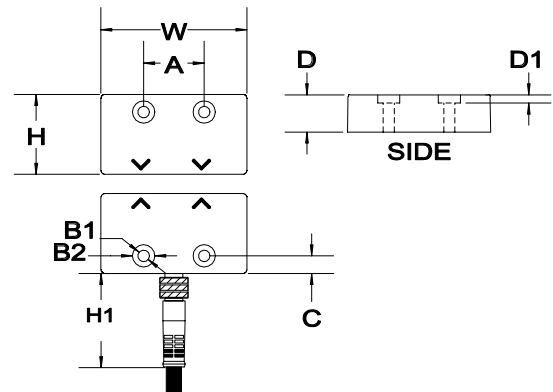
The ISIS safety switches are compact, robust and ideal for use on hinged, sliding or lift-off machine guards and the small size along with industry standard 22mm fixing centres make them ideal for use in areas where space is limited. Housed in RED ABS or 316 Stainless Steel bodies, the switches are fully sealed to IP67 and are suitable for use in areas where dust, water or high pressure hoses normally cause problems for standard safety switches.

The 8mm switching distance makes installation quick and simple, (the initial alignment is less critical than for mechanical safety switches) it also means they are tolerant to guard vibration / misalignment making them very reliable over long term use. The ISIS safety switches are supplied pre-wired with 3 metres of cable (longer can be ordered if required) or with an M8 quick disconnect option.

Dimensions: ISIS PRE-WIRED

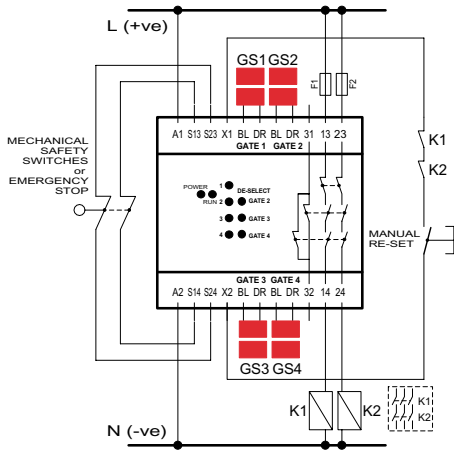


Dimensions: ISIS QUICK DISCONNECT



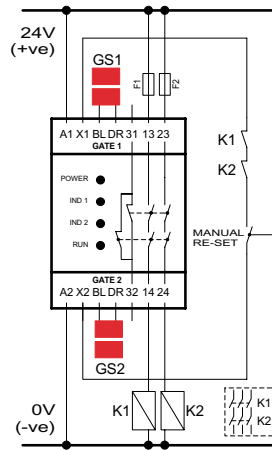
Dimensions	(mm / inches)		(mm / inches)	
	ISIS-03M	ISIS-SS-03M	ISIS-QD-05M	ISIS-SS-QD-05M
H	28 / 1.1	29 / 1.14	28 / 1.1	29 / 1.14
W	52 / 2.04	53 / 2.08	52 / 2.04	53 / 2.08
D	14 / 0.55	13.5 / 0.53	14 / 0.55	13.5 / 0.53
DI	3 / 0.11	3 / 0.11	3 / 0.11	3 / 0.11
A	22 / 0.86	22 / 0.86	22 / 0.86	22 / 0.86
BI	4.2 / 0.16 dia.	4.2 / 0.16 dia.	4.2 / 0.16 dia.	4.2 / 0.16 dia.
B2	8.1 / 0.32 dia.	8.1 / 0.32 dia.	8.1 / 0.32 dia.	8.1 / 0.32 dia.
C	6.4 / 0.25	6.4 / 0.25	6.4 / 0.25	6.4 / 0.25
HI	-	-	36 / 1.42	36 / 1.42

ISIS-4 CONNECTIONS



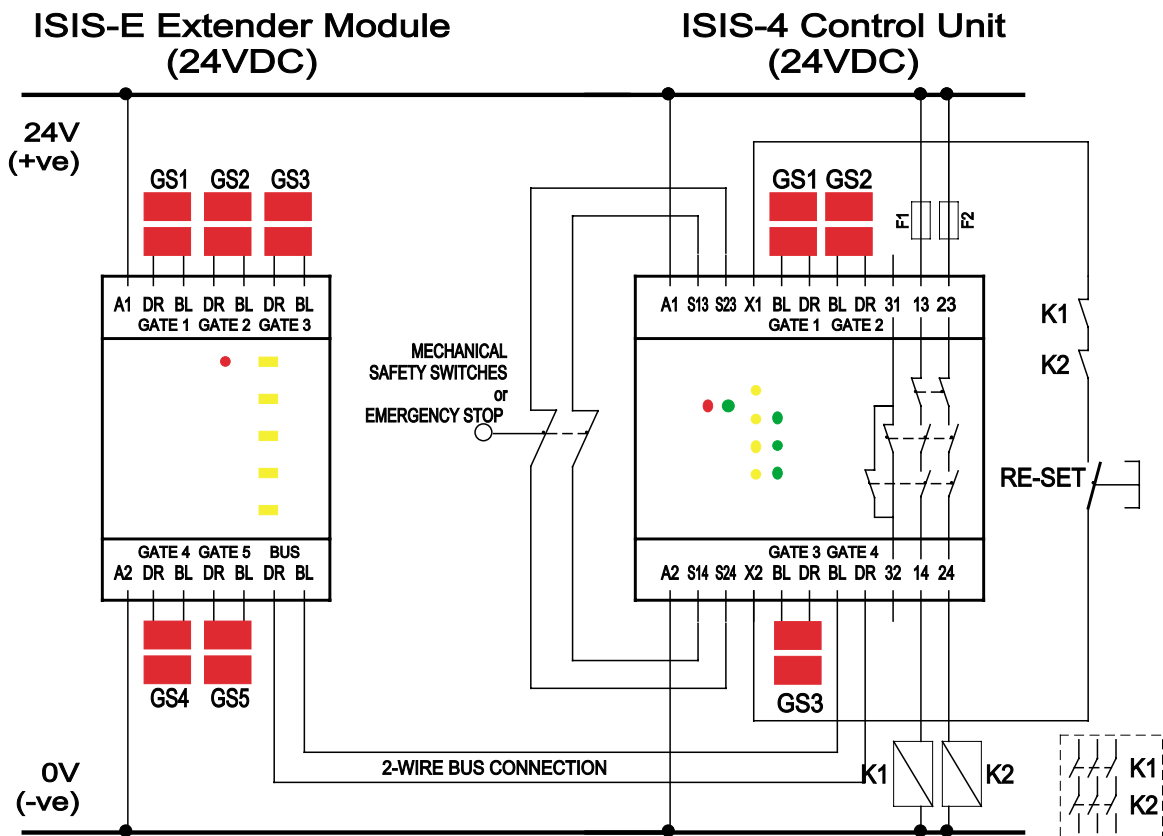
Typical 4 Gate system with manual reset, optional mechanical or emergency stop button inputs, switching dual contactors (K1 & K2) which are monitored by the ISIS-4.

ISIS-2 CONNECTIONS



Typical 2 Gate system with manual reset, switching dual contactors (K1 & K2) which are monitored by the ISIS-2.

ISIS-4 & ISIS-E CONNECTION (8 GUARD SWITCH SYSTEM)

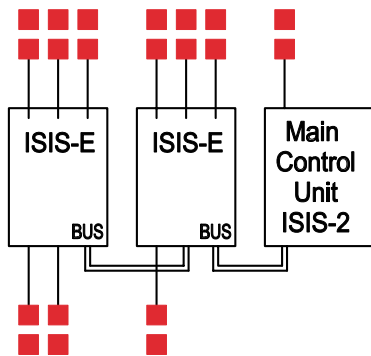


8 Gate system, using the ISIS-4 and 1 x ISIS-E extender module. More extender modules can be added to monitor more gate switches if required, simply connect the ISIS-E 2-wire 'Bus' connection into the next available gate switch input on the ISIS-4 / ISIS-2 control module, or the ISIS-E extender module.

