

# *IDEM'S Next Generation Safety Switches*

Providing Guard Interlocking Safety Solutions for all Industries  
Including Stainless Steel 316 Switches to Satisfy the Food,  
Beverage, Pharmaceutical & Chemical Industries



## Providing Machine Safety for you at work

Designed and manufactured in the UK



[www.idemsafety.com](http://www.idemsafety.com)

# IP69K Fully Stainless Steel Safety Switches from IDEM

Designed for Food and Beverage applications where long mechanical life, resistance to food contamination and high pressure cleaning is required.

Suitable for CIP cleaning Fully Stainless Steel Housing and fittings - IP69K and IP67  
Tested 80C, and 100 bar chemical washdown.



## Mechanical Interlock Switches



**HYGIECAM K-SS**

Universal fitting - established footprint  
suitable for most general applications  
52mm wide 99mm long  
Replaceable contact blocks  
Head can be rotated to give 4 actuator  
entry positions  
Standard or Flexible actuators



**KM-SS-Ex**



**K-SS-Ex**

Exd IIC T6 (-20≤Ta≤+60C) Gb  
 Ex tb IIIC T85C (-20≤Ta≤+60C) Db



**HYGIECAM KM-SS**

Slim fitting suitable for industry  
applications. Mirror surface finish  
42 mm wide 118mm long  
Head will rotate without removal to protect  
the head assembly and prevent tampering.  
Offers 8 actuator entry positions  
Standard or Flexible actuators  
ATEX Explosion Proof versions

## Mechanical Interlock Switches with Guard Locking



**RYANLOCK KL1-SS**

4 actuator entry positions – rotatable head  
Compact 63mm wide 143mm long 40mm fixing  
2 lock monitoring safety contacts  
Medium Holding Force: 1600N.  
LED 1 status of solenoid applied power  
LED 2 status of guard lock



**HYGIELOCK KL3-SS**

Provides Guard locking up to 2000N.  
Power solenoid to unlock  
Choice of 24V 110V 230V operation  
Slim 48mm wide fitting 177mm long  
The fixing holes are under the cover of  
the switch to prevent food trap areas  
Suitable for all industry applications  
2 LED'S provide independent diagnostics  
of solenoid and lock status  
Standard or Flexible actuators

## Guardian Line Series - Grab Wire Safety Rope Switches



**HYGIEROPE GLHD-SS**

The GLHD-SS is a Stainless Steel Heavy  
Duty Rope Pull switch designed to protect  
long conveyors up to 250m. with one switch.  
Longer lengths can be protected by  
connecting switches together  
The fixing holes are under the cover of the  
switch to prevent food trap areas  
ATEX Explosion proof versions



**GLHD-SS-Ex**



**GLS-SS-Ex**

Exd IIC T6 (-20≤Ta≤+60C) Gb  
 Ex tb IIIC T85C (-20≤Ta≤+60C) Db



**HYGIEROPE GLS-SS**

The GLS-SS is a Stainless Steel version  
General Duty switch designed to protect  
conveyor lengths up to 100m.  
The fixing holes are under the cover of the  
switch to prevent food trap areas  
LED 2 colour status indication  
ATEX Explosion proof versions



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# IP69K Fully Stainless Steel Safety Switches from IDEM

HYGIENIC - Non Contact Interlock Switches



Industry established universal fittings - suitable for all applications

Robust - designed for long life, withstands Mechanical Shock and Vibration - High temperature 105C.

