GUARD LOCKING SAFETY INTERLOCK SWITCHES

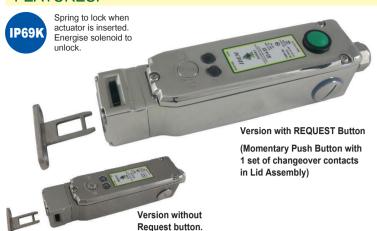
# Guard Locking Switch Stainless Steel Type: HYGIELOCK KL4-SS

#### **FEATURES:**









## Solenoid Locking Interlock Safety Switch featuring Guard Holding up to 2000N (200Kg) (F1Max)

The KL4-SS Series Guard Locking switches have a rugged Stainless Steel 316 body and have been developed with a holding force of 2000N to keep medium to large guard doors closed until hazards have been removed.

They are designed to cope with the rigorous applications of the Food Processing, Packaging, Pharmaceutical and Petro-Chemical Industries.

They have IP69K enclosure protection and can be high pressure hosed with detergent at high temperature.

With a slim body design of under 50mm wide they can be fitted to 50mm (2") frame sections or to applications where space is restricted. The Head will rotate to provide up to 8 actuator entry positions.

2 manual override points are provided (this is achieved by using an anti-tamper key).

#### CONTACTS/LED DIAGNOSTICS:

A unique mechanical design featuring 2 independent contact blocks gives a high function and diagnostic specification.

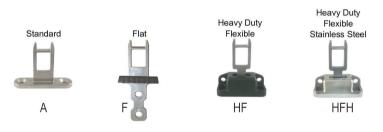
**4NC Safety Contacts** 

1NO Auxiliary Contact (Guard Open)

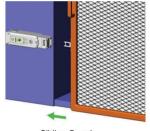
LED1 Solenoid Power

LED2 Lock Status indication or 1NO Auxiliary Contact (Lock Open)

## ACTUATOR OPTIONS (see p76)







Sliding Guard



#### **FUNCTIONAL SPECIFICATIONS:**

Positive Break Contacts to EN60947-5-1 High Functional Safety to ISO13849-1 Stainless Steel 316 Housings Connects to most Safety Relays to give up to PLe Cat.4 IP69K suitable for SIP and CIP Processes Will fit on 50mm frame sections or where space is restricted 4NC Safety Contacts independently selectable

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

175mm Standard 100mm Heavy Duty

2.5 x 10<sup>6</sup> operations at 100mA load

#### Safety Classification and Reliability Data:

Mechanical Reliability B10d

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 PFHd

35 years Proof Test Interval (Life) MTTFd 356 years

Solenoid Voltage (by Sales Number) 24V ac/dc or 110Vac or 230Vac Solenoid Wattage

12W LED2 Supply Voltage 24Vdc

Utilization Category AC15 A300 3A

Thermal Current (lth) 5A

10mm

600mm/s

IP69K IP67

Rated Insulation/Withstand Voltages

Travel for Positive Opening

Actuator Entry Minimum Radius Maximum Approach/Withdrawal Speed

Holding Force Body Material Enclosure Protection

Operating Temperature -25C +50C

Vibration

IEC 68-2-6 10-55Hz + 1Hz Excursion 0.35mm 1 octave/min Conduit Entry Various (See Sales Number)

Stainless Steel 316

F1Max 2000N Fzh 1538N

600Vac/2500Vac

Fixing 4 x M5

#### INSERTION OF ACTUATOR

6.0 5.0

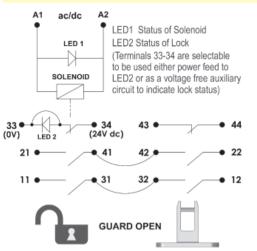
0mm

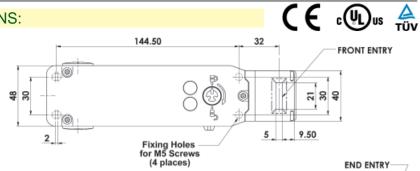
11/12	Open	
21/22	Open	
33/34		Open
43/44		Open

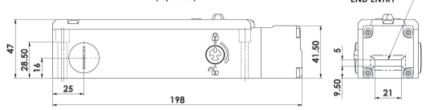
For all IDEM switches the normally closed (NC) circuits are closed when the guard is closed actuator inserted.

# Guard Locking Switch Stainless Steel Type: HYGIELOCK KL4-SS

### SCHEMATIC CIRCUIT & DIMENSIONS:





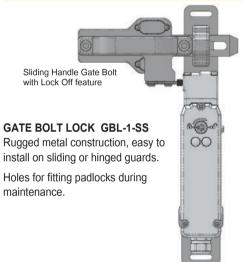






Quick Connect (QC) M23 12 Way Male Plug Connector Length 24mm Pin View from Switch	Switch Circuit		
1 3	A1 A2		
4 6	11/12		
7 8	21/22		
2 5	43/44		
9	33		
10	34		
Earth	12		

# ACCESSORIES (see p70-75)





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



2 colour LED (3 wires) Steady Red and Steady Green. Fits to conduit entry and provides option for LED indication based upon switch contacts.



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

STAINLESS STEEL 316 GLAND	SALES NUMBER		
M20	140120		
1/2" NPT	140121		



IDEM recommend using our Stainless Steel 316 Gland with this switch.

# STANDARD MANUAL RELEASE LID AND SIDE

	LID ONL	Y (Not s	SIDE)
H	1-8:18	(a) e	
		- 14	11 1

MANUAL RELEASE

9/1

NO MANUAL RELEASE

SALES NUMBER	SOLENOID VOLTAGE	M20	1/2" NP I	QC M23	M20	1/2" NP I	QC M23	M20	1/2" NP I	QC M23
Kobra KL4-SS Switch	24V ac/dc	209001	209002	209003	209401	209402	209403	209301	209302	209303
Kobra KL4-SS Switch	110V ac	209004	209005	209006	209404	209405	209406	209304	209305	209306
Kobra KL4-SS Switch	230V ac	209007	209008	209009	209407	209408	209409	209307	209308	209309

Kobra Actuator	Standard	Add	A to Sales Part Number
Kobra Actuator	Flat	Add	F to Sales Part Number
Kobra Actuator	Heavy Duty Flexible	Add I	HF to Sales Part Number
Kobra Actuator	S/Steel Heavy Duty Flexible	Add H	HFH to Sales Part Number
Momentary Request Push Button (fitted to Lid)		Add	PB to Sales Part Number

1 x Changeover Contact Common - Closed/Open

Manual Release Key

(order separately - not supplied with switches)

Sales Number: 140123

#### **Ordering Examples:**

24V Solenoid M20 Conduit Standard Manual Release Flat Actuator: Sales Number: 209001-F

110V Solenoid 1/2" NPT Conduit No Manual Release Push Button Standard Actuator: Sales Number: 209305-A-PB 24V Solenoid M20 Conduit Standard Manual Release S/Steel Heavy Flexible Actuator: Sales Number: 209301-HFH