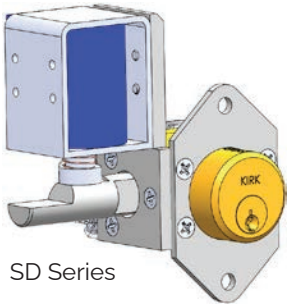
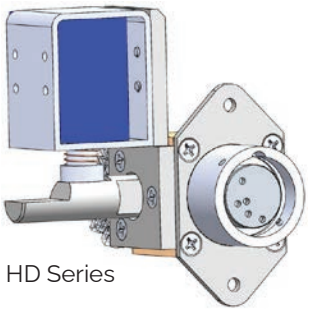
Type SKPM Isolation Interlock

Solenoid Key Panel Mounted



SD Series



HD Series

The Type SKPM is a single cylinder interlock. Similar to the standard, unhoused SKRU in function, the SKPM is more compact and is ideal where space is limited. The SKPM is designed to permit removal of the interlock key in response to an electric signal. However, instead of utilizing a terminal block, the SKPM is arranged so that the customers leads are wired directly to the solenoid and to the auxiliary switches. The SKPM is designed so that the key is removable only when the solenoid is energized.

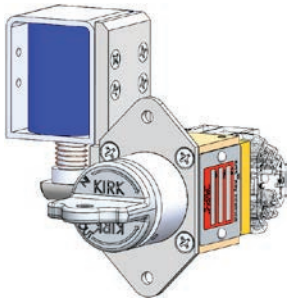
OPERATION

KIRK Type SKPM solenoid interlocks are mechanically operated and suitable for the isolation or switching of control circuitry.

Type SKPM Isolation Interlock Solenoid Key Panel Mounted