Rear mounting hole versions, completely free from food trap areas. Suitable for CIP and SIP high - pressure hose cleaning - IP69K

**Mirror polished finish - Stainless Steel 316**

## HYGIECODE Line

### Coded Actuation with LED



SMC



SMC-F



CMC



CMC-F



LMC



RMC



MMC-F

## HYGIECODE Line

Standards	IEC 60947-5-3 UL508
Enclosures	Stainless Steel 316
Enclosure protection	IP69K IP67
Sensing	14 - 16mm typical
Misalignment	6mm in any direction
Ambient Temperature	-25C. 105C.
Mechanical Life	3,300,000 operations
Operational Rating	24V, 200mA
Circuits	2NC 1NO or 2NC
LED	Indication of 2NC

Safety Classification and Reliability Data:	
Mechanical Reliability B10d	$3.3 \times 10^4$ operations at 100mA load
EN954-1	up to category 4 with Safety Relay
ISO 13849-1	up to PLe depending upon system architecture
EN62061	up to SIL3 depending upon system architecture
Safety Data - Annual Usage	8 cycles per hour / 24 hours per day / 365 days
PFHd	$2.52 \times 10^{-8}$
Proof Test Interval (Life)	47 years
MTTFd	470 years



Small Stainless Steel Hygienic fitting

Compact 50mm long - 22mm fixing hole centre  
2NC 1NO circuits  
High tolerance to guard misalignment

Magnetic sensing 12mm  
Coded sensing 14mm

Small Stainless Steel Hygienic with rear fixing holes

Compact 50mm long - 22mm fixing from rear  
No food trap areas visible from the front after installation

Compact Stainless Steel Hygienic fitting

Slim fitting 20mm wide - suitable for all industry applications.  
Easy to install within narrow frame structures  
2NC 1NO circuits

Magnetic sensing 12mm  
coded sensing 14mm

Compact Stainless Steel Hygienic with rear fixing holes, no food trap areas visible from the front after installation.

European Standard slim fitting.  
Narrow profile for flush mounting.

Magnetic sensing 12mm  
Coded sensing 14mm

M30 thread - suitable for food splash zones.

45mm adjustment length.  
Magnetic sensing 10mm  
Coded sensing 10mm

Miniature fitting.  
Industry standard 22mm fixing centres.  
M4 clearance holes, suitable for front mounting using hexagon head bolts.  
Coded sensing 10mm

Wide fitting.  
Front face actuation.  
High Power 2A. switching  
Magnetic sensing 12mm

All available in cable lengths 2m,5m,10m.or M12  
Quick connect flying lead

## HYGIEMAG Line

### Magnetic Actuation - High Power



SMR



SMR-F



CMR



CMR-F



LMR



RMR



WMR

## HYGIEMAG Line

Standards	IEC 60947-5-3 UL508
Enclosures	Stainless Steel 316
Enclosure protection	IP69K IP67
Sensing	12 - 14mm typical
Misalignment	8mm in any direction
Ambient Temperature	-25C. 105C.
Mechanical Life	3,300,000 operations
Operational Rating	240V. 1A. Standard Duty
Circuits	2NC 1NO or 2NC

# Tongue Interlock Safety Switches

## Mechanical Interlock Switches



Universal 40mm fitting - short body version 86mm long.

Stainless Steel Head for robustness. Suitable for Food Processing and Petro-Chemical Industries.

Robust die cast housing  
Slim fitting suitable for all industry applications.

Designed to fit to applications where impact resistance is required

Available with Stainless Steel Head and Flexible actuator to provide durable long life

8 Head positions - head will rotate without removal to protect the head assembly and prevent tampering



**IDIS - 1**

Compact yet robust fitting suitable for all small guard applications. Withstands environments where high humidity or hose down is required

Suitable for Food Processing and Petro-Chemical Industries

Universal fitting - established footprint suitable for most general applications

High specification materials  
Withstands environments where high humidity or hose down is required.

Suitable for Food Processing and Petro-Chemical Industries

Robust - designed for long life



**K - 15 (Plastic Body S/Steel Head)**



**KOBRA - KM**



**KOBRA - KP**

Standards	IEC 60947-5-1	UL508
Enclosure protection	IP67	
Enclosures	Polyester or Die Cast	
Ambient Temperature	-25C. 80C.	
Mechanical Life	2,500,000 operations	
Operational Rating	AC15 A300 240V. 3A	



Exd IIC T6 (-20 ≤ Ta ≤ +60C) Gb

Ex tb IIIC T85C (-20 ≤ Ta ≤ +60C) Db

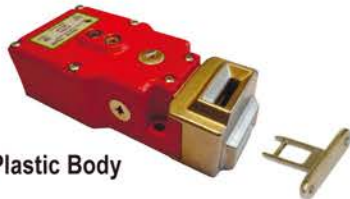


**KP-Ex**



**KM-Ex**

## Mechanical Interlock Switches with Guard Locking



**Plastic Body**

**LEILOCK KL1-P**

Small body offering universal 40mm mounting and short body 143mm long. Provides Guard Locking for small to Medium guards.