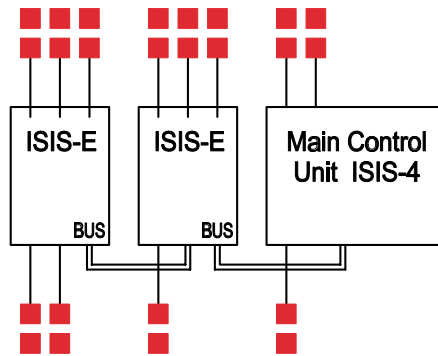
SPECIFICATION	ISIS SAFETY CONTROL UNITS		
Part Number	ISIS-4	ISIS-2	ISIS-E
Supply Voltages	24V ac/dc, 110V or 230V ac	24V ac/dc	24V ac/dc
Power Consumption	6VA	3VA	3VA
Safety Switch Inputs	4	2	5
Indication	Power, Run & Gate LED's	Power, Run & Gate LED's	Power, Run & Gate LED's
Internal Fusing	500mA Resettable > 2 secs.	500mA Resettable > 2 secs.	500mA Resettable > 2 secs.
Safety Contacts	2 x N/O	2 x N/O	-
Safety Contact Switching (Max)	4A@230V ac or 30V dc	4A@230V ac or 30V dc	-
Auxiliary Contact	1 x N/C	1 x N/C	-
Auxiliary Contact Switching (Max)	4A@230V ac or 30V dc	4A@230V ac or 30V dc	-
Operating Temperature	-10°C to +55°C	-10°C to +55°C	-10°C to +55°C
Storage Temperature	-20°C to +60°C	-20°C to +60°C	-20°C to +60°C
Dimensions	See page 20	See page 20	See page 20
IP Rating Housing	IP40	IP40	IP40
Terminals	IP20	IP20	IP20
Mounting	35mm DIN Rail	35mm DIN Rail	35mm DIN Rail
<i>Systems can be assembled to monitor up to 30 gates. See examples below.</i>			

SPECIFICATION	ISIS SAFETY SWITCHES				
	ISIS-03M	ISIS-QD	ISIS-SS-03M	ISIS-SS-QD	ISIS-SS-HT
Construction	ABS Case, Resin Filled		Stainless steel (316) Resin Filled		
IP Rating	IP67	IP67	IP67	IP67	IP67
Operating Temperature	-10°C to +55°C	-10°C to +55°C	-10°C to +55°C	-10°C to +55°C	-10°C to +120°C
Switching Distance	8mm	8mm	8mm	8mm	8mm
Cable Lengths Available	3/5/10 metre	5 or 15 metre	3/5/10 metre	5 or 15 metre	3/5/10 metre
Connection	Pre-wired	M8 Quick Disconnect	Pre-wired	M8 Quick Disconnect	Pre-wired
Dimensions	See page 21	See page 21	See page 21	See page 21	See page 21

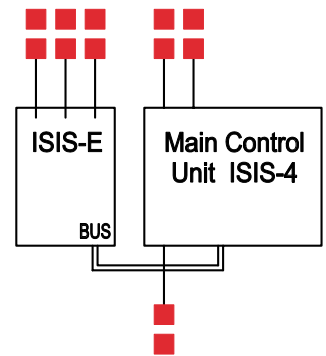
ISIS MULTI GATE SYSTEM EXAMPLES



10 Gate Safety system using ISIS-2 as the main control module.



12 Gate Safety system using ISIS-4 as the main control module.



6 Gate Safety system using ISIS-4 as the main control module.



Description

Mechan Controls have been manufacturing electronic safety switches since 1973. The **SSS** safety switch uses this tried and tested electronic switching technology and adds the benefits of having the safety contact outputs in the switch itself.

The SSS is a tamper-proof, standalone safety switch that can be used to switch relays, contactors or safety relays directly. Only a Mechan actuator will operate the **SSS** switch correctly.

By removing the need for a separate control unit we have made it possible to use our top of the range electronic switching technology in smaller, simpler safety systems. With the **SSS** you get the reliability the MECHAN electronic safety systems along with the ease of installation of a standard magnetic safety switch like the MAGNASAFE.

The **SSS** is suitable for use, on its own, for lower category safety systems, providing 2 volt-free outputs (2 normally open or 1 normally open & 1 normally closed). It can also be used in conjunction with safety relays where a higher category of performance is required.

For ease of operation the fixed switch has an LED, giving true indication of the **SSS** safety switch contacts.

SSS

Electronic Standalone Safety Switch

- Tamper-proof, electronic safety switching
- IP67
- 10mm switching distance
- Guard status indication
- EMC tested & UL approved
- Compliant with relevant EU Directives

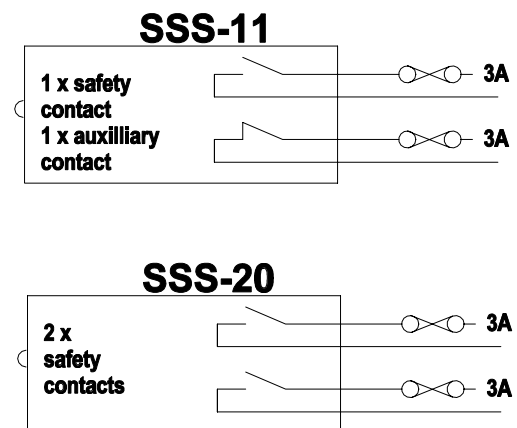


Operation

When the moving part (safety switch actuator) is brought within the operating range of the fixed switch, (8-10 mm target to target), a dynamic signal is generated in the actuator and transmitted to the switch.

This signal will, along with a secondary switching system, allow the safety control relays to energise.

Safety Contacts



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

FEATURES

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

APPLICATIONS

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



SSS

The **SSS** is a tamper-proof, electronic safety switch that can only be operated correctly by the Mechan SSS Actuator, reducing the possibility of unauthorised overriding of the safety system

The **SSS** requires a 24V dc supply and provides 2 volt free safety contact outputs. The safety contacts can switch 2A, 230V ac / 2A, 30V dc and are available as either 2 x N/O or 1 x N/O + 1 x N/C.

A Green LED on the safety switch sensor provides indication for the operator at the guard.

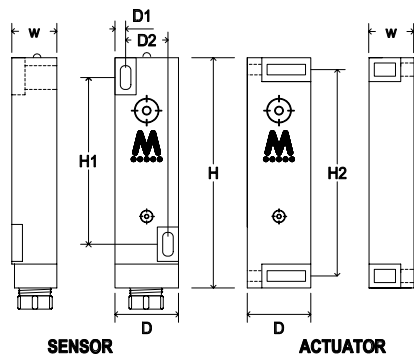


SSS-QD

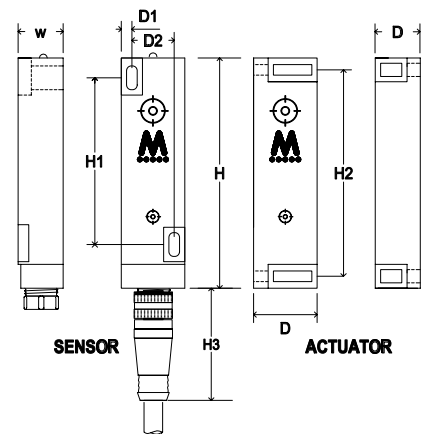
The **SSS-QD** is the same specification as the standard **SSS** safety switch, requiring 24V dc supply and providing 2 volt free safety contact outputs. The safety contacts can switch 2A, 230V ac / 2A, 30V dc and are available as either 2 x N/O or 1 x N/O + 1 x N/C.

The M12 Brad Harrison connector option is designed for easy installation and maintenance. The connector is IP67 rated and available with either 5 or 15 metre cable.

