



**IDEM SAFETY**  
Making Industry Safer



The next generation  
of safety switches

Products 2021

What We Do  
 IDEM Safety designs and manufactures machine safety products, that make industry safer

Our Vision  
 Global leader known for innovative safety products that save lives



Global leadership in the design and manufacture of machine safety products since 1985.



IDEM's global headquarters is based in the UK with offices in the USA and Europe.



Privately owned business with in house sales, R&D and technical support teams.



Renowned for world-class product quality and reliability on a global scale.



State-of-the-art manufacturing and test facilities. This includes Ingress Protection (IP) and Shock testing.



Exceptional delivery time for both small and large orders. We put the customers' needs first.

**1985**

The founder of IDEM, Medi Mohtasham begins his employment at EJA Engineering where he designed Trojan, Atlas, Rotacam and LRS1 under the Guardmaster brand. Rockwell Automation acquires EJA in 1996.

**2003**

Medi leaves his position as Technical Director of Rockwell to create IDEM Safety Switches, with the vision to develop the 'Next Generation' of Safety Switches, designed and manufactured in the UK.

**2005**

IDEM manufactures the GuardianLine range of safety rope switches, specialising in products for the Food Industry, Explosion Proof applications and Factory Automation.

**2021**

Today IDEM operates globally, providing reliable, cost-effective safety interlock solutions that save lives. IDEM continues to invest in new ways to protect your personnel and improve your productivity.

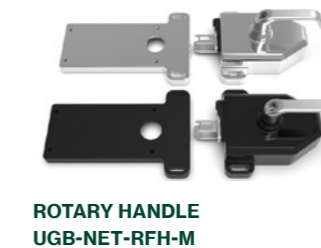
**IDEM FEATURED PRODUCT / UGB-NET**

**UGB-NET RFID SOLENOID LOCKING SWITCH**

with integrated industrial ethernet capabilities via profinet with PROFIsafe or ethernet/ip CIP safety



IDEM's Universal Gate Box (UGB-NET) combines an RFID coded sensor, guard interlocking up to 3000N, machine control functions and integrated communication protocols into a robust, heavy duty housing. Available with a range of mounting plates, handle accessories and rear escape options, the UGB-NET is suitable for full body gate access applications.



ROTARY HANDLE UGB-NET-RFH-M



SLIDING HANDLE UGB-NET-SFH-M



**6 Advantages of UGB-NET**

**Customisable** – choice of protocol, connectors, machine control devices and colours, sliding and rotary handles, actuator options, rear escape options and mounting plates

**High level of safety** including guard interlocking, lock monitoring, RFID sensing and E-Stop all Cat.4 /PL e and SIL 3 acc. to ISO 14119, ISO 13849-1, IEC 62061 and IEC 61508

**Ease of Installation:** Simple input and output pluggable connections for daisy chaining multiple devices, mounting plates, external fixing points and easily accessible DIP switches for setting the network address.

**Industrial ethernet** enables comprehensive diagnostics, quick/simple and standardised connections and commissioning. Wiring time is reduced as Ethernet/IP can be run over common network cabling, creating a daisy chain architecture

**CIP Safety** supports integrated architecture, it is then possible to view the health of each module and other status information through messaging and configuration bytes of the modules themselves

**PROFIsafe** reduces the number of components, wires and cabinets which reduce installation times and allow faster commissioning. Manual maintenance is minimised since the system continually verifies functionality

# HYGIEMAG AND HYGIECODE NON-CONTACT

- Hygiecode survives shock and vibration
- Operates in temperatures up to 105°C
- Suitable for CIP/SIP high-pressure cleaning
- Stainless Steel 316 IP69K and IP67
- Compatible with most common safety relays to achieve up to Cat. 4/ PLe and SIL 3 to ISO 13849-1 and IEC 62061
- Dual channel 2NC outputs with optional 1NO auxiliary

Specific switches in the HygieMag and HygieCode ranges boast additional hygienic factors. These include mirror polished housings and mounting points from underneath the switch, eliminating food trap areas. These versions are suitable for both splash and direct contact zone applications.

## HYGIEMAG

- High power magnetic sensing.
- Up to 2A ac/dc current switching.
- Sensing up to 12mm.

## HYGIECODE

- Coded actuation.
- Solid state design.
- Tolerant to shock and vibration.
- LED Guard Status Indication.
- Sensing up to 14mm.

### MMR-H MAGNETIC SWITCH



### MMC-H CODED SWITCH Status LED Indicators



- Compact fitting with 22mm fixing
- M4 clearance holes.
- Suitable for mouting with hexaganol head bolts.
- Suitable for splash contact zones.



### SMR MAGNETIC SWITCH



### SMC CODED SWITCH Status LED Indicator



- Compact 50mm long with 22mm fixing hole centres.



### SMR-H MAGNETIC SWITCH



### SMC-H CODED SWITCH Status LED Indicator



- Mounted with hexagonal head bolts to prevent food traps.
- Universal 22mm fixing.
- Suitable for splash contact zones.



### SMR-F MAGNETIC SWITCH



### SMC-F CODED SWITCH Status LED Indicators



- Coded switch sensing 14mm.
- Compact 50mm long with 22mm fixing hole centres.
- Suitable for splash contact zones.



# HYGIEMAG

# HYGIECODE

### LMR MAGNETIC SWITCH Status LED Indicator available



### LMC CODED SWITCH Status LED Indicators



- Can be mounted unobtrusively.
- Suitable for splash contact zones.