Stainless Steel Head for robustness. Suitable for Food Processing and Petro - Chemical Industries.

High Specification IP67 seal designed to survive frequent washdown and give long life.

Standards	IEC 60947-5-1	UL508
Solenoid Voltage	24V ac/dc or 110V. ac or 230V. ac	
Utilization Category	AC15 A300 240V. 3A	
LED1	Solenoid energised	
24V.dc LED2	Guard Locked	
Enclosure protection	IP67	
Operating Temperature	-25C. to 55C.	
Mechanical Life Expectancy	2,500,000	



**Plastic Body**

**SEZYLOCK KLP**

Compact Locking switch suitable for medium to heavy duty guards

Provides 2NC safety contacts and 2NO auxiliary contacts or LED diagnostics to suit all modern applications.

Designed for touch applications where high IP rating and durable enclosures are required

Ideal for Food and Pharmaceutical applications due to Stainless Steel head and high specification plastic body



**Metal Body**

**SAMLOCK KLM**

Die Cast Locking Switch offering Heavy Duty Guard Locking up to 2000N. Provides 4NC safety contacts and 2NO auxiliary contacts or LED diagnostics to suit all modern applications

Designed for tough applications where high IP rating, durable enclosures are required.

The 3 conduit entries and 30mm fixing provide maximum flexibility to install to all applications.

High specification IP67 seal is designed to survive frequent washdown and give long life

Die Cast Locking Switch  
Integral High Security RFID coding

Traditional Tongue Type Interlock with added RFID sensor for unique actuator coding.

Both Technologies must be satisfied to achieve Safety Outputs

Rugged body 105mm wide 150mm long  
Industry standard 73mm fixing  
2 lock Monitoring safety contacts  
Auxiliary PNP outputs for switch status  
LED diagnostics for Solenoid, Lock and RFID  
2 Emergency manual release points  
IP67



**KLP-P2L**

**KLM-P2L**



**Metal Body**

**RAMZLOCK  
Type:KLTM-RFID**

P2L "Power to Lock" versions available.  
(For machines without running down time).



# RFID and STANDALONE Non Contact Safety Switches



## Standard RFID



**SP-RFID**  
(30mm fixing)

## Types SP-RFID and LP-RFID



**LP-RFID**  
(Narrow fitting)

Unique RFID Coding to provide high security on Guard Doors.  
High Functional Safety to ISO 13849 - 1.  
Connects to most Safety Relays to achieve up to Ple Cat.4  
Diagnostic LED - Indication of Safety Circuits closed.  
2NC Safety Outputs  
1NO Auxiliary Output for indication of door open.  
Connect up to 20 switches in series.  
Ability to connect other switches and E Stops in series.

## SENSATUS RFID Series



**Sensatus LP-SEN**  
(Narrow fitting)

## Types LP-SEN and RP-SEN



**Sensatus RP-SEN**  
(30mm Barrel Type)

Unique RFID Coding to provide high security on Guard Doors.  
Maintains Ple Cat.4. to ISO 13849 - 1 with switches connected in series.  
2 Diagnostic LED's - Indication of Safety Circuits closed / Faults.  
2NC Safety Outputs  
Auxiliary Output for indication of door open.  
Connect up to 20 switches in series to standard Safety Relays.  
Ability to connect other switches and E Stops in series.

## Standalone Coded Non Contact



**PSA - High Specification Polyester**

## Types PSA MSA



**MSA - Stainless Steel IP69K**

Coded Non Contact Standalone switches for direct machine control.  
Maintains Ple Cat.4. to ISO 13849 - 1.  
Contactor Feedback Circuit (Manual or Auto Reset).  
Diagnostic LED - Indication of Safety Circuits closed.  
2NC Relay Safety Outputs - High current switching 3A.  
Auxiliary Output for indication of door open.  
Compact housing - Fits on 40mm frame sections.

