

KOBRA - Stainless Steel Switch: HYGIECAM K-SS

FEATURES:

IDEM's HYGIECAM Series of Interlock Switches have a rugged Stainless Steel 316 body and have been designed to cope with the rigorous applications of the Food Processing, Pharmaceutical, Packaging and Petro-Chemical Industries.

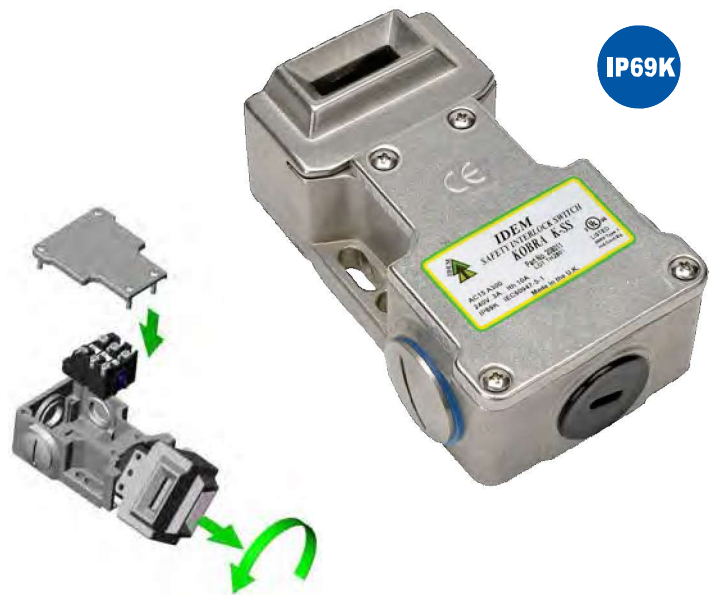
They have IP69K enclosure protection (maintained by a double seal lid gasket and seals) and can be high pressure hosed with detergent at high pressure and high temperature.

Designed to fit to the leading edge of sliding, hinged or lift off machine guards. They provide a forced disconnect of the safety contacts at the withdrawal of the actuator and have an anti-tamper mechanism.

The head can be rotated to give 4 actuator entry positions. For extra durability, Flexible Actuators are available.

Contact blocks are replaceable with optional explosion proof versions.

Sealed to IP69K and survive most caustic wash down solutions.



FUNCTIONAL SPECIFICATIONS:

Positive Break Contacts to EN60947-5-1

High Functional Safety to ISO13849-1

3 pole, 4 pole or Explosion Proof Contact Blocks

Stainless Steel 316 Body and External Fixings

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

Industry Standard Housing - will fit on 40mm fixing centres

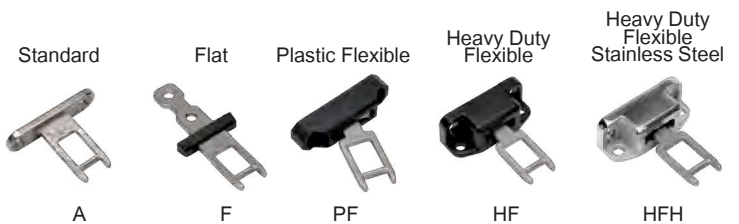
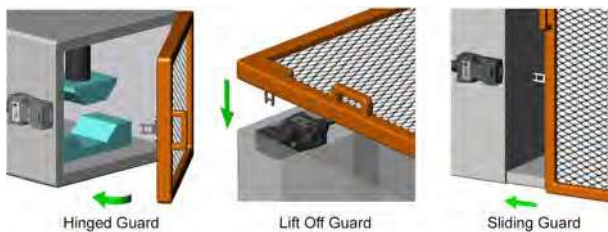
IP69K - suitable for SIP and CIP Processes

The head can be rotated to give 4 actuator entry positions.

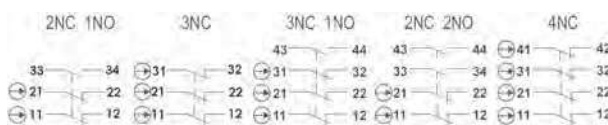
Designed with a removable lid to fit replaceable contact blocks.

For extra durability flexible actuators are available.

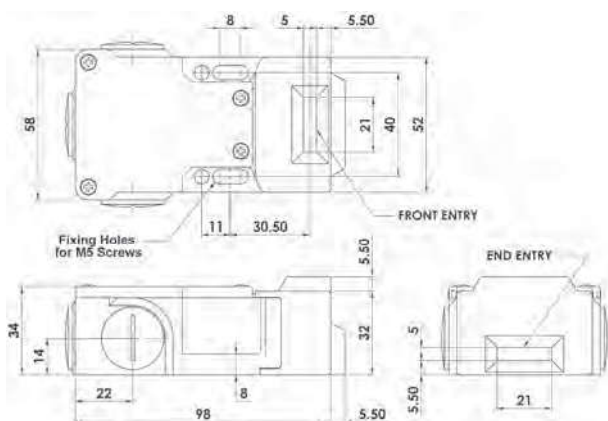
ACTUATOR OPTIONS (see p154)



CONTACT BLOCK OPTIONS:



DIMENSIONS:



PRE-WIRED EXPLOSIVE ENVIRONMENTS:



CLASSIFICATION:

Exd IIC T6 (-20 ≤ Ta ≤ +60°C) Gb

Ex tb IIIC T85C (-20 ≤ Ta ≤ +60°C) Db

Standards: ISO14119 EN60947-5-1 EN60204-1
ISO13849-1 EN62061 UL 60947-5-1

Technical Specification:

Mechanical Reliability B10d	2.5 x 10 ⁶ 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
Utilization Category	AC15 A300 3A
Thermal Current (Ith)	10A
Rated Insulation/Withstand Voltages	500Vac/2500Vac
Travel for Positive Opening	8mm
Actuator Entry Minimum Radius	175mm Standard 100mm Flexible
Maximum Approach/Withdrawal Speed	600mm/s
Body Material	Stainless Steel 316
Head Material	Stainless Steel 316
Enclosure Protection	IP67 IP69K
Operating Temperature	-25C +80C
Vibration	IEC 68-2-6 10-55Hz + 1Hz
	Excursion 0.35mm 1 octave/min
Conduit Entry	Various (See Sales Number)
Fixing	4 x M5

KOBRA - Stainless Steel Switch: HYGIECAM K-SS

CONTACT OPERATION AT WITHDRAWAL OF ACTUATOR:

2NC 1NO	6.8 6.0 0mm	3NC 1NO	6.8 6.0 0mm	4NC	6.0 0mm	2NC 2NO	6.8 6.0 0mm
11/12	Open	11/12	Open	11/12	Open	11/12	Open
21/22	Open	21/22	Open	21/22	Open	21/22	Open
33/34		31/32	Open	31/32	Open	33/34	Open
	Open	43/44		41/42	Open	43/44	Open

ACCESSORIES (see p155)

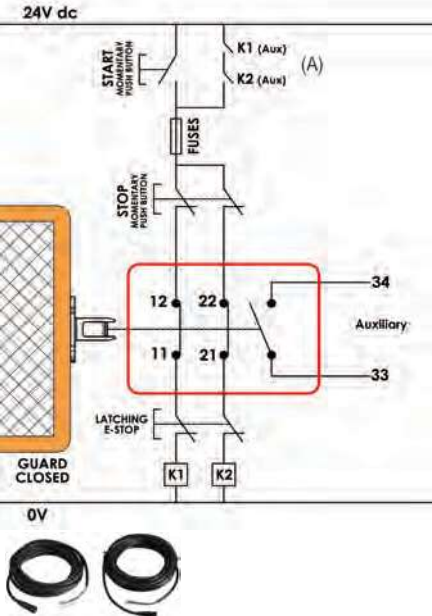
Maintenance Lockout Actuator





Flat Actuator supplied with 300mm (12") chain.
Can be used where poor alignment exists and provides manual insertion of actuator by operator.

APPLICATION EXAMPLE



Guard Door Interlocked - Dual Channel (Non Monitored)

This system shows interlock switch circuits 11-12 and 21-22 configured to allow direct feed to contactor coils K1 and K2.

This provides Dual Channel wiring and a check of the contactor feedback circuits through the auxiliary contacts (A) of K1 and K2.

Opening the interlock switch or depressing the Emergency Stop will isolate power to the contactor coils.

Re-start can only occur providing the Guard is closed, and the Emergency Stop is reset.

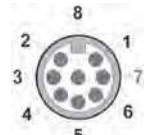
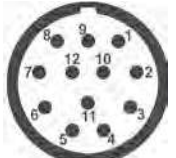
The system is shown with the Machine Stopped, the Guard Closed and the contactors able to be energised.

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



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

FEMALE QC LEADS	LENGTH	SALES NUMBER
M12 8 Way	5m (15ft)	140101
M12 8 Way	10m (30ft)	140102
M23 12 Way	5m (15ft)	140143
M23 12 Way	10m (30ft)	140144



Quick Connect (QC) M23 12 Way Male (connector length 26mm) Pin View from Switch	Switch Circuit	Quick Connect (QC) M12 8 Way Male (on Flying Lead 250mm) Pin View from Switch
1 3	11/12	1 7
4 6	21/22	6 5
7 8	33/34 or 31/32	4 3
9 10	41/42 or 43/44	
12	Earth	8

SALES NUMBER	CONTACTS	M20	1/2" NPT	QC M23 12 WAY	QC M12 8 WAY
Kobra K-SS Switch	2NC 1NO	208001	208002	208003	208021
Kobra K-SS Switch	3NC	208004	208005	208006	208022
Kobra K-SS Switch	3NC 1NO	208007	208008	208009	
Kobra K-SS Switch	2NC 2NO	208010	208011	208012	
Kobra K-SS Switch	4NC	208013	208014	208015	
Kobra K-SS Switch	1NC 1NO Ex	208016	3m 4 Core Ex		
Kobra K-SS Switch	2NC Ex	208019	3m 4 Core Ex		
Kobra K-SS Switch	2NC 2NO Ex	208026	3m 8 Core Ex		
Actuator	Standard	Add A	to Sales Part Number		
Actuator	Flat	Add F	to Sales Part Number		
Actuator	Plastic Flexible	Add PF	to Sales Part Number		
Actuator	Heavy Duty Flexible	Add HF	to Sales Part Number		
Actuator	Heavy Duty S/Steel	Add HFH	to Sales Part Number		
Actuator Holding 40N (3 pole versions only)		Add 40N to Sales Part Number			

Ordering example: Kobra K-SS M20 3NC 1NO with Standard Actuator:
Sales Number: 208007-A
Gold Plated Contacts available for low power circuits (5V 5mA).
Add GC to Sales Number e.g. 208001-A-GC

Also available with 3NO Contacts for use as indication purposes only.
Please contact us for further information.

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