Dimensions: SSS



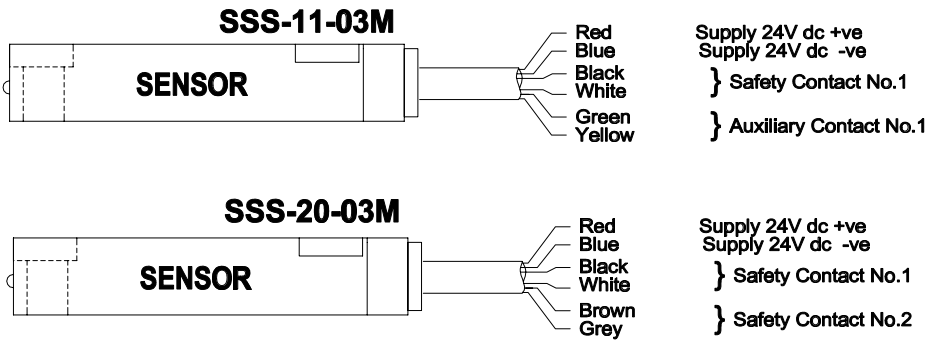
Dimensions: SSS-QD



Dimensions	SSS (Pre-wired) (mm / inches)
W	17 / 0.66
H	87 / 3.42
H1	63 / 2.48
H2	78 / 3.07
D	24 / 0.94
D1	4 / 0.15
D2	16 / 0.62
Information only	

Dimensions	SSS (QD) (mm / inches)
W	17 / 0.66
H	87 / 3.42
H1	63 / 2.48
H2	78 / 3.07
H3	46 / 1.81
D	24 / 0.94
D1	4 / 0.15
D2	16 / 0.62
Information only	

SSS CONNECTION

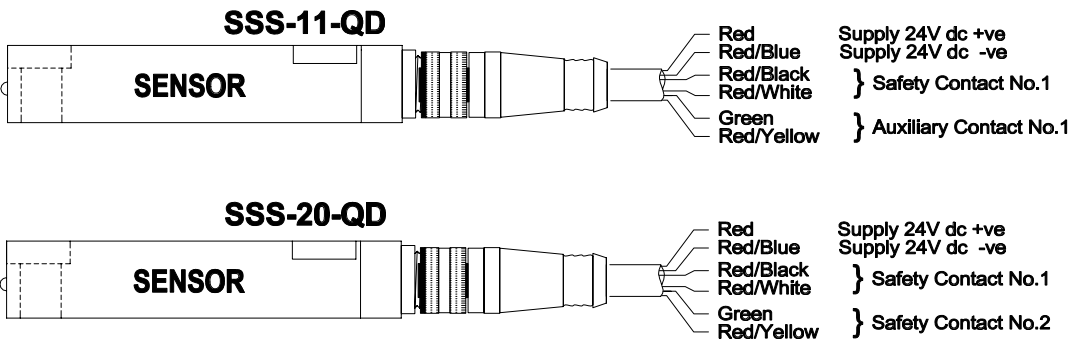


SSS pre-wired safety switches are available with either 2 normally open safety contacts or 1 normally open safety contact and 1 normally closed auxiliary contact, capable of switching 2A @ 230V ac.

Requires 24V dc supply.

Status indication is also available via a green LED mounted in the sensor.

SSS-QD CONNECTION



SSS-QD is the same specification as the pre-wired version above, with the added advantage of an M12 Brad Harrison Connector.

Requires 24V dc supply.

Status indication is also available via a green LED mounted in the sensor.

SPECIFICATION	SSS SAFETY SWITCHES			
	SSS-11-03M	SSS-20-03M	SSS-11-QD	SSS-20-QD
Construction	ABS Case, Resin Filled		ABS Case, Resin Filled	
Supply Voltage	24V dc	24V dc	24V dc	24V dc
Operation	Electronic	Electronic	Electronic	Electronic
Switching Contacts	1 x N/O, 1 x N/C	2 x N/O	1 x N/O, 1 x N/C	2 x N/O
Switching Contact Switching (Max)	2A/230V ac / 2A/30V dc	2A/230V ac / 2A/30V dc	2A/230V ac / 2A/30V dc	2A/230V ac / 2A/30V dc
IP Rating	IP67	IP67	IP67	IP67
Operating Temperature	-10°C to +55°C	-10°C to +55°C	-10°C to +55°C	-10°C to +55°C
Switching Distance	8-10mm	8-10mm	8-10mm	8-10mm
Cable Lengths Available	3/5/10 metre	3/5/10 metre	5 or 15 metre	5 or 15 metre
Connection	Pre-wired	Pre-wired	M12 Quick Disconnect	M12 Quick Disconnect
Dimensions	See page 25	See page 25	See page 25	See page 25



MAGNASAFE

Magnetic Safety System



- Non-contact safety switches
- Stainless steel options
- 2A switching capability
- Large range of sizes / fitting
- IP67
- Quick disconnect options
- Compliant with relevant EU Directives

Description

MAGNASAFE is a complete range of non-contact magnetically operated switches for use in safety applications.

Constructed using special, heavy duty reed switches, encapsulated into ABS housings and protected with internal fuses, these switches can safely perform up to 1,000,000 operations at full load.

Non-contact switches are easy to fit and the 10mm+ switching distance ensures tolerance to misalignment and gate wear. They are ideal for wet, dusty, oily environments and in areas where hygiene is important.

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.

Operation

When the switch and the actuator are apart the safety contacts are open and the auxiliary contacts are closed.

Moving the actuator to within the operating range of the switch, (target to target) the safety contacts close and the auxiliary contacts open.

Dual safety contact versions of the MS1, MS3 and MS5 can be used in conjunction with safety relays to provide a higher integrity safety system.

Contact Options

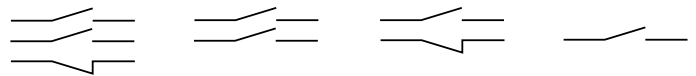
The **MAGNASAFE** range are available with either AC or DC rated contacts, and can be supplied with either 1 or 2 N/O safety contacts and up to 1 N/C auxiliary contact.

MS1, MS3, MS5**

MS1, MS3

MS1, MS2, MS3, MS4*

MS1, MS2, MS3, MS4*



* MS4 available in DC only

** MS5 available in DC only, and is a low current switching device, max 400mA.

'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
- Bottling plants
- Pharmaceutical
- Packing Machinery



MSI

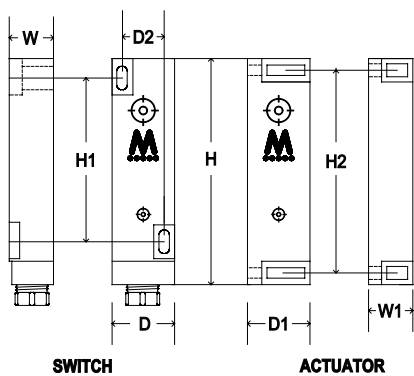
The **MSI** is Mechan's standard rectangular, IP67 safety switch with the option of up to 2 safety contacts and 1 indicator contact. Available with either AC or DC switching, it is simple to integrate into safety circuits.

Maximum Switching Capacity
AC = 230V ac/2A DC = 30V dc/1A

Parts Number: MSI

MSI-21-AC / MSI-21-DC	
MSI-20-AC / MSI-20-DC	
MSI-11-AC / MSI-11-DC	
MSI-10-AC / MSI-10-DC	

Dimensions: MSI



MS2

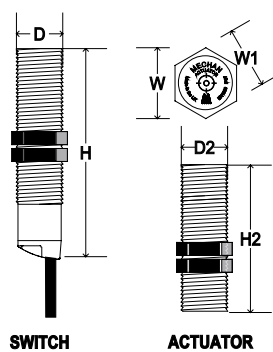
The **MS2** is an 18mm Barrel Mounting safety switch with 1 safety contact and an optional indicator contact if required. The IP67, robust, 18mm barrel shape is easy to install into the frame of a machine guard.

