

# Guard Locking Switch Metal Type: SAMLOCK KLM-P2L

## FEATURES:



Energise solenoid to lock.

Spring to unlock when solenoid is de-energised.



STAINLESS STEEL HEAD

POWER TO LOCK

## Solenoid Locking Interlock Safety Switch featuring POWER TO LOCK with Guard Holding to 3000N (300Kg) (F1Max)

The KLM-P2L Series Guard Locking switches have a slim metal body design and have been developed with a holding force of 3000N to keep large guard doors closed until hazards have been removed.

They are Power to Lock - Spring to Unlock - suitable for applications where immediate unlocking is required at removal or loss of power. (They are NOT suitable for machines with a running down time).

The rugged die cast body provides a durable robust hold closed interlock protection and is available with Stainless Steel Heads for extra durability. Flexible actuators are available to aid where some alignment is a problem.

IP67 enclosure protection is maintained by a double seal lid gasket design and metal fixings.

They have a slim profile and are designed to fit on 50mm (2") frame sections or to applications where space is restricted.

The head will rotate to provide up to 8 actuator entry positions.

## FUNCTIONAL SPECIFICATIONS:

Positive Break Contacts to EN60947-5-1

High Functional Safety to ISO13849-1

Die Cast Metal Housing (painted red)

Stainless Steel Head version available

Connects to most Safety Relays to give up to PLe Cat.4

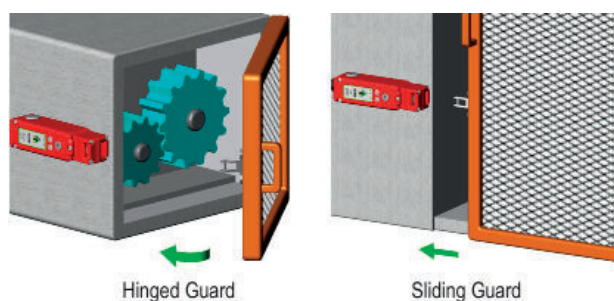
Quick Connector version available for ease of installation

Machine safety contacts open when power is released

LED Status of Solenoid Power

2NC Safety Circuits:

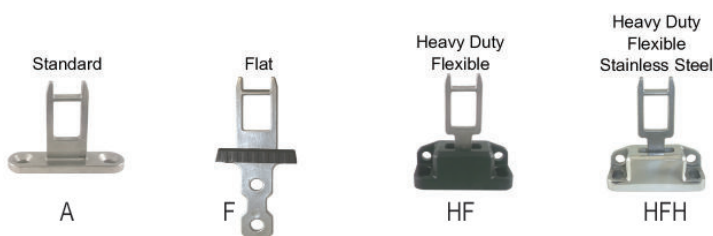
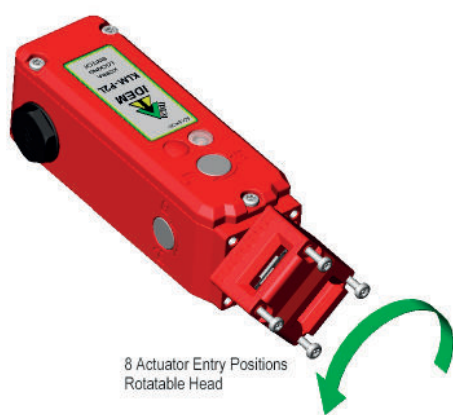
1NC 1NO Auxiliary circuits - Actuator/Door Status



Hinged Guard

Sliding Guard

## ACTUATOR OPTIONS (see p100)



**Standards:** ISO14119 EN60947-5-1 EN60204-1  
ISO13849-1 EN62061 UL508

### Safety Classification and Reliability Data:

Mechanical Reliability B10d 2.5 x 10<sup>6</sup> operations at 100mA load  
ISO13849-1 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  
MTTFd 356 years

Solenoid Voltage (by Sales Number) 24Vdc  
Solenoid Wattage 12W (Inrush 50W)  
Utilization Category AC15 A300 3A  
Thermal Current (Ith) 5A  
Rated Insulation/Withstand Voltages 600Vac/2500Vac  
Travel for Positive Opening 10mm  
Actuator Entry Minimum Radius 175mm Standard 100mm Heavy Duty  
Maximum Approach/Withdrawal Speed 600mm/s

Holding Force F1Max 3000N Fzh 2307N  
Body Material Die Cast (painted red)  
Head Material Die Cast (painted red) or Stainless Steel 316  
Enclosure Protection IP67  
Operating Temperature -25C +40C  
Vibration IEC 68-2-6 10-55Hz + 1Hz  
Excursion 0.35mm 1 octave/min  
Conduit Entry Various (See Sales Number)  
Fixing 4 x M5

