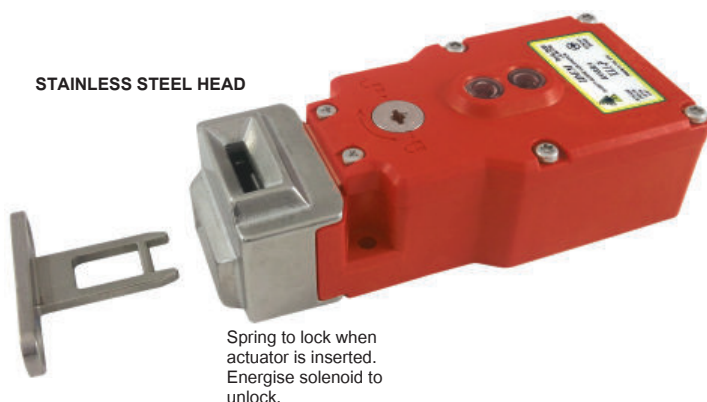


# Guard Locking Switch Plastic Type: LEILOCK KL1-P

## FEATURES:



### Solenoid Locking Interlock Safety Switch featuring Guard Holding up to 1400N (140Kg) (F1Max)

The KL1-P Series Guard Locking switches have a compact plastic body design and have been developed with a holding force of 1400N to keep small to medium guard doors closed until hazards have been removed.

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

The KL1-P switch has a low profile and fixing holes are on an industry standard 40mm centre to enable easy fitting to new or existing guards (or where replacement of a non locking tongue switch is required).

The head will rotate to provide up to 4 actuator entry positions.

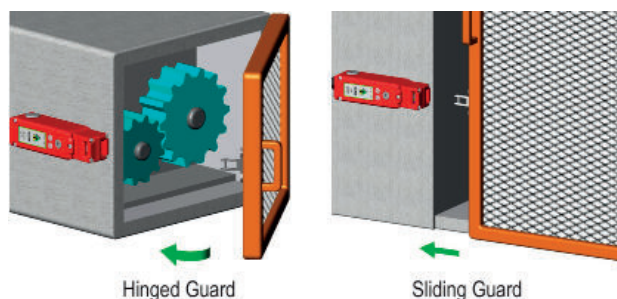
## CONTACTS/LED DIAGNOSTICS:

### STANDARD - Version 1:

2NC Safety Contacts  
1NO Auxiliary Contact (Guard Open)  
1NO Auxiliary Contact (Lock Open)  
LED1 Solenoid Power

### EXTRA LED2 - Version 2:

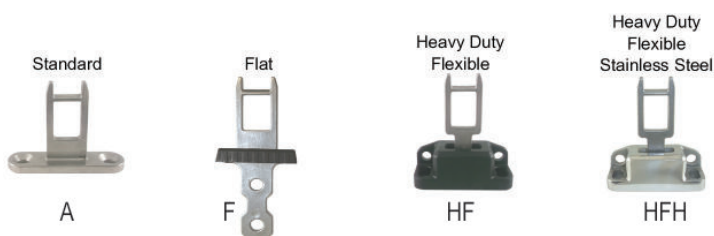
2NC Safety Contacts  
1NO Auxiliary Contact (Guard Open)  
LED2 Lock Status:  
Closed and Locked  
LED1 Solenoid Power



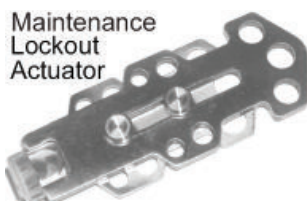
## FUNCTIONAL SPECIFICATIONS:

Positive Break Contacts to EN60947-5-1   
High Functional Safety to ISO13849-1  
High specification polyester housing with Stainless Steel Head  
Connects to most Safety Relays to give up to PLe Cat.4  
Will fit on 40mm fixing centres  
2 manual override points  
Universal M12 8 way microlock  
Quick Connector version available for ease of installation

## ACTUATOR OPTIONS (see p100)



## ACCESSORIES (see p100-101)



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

## INSERTION OF ACTUATOR

	6.0	5.0	0mm
11/12	Open		
21/22	Open		
33/34			Open
43/44			Open

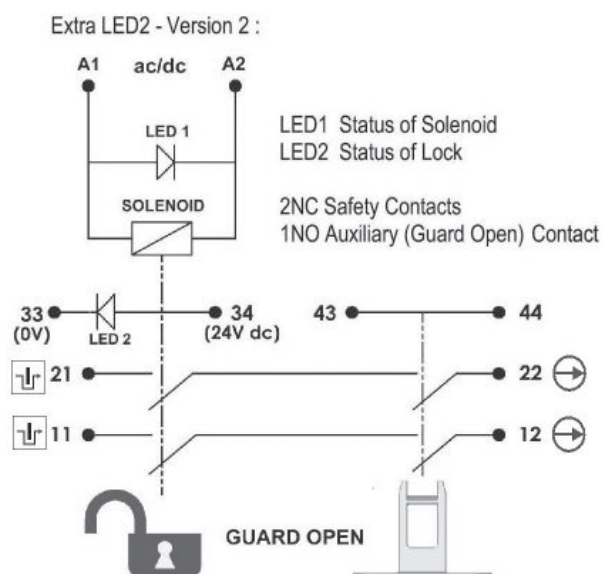
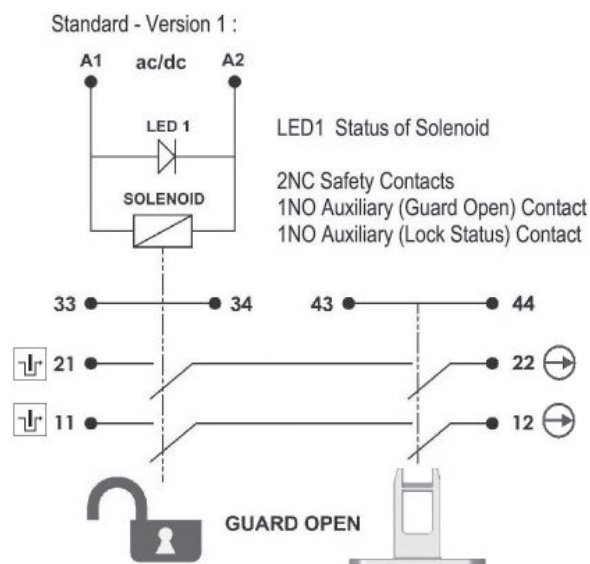
**Standards:** ISO14119 EN60947-5-1 EN60204-1  
ISO13849-1 EN62061 UL508