Maximum Switching Capacity
AC = 230V ac/2A DC = 30V dc/1A

Parts Number: MS2

MS21-11-AC / MS2-11-DC	
MS2-10-AC / MS2-10-DC	

Dimensions: MS2



MS3

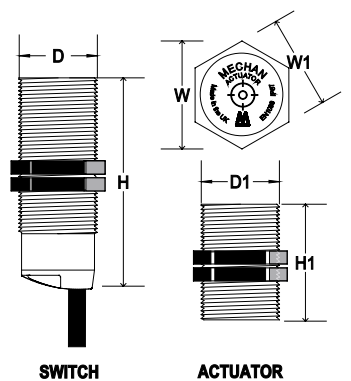
The MS3 is a 30mm Barrel Mounting safety switch with up to 2 safety contacts and 1 indicator contact. This 30mm diameter, IP67 sensor is robust enough to be used in most harsh environments.

Maximum Switching Capacity
AC = 230V ac/2A DC = 30V dc/1A

Parts Number: MS3

MS3-21-AC / MS3-21-DC	
MS3-20-AC / MS3-20-DC	
MS3-11-AC / MS3-11-DC	
MS3-10-AC / MS3-10-DC	

Dimensions: MS3



Dimensions

MAGNASAFE Safety Switches (mm / inches)

	MSI	MS2	MS3
H	87 / 3.43	81 / 3.19	80 / 3.15
H1	63 / 2.48	-	45 / 1.77
H2	78 / 3.07	57 / 2.24	-
D	24 / 0.95	18 / 0.71	30 / 1.81
D1	24 / 0.95	-	30 / 1.81
D2	16 / 0.63	18 / 0.71	-
W	17 / 0.67	27 / 1.06	42 / 1.65
W1	17 / 0.67	24 / 0.94	36 / 1.41

Information only

MS4



MS4-SS



MS4 / MS4-SS

The **MS4** is Mechan's smallest magnetic non-contact safety switch, and is available in both ABS and 316 grade stainless steel. With industry standard 22 mm fixing centres, this IP67 safety switch has 1 safety contact and an optional indicator contact.

The 8-10 mm switching distance is ideal for most types of machine guarding, including hinged, sliding and lift off guarding especially where space is at a premium.

Available in ABS or 316 grade Stainless Steel. Maximum Switching Capacity 30V dc = 1A.

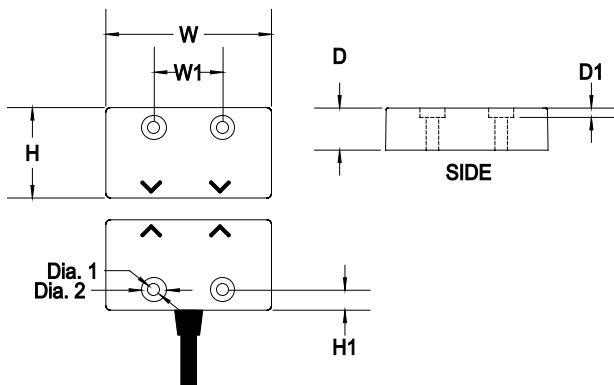
Parts Number: MS4

MS4-I0-DC-03M	
MS4-II-DC-03M	

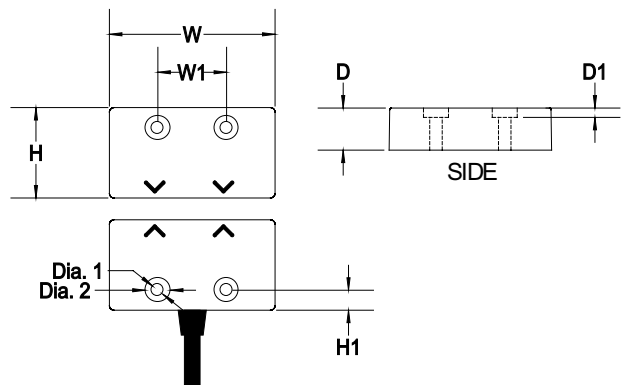
Parts Number: MS4-SS

MS4-SS-I0-DC-03M	
MS4-SS-II-DC-03M	

Dimensions: MS4 ABS



Dimensions: MS4 Stainless Steel



Dimensions	MAGNASAFE Safety Switches (mm / inches)	
	MS4	MS4-SS
H	28 / 1.1	29 / 1.14
H1	6.4 / 0.25	6.4 / 0.25
W	52 / 2.04	53 / 2.08
W1	22 / 0.86	22 / 0.86
D1	14 / 0.55	13.5 / 0.53
D2	3 / 0.11	3 / 0.11
Dia.1	4.2 / 0.16	4.2 / 0.16
Dia.2	8.1 / 0.31	8.1 / 0.31

Information only



MS5 / MS5-SS

The **MS5** is a low current magnetic safety switch, capable of switching up to 400mA @ 24V dc.

With 2 x N/O safety contacts and 1 x N/C auxiliary contact it is ideal for integration into systems using 'low in-rush current' safety relays. (Ask Mechan for more details)

Available in **ABS** or **316 grade Stainless Steel**.

Maximum Switching Capacity 24V dc = 400mA.

MS5-SS-HT


The MS5-SS-HT is a high temperature version of the low current magnetic safety switch.

Maximum Switching Capacity 24V dc = 400mA


Parts Number: MS5

MS5-21-DC-03M 

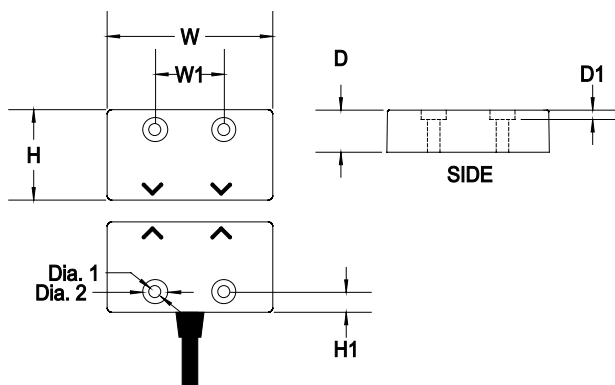
Parts Number: MS5-SS

MS5-SS-21-DC-03M 

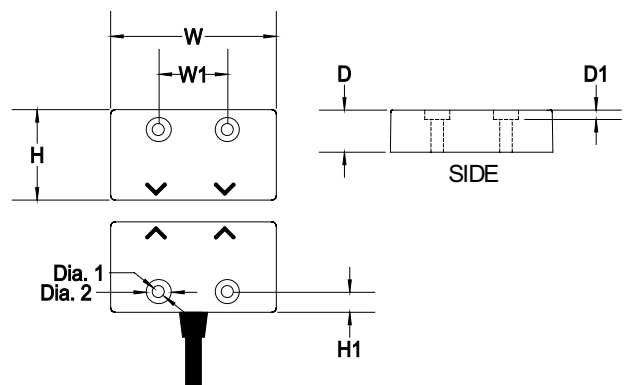
Parts Number: MS5-HT

MS5-SS-21-DC-03M-HT 

Dimensions: MS5 ABS



Dimensions: MS5-SS / MS5-HT



Dimensions	MAGNASAFE Safety Switches (mm / inches)	
	MS5 ABS	MS5-SS & MS5-HT
H	28 / 1.1	29 / 1.14
H1	6.4 / 0.25	6.4 / 0.25
W	52 / 2.04	53 / 2.08
W1	22 / 0.86	22 / 0.86
D1	14 / 0.55	13.5 / 0.53
D2	3 / 0.11	3 / 0.11
Dia.1	4.2 / 0.16	4.2 / 0.16
Dia.2	8.1 / 0.31	8.1 / 0.31

Information only



MLU / PLU

Locking Units



- Fail-safe solenoid with position detector switch
- Available with safety switches for either the F-SERIES or CODEX systems
- Uniquely coded sensors available
- PLU can be hose cleaned

Description

In some applications it may be necessary to lock the machine guards during operation. This can be for either operational or safety reasons.