# SCR Series - Safety Relays



## SCR-2

Power Supply 24V.dc  
Safety Category Up to Cat.4 PLe ISO13849-1  
Switch Inputs 2 x Dual Channel NC/NC  
Outputs 2NC Relay  
Activation Manual or Automatic  
Operational Rating AC12 250V.ac 6A  
DC13 24V.DC 2A



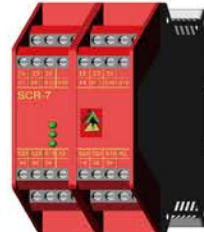
## SCR-3

Power Supply 24V.ac/dc 110V.ac 230V.ac  
Safety Category Up to Cat.4 PLe ISO13849-1  
Switch Inputs 2 x Dual Channel NC/NC  
Outputs 3NC 1NO Relay  
Activation Manual or Automatic  
Operational Rating AC12 250V.ac 6A  
DC13 24V.DC 2A



## SCR4-TD-3

Power Supply 24V.ac/dc  
Safety Category Up to Cat.4 PLe ISO13849-1  
Switch Inputs 2 x Dual Channel NC/NC  
Outputs 3NC Instant 1NC Delayed 1 - 30s.  
2NC Instant 2NC Delayed 1 - 30s.  
1NC Instant 3NC Delayed 1 - 30s.  
(by part number)  
Activation Manual or Automatic.  
Operational Rating AC12 250V.ac 6A  
DC13 24V.DC 2A



## SCR-7

Power Supply 24V.dc  
Safety Category Up to Cat.4 PLe ISO13849-1  
Switch Inputs 2 x Dual Channel NC/NC  
Outputs 7NC 4NO Relay  
Activation Manual or Automatic  
Operational Rating AC12 250V.ac 6A  
DC13 24V.DC 2A



## SEU-1

The SEU-1 is an expansion unit which offers 3 additional NC Safety Output Contacts.  
An existing system using SCR-2 or SCR-3 can be expanded modularly. The safety actuation is achieved from the basic SCR relay.

## Expansion Modules



## SEU-TD-1

The SEU-TD-1 is an expansion unit which can be used with an existing system using SCR-2 or SCR-3 to allow delayed shutdown or timing to a safety application.  
Time Delay is variable 1-30s.  
The safety actuation is achieved from the basic SCR relay.



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# Non Contact Safety Switches

## MAGNETIC ACTUATION – HIGH POWER



## CODED ACTUATION and LED

High specification components providing up to 2A, 230V, switching  
 2NC 1NO circuits for use in all popular control applications – internally fused  
 Satisfies up to EN 954-1 Cat.4 and ISO13849-1 PLe with safety module  
 Satisfies IEC 60947-5-3 PDF-S PDF-D

2NC 1NO electronic circuits for use in all popular control applications  
 LED indication on all switches  
 Satisfies up to EN 954-1 Cat.4 and ISO13849-1 PLe with safety module  
 Satisfies IEC 60947-5-3 PDF-S

**Specified up to 80C. but designed to work up to 100C.**

**All switches will operate with most safety relays to provide up to: PLe (ISO 13849-1) SIL3 (EN62061) Cat.4 (EN954-1)**

Hygienic  
Screw Caps



**MPR**

### Miniature Plastic fitting

Compact fitting suitable for all small guard applications  
 Cable exit Left or Right  
 Hygienic screw cap covers ensure suitability for Food  
 Processing washdown.  
 Cost effective interlock solution  
 Magnetic sensing 12mm  
 Coded sensing 10mm



**MPC**



**SPR**

### Small Plastic fitting

Universal fitting - established footprint  
 suitable for most general applications  
 Withstands environments where high humidity  
 or hose down is required.  
 Magnetic sensing 12mm  
 Coded sensing 14mm