### Safety Classification and Reliability Data:

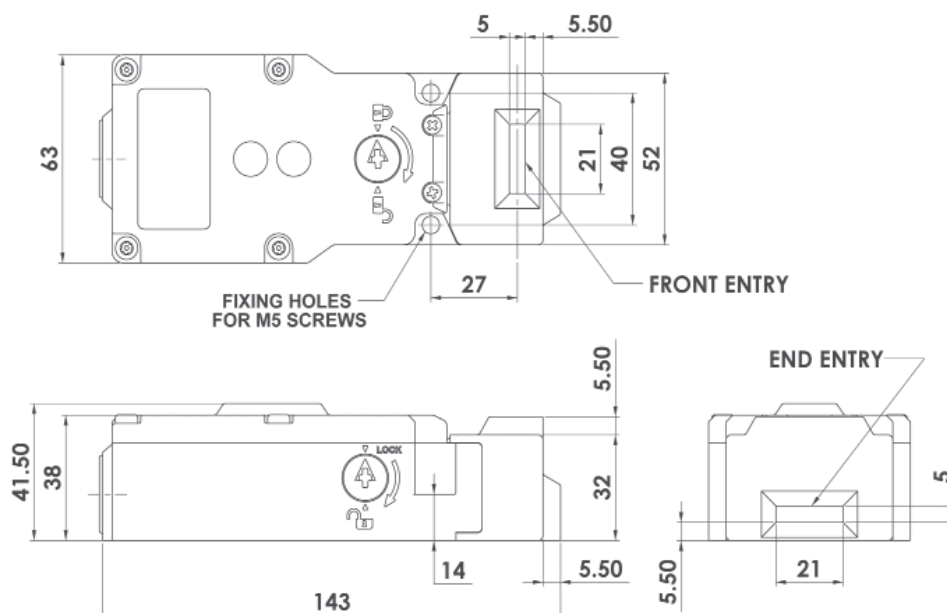
Mechanical Reliability B10d	2.5 x 10 <sup>6</sup> operations at 100mA load
ISO13849-1	Up to PLe depending upon system architecture
EN62061	Up to SIL3 depending upon system architecture
Safety Data – Annual Usage	8 cycles per hour/24 hours per day/365 days
	MTTFd 356 years
Solenoid Voltage (by Sales Number)	24V ac/dc or 110Vac or 230Vac
Solenoid Wattage	12W
LED 2 Version Supply Voltage	24Vdc
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 1400N Fzh 1076N
Body Material	Polyester
Head Material	Stainless Steel 316
Enclosure Protection	IP67
Operating Temperature	-25C +50C
Vibration	IEC 68-2-6 10-55Hz + 1Hz
	Excursion 0.35mm 1 octave/min
Conduit Entry	Various (See Sales Number)
Fixing	2 x M5

# Guard Locking Switch Plastic Type: LEILOCK KL1-P

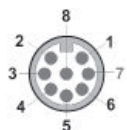
## SCHEMATIC CIRCUITS:



## DIMENSIONS:



FEMALE QC LEADS	LENGTH	SALES NUMBER
M12 8 Way	5m (15ft)	140101
M12 8 Way	10m (30ft)	140102



Quick Connect (QC) M12 8 Way Male (on Flying Lead 250mm) Pin View from Switch	Switch Circuit
2 7	A1 A2
4 6	11/12
8 5	21/22
3 1	43/44

For all IDEM switches the normally closed (NC) circuits are closed when the guard is closed actuator inserted.



SALES NUMBER	SOLENOID VOLTAGE	M20	1/2" NPT	QC M12	M20	1/2" NPT
Kobra KL1-P Switch	24V ac/dc	221001	221002	221003	221301	221302
Kobra KL1-P Switch	110V ac	221004	221005	221006	221304	221305
Kobra KL1-P Switch	230V ac	221007	221008	221009	221307	221308
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				

### Ordering Examples:

Kobra KL1-P 24V Solenoid M20 Conduit LED2 Version Heavy Flexible Actuator: Sales Number: 221301-HF  
Kobra KL1-P 110V Solenoid 1/2" NPT Conduit Standard Version Standard Actuator: Sales Number: 221005-A