

Innovation  
Ingenuity  
Excellence

# IDEM

Providing Machine Safety for YOU at Work



Designed and Manufactured in the United Kingdom



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

# IP69K Stainless Steel Safety Interlock Switches

- Designed specifically for Food Processing, Packaging, Pharmaceutical and Petro-Chemical industries ●
- Suitable for CIP Cleaning ● Fully Stainless Steel ● IP69K and IP67 ● Tested 80C and 100 bar chemical washdown ●

## HYGIECAM MK1-SS



Compact with 22mm fixing centres.  
Mirror polished finish.  
Suitable for most applications.  
Small 30mm wide x 99mm long.  
Replaceable contact blocks.  
Provides 8 actuator entry points.  
Standard or flexible actuator.

## HYGIECAM K-SS



Universal Fitting - established footprint.  
Suitable for most general applications.  
52mm wide x 99mm long.  
Replaceable contact blocks.  
Head rotates to give 4 actuator entry points.  
Standard or flexible actuator options.

## HYGIECAM KM-SS



Slim fitting suitable for most industrial applications.  
Mirror polished surface finish (Ra4).  
42mm wide x 118mm long.  
Head rotates to protect head assembly and prevent tampering with switch  
Provides 8 actuator entry positions.



## K-SS-Ex



## KM-SS-Ex

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

## RYANLOCK KL1-SS



Solenoid locking.  
Provides 4 actuator entry points.  
Rotatable head.  
Compact 63mm wide x 143mm long.  
2 lock monitoring safety contacts.  
LED 1: Status of solenoid applied power.  
LED 2: Status of guard lock.

## HYGIELOCK KL3-SS



Solenoid locking.  
Power solenoid to unlock.  
Choice of 24V 110V or 230V operation.  
Slim body 48mm wide x 177mm long.  
Suitable for all industry applications.  
2 LEDs for solenoid and lock status.  
Standard or flexible actuator options available.

## HYGIELOCK KLT-SS



Solenoid locking.  
Integral high security RFID (unique or master coding).  
Mirror polished finish (Ra10) Stainless Steel 316.  
Will fit on 73mm fixing centres.  
M23 Quick Connector available for ease of installation.  
2 manual override points.  
LED diagnostics for Solenoid, Lock and faults.

## Guardian Line Series - Grab Wire Safety Rope Switches

### GLHL-SS



### GLHD-SS



### GLHR-SS



The Guardian Line range of switches in Stainless Steel 316 housings has been designed as a Heavy Duty Rope Pull switch system to protect long conveyors up to 250m with just one switch. Distances up to 5km can be covered by connecting multiple switches together. The fixing holes are under the cover of the switch to prevent food trap and contamination areas. ATEX explosion proof versions are available.

### GLS-SS



The GLS-SS is a general duty Stainless Steel grab wire safety rope switch designed to protect conveyor lengths up to 100m. The fixing holes are under the cover of the switch to prevent any contamination. LED gives 2 colour indication of status.



### GLS-SS-Ex



### GLHD-SS-Ex



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

# IP69K Stainless Steel 316 Non Contact Interlock Switches

## HYGIECODE and HYGIEMAG RANGE

- Operates in temperatures of up to 105C • Suitable for CIP/SIP high-pressure cleaning • IP69K •
- Operates with most Safety Relays to achieve up to PLe/Cat.4 (ISO13849-1) •

**HYGIECODE Versions:** Coded Actuation • Solid State Parts • Survives Shock and Vibration • LED Indication

**HYGIEMAG Versions:** High Power Magnetic Sensing • Up to 1A Current Switching

### MMC-H and MMR-H



Miniature fitting with industry standard 22mm fixing.  
M4 clearance holes - suitable for mounting with hexagonal head bolts.  
Coded Switch sensing: 10mm.  
Magnetic Switch sensing: 10mm.  
Suitable for food splash or food contact zones.

### SMC and SMR



Small stainless steel 316 housing.  
Compact 50mm long with 22mm fixing hole centres.  
Coded Switch sensing: 14mm.  
Magnetic Switch sensing: 12mm.  
Suitable for food splash zones.

### SMC-F and SMR-F



Small stainless steel 316 hygienic housing.  
Rear fixing holes no visible food traps.  
Compact 50mm long with 22mm fixing hole centres.  
Coded Switch sensing: 14mm.  
Magnetic Switch sensing: 12mm.  
Suitable for food contact zones.