Mechan locking units combine with the F-SERIES or CODEX safety systems to provide a complete solution to machine guard interlocking.

Available with Electrical (MLU) or Pneumatic (PLU) solenoid operation, these robust locking devices are designed to lock a gate or access cover securely until it is safe to enter. The safe state may be determined either by a motion stop detector or a timer.

The **MLU** and **PLU** both incorporate a 'Bolt Position Sensor' and a Mechan safety switch (either F-SERIES or CODEX compatible). The Mechan safety switch is used to sense when the gate is closed and the Bolt Position Sensor ensures the bolt is in place locking the gate closed before allowing the Mechan safety control unit to operate.

The gate will remain locked until a signal is given to the locking unit via a 'pre-determined time' contact from a timer relay or a motion stop detector output, allowing the **MLU / PLU** to be operated.

MLU Operation

The Mechan Locking Unit (MLU) is connected to the Safety Switch Sensor input and a timed 24V power supply. When the guard is closed, the Mechan Safety Switch Sensors are aligned and the solenoid bolt fully extended locking the guard in position, the safety control module relays can be energised.

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

Pressing the stop button de-energises the timer relay and the supply is returned to the **MLU** via the time delay contact after the pre-set time has elapsed. (Note: Motion Stop detectors can also be used for the same purpose).

With the supply back on, the **MLU** button will be illuminated and the operator can open the guard. (See installation guide for more details)

PLU operation

Operation for the **PLU** is similar to the **MLU** except the solenoid is Air operated.

(See installation guide for more details)

'Robust locking systems, pneumatic or electrical operation'

FEATURES

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

APPLICATIONS

- Food Mixers
- Concrete block mixing
- Acoustic enclosures



MLU

The **MLU** Locking unit is designed to work with either the F-SERIES or the CODEX safety systems.

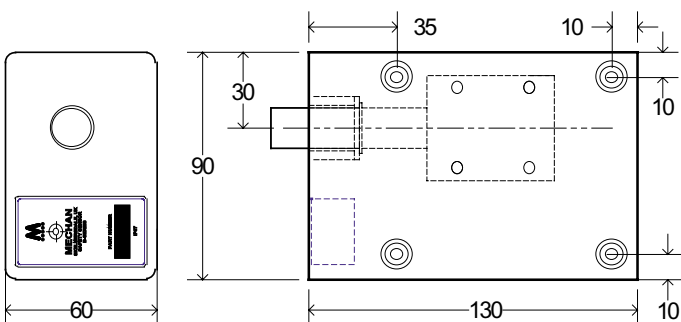
The **MLU** is an electric solenoid operating bolt combined with a Mechan safety switch, bolt position sensor and operating button.

When the gate is closed and the Mechan safety switch actuator is aligned with the safety switch in the **MLU**, and the bolt is fully extended, the actuator housing will hold the gate in position. The signal from the Mechan safety switch will allow the control unit to be energised.

When the machine is stopped the time delay contact can be used to put a supply onto the **MLU**, illuminating the operating button and allowing the operator to open the gate when the button is pressed.

The gate is not 'slam shut' operation and the operator must press the button again to close the gate

Dimensions: MLU



PLU

The **PLU** is a pneumatically operated locking system designed to work with the F-SERIES or CODEX safety systems.

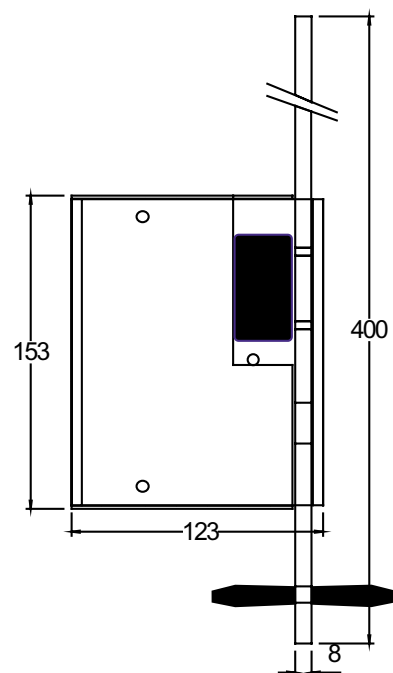
The **PLU** is manufactured in aluminium and can be used in harsh environments like concrete block mixers. Wash down procedures will not affect the locking unit.

The main unit contains the Mechan safety switch sensor, pneumatic locking cylinder and a push fit connector for the air supply.

The locking arm has a Mechan actuator and when in position can be locked in place by the pneumatic solenoid bolt.

When the machine is stopped a time delay contact or motion stop detector can be used to put the air supply onto the PLU allowing the operator to open the guard.

Dimensions: PLU





MPX SAFETY CONTROL UNITS

Mechan Safety Control units have been in use for over 30 years.

The **MPX** range is a cost effective, simple to use, safety control unit for monitoring the Mechan electronic safety switches. (F-TYPE, B-TYPE, DINKY, CMA or SFMA see pages 6-9)

The Mechan safety control units are available mounted on a chassis plate or complete in a steel or stainless steel enclosure.

Each control unit has dual relay safety outputs, monitoring circuit, on-board LED indication and is available in 24Vdc, 24Vac, 110Vac or 230Vac.

The **SSP** is a safety control unit for monitoring one safety switch.

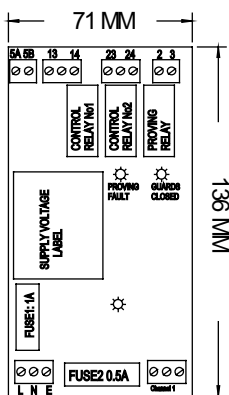
The **MPX4** monitors 2 - 4 Mechan electronic safety switches

The **MPX8** monitors 4 - 8 Mechan electronic safety switches

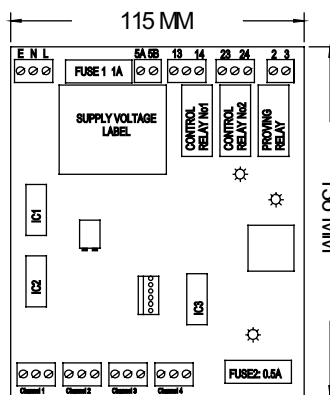
Additional indicator boards are available for the **SSP**, **MPX4** and **MPX8** safety control units giving remote LED, LAMP, or Volt Free contact indication. Ask sales or see our web site for more details.

- 1, 2-4 or 4-8 safety switch monitoring
- Dual channel switching
- Monitoring circuit
- On-board diagnostic LED's
- Optional indicator boards
- Can be used with Mechan Electronic safety switches (F-TYPE, B-TYPE, C-TYPE & DINKY)

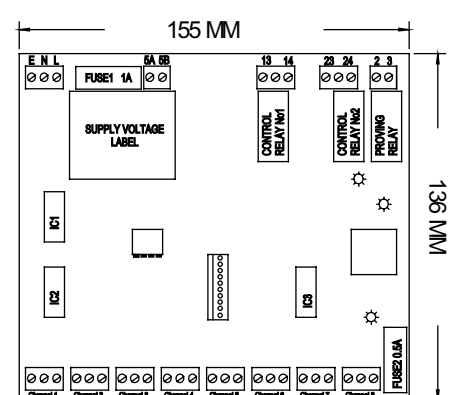
Dimensions: SSP



Dimensions: MPX4



Dimensions: MPX8



MPX4/DIN



MPX8/DIN



MPX/DIN SAFETY CONTROL UNITS

The **MPX/DIN** range of safety control units were developed to make installation of the Mechan electronic safety system easier. The **MPX4/DIN** and the **MPX8/DIN** have all the features of the standard MPX range inside a clip-on to 35mm DIN rail housing.