### CMR MAGNETIC SWITCH



### CMC CODED SWITCH Status LED Indicator



- Slim fitting 20mm wide.
- Suitable for splash contact zones.



### CMR-F MAGNETIC SWITCH



### CMC-F CODED SWITCH Status LED Indicators



- Slim fitting 20mm wide.
- Suitable for splash contact zones.



### WMR MAGNETIC SWITCH



### WMC CODED SWITCH Status LED Indicators



- Suitable for splash zones in accordance with EHEDG guidelines
- Industry standard wide body



### RMR MAGNETIC SWITCH



### RMC CODED SWITCH Status LED Indicators



- Barrel type cylindrical fitting with M30 thread.
- 45mm adjustment length.
- Suitable for splash contact zones.



### BMR MAGNETIC SWITCH



- M18 threaded cylindrical fitting.
- Suitable for all industry applications.
- Easy to install and set.
- 50mm adjustment length.



## IDEMAG

## IDECODE

### MPR MAGNETIC SWITCH



### MPC CODED SWITCH



- Compact housing with 22mm fixing.
- Cable exit left or right options available.
- Supplied with hygienic screw cap covers.

### SPR MAGNETIC SWITCH



### SPC CODED SWITCH



- Industry standard 22mm fixing.
- Withstands environments of high humidity and wash down conditions.

### LPR MAGNETIC SWITCH

Available with LED if required.



### LPC CODED SWITCH



- Industry standard European housing.
- Narrow fitting for flush mounting.

### CPR MAGNETIC SWITCH



### CPC CODED SWITCH



- Industry standard slimline housing.
- Easy to install within narrow frame.
- Heavy duty switching available.

### WPR MAGNETIC SWITCH



### WPC CODED SWITCH



- Industry standard fitting.
- Suitable for all industry applications.
- Wide body – tolerant to guard misalignment.

### RPR MAGNETIC SWITCH



### RPC CODED SWITCH



- M30 cylindrical fitting.
- Suitable for all industry applications.
- Easy to install and set.
- 45mm adjustment length.

### BPR MAGNETIC SWITCH



### KPC CODED SWITCH



- M18 threaded cylindrical fitting (BPR).
- Suitable for all industry applications.
- Easy to install and set.
- 50mm adjustment length.

## RFID TECHNOLOGY

### NON-CONTACT WITH UNIQUE OR MASTER SERIES CODING

- Guard Status LED - indicates safety circuits closed.
- Compatible with most common safety relays to achieve up to Cat.4 / PL e and SIL3 to ISO 13849-1 and IEC 62061.

- Dual channel 2NC safety outputs - 1NO auxiliary.
- Master or unique RFID coding up to type 4.
- Plastic or Stainless Steel 316 housings.



LMF



KPF



SPF



LPF



WPF



BPF



BMF

Gate bolt accessories to be used with LPF, LMF and SPF (including Z-Range equivalents)



GBN-1



GBN-3

### STANDALONE NON-CONTACT

- Standalone switches for direct machine control.
- Guard Status LEDs – indicates safety circuits closed.
- Compact housing – fits on 40mm frame sections.
- Compatible with most common safety relays to achieve up to Cat.4 / PL e and SIL3 to ISO 13849-1 and IEC 62061.

- 2NC Relay safety outputs – high current switching 3A.
- Contact feedback circuit (manual or auto).
- Maintain a high level of functional safety without the need to connect to a safety monitoring device such as a safety relay or PLC.



PSA



MSA

### MGL NON-CONTACT LOCKING RFID SWITCHES

- The MGL range of 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 switches sizes; MGL-1 and MGL-2.

- Compatible with most common safety relays to achieve up to Cat.4 / PL e and SIL3 to ISO 13849-1 and IEC 62061.
- Heavy Duty or Medium Duty Holding.
- Holding forces up to 1500N.
- Stainless Steel 316, Robust Plastic or Die-Cast metal.
- RFID Master or Unique Coding, up to Type4.



MGL-1P 1500N



MGL-1M 1500N



MGL-1SS 1100N



MGL-2P 1000N



MGL-2M 1000N



MGL-2SS 600N

## EMERGENCY STOP

All IDEM's Emergency Stop Switches conform to European Standard EN ISO13850 and IEC60947-5-5. They have a positive mechanical linkage between the switch contacts and the E Stop Button. The switches are mechanically latched and can then only be returned to the operational condition by operating the reset button as required by EN ISO13850.

- Designed with a special lid safety trip mechanism means that the safety contacts will open if the lid is removed from the Emergency Stop Switch adding an extra level of protection.
- Protection and padlock shroud versions available.



3 POLE  
ES-P(P)



3 POLE  
ES-SS



4 POLE  
ESL-SS



4 POLE  
ESL-SS(P)



3 POLE  
ES-P(P)



3 POLE  
ES-SS (P)



4 POLE  
ESL-SS(L)



4 POLE  
ESL-SS(LP)

## IDEM FEATURED PRODUCT

### ESL-SS-WR



ESL-SS-WR is designed to provide robust emergency stop protection for applications in the food and beverage industry.

The unique design features a single piece enclosure with a curved edge for ease of cleaning. Should the button be installed on the production line, the ESL-SS-WR features IDEM's unique X-Ray and metal detectable material. The mirror polished surface to Ra10 is designed to cope with direct food splash and cleaning found in the tough applications of the food processing industries.