### SMC-H and SMR-H



Small S/Steel 316 hygienic housing.  
Can be mounted with hexagonal head bolts to prevent food traps.  
Universal fitting 22mm fixing.  
Coded Switch sensing: 14mm.  
Magnetic Switch sensing: 12mm.  
Suitable for food splash or food contact zones.

### LMC and LMR



Slim fitting with a narrow profile for flush mounting.  
Can be mounted unobtrusively.  
Mirror polished finish.  
88mm long x 25mm wide.  
Coded Switch sensing: 14mm.  
Magnetic Switch sensing: 12mm.  
Suitable for food splash zones.

### CMC and CMR



Compact stainless steel 316 hygienic fitting.  
Slim fitting 20mm wide - can be fitted in narrow channels.  
Coded Switch sensing: 14mm.  
Magnetic Switch sensing: 12mm.  
Suitable for food splash zones.

### CMC-F and CMR-F



Compact and narrow.  
Mounting holes at the rear - no food trap areas.  
Slim fitting 20mm wide can be fitted in narrow channels.  
Coded Switch sensing: 14mm  
Magnetic Switch sensing: 12mm  
Suitable for food contact zones.

### WMC and WMR



Robust 32mm wide housing.  
High tolerance to misalignment.  
Stainless steel housing with mirror polished finish.  
Coded Switch sensing: 14mm.  
Magnetic Switch sensing: 12mm.  
Suitable for food splash zones.

### RMC and RMR



Barrel type cylindrical fitting with M30 thread.  
45mm adjustment length.  
Easy to install and set.  
Suitable for all applications.  
Coded Switch sensing: 10mm.  
Magnetic Switch sensing: 10mm.  
Suitable for some food contact zones.

## Non Contact Explosion Proof

### WM1-Ex



Fitted with Stainless Steel flexible conduit

### WM2-Ex



- II 1G Ex ma IIC T6 Ga
- II 1D Ex ma IIIC T80 Da IP67\*

Zones 0, 20, 1, 21, 2, 22  
Gas and Dust

- II 2G Ex mb IIC T6 Gb
- II 2D Ex mb IIIC T80 Db IP67\*

Zones 1, 21, 2, 22  
Gas and Dust

### CM1-Ex



### CM2-Ex

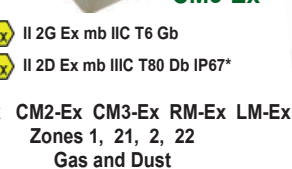


II 2G Ex mb IIC T6 Gb

- II 2D Ex mb IIIC T80 Db IP67\*

CM1-Ex CM2-Ex CM3-Ex RM-Ex LM-Ex  
Zones 1, 21, 2, 22  
Gas and Dust

### CM3-Ex



### RM-Ex



### LM-Ex



# Tongue Interlock Safety Switches

## Mechanical Interlock Switches

**INCH-1**



Miniature plastic housing: 25mm x 55mm with 17mm fixing centres.  
8 Actuator entry positions - designed with a rotatable Stainless Steel 316 head.  
2 pole contact blocks.  
IP67 ingress protection.

**INCH-3**



8 Actuator entry positions - designed with a rotatable Stainless Steel 316 head.  
3 pole contact blocks.  
Choice of 3 conduit entries.  
Plastic housing with IP67 ingress protection.  
25mm wide 79mm long 22mm fixing.

**IDIS-1**



Compact yet robust fitting suitable for all small guard applications. Suitable for food processing and petro-chemical industries.  
8 Actuator entry positions - rotatable head.  
3 pole contact blocks or 2 pole snap action.  
32mm wide 97mm long 17mm fixing.

**K-15**



4 Actuator entry positions - designed with a rotatable head.  
Compact body with 3 conduit entries.  
3 pole contact blocks.  
54mm wide 86mm long 40mm fixing.  
Plastic or Stainless Steel 316 head options.  
IP67 ingress protection rating

**KP**



ALSO AVAILABLE IN  
EXPLOSION PROOF  
VERSION

4 Actuator entry positions - designed with a rotatable head.  
3 pole or 4 pole contact blocks.  
3 conduit entries.  
52mm wide 98mm long 40mm fixing.  
Plastic or Stainless Steel 316 head options.  
IP67 ingress protection rating.