The **MPX/DIN** range of safety control units are designed to monitor Mechan electronic safety switches. (F-TYPE, B-TYPE, DINKY, CMA or SFMA see pages 6-9)

Each control unit has dual relay safety outputs, monitoring circuit, on-board system LED indication, Volt Free and LED guard status indication and is available in 24Vdc, 24Vac, 110Vac or 230Vac options.

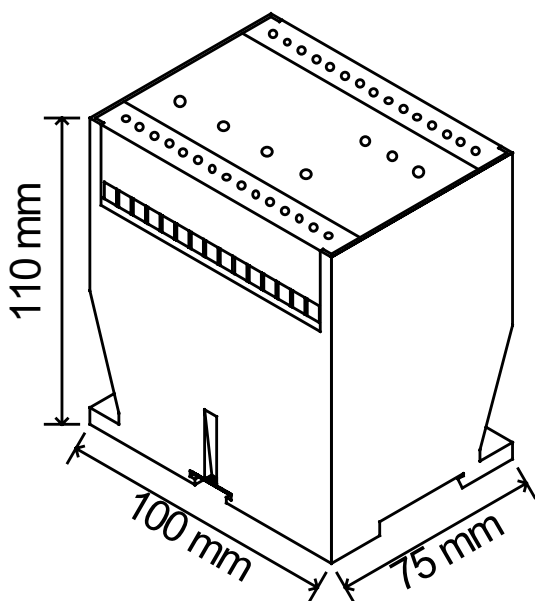
The **MPX4/DIN** and the **MPX8/DIN** are switch selectable to monitor the number of guards required.

The **MPX4/DIN** monitors 1 - 4 Mechan electronic safety switches

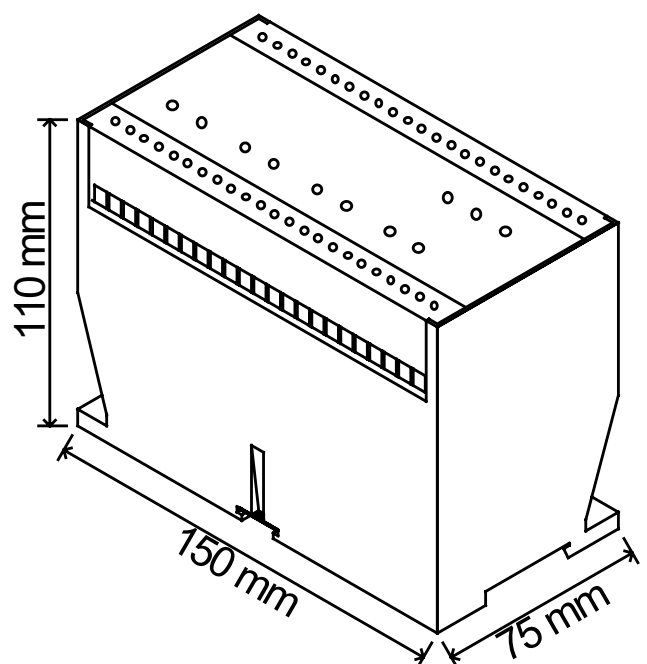
The **MPX8/DIN** monitors 5 - 8 Mechan electronic safety switches

- 1-4 or 5-8 gate operation
- Dual channel switching
- Monitoring circuit
- On-board diagnostic LED's
- Volt Free and LED Guard status indication
- Can be used with Mechan Electronic safety switches (F-TYPE, B-TYPE, C-TYPE & DINKY)

Dimensions: MPX4/DIN



Dimensions: MPX8/DIN



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 LED's for guard status indication.

You can also specify buffer relays for switching higher current loads, panel isolators, safety relays for E'stop control and power supply units to suit your applications.

Mechan Controls has manufactured turn-key systems for many environments including the food-processing, dairy bottle and carton filling, packaging systems and the concrete block manufacturing industry over the past 20 years. Most systems can be manufactured to your specifications within 2 - 3 weeks.

If you have any specific turn-key projects contact our technical team who will be happy to discuss your requirements and prepare a quotation.



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 / CODEX / ISIS / SSS / MAGNASAFE |
| 2. SUPPLY VOLTAGE | 24Vdc / 24Vac / 110Vac / 230Vac |
| 3. ENCLOSURE | PAINTED STEEL / STAINLESS STEEL |
| 4. NUMBER OF SAFETY SWITCHES | |
| 5. SAFETY SWITCH CABLE LENGTH | 5 / 10 / 15 metres (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 with choosing your system.

STOCK No.	DESCRIPTION	PART No.
F-SERIES - Electronic Non-Contact Safety System		
327.000	FMI, 24Vdc Safety Control Unit	FMI-24VDC
327.001	FMI, 24Vac Safety Control Unit	FMI-24VAC
327.002	FMI, 110Vac Safety Control Unit	FMI-110VAC
327.003	FMI, 240Vac Safety Control Unit	FMI-240VAC
328.000	FX1, 1 Gate Safety Extender Module	FX1
328.001	FX2, 2 Gate Safety Extender Module	FX2
330.000	FLI-2, F-Series Limited Inch Module, 2 Seconds	FLI-2
330.001	FLI-4, F-Series Limited Inch Module, 4 Seconds	FLI-4
308.000	FMA, F-Type Safety Switch, Anaconda Conduit Adaptor, 5 Metre Cable pre-wired	FMA-5M
308.001	FMA, F-Type Safety Switch, Anaconda Conduit Adaptor, 10 Metre Cable pre-wired	FMA-10M
308.003	FMG, F-Type Safety Switch, Cord Grip Gland, 5 Metre Cable pre-wired	FMG-5M
308.004	FMG, F-Type Safety Switch, Cord Grip Gland, 10 Metre Cable pre-wired	FMG-10M
308.006	FMT, F-Type Safety Switch, 20mm Male Brass Thread, 5 Metre Cable pre-wired	FMT-5M
308.007	FMT, F-Type Safety Switch, 20mm Male Brass Thread, 10 Metre Cable pre-wired	FMT-10M
308.099	M, F-Type Actuator Only	M
309.000	BMS, B-Type Safety Switch, Side Entry, 5 Metre Cable pre-wired	BMS-5M
309.001	BMS, B-Type Safety Switch, Side Entry, 10 Metre Cable pre-wired	BMS-10M
309.003	BMR, B-Type Safety Switch, Rear Entry, 5 Metre Cable pre-wired	BMR-5M
309.004	BMR, B-Type Safety Switch, Rear Entry, 10 Metre Cable pre-wired	BMR-10M
309.006	BMG, B-Type Safety Switch, 16mm Critchley Gland, 5 Metre Cable pre-wired	BMG-5M
309.007	BMG, B-Type Safety Switch, 16mm Critchley Gland, 10 Metre Cable pre-wired	BMG-10M
309.099	BM, B-Type Actuator Only	BM
374.000	DNK1-5M, Dinky Safety Switch, 22mm Fixing, 5 Metre Cable pre-wired	DNK1-5M
374.001	DNK1-10M, Dinky Safety Switch, 22mm Fixing, 10 Metre Cable pre-wired	DNK1-10M
374.052	DNK2-QD-5M, Dinky Safety Switch, 22mm Fixing, M8 Quick Disconnect, 5 Metre Cable complete	DNK2-QD-05M
374.053	DNK2-QD-15M, Dinky Safety Switch, 22mm Fixing, M8 Quick Disconnect, 15 Metre Cable complete	DNK2-QD-15M
374.099	DNK-ACT, Dinky Actuator Only	DNK-ACT
311.002	CMA, C-Type Safety Switch, Unique Code, Anaconda Conduit Adaptor, 5 Metre Cable pre-wired	CMA-5M
311.000	CMA, C-Type Safety Switch, Unique Code, Anaconda Conduit Adaptor, 10 Metre Cable pre-wired	CMA-10M
312.000	SFMA, S-Type Safety Switch, High Immunity, Anaconda Conduit Adaptor, 5 Metre Cable pre-wired	SFMA-5M
312.001	SFMA, S-Type Safety Switch, High Immunity, Anaconda Conduit Adaptor, 10 Metre Cable pre-wired	SFMA-10M
CODEX - Electronic Non-Contact Safety System		
320.000	CM1, 24Vdc Safety Control Unit	CM1-24VDC
320.001	CM1, 24Vac Safety Control Unit	CM1-24VAC
320.002	CM1, 110Vac Safety Control Unit	CM1-110VAC
320.003	CM1, 240Vac Safety Control Unit	CM1-240VAC
321.000	CX1, 1 Gate Safety Extender Module	CX1
321.001	CX2, 2 Gate Safety Extender Module	CX2
324.000	CLI-2, F-Series Limited Inch Module, 2 Seconds	CLI-2
324.001	CLI-4, F-Series Limited Inch Module, 4 Seconds	CLI-4
322.000	CS1, CS-Type Safety Switch, In-line Fixing, 5 Metre Cable pre-wired (10 & 15 metre versions available)	CS1-5M
322.003	CS2, CS-Type Safety Switch, Off-Set Fixing, 5 Metre Cable pre-wired (10 & 15 metre versions available)	CS2-5M
322.006	CS3, CS-Type Safety Switch, IP67 Quick Disconnect, 5 Metre Cable pre-wired(10 & 15 metre versions available)	CS3-5M
CODEX - Unique Code Electronic Non-Contact Safety System		
320.004	CM9, 24Vdc Safety Control Unit, Unique Code	CM9-24VDC
321.002	CX9, 1 Gate Safety Extender Module, Unique Code	CX9
322.009	CS9, CS-Type Safety Switch, In-line Fixing, 5 Metre Cable pre-wired, Unique Code	CS9-5M
ISIS - Tamper Resistant Non-Contact Safety System		
370.000	ISIS-4, 4 Gate, Safety Control Unit, 24Vac/dc	ISIS-4-24VAC/DC
370.001	ISIS-4, 4 Gate, Safety Control Unit, 110Vac	ISIS-4-110VAC
370.002	ISIS-4, 4 Gate, Safety Control Unit, 230Vac	ISIS-4-230VAC
371.000	ISIS-2, 2 Gate, Safety Control Unit, 24Vac/dc	ISIS-2-24VAC/DC
375.000	ISIS-E, 5 Gate, Extender Module, 24Vac/dc	ISIS-E
372.000	ISIS-03M, Safety Switch, 3 metre cable	ISIS-03M
372.001	ISIS-05M, Safety Switch, 5 metre cable	ISIS-05M
372.010	ISIS-SS-03M, Safety Switch, Stainless Steel, 3 metre cable	ISIS-SS-03M
TBA	ISIS Safety switch, Quick disconnect, 5 Metre cable	ISIS-QD-05M
TBA	ISIS Safety switch, Quick disconnect, 15 Metre cable	ISIS-QD-15M
372.099	ISIS Actuator	ISIS-ACT
372.098	ISIS Actuator, Stainless Steel	ISIS-SS-ACT