Designed with a special lid safety trip mechanism means that the safety contacts will open if the lid is removed from the Emergency Stop Switch adding an extra level of protection

- **Contacts: 4 Pole Positively operated contact blocks.**
- **Conduit Entry: M20 or 1/2"NPT fitting.**

## SAFETY ROPE SWITCHES

- 2 colour LED switch status, visible over long distances.
- Atex versions available.
- Distance up to 5km can be achieved by connecting multiple switches.
- 250 metres can be covered with one switch.
- Suitable for inside and outside use.
- Optional E-Stop and 2-colour LED available.



GLHL



GLHD



GLHR



GLHL-SS



GLHD-SS



GLHR-SS



GLM

- Light Duty Safety Rope Pull.
- Protects short conveyer lengths in most industrial applications.
- Up to 50m protection using two switches.
- Up to 30m protection using one switch.



GLM-SS

- Stainless steel 316.
- Medium Duty Safety Rope Pull.
- Up to 30m protection using one switch.



GLS

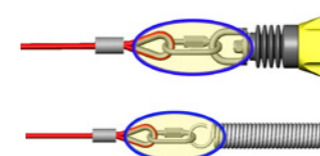
- Standard Duty Safety Rope Pull.
- Up to 80m protection using two switches.
- Up to 60m protection using one switch.



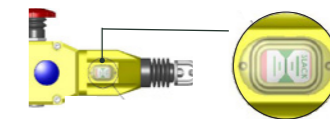
GLS-SS

- Stainless steel 316.
- Standard Duty Safety Rope Pull.
- Protects conveyer lengths up to 80m using one switch.

## EYEBOLTS AND ACCESSORIES



For systems up to 50m a QuickLink clamp is provided at one end of the rope for easy installation.



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



IDEM's patented Tensioner Gripper system allows for quick and reliable initial setup of the rope, as well as simple maintenance where re-tensioning of the rope is required.  
**Rope Kits up to 125m contains:**  
Tensioner Gripper, Rope, Eyebolts and Allen Key.



UNIVERSAL PULLEY



SAFETY SPRING  
Stainless Steel 220mm Length.



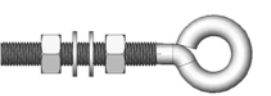
FLEXIBLE ROLLER



FLEXIBLE ROLLER  
EYEBOLT WITH NUTS



PIGTAIL EYEBOLT



STANDARD EYEBOLT

## TONGUE OPERATED SAFETY INTERLOCKS

- IDEM Tongue Operated Safety Interlock Switches are designed to fit to the leading edge of sliding, hinged or lift off machine guards to provide position interlock detection for moving guards.
- For harsh environments like food processing, pharmaceutical and petro-chemical industries, the Stainless Steel 316 range offers protection up to IP69K for use in high pressure chemical cleaning or CIP/SIP applications.

- They can be used independently to provide positively operated contacts to IEC60947-5-1.
- They can be used in combination with any dual channel safety monitoring relays to provide up to Category 4 PLe and SIL 3 to ISO13849-1 or SIL3 EN60261.



**KM** **KM-SS** **KM-SS**

- 8 Actuator entry positions.
- 3 pole or 4 pole contact blocks.
- 30mm fixing.
- IP67 ingress protection.

- Mirror polished surface finish (Ra4).
- Head rotates to protect head assembly and prevent tampering with switch.
- Provides 8 actuator entry positions.



**K-15** **K-15-SS**

- 4 Actuator entry positions - designed with a rotatable head.
- Compact body with 3 conduit entries - 40mm fixing.
- 3 pole contact blocks.
- IP67 ingress protection rating.



**KP** **KP-SS** **K-SS**

- 4 Actuator entry positions - designed with a rotatable head.
- 3 pole or 4 pole contact blocks.
- 3 conduit entries.

- Universal fitting.
- Suitable for most general applications.
- Replaceable contact blocks.
- Head rotates to give 4 actuator entry points

## MINIATURE TONGUE INTERLOCK



**INCH-1**

- 17mm fixing centres.
- 8 Actuator entry positions - designed for robustness with a rotatable Stainless Steel 316 head.
- 2 pole contact blocks.
- IP67 or IP69K ingress protection.

**IDIS-1**

- Suitable for food processing and petro-chemical industries.
- 8 Actuator entry positions - rotatable head.
- 3 pole contact blocks or 2 pole snap action.
- 17mm fixing.

**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
- 22mm fixing.

**MK1-SS**

- Compact with 22mm fixing centres.
- Mirror polished finish.
- Suitable for most applications.
- Replaceable contact blocks.
- Provides 8 actuator entry points.
- Standard or flexible actuator.

## IDEM FEATURED APPLICATION

### GATE ACCESS

#### UNIVERSAL GATE BOX

- High level RFID coded interlocking and machine control.
- Functions in one heavy duty housing.
- They are easily fitted to access doors to provide guard locking, rear escape options and sliding or rotary handles.
- Holds guards closed up to 3000N and can be padlocked off for safe working in maintenance situations.
- Die Cast Metal, painted red, or Stainless Steel 316.
- 4 Station model or 2 Station model.
- Completely flexible - end user can select buttons, lamps, and switches for each station from a wide range of options.



**UGB-KLTM RFID**

**UGB-KLT-SS RFID**

#### KLM-Z-4ST

- Solenoid Locking Switch featuring RFID interlocking and incorporating machine control functions.
- The KLM-Z-4ST incorporates all the switch features of the KLM-Z but offers extra machine control functions all in one housing incorporating standard 22mm push buttons, lamps or switches for machine request or control function.
- The KLM-Z-4ST has a slim profile and has been designed specifically to fit on 50mm (2in.) frame sections.
- Robust Stainless Steel 316 head and Die-Cast metal body.
- Choice of standard or flexible actuators.

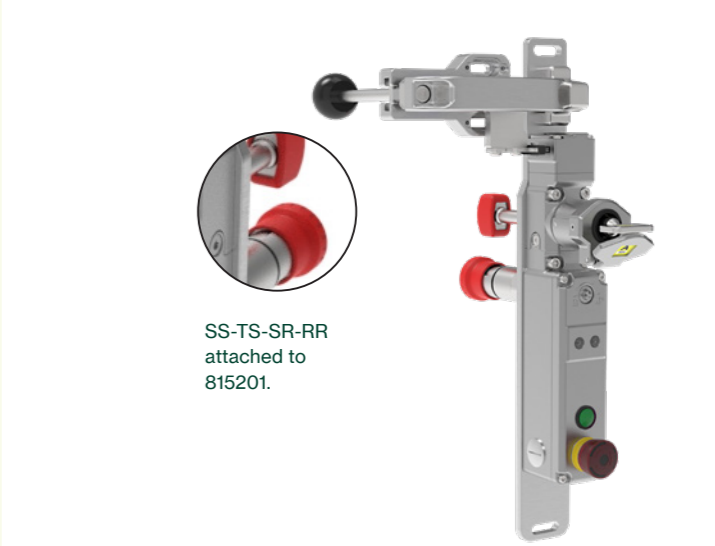


**GBZ-4ST ROTARY**

**GBZ-4ST SLIDING**

#### TONGUE INTERLOCK WITH SOLENOID RELEASE

- The TS-SR is a trapped key operated tongue interlock switch designed to hold closed machine guards.
- When the actuator tongue is inserted into the switch (guard closed) the key can be rotated and trapped and the main safety contacts are closed (machine able to run).
- The actuator tongue can only be released when the internal solenoid in the TS-SR is energised. This then enables the key to be turned and released, the safety contacts opened and the actuator tongue removed.
- Holding force; F1 max. 3000N. FzH 2307N.
- The TS-SR-RR provides the same function apart from it also provides a manual means of escape from inside the guarded area.
- Sliding actuators are available in both die cast metal and stainless steel, GB-SR-M and GB-SR-SS They provide shearing forces up to 5,000N on large hinged doors and are easy to install on hinged or sliding guards.



**SS-TS-SR**

## Z-RANGE – OSSD OUTPUTS

- The Z-Range of safety devices feature self monitoring and OSSD outputs to achieve CAT4 PLe (ISO 13849-1) and SIL3 (IEC 62061) even when connected in a series.
- Up to 30 Z-Range devices can be connected to one safety relay.
- The high precision stainless steel castings combined with a double seal ensures a IP69K protection level.
- IDEM's RFID Technology is available with high and low coding acc. ISO 14119. Switch and actuator are supplied pre-taught from the factory for the customers convenience.
- The uniquely coded versions have up to 32 million code variations, reducing the likelihood of manipulation or defeat.
- The Z-Range features extended diagnostics presented by the device LEDs and auxillary output signals that can help reduce downtime by allowing quick identification of individual device stats.

## SAFETY ROPE SWITCHES

### STAINLESS STEEL



GLM-SS-Z

GLS-SS-Z

GLHD-SS-Z

GLHL-SS-Z

GLHR-SS-Z

### DIE CAST



GLM-Z

GLS-Z

GLHD-Z

GLHL-Z

GLHR-Z

## EMERGENCY STOP SWITCHES

- The Z-Range of emergency stops use 2 OSSD outputs to maintain a high level of functional safety, even when connected in series.
- You can connect a maximum of 30 Z-Range emergency stops on a single system or mix a combination of other Z-Range products.
- Available in a high specification polyester or robust, 316 Stainless Steel housings.
- Optional protection shrouds are available subject to a suitable risk assessment.



ES-P-Z

ESL-SS-Z(L)

ESL-SS-Z(LP)

## SAFETY TONGUE INTERLOCK

- Designed to fit to the leading edge of sliding, hinged or lift off machine guards and features IDEM's patented cam system with an anti-tamper mechanism, providing long term reliability even in the most challenging environments. The ingress protection is maintained by a double seal gasket and anti-rust, stainless steel internal screws.
- Due to the pulsed OSSD outputs, faults are detected immediately through the use of the auxiliary output.



KP-Z

KM-Z

KM-SS-Z

## HINGE INTERLOCK SAFETY SWITCH

- Stainless Steel 316 or Die Cast
- Left and Right Hinges
- Blank hinges used on applications where two hinges are needed.



HS-SS-Z

HSM-Z

## NON-CONTACT RFID SWITCHES

- RFID with Unique or Master Series Coding.
- Tamper resistant operation.
- Safety outputs short-circuit protected.
- Wide sensing range.
- Tolerant to guard misalignment.
- Cable or quick connect options.



KP-Z

KM-Z

KM-SS-Z

KM-SS-Z

## SOLENOID LOCKING RFID SWITCHES

IDEM's Z-range solenoid-controlled guard switches feature RFID coding and provide a robust and secure lock mechanism that keeps the guard closed until the hazard has been removed. The head features two RFID entry points (top and front) and can be rotated 360 degrees to provide up to 8 different entry positions.

The internal self-monitoring and OSSD outputs maintain the highest level of functional safety, even when connected in series (up to 30 units).

Available in plastic, red painted Die Cast or 316 Stainless Steel.