**KM**



ALSO AVAILABLE IN  
EXPLOSION PROOF  
VERSION

Robust die cast housing. Slim fitting designed for where impact resistance is required.  
Available with die cast or stainless steel head.  
8 Actuator entry positions - rotatable head.  
3 pole or 4 pole contact blocks.  
40mm wide 118mm long 30mm fixing.  
IP67 ingress protection rating.

## Mechanical Interlock Switches with Guard Locking

**KL1-P**



Small plastic body with universal 40mm mounting.  
4 Actuator entry positions - rotatable head.  
Guard locking for small to medium guard doors.  
Solenoid locking.  
Stainless steel head for robustness - suitable for most industrial applications.  
63mm wide 143mm long 40mm fixing.

**KLP**



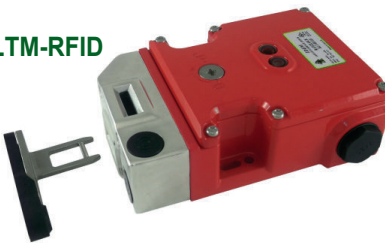
Compact plastic body/stainless steel head locking switch for medium to heavy duty guards.  
Provides 2NC safety contacts and 2NO auxiliary contacts or LED indication diagnostics.  
8 Actuator entry positions - rotatable head.  
Solenoid locking.  
46mm wide 160mm long 30mm fixing.

**KLM**



Die cast metal switch suitable for heavy duty guard locking with solenoid locking  
Provides 4NC safety contacts and 2NO auxiliary contacts or LED indication diagnostics.  
The 3 conduit entry points and 30mm fixing provide maximum flexibility on all applications.  
46mm wide 176mm long 30mm fixing.

**KLTM-RFID**



Integral high security RFID coded die-cast metal locking safety switch with solenoid locking.  
Traditional tongue type interlock with added RFID sensor for unique actuator coding.  
Exceptionally rugged and solid body with 2 lock monitoring safety contacts.  
105mm wide 150mm long 73mm fixing.

**KLP-P2L**



MODELS ARE  
AVAILABLE IN P2L  
(Power to Lock)  
VERSIONS.  
(For machines without  
rundown time.)

**KLM-P2L**



AVAILABLE WITH  
DIE-CAST OR  
S/STEEL HEAD

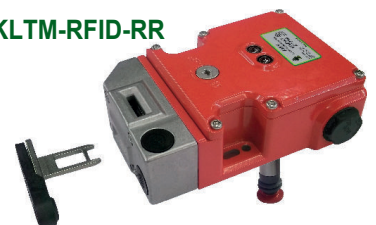
### REAR RELEASE VERSIONS

A manual escape release is provided to enable quick release of the switch lock in case of emergency.

**KLM-RR**



**KLTM-RFID-RR**



# RFID and StandAlone Non Contact Safety Switches

**SPF-U**



## Non Contact RFID with Unique or Series Coding.

Designed to provide high security on guard doors.  
Diagnostic LED - indication of safety circuits closed.  
Connect up to 20 switches in series.  
Has the ability to connect to other switches and Emergency Stops in series.

**LPF-U**



High functional safety to ISO13849-1.  
Connects to most safety relays to achieve PLe/Cat.4.  
2NC safety outputs.  
1NO auxiliary output for indication.

**LPZ**



## RAMZSense RFID with Unique or Series Coding

Provides high security on guard doors.  
Maintains PLe/Cat.4 to ISO13849-1 with switches connected in series.  
Connect up to 20 switches in series to standard safety relays. Connect to other switches/E Stops.

**PSA**



## StandAlone Coded Non Contact Safety Interlock Switches

Standalone switches designed for direct machine control.  
Contact feedback circuit (manual or auto-reset).  
2NC Relay safety outputs - high current switching 3A.  
Compact housing - fits on 40mm frame sections.  
Able to connect other switches and E Stops in series.

**MSA**



Maintains PLe/Cat.4 to ISO13849-1.  
Diagnostic LED - indicates safety circuits closed.  
Auxiliary output for indication of door open.  
Available in Plastic or Stainless Steel housings (IP69K).  
Connect up to 20 switches in series.