NOTE : Not all variations shown, call Mechan Controls for more information or visit the Mechan web site at www.mechancontrols.co.uk
 All pre-wired safety switches can be ordered with longer cables as required (Max 100 metres)

STOCK No.	DESCRIPTION	PART No.
SSS - Electronic Standalone Safety Switch		
360.000	SSS Standalone Safety Switch, 2 x N/O, 24Vdc, 3 Metre Cable pre-wired	SSS-20-03M
360.001	SSS Standalone Safety Switch, 1 x N/O, 1 x N/C, 24Vdc, 3 Metre Cable pre-wired	SSS-11-03M
360.002	SSS Standalone Safety Switch, 2 x N/O, 24Vdc, M12 Quick Disconnect, no cable	SSS-20-QD
360.003	SSS Standalone Safety Switch, 1 x N/O, 1 x N/C, 24Vdc, M12 Quick Disconnect, no cable	SSS-11-QD
360.004	Cable, 6 Core with M12 Connector	
360.005	SSS Standalone Safety Switch, 2 x N/O, 24Vdc, Quick Disconnect c/w 5 Metre Cable	SSS-20-QD-05M
360.006	SSS Standalone Safety Switch, 1 x N/O, 1 x N/C, 24Vdc, Quick Disconnect c/w 5 Metre Cable	SSS-11-QD-05M
360.099	SSS Standalone Safety Actuator Only	SSS-ACT
MAGNASAFE - Non Contact Safety Switches		
350.000	Magnasafe Safety Switch, 1 x N/O, AC, 3 Metre Cable pre-wired	MS1-10-AC-03M
350.001	Magnasafe Safety Switch, 1 x N/O, 1 x N/C, AC, 3 Metre Cable pre-wired	MS1-11-AC-03M
350.002	Magnasafe Safety Switch, 2 x N/O, AC, 3 Metre Cable pre-wired	MS1-20-AC-03M
350.003	Magnasafe Safety Switch, 2 x N/O, 1 x N/C, AC, 3 Metre Cable pre-wired	MS1-21-AC-03M
350.050	Magnasafe Safety Switch, 1 x N/O, DC, 3 Metre Cable pre-wired	MS1-10-DC-03M
350.051	Magnasafe Safety Switch, 1 x N/O, 1 x N/C, DC, 3 Metre Cable pre-wired	MS1-11-DC-03M
350.052	Magnasafe Safety Switch, 2 x N/O, DC, 3 Metre Cable pre-wired	MS1-20-DC-03M
350.053	Magnasafe Safety Switch, 2 x N/O, 1 x N/C, DC, 3 Metre Cable pre-wired	MS1-21-DC-03M
350.099	Magnasafe MS1 Actuator Only	MS1-ACT
351.000	Magnasafe Safety Switch, M18 Barrel Mounting, 1 x N/O, AC, 3 Metre Cable pre-wired	MS2-10-AC-03M
351.001	Magnasafe Safety Switch, M18 Barrel Mounting, 1 x N/O, 1 x N/C, AC, 3 Metre Cable pre-wired	MS2-11-AC-03M
351.050	Magnasafe Safety Switch, M18 Barrel Mounting, 1 x N/O, DC, 3 Metre Cable pre-wired	MS2-10-DC-03M
351.051	Magnasafe Safety Switch, M18 Barrel Mounting, 1 x N/O, 1 x N/C, DC, 3 Metre Cable pre-wired	MS2-11-DC-03M
351.099	Magnasafe MS2 Actuator Only	MS2-ACT
352.000	Magnasafe Safety Switch, M30 Barrel Mounting, 1 x N/O, AC, 3 Metre Cable pre-wired	MS3-10-AC-03M
352.001	Magnasafe Safety Switch, M30 Barrel Mounting, 1 x N/O, 1 x N/C, AC, 3 Metre Cable pre-wired	MS3-11-AC-03M
352.002	Magnasafe Safety Switch, M30 Barrel Mounting, 2 x N/O, AC, 3 Metre Cable pre-wired	MS3-20-AC-03M
352.003	Magnasafe Safety Switch, M30 Barrel Mounting, 2 x N/O, 1 x N/C, AC, 3 Metre Cable pre-wired	MS3-21-AC-03M
352.050	Magnasafe Safety Switch, M30 Barrel Mounting, 1 x N/O, DC, 3 Metre Cable pre-wired	MS3-10-DC-03M
352.051	Magnasafe Safety Switch, M30 Barrel Mounting, 1 x N/O, 1 x N/C, DC, 3 Metre Cable pre-wired	MS3-11-DC-03M
352.052	Magnasafe Safety Switch, M30 Barrel Mounting, 2 x N/O, DC, 3 Metre Cable pre-wired	MS3-20-DC-03M
352.053	Magnasafe Safety Switch, M30 Barrel Mounting, 2 x N/O, 1 x N/C, DC, 3 Metre Cable pre-wired	MS3-21-DC-03M
352.099	Magnasafe MS3 Actuator Only	MS3-ACT
353.001	Magnasafe Safety Switch, 22mm Fixing, 1 x N/O, DC, 3 Metre Cable pre-wired	MS4-10-DC-03M
353.002	Magnasafe Safety Switch, 22mm Fixing, 1 x N/O, 1 x N/C, DC, 3 Metre Cable pre-wired	MS4-11-DC-03M
353.099	Magnasafe MS4 Actuator Only	MS4-ACT
353.006	Magnasafe Safety Switch, 22mm Fixing, Stainless Steel, 1 x N/O, DC, 3 Metre Cable pre-wired	MS4-SS-10-DC-03M
353.005	Magnasafe Safety Switch, 22mm Fixing, Stainless Steel, 1 x N/O, 1 x N/C, DC, 3 Metre Cable pre-wired	MS4-SS-11-DC-03M
353.098	Magnasafe MS4 Stainless Steel Actuator Only	MS4-SS-ACT
354.050	Magnasafe Safety Switch, Low Current, 22mm Fixing, 2 x N/O, 1 x N/C, DC, 3 Metre Cable pre-wired	MS5-21-DC-03M
354.051	Magnasafe Safety Switch, Low Current, 22mm Fixing, Stainless Steel, 2 x N/O, 1 x N/C, DC, 3 Metre Cable pre-wired	MS5-SS-21-DC-03M
354.052	Magnasafe Safety Switch, Low Current, 22mm Fixing, Stainless Steel, 2 x N/O, 1 x N/C, DC, M12 Leaded Quick Disconnect	MS5-SS-21-DC-LQD
354.053	Magnasafe MS5 Actuator Only	MS5-ACT
354.054	Magnasafe MS5 Stainless Steel Actuator Only	MS5-SS-ACT
MPX - Electronic Safety Switch Control Units		
305.000	SSP 24VDC, 1 Gate, Safety Control Unit (Also available in 24Vac, 110Vac & 230Vac)	SSP-24VDC
303.000	MPX4 24VDC, 2 to 4 Gate, Safety Control Unit (Also available in 24Vac, 110Vac & 230Vac)	MPX4-24VDC
304.000	MPX8 24VDC, 4 to 8 Gate, Safety Control Unit (Also available in 24Vac, 110Vac & 230Vac)	MPX8-24VDC
MPX/DIN - Electronic Safety Control Units, DIN Rail Mounting		
301.000	MPX4/DIN 24V dc, 1 to 4 Gate, Safety Control Unit	MPX4/DIN-24VDC
301.001	MPX4/DIN 24V ac, 1 to 4 Gate, Safety Control Unit	MPX4/DIN-24VAC
301.002	MPX4/DIN 110V ac, 1 to 4 Gate, Safety Control Unit	MPX4/DIN-110VAC
301.003	MPX4/DIN 240V ac, 1 to 4 Gate, Safety Control Unit	MPX4/DIN-240VAC
302.000	MPX8/DIN 24V dc, 5 to 8 Gate, Safety Control Unit	MPX8/DIN-24VDC
302.001	MPX8/DIN 24V ac, 5 to 8 Gate, Safety Control Unit	MPX8/DIN-24VAC
302.002	MPX8/DIN 110V ac, 5 to 8 Gate, Safety Control Unit	MPX8/DIN-110VAC
302.003	MPX8/DIN 240V ac, 5 to 8 Gate, Safety Control Unit	MPX8/DIN-240VAC
Locking Units		
318.000	Mechan Electric Locking Unit, Stainless Steel, F-SERIES	MLU-F
318.002	Mechan Electric Locking Unit, Stainless Steel, CODEX	MLU-CDX
318.001	Mechan Pneumatic Locking Unit, F-SERIES	PLU-F
318.003	Mechan Pneumatic Locking Unit, CODEX	PLU-CDX