**SPC**



**CPR**

### Compact Plastic fitting

Slim fitting suitable for all industry applications.  
 Easy to install within narrow frame structures  
 Magnetic sensing 12mm  
 Coded sensing 14mm



**CPC**



**LPR**

### Euro fitting

Popular European fitting suitable for all  
 industry applications.  
 Narrow fitting for flush mounting  
 Unique Long Life High Power switching  
 Magnetic sensing 12mm  
 Coded sensing 14mm



**LPC**



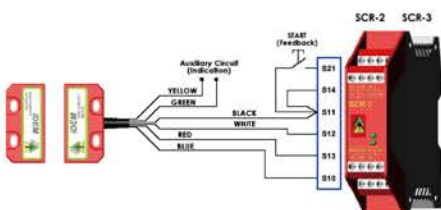
**WPR**

Wide fitting.  
 Front face actuation.  
 High Power 2A, switching  
 Magnetic sensing 12mm

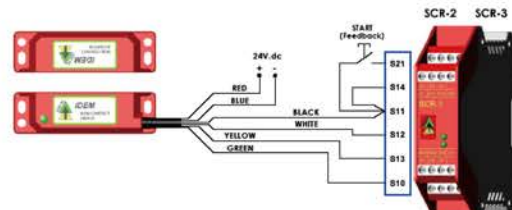
M30 Barrel fitting.  
 45mm adjustment length



**RPC**



When used in combination with  
 Dual Channel Safety Modules  
 they can be used to provide up  
 to Category 4 to EN 954-1 and  
 PLe ISO13849-1.



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# Guardian Line Series-Grab Wire Safety Rope Switches

## Heavy Duty - Type GLH



GLH - L

GLHD

GLH - R

The GLHD is a Heavy Duty switch designed to protect long conveyor lengths up to 250m.

The metal housings are robust to survive indoor or outdoor use.

Lengths over 2 Km can be achieved with less than 20 switches.

A two colour LED ensures switch status can be seen easily from a distance.

Steady Green – Run Flashing Red - Stop

Shorter rope spans up to 200m. can be achieved by using just one switch therefore making a cost effective solution and also reducing electrical wiring runs.

They are available Left or Right hand and can be used to compliment the GLHD versions at each end of the rope span.

Enclosure / Cover	Die-Cast – Painted Yellow
IP Rating	IP67
Ambient Temperature	-25C. 80 C.
Typical Operating Force	< 125N. < 300mm Deflection
Mechanical Life	1,500,000 operations
Operational Rating	AC15 A300 240V. 3A.
Contact Arrangements	4NC 2NO

## Standard Duty - Type GLS



GLS

The GLS a General Duty switch designed to protect conveyor lengths where protection is required up to 80m. using two switches or up to 60m. using a single switch.

They are supplied with a mushroom type Emergency Stop button which can be fitted to the side of the switch to offer an extra traditional Emergency Stop function close to the switch, or can be fitted later after installation without any extra wiring.

Enclosure / Cover	Die-Cast – Painted Yellow
IP Rating	IP67
Ambient Temperature	-25C. 80 C.
Typical Operating Force	< 125N. < 300mm Deflection
Mechanical Life	1,500,000 operations
Operational Rating	AC15 A300 240V. 3A.
Contact Arrangements	4NC 2NO

## Mini Duty - Type GLM



GLM

The GLM a compact Mini Duty switch designed to protect short conveyor lengths where protection is required up to 50m. using two switches or up to 30m. using a single switch.

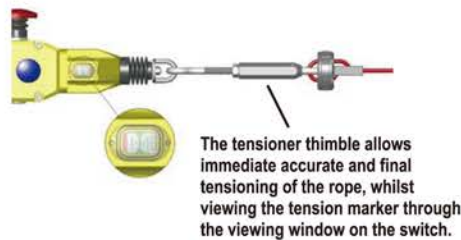
They provide reliable, cost effective safety solutions for conveyor systems and can be enhanced by adding external mushroom type E Stop at the switch or two colour LED available to show switch status.