# SCR Series - Safety Relays

**SCR-1**



Power Supply: 24Vdc  
Safety Category: Up to PLd/Cat.3  
Switch Inputs: 2 x Dual Channel NC/NC  
Outputs: 2NC Relay  
Activation: Manual or Auto.  
Operational Rating: AC12 250Vac 6A  
DC13 24Vdc 2A

**SCR-2**



Power Supply: 24Vdc  
Safety Category: Up to PLe/Cat.4  
Switch Inputs: 2 x Dual Channel NC/NC  
Outputs: 2NC Relay  
Activation: Manual or Auto.  
Operational Rating: AC12 250Vac 6A  
DC13 24Vdc 2A

**SCR-3**



Power Supply: 24Vdc, 110Vac or 230Vac  
Safety Category: Up to PLe/Cat.4  
Switch Inputs: 2 x Dual Channel NC/NC  
Outputs: 3NC 1NO Relay  
Activation: Manual or Auto.  
Operational Rating: AC12 250Vac 6A  
DC13 24Vdc 2A

**SCR-7**



Power Supply: 24Vdc  
Safety Category: Up to PLe/Cat.4  
Switch Inputs: 2 x Dual Channel NC/NC  
Outputs: 7NC 4NO Relay  
Activation: Manual or Auto.  
Operational Rating: AC12 250Vac 6A  
DC13 24Vdc 2A

**SCR-4-TD-3**



Power Supply: 24Vac/dc  
Safety Category: Up to PLe/Cat.4  
Switch Inputs: 2 x Dual Channel NC/NC  
Outputs: 2NC Instant 1NC Delayed 1-30s  
2NC Instant 2NC Delayed 1-30s  
1NC Instant 3NC Delayed 1-30s  
Activation: Manual or Auto.  
Operational Rating: AC12 250Vac 6A  
DC13 24Vdc 2A

## Expansion Units

**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.

**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 from 1 - 30s.  
The safety actuation is achieved from the basic SCR relay.

# Plastic Non Contact Safety Switches

- Industry established universal fittings - suitable for all applications ●
- Specified to work up to 80C ● IP67 ● High specification plastic housings ●
- Operates with most Safety Relays to achieve up to PLe/Cat.4 (ISO13849-1) ●

## IDECODE Versions:

- Coded Actuation ● Solid State Parts
- Survives Shock and Vibration
- High Tolerance to Guard Misalignment

### MPC



#### MINIATURE FITTING:

Miniature fitting - suitable for all small guarding applications.  
Cable exit left or right options available.  
Supplied with hygienic screw cap covers.  
Sensing: 10mm.

### SPC



#### SMALL FITTING:

Universal fitting with an established industry footprint - suitable for most general industry applications.  
Withstands environments of high humidity and wash down conditions.  
Sensing: 14mm.

### LPC



#### EURO FITTING:

Popular European fitting suitable for all industry applications.  
Narrow fitting for flush mounting.  
Unique long life high power switching.  
Suitable for high pressure hosing IP69K.  
Sensing: 14mm.

### CPC



#### COMPACT FITTING:

Slim design - suitable for all industry applications.  
Easy to install within narrow frame sections - can be installed unobtrusively.  
Suitable for high pressure hosing IP69K.  
Sensing: 14mm.

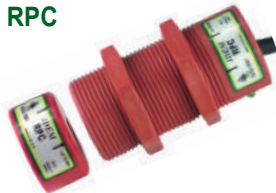
### WPC



#### WIDE FITTING:

Suitable for all industry applications.  
LED indication.  
No moving parts - survives shock and vibration.  
Suitable for high pressure hosing IP69K.  
Sensing: 14mm.

### RPC



#### M30 CYLINDRICAL FITTING:

Suitable for all industry applications.  
Easy to install - M30 threaded body and easy to set.  
45mm adjustment length.  
Suitable for high pressure hosing IP69K.  
Sensing: 10mm.

## IDEMAG Versions:

- High Power Magnetic Sensing
- Up to 1A Current Switching
- High Tolerance to Guard Misalignment

### MPR



#### MINIATURE FITTING:

Miniature fitting - suitable for all small guarding applications.  
Cable exit left or right options available.  
Supplied with hygienic screw cap covers.  
Sensing: 12mm.

### SPR



#### SMALL FITTING:

Universal fitting with an established industry footprint - suitable for most general industry applications.  
Withstands environments of high humidity and wash down conditions.  
Sensing: 12mm.

### LPR



#### EURO FITTING:

Popular European fitting suitable for all industry applications.  
Narrow fitting for flush mounting.  
Unique long life high power switching.  
Suitable for high pressure hosing IP69K.  
Sensing: 12mm.  
Available with LED if required.

### CPR



#### COMPACT FITTING:

Slim design - suitable for all industry applications.  
Easy to install within narrow frame sections - can be installed unobtrusively.  
Suitable for high pressure hosing IP69K.  
Sensing: 12mm.

### WPR



#### WIDE FITTING:

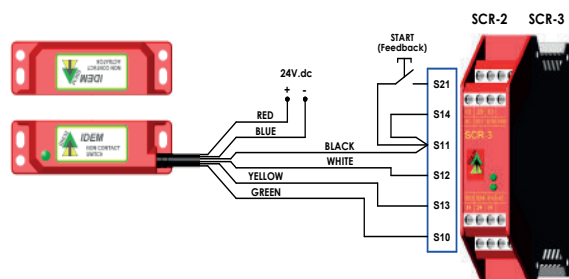
Suitable for all industry applications.  
No moving parts - survives shock and vibration.  
Suitable for high pressure hosing with IP69K ingress protection.  
Sensing: 12mm.

### RPR

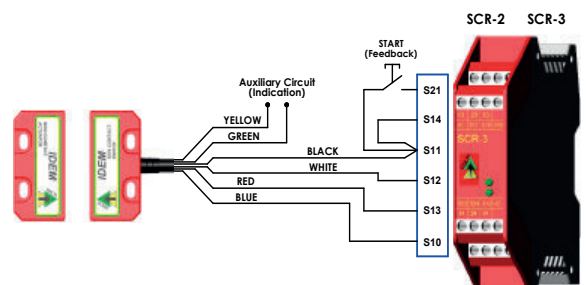


#### M30 CYLINDRICAL FITTING:

Suitable for all industry applications.  
Easy to install - M30 threaded body and easy to set.  
45mm adjustment length.  
Suitable for high pressure hosing IP69K.  
Sensing: 10mm.



When used in combination with Dual Channel Safety Modules they can be used to provide up to PLe/Cat.4 to satisfy ISO13849-1.





# Guardian Line Series - Grab Wire Safety Rope Switches



GLHL



GLHD



GLHR

Designed in heavy duty robust die-cast metal and able to survive external or internal use the Guardian Line Range has the ability to protect conveyors up to 200m with just one switch (GLHD). Distances up to 2km can be achieved by connecting less than 20 switches. A 2-colour LED ensures switch status can be seen easily from a distance. LED status: Steady Green - Run and Flashing Red - Stop. The GLHL or GLHR can be used for lengths up to 100m using just one switch, or can be used to complement the GLHD version at each end of the rope span. The fixing holes are under the cover of the switch to prevent food trap and contamination areas. ATEX explosion proof versions are available (see below).

Enclosure/Cover: Die-cast painted yellow  
IP Rating: IP67  
Ambient Temp.: -25C to +80C  
Operating Force: <125N <300mm Deflection  
Mechanical Life: 1,500,000 operations  
Operational Rating: AC15 A300 240V 3A  
Contacts: 4NC 2NO

GLM



Designed as a Light Duty switch the compact GLM is an extremely popular solution which is able to protect short conveyor lengths in most industrial applications. Up to 50m can be protected using two switches or with a single switch distances up to 30m can be protected. The GLM provides a reliable and cost effective safety solution for the shorter conveyor systems and can be further enhanced by adding external mushroom type E-Stop or 2 colour LED to show switch status.

Enclosure/Cover: Die-cast painted yellow  
IP Rating: IP67  
Ambient Temp.: -25C to +80C  
Operating Force: <125N <300mm Deflection  
Mechanical Life: 1,500,000 operations  
Operational Rating: AC15 A300 240V 3A  
Contact Options: 2NC/1NO 3NC/1NO 2NC/2NO 4NC

GLS



The GLS has been designed as a standard General Duty switch 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 complete with a mushroom type E-Stop which can be fitted (with no extra wiring) to the side of the switch to offer an extra traditional E-Stop function close to the switch. ATEX explosion proof version available (see below).

Enclosure/Cover: Die-cast painted yellow  
IP Rating: IP67  
Ambient Temp.: -25C to +80C  
Operating Force: <125N <300mm Deflection  
Mechanical Life: 1,500,000 operations  
Operational Rating: AC15 A300 240V 3A  
Contacts: 4NC 2NO

## Explosion Proof Versions

GLS-Ex



GLHD-Ex



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

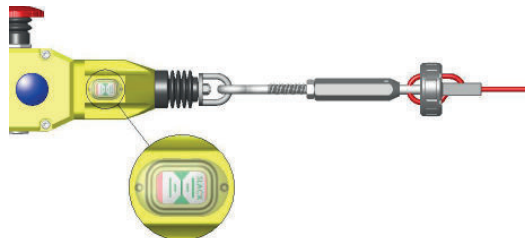


## IDEM Patented Tensioner/Gripper System

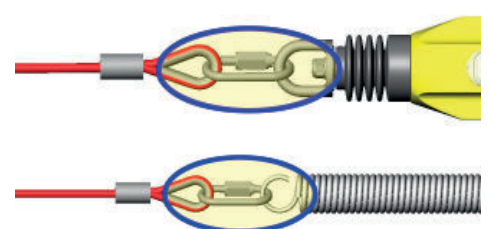
**RELIABLE CONNECTIVITY:** Tensioning of the rope is achieved by the use of IDEM's patented Tensioner/Gripper accessory. Traditional clamp systems are difficult to tension and adjust and frequent re-tensioning or maintenance is often required.



Rope Kits up to 126m.  
Contains Rope, Eyebolts and Tensioner/Gripper.



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



For systems up to 50m a Quick Link clamp is provided at one end of the rope for easy connection to either a safety spring or switch eyebolt.

# MGL Non Contact RFID Locking Switch



**MGL-1SS**



**MGL-1M**



**MGL-1P**

Heavy Duty or Medium Duty holding force versions available.

Available in Stainless Steel 316 (with Stainless Magnet), robust Plastic or Die-Cast Metal.

Operates with most Safety Relays to achieve up to PLe/Cat.4 (ISO13849-1).

RFID Master Coded or Unique Coding.

The MGL range of Non Contact RFID Coded switches has been developed in order to provide and maintain a high level of functional safety whilst providing a reliable magnetic door interlock. Flexibility for holding force is provided by the provision of 2 different switch sizes to cover all applications.

## Safety Limit Switches Type HLM EN50041 in Stainless Steel or Die-Cast



**HLM-SS Stainless Steel IP69K**

IEC60947-5-1 • EN50041 Housings • Die Cast IP67  
Stainless Steel IP69K • AC15 A300 230V 3A  
Rotary or Linear Actions • M20 or 1/2" NPT Entries  
High Mechanical Life - over 5 Million Operations  
2NC 1NO • 3NC • 2NC 2NO • 3NC 1NO • 4NC  
Explosion Proof Versions available



**HLM Die-Cast Metal IP67**

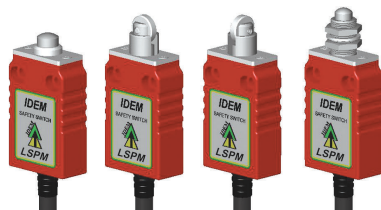
## Safety Limit Switches Type LSPS EN50047 with Plastic Body



IEC60947-5-1  
EN50047 Polyester Housings  
Rotary or Linear Actions  
M20 or 1/2" NPT Entries  
High Mechanical Life - over 10 Million Operations  
AC15 A300 240V 3A  
2NC 1NO • 3NC or  
1NC 1NO Snap Block  
Side or Bottom Cable Exits



## Safety Limit Switches Types LSPM & LSMM with Die-Cast or Plastic Body



IEC60947-5-1  
Rotary or Linear Actions  
M20 or 1/2" NPT Entries  
High Mechanical Life - over 5 Million Operations  
AC15 A300 240V 3A  
-25C to +80C  
2NC 1NO  
or 1NC 1NO Snap Block



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



**ESL-SS(P)**



**ES-SS**



**ESL-SS(L)**

Stainless Steel IP69K • High Temperature Wash Down  
2 or 3 Conduit Entries • 3 or 4 Pole Contacts  
2NC 1NO 2NC 2NO or 3NC 1NO



**ES-P**

Plastic IP67  
2 Conduit Entries  
3NC or 2NC 1NO contacts



**GLES**



**GLES-SS**

4 Conduit Entries • 4NC 2NO Contacts  
2 Colour LED • IP67/IP69K (S/Steel)  
ATEX Explosion Proof versions available



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