NOTE : Not all variations shown, call Mechan Controls for more information or visit the Mechan web site at www.mechancontrols.co.uk
 All pre-wired safety switches can be ordered with longer cables as required (Max 100 metres)

MECHAN CONTROLS

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”

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.

Stock & delivery

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

Our goal is to provide next day delivery for all orders received by midday.

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

Contact Mechan for a quotation.

Contact

MECHAN CONTROLS PLC

14 / 16 Seddon Place

Stanley Industrial Estate

Skelmersdale

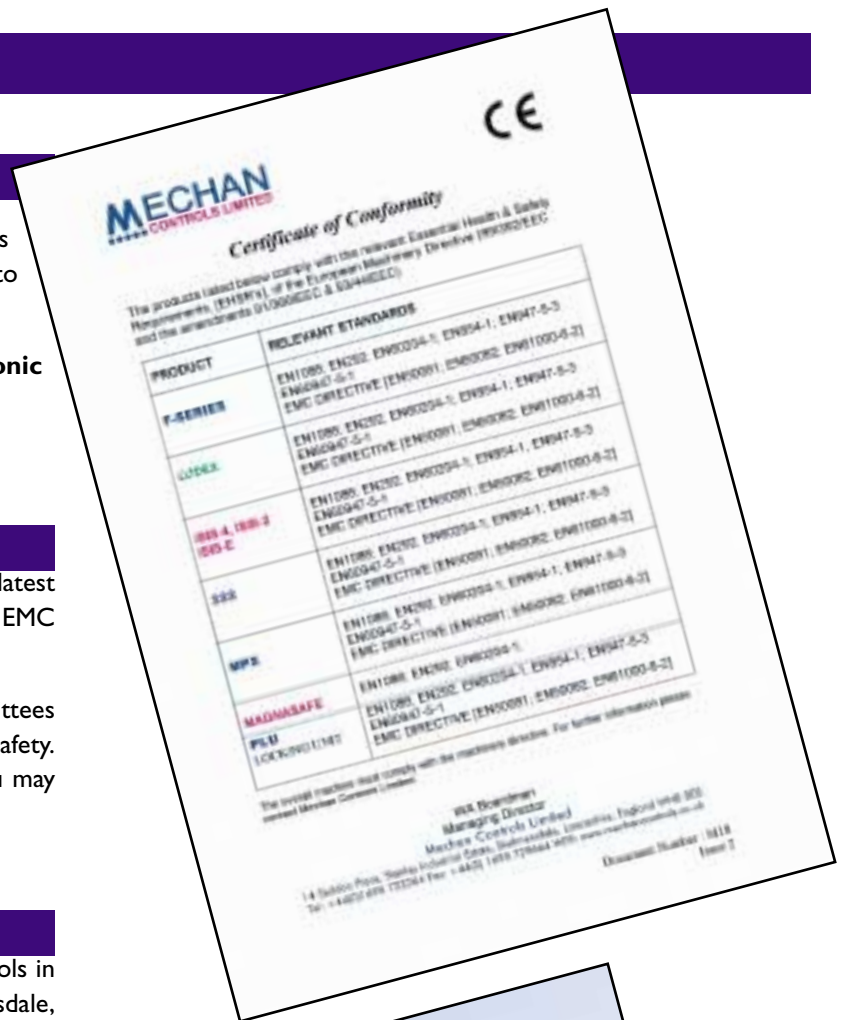
Lancashire WN8 8EB

Telephone : +44(0) 1695 722264

Fax : +44(0) 1695 729664

Email : sales@mechancontrols.co.uk

Web : www.mechancontrols.co.uk



In the interest of product development, specifications are subject to change without notice.
All information regarding Mechan 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 Number C2003v1 Copyright Mechan Controls plc 2003

The logo for Industrial Safety Sales Inc. features the company name in a bold, red, sans-serif font. The text is partially overlaid by a thick, black, curved swoosh that starts from the bottom left and curves upwards and to the right. A thin, grey, curved swoosh is positioned above the black one, also following a similar path. The background of the logo area is white.

**INDUSTRIAL
SAFETY SALES INC.**

P.O. Box 126 -- 4112 Sheridan Road
Kenosha, WI 53141
Fax: (262) 652-1388
E-mail: safetysensing@earthlink.net

(262) 652-8660