Enclosure / Cover	Die-Cast – Painted Yellow
IP Rating	IP67
Ambient Temperature	-25C. 80 C.
Typical Operating Force	< 125N. < 300mm Deflection
Mechanical Life	1,500,000 operations
Operational Rating	AC15 A300 240V. 3A.
Contact Arrangements	2NC/1NO 3NC/1NO 2NC/2NO 4NC

### Reliable connectivity:

Tensioning of rope is achieved by the use of IDEM's new patented Tensioner / Gripper accessory.

Traditional clamp systems are difficult to tension and adjust and frequent re-tensioning or maintenance is often required.



The tensioner thimble allows immediate accurate and final tensioning of the rope, whilst viewing the tension marker through the viewing window on the switch.



For systems up to 50m. a Quick Link clamp is provided at one end for easy connection to either a Safety Spring or Switch eyebolt.



Rope Kits up to 126m.

Contains rope, eyebolts and Tensioner Gripper.



## Explosion Proof Versions



GLHD-Ex



- Exd IIC T6 (-20 ≤ Ta ≤ +60C) Gb
- Ex tb IIIC T85C (-20 ≤ Ta ≤ +60C) Db






GLS-Ex



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## Explosion Proof Versions

<p>Zones 0, 20, 1, 21, 2, 22 Gas and Dust</p>  <p style="text-align: center;"><b>WM1-Ex</b></p>	<p style="text-align: right;">Zones 1, 21, 2, 22 Gas and Dust</p> <div style="text-align: right; margin-bottom: 5px;">  </div>  <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <span><b>CM1-Ex</b></span> <span><b>CM2-Ex</b></span> <span><b>LM-Ex</b></span> <span><b>RM-Ex</b></span> </div>
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## Safety Limit Switches - Types HLM EN 50041 - Stainless Steel or Die Cast

<b>HLM-SS (Stainless Steel) IP69K</b>				<b>HLM(Die Cast) IP67</b>			
							
IEC 60947-5-1 EN50041 Housings		HLM(Die Cast) IP67		HLM-SS (Stainless Steel) IP69K		AC15 A300 230V. 3A.	
Rotary or Linear action		2NC 1NO 3NC 2NC 2NO		3NC 1NO 4NC or Explosion Proof Blocks		High Mechanical Life 5,000,000 operations M20 or 1/2" NPT Conduit Entries	

## Safety Limit Switches - Type LSPS EN 50047 - Plastic Body

										
IEC 60947-5-1 EN50047 Polyester Housing			IP67		AC15 A300 240V. 3A.		-25°C Max 80°C		High Mechanical life 10,000,000 M20 or 1/2" NPT Conduit entry	
Rotary or Linear action			2NC 1NO - 3NC or 1NC 1NO Snap Block							

## Safety Limit Switches - Metal Body & Plastic Body

							
IEC 60947-5-1 Rotary or Linear action		IP67		AC15 A300 240V. 3A.		-25°C Max 80°C	
		2NC 1NO or 1NC 1NO Snap Block				High Mechanical life 5,000,000 Side or bottom cable exit	



YELLOW NO Auxiliary Contact  
GREEN  
WHITE NC Circuit 2  
BLACK  
BLUE NC Circuit 1  
RED

## Emergency Stop Switches - Types ES-P ES-SS GLES GLES-SS

					
IEC 60947-5-1 ISO13850 EN418		ES-SS (Stainless Steel)		GLES (Die Cast Painted Yellow)	
ES-P (Plastic)		ESL-SS(L)		GLES-SS (Stainless Steel 316)	
IP67 2 Conduit Entries 3NC or 2NC 1NO contacts		IP69K High Temperature Hose proof 2 or 3 Conduit Entries 3 or 4 pole contacts 2NC 1NO 2NC 2NO or 3NC 1NO Optional 2 colour LED ATEX Explosion Proof versions		4 Conduit Entries 4NC 2NO contacts 2 colour LED IP67 / IP69K (S/Steel) ATEX Explosion Proof versions	

If you are interested in distributing our Products, please email us direct.  
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