KLP-Z 2000N

KLM-Z 3000N

KL3-SS-Z 3000N



## GUARD LOCKING INTERLOCKS SOLENOID CONTROLLED

 <p><b>KL1P 1400N</b></p> <ul style="list-style-type: none"> <li>· Plastic body universal 40mm mounting.</li> <li>· 4 Actuator entry positions – rotatable head.</li> <li>· Guard locking for small to medium doors.</li> </ul>	 <p><b>KLP 2000N</b></p> <ul style="list-style-type: none"> <li>· Medium to heavy duty guards.</li> <li>· Provides 2NC safety contacts and 2NO aux. contacts or LED indication diagnostics.</li> <li>· 8 Actuator entry positions – rotatable head.</li> </ul>	 <p><b>KLM 3000N</b></p> <ul style="list-style-type: none"> <li>· Die cast metal switch suitable for heavy duty guard locking.</li> <li>· Provides 4NC safety contacts and 2NO auxiliary contacts or LED indication diagnostics.</li> <li>· 3 conduit entry points and 30mm fixing.</li> </ul>	 <p><b>KLTM 3000N</b></p> <ul style="list-style-type: none"> <li>· Suitable for heavy duty guard locking with solenoid locking.</li> <li>· Provides 4NC safety contacts and 2NO aux. contacts or LED indication diagnostics.</li> <li>· 3 conduit entry points. 73mm fixing centres.</li> </ul>
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 <p><b>KL1-SS 2000N</b></p> <ul style="list-style-type: none"> <li>· Provides 4 actuator entry points.</li> <li>· Rotatable head.</li> <li>· 2 lock monitoring safety contacts.</li> <li>· 2 LEDs for solenoid and lock status.</li> </ul>	 <p><b>KL3-SS 3000N</b></p> <ul style="list-style-type: none"> <li>· Choice of 24V 110V or 230V operation.</li> <li>· 2 LEDs for solenoid and lock status.</li> <li>· Standard or flexible actuator options available.</li> </ul>	 <p><b>KL4-SS 3000N</b></p> <ul style="list-style-type: none"> <li>· Optional request button.</li> <li>· Choice of 24V 110V or 230V operation.</li> <li>· 2 LEDs for solenoid and lock status.</li> <li>· Standard or flexible actuator options available.</li> </ul>	 <p><b>KLT-SS 3000N</b></p> <ul style="list-style-type: none"> <li>· Suitable for heavy duty guard locking with solenoid locking.</li> <li>· Provides 4NC safety contacts and 2NO aux. contacts or LED indication diagnostics.</li> <li>· 3 conduit entry points.</li> <li>· 73mm fixing centres.</li> </ul>
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## SOLENOID CONTROLLED INTERLOCK RFID CODED

The KLT-RFID and KLT-SS-RFID Guard Locking Switches incorporate IDEM's patented anti-tamper CAM system, with the improved security of an RFID coded sensor. The combination ensures maximum security and reliability, even in the most challenging environments.

 <p><b>KLT-SS-RFID 3000N</b></p>	 <p><b>KLTM-RFID 3000N</b></p>
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## POWER-TO-LOCK MECHANICAL INTERLOCK

 <p><b>KLP-P2L 2000N</b></p>	 <p><b>KLTM-P2L 3000N</b></p>	 <p><b>KLM-P2L 2000N</b></p>	 <p><b>KL3-SS-P2L 3000N</b></p>
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## SOLENOID CONTROLLED INTERLOCK REAR RELEASE

- Rear Release handle for solenoid locking tongue switches with optional extra rear handle.
- Suitable for: KLP, KLM, KLM-RR and KL4-SS.
- Available in Stainless Steel, Plastic and Die Cast
- A manual escape release is used to enable a quick release of the switch lock in case of emergency.

 <p><b>KLM-RR 3000N</b></p>	 <p><b>GBL-1</b></p>	 <p><b>KL3-SS-RR 3000N</b></p>	 <p><b>GBL-1-SS</b></p>
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## HINGE INTERLOCK SAFETY SWITCHES

 <p><b>HC-1</b></p> <ul style="list-style-type: none"> <li>· Polyester body and Stainless Steel head.</li> <li>· 2 N/C or 1 N/C + 1 N/O.</li> <li>· Hollow shafts available.</li> <li>· Solid shafts are available as: 10mm dia. and 50 or 80mm long or as 8mm dia. and 60mm long.</li> </ul>	 <p><b>HC-3</b></p> <ul style="list-style-type: none"> <li>· 18mm fixing profile make them easy to install in restricted space.</li> <li>· The head can be rotated to provide ease of mounting in 4 positions.</li> <li>· Polyester body and Stainless Steel head.</li> <li>· 2 N/C Safety and 1 N/C Auxiliary.</li> </ul>	 <p><b>HC-SS</b></p>	 <p><b>IDIS-2</b></p> <ul style="list-style-type: none"> <li>· Compact fitting.</li> <li>· 18mm fixing profile.</li> <li>· The head can be rotated through 90 degree increments to provide ease of mounting in 4 positions.</li> <li>· Suitable for food splash/contact zones.</li> </ul>
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## HINGE INTERLOCK SAFETY SWITCH

- Available in either die cast or stainless steel housing.
- Designed to be mounted for interlock position sensing of hinged moving guards.
- They feature positive opening contacts in accordance with IEC 60947-5-1 and after fitting the switch offers a very high degree of anti-tamper.
- Positive actuation of the contacts is achieved at only 6 degrees of opening of the guard and can be adjusted up to 12 degrees if required upon installation.
- 800N Axial Holding Force
- Blank hinges available for use on large doors.

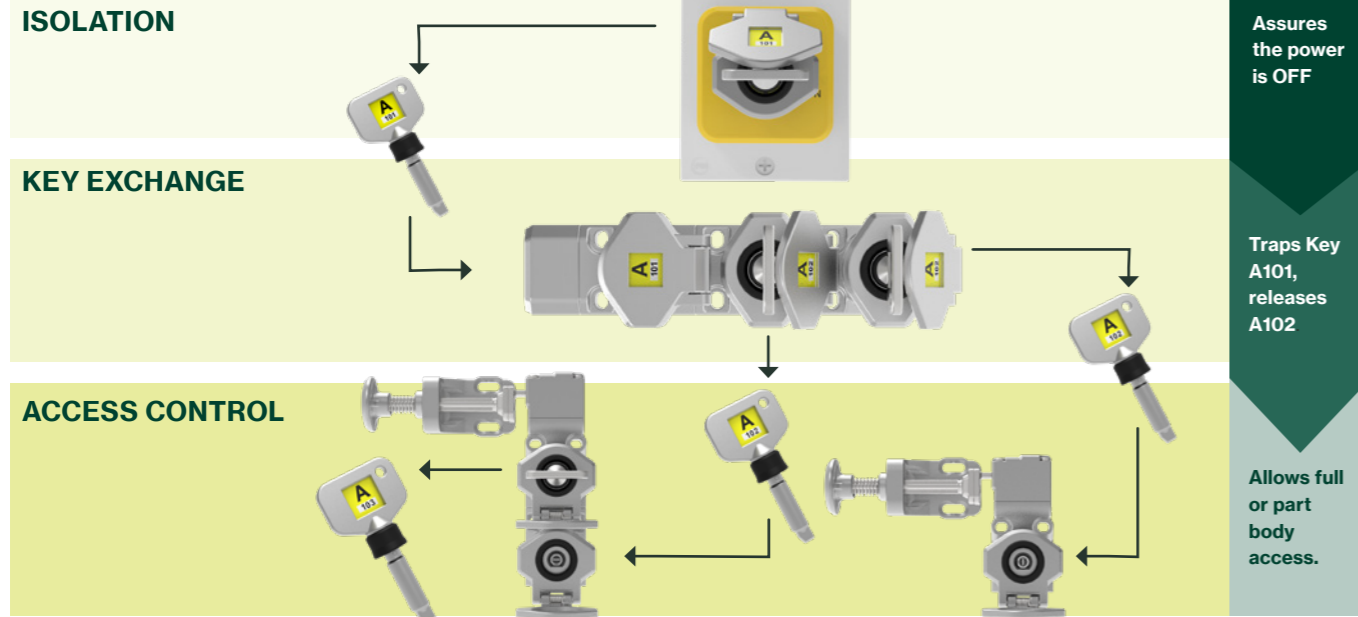
 <p><b>HSM</b></p>	 <p><b>HS-SS</b></p>	 <p><b>BLANK STAINLESS STEEL</b></p>	 <p><b>BLANK DIE CAST</b></p>
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# SKORPION TRAPPED KEY

Skorpion relies upon the transfer of keys between a power isolation switch (or control switch) and a locking mechanism fixed on a guard. The essential feature of Skorpion is that a removable key is trapped either in the guard lock, or in the power isolation switch. The interlock on the guard is arranged so that the key can be released only when the guard has been closed and locked. This allows transfer of the key from the guard to the power isolation switch.

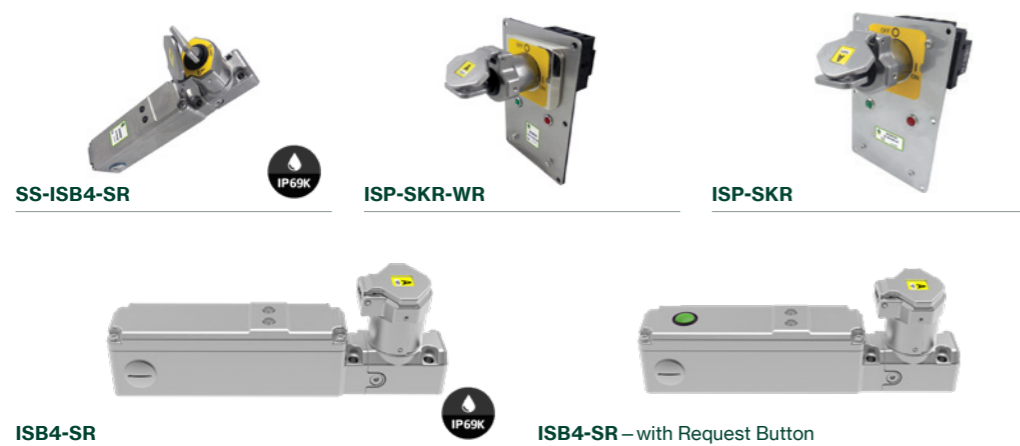
- 316 Stainless steel or mirror polished die-cast
- All internal components manufactured from stainless steel
- Isolation, exchange and access locks
- Dual key access locks with 'personnel key'
- Up to 16,000 key codes available
- Key code tracking available on request



## ISOLATION



## SOLENOID CONTROLLED ISOLATION



# KEY EXCHANGE

**1** The "initial key" which is usually in the power isolation part of the system is removed from the isolation box or panel and put in the first position in the key exchange block to allow access to the guarded areas when required.

**2** Once the "initial key" has been placed in the first position of the key exchange block and turned, then the other keys in the key exchange block can now be retracted and moved to the other parts of the system.

The ME key exchange system is available with 1 key trapped and up to 7 keys released. Just add the total of keys required to the end of the description. NS stands for non sequential.

Adding SS (Stainless Steel) or M (Die Cast) at the start of the description chooses the housing material.



KE-NS5



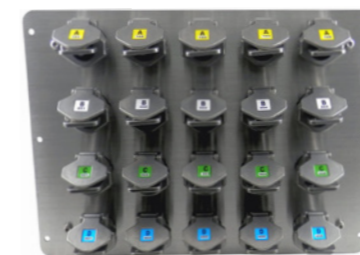
KE-NS4

## MULTI KEY EXCHANGE SYSTEMS

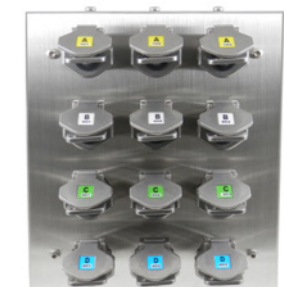
**1** The "initial keys" which are usually in the power isolation parts of the system are removed from the isolation boxes or panels and put in the first row in the MX Multi Key Exchange panel to allow access to the guarded areas when required.

**2** Once the "initial keys" have been placed in the first row of the MX Multi Key Exchange panel and turned, then all the other keys in the panel can now be retracted (non-sequentially) and moved to the other parts of the system.

The MX key exchange system is available with up to 5 keys trapped and up to 15 keys released.



SS-MX-P-20-5X15

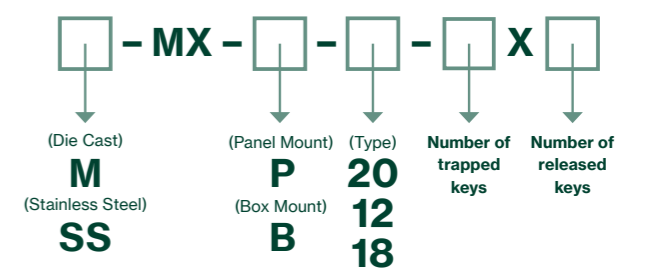


SS-MX-B-12-3X9



SS-MX-B-8-2X6

## HOW TO ORDER AN MX SYSTEM



# TRAPPED KEY INTERLOCKS

## SINGLE KEY WITH ACTUATOR



TS

## DUAL KEY WITH ACTUATOR



TD-11

## HANDLE INTERLOCK

### SINGLE KEY WITH ACTUATOR



SS-HS



SS-SS-C – with chain

### DUAL KEY WITH ACTUATOR



HD-11



HD-C-11 – with chain

### SINGLE KEY WITH ACTUATOR



SS-HT-S-L-11

### DUAL KEY WITH ACTUATOR



SS-HT-D-L-11



## BOLT INTERLOCK

### SINGLE KEY



BS

### DUAL KEY



BD-11

# KEY CODE SELECTION

## STANDARD KEY (SK)



SK keys can be used throughout the system and all Sales Numbers start with SK- followed by a letter and then three digits e.g. SK-C306

## EJECTOR KEY (EK)



EK ejector keys can be used where a secondary function requires an operator to enter and carry the key into a hazardous area.

## ORDER INFORMATION

Different key fob colours are available dependent upon the code chosen. This is a customer option to provide the end-user with an easily seen visual aid e.g. The First Key (Primary Key) could be chosen in a different colour to the colour chosen for the Released Keys - therefore easily distinguishing the Primary Key from the other keys in the system.

- Thousands of key codes available
- Custom key labels available on request

Yellow		White		Green		Blue	
A101	A111	B201	B211	C301	C311	D401	D411
A102	A112	B202	B212	C302	C312	D402	D412
A103	A113	B203	B213	C303	C313	D403	D413
A104	A114	B204	B214	C304	C314	D404	D414
A105	A115	B205	B215	C305	C315	D405	D415
A106	A116	B206	B216	C306	C316	D406	D416
A107	A117	B207	B217	C307	C317	D407	D417
A108	A118	B208	B218	C308	C318	D408	D418
A109	A119	B209	B219	C309	C319	D409	D419
A110		B210		C310		D410	

## VALVE INTERLOCK

IDEM's mini valve locks can be used standalone or easily integrated as part of a SKORPION Trapped Key solution.

The key can then be removed and can be moved to safe storage (to avoid tampering) or can be integrated with trapped key guard interlocks to protect operators from machine, gas or air hazards that may be present.

Suitable for CIP and SIP cleaning processes and can be high pressure hosed with detergents at high temperatures.

- 40 Bar (600 psi).
- -40C to +170C operating temperature.
- Warning: Freezing of the fluid in the installation may severely damage the valve.
- Available as (FOP) Key Free Valve Open, Passing state or as (FCL) Key Free, Valve Closed, Non Passing state.
- Available in Die Cast (Pictured) or Stainless Steel.



2" BSPP



1" BSPP



1/2" BSPP



1/4" BSPP












3/8" BSPP

IDEM's product portfolio includes safety switches that are safe to use in potentially explosive atmospheres. A mixture of air gases, vapours, mists or dusts can combine in a way that can ignite under certain operating conditions.

ATEX products sold with 3m pre-wired cable, longer cable lengths are available upon request. Please note, this cannot be changed after the product has been manufactured.

A place in which an explosive atmosphere is...	Gases	Dusts
Continually Present	0	20
Likely to occur in normal operation occasionally	1	21
Not likely to occur in normal operation and only for very short durations	2	22

### NON CONTACT MAGNETIC SAFETY SWITCHES

 CM1-Ex	 CM2-Ex	 CM3-Ex	 RM-Ex
 LM-Ex	 WM2-Ex	<p> II 1G Ex ma IIC T6 Ga   II ID Ex ma IIIC T80 Da IP67                  ZONES 0 / 1 / 2 / 20 / 21 / 22</p>	
 WM1-Ex			

### EMERGENCY STOP STATIONS

 ESL-SS(P)-Ex	 ESL-SS-Ex
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### TRAPPED KEY ISOLATION

 SS-ISB-CB-Ex	 M-ISB-CB-Ex	 SS-TS-CB-Ex	 M-TS-CB-Ex
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### TONGUE INTERLOCK SWITCHES (NON-LOCKING)

 K-SS-Ex	 KP-Ex	 KM-Ex	 KM-SS-Ex
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### SAFETY ROPE PULL SWITCHES

 GLHR-Ex	 GLHD-Ex	 GLHL-EX	 GLS-EX
 GLHR-SS-Ex	 GLHD-SS-Ex	 GLHL-SS-Ex	 GLS-SS-Ex

### CONVEYOR AND BELT ALIGNMENT

 35MM, LONG	 35MM, SHORT	 50MM, SHORT	 35MM, LONG	 35MM, SHORT	 50MM, SHORT	 MINI
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### SAFETY LIMIT SWITCHES

 HLM-AL-Ex	 HLM-ARL-Ex	 HLM-PP-Ex	 HLM-RP-Ex	 HLM-SL-Ex	 HLM-SRL-Ex	 HLM-TSL-Ex
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## SAFETY RELAYS

All relays include a combination of the below diagnostics.

<b>Power</b>	Power applied to device
<b>Reset</b>	Reset Circuit is closed
<b>CH1</b>	External switch input 1 closed
<b>CH2</b>	External switch input 2 closed
<b>K1</b>	Internal relay safety output contacts closed
<b>K2</b>	Internal relay safety output contacts closed
<b>K3</b>	Internal relay safety output contacts closed
<b>K4</b>	Internal relay safety output contacts closed

- Dual force guided relay output contacts with high current up to 6A each.
- Up to Cat. 4PLe and SIL 3 acc. to ISO13849-1, IEC 62061 and IEC 61508.
- Single or dual channel input.
- Feedback loop for monitoring contactors.
- Short circuit and earth fault monitoring.
- Automatic or monitored manual start.
- Instant or delayed contacts



SCR-21-i    SCR-31-i    SCR-31P-i    SCR-73-i    SCR-31-42TD-i    SEU-31-i    SEU-31TD-i

## PYTHON CONVEYOR BELT ALIGNMENT

- Contacts: 2NC 2NO
- Supply: 24V or 110V or 230V
- Indication: With or without LED
- Conduit Entry: M20 or 1/2"NPT fitting

- Operating Torque: 3.0 – 5.0Nm
- Warning Signal: 10 – 18 degrees
- Stop Initiated: 15-35 degrees
- Ingress Protection

### DIE CAST



**BELT SWITCH 35MM DIAM.**  
Short Roller

**BELT SWITCH 50MM DIAM.**  
Medium Roller

**BELT SWITCH 35MM DIAM.**  
Long Roller

### STAINLESS STEEL



**BELT SWITCH 35MM DIAM.**  
Short Roller

**BELT SWITCH 50MM DIAM.**  
Medium Roller

**BELT SWITCH 35MM DIAM.**  
Long Roller

## PYTHON CONVEYOR MINI BELT ALIGNMENT

- Miniature Belt Alignment switches are mounted on sections of narrow conveyors to protect against belt drift due to an unintentional movement.
- Miniature Belt Alignment Switch has the option of stainless steel or plastic roller and is housed in a rugged die cast aluminium or stainless steel body, which are mounted on sections of narrow conveyors to protect against belt drift due to an unintentional movement.
- Positive opening NC safety contact to EN60947-5-1
- Slow break or snap action contacts
- High mechanical life over 500,000 cycles
- Industry standard mounting to EN5004



## SAFETY LIMIT SWITCHES

- Positive opening contacts to IEC60947-5-1.
- Industry standard mounting to EN5004.
- Rotary or Linear Actions.

- M20 or 1/2" NPT conduit entry.
- High mechanical life expectancy – 2,500,000,00 cycles.
- 2NC 1NO - 3NC - 2NC 2NO - 3NC 1NO - 4NC



HLM Die Cast Metal – EN50041 IP67

HLM-SS Stainless Steel EN50041

## SAFETY LIMIT SWITCHES

- Positive opening safety contacts to IEC60947-5-1
- Choice of 11 actuator heads: Linear, Rotary and Flexible actions
- High mechanical life expectancy - 2,500,000,00 cycles.

- Head position adjustment any of 4 positions
- Enclosure protection to IP67 making them suitable for washdown
- Conduit entries: M20 1/2" NPT or Quick Connect



LSPS Plastic

## MINIATURE SAFETY LIMIT SWITCHES

- Standard duty plastic body or robust, die cast body
- Positive opening NC safety contacts to IEC60947-5-1
- Unique 3 pole positively operated contacts.
- Choice of 7 actuator heads Linear and Rotary
- High mechanical life expectancy - 2,500,000,00 cycles.
- Side or end cable exit
- Enclosure protected to IP67
- Operating temperature -25C to 80C



## MICRO SWITCHES

To complement our range we now stock a wide range of the most popular micro switches including Pin Plunger, Roller Lever Panel Mount types, Short and Long Hinge Lever, etc.





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