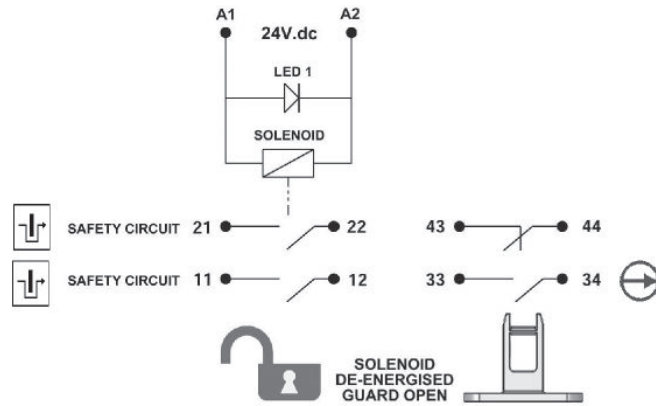
## INSERTION OF ACTUATOR

	6.0	5.0	0mm
11/12	Open		Solenoid Energised
21/22	Open		Solenoid Energised
33/34	Open		Tongue Inserted
43/44		Open	Tongue Inserted

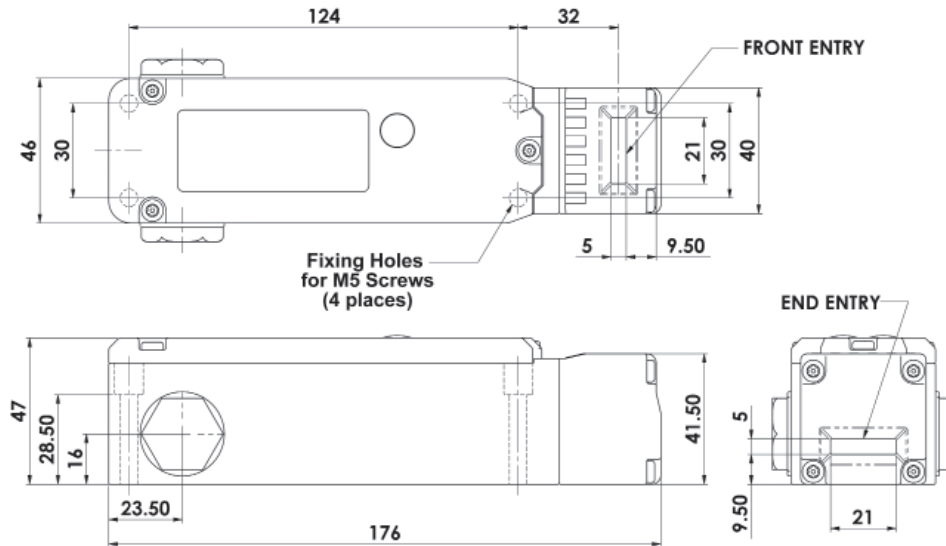
For all IDEM Power to Lock switches the normally closed (NC) circuits are closed when the guard is closed actuator inserted and power is applied to the solenoid.

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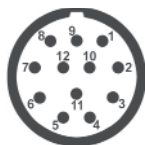
## SCHEMATIC CIRCUIT:



## DIMENSIONS:



## RELATED PRODUCTS & ACCESSORIES (see p100-101 and Gate Bolts Section 6)



Quick Connect (QC) M23 12 Way Male Plug Connector Length 24mm Pin View from Switch	Switch Circuit
1 3	A1 A2
4 6	11/12
7 8	21/22
2 5	43/44
9	33
10	34
12	Earth



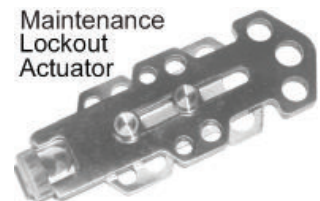
Sliding Handle Gate Bolt  
with Lock Off Feature

### GATE BOLT LOCK

Rugged metal construction, easy to install on sliding or hinged guards.

Holes for fitting padlocks during maintenance.

Painted yellow and comes with plastic handle and flat actuator.



Maintenance  
Lockout  
Actuator

Fits to switch aperture during maintenance and provides multiple padlock holes.



FEMALE QC LEADS	LENGTH	SALES NUMBER
M23 12 Way	5m (15ft)	140143
M23 12 Way	10m (30ft)	140144

SALES NUMBER	SOLENOID VOLTAGE	M20	1/2" NPT	QC M23
Kobra KLM-P2L Switch	24V dc	202021	202022	202023
To order Switch with Actuator				
Kobra Actuator	Standard	Add A to Sales Part Number		
Kobra Actuator	Flat	Add F to Sales Part Number		
Kobra Actuator	Heavy Duty Flexible	Add HF to Sales Part Number		
Kobra Actuator	S/Steel Heavy Duty Flexible	Add HFH to Sales Part Number		
Stainless Steel Head Version		Add SS to Sales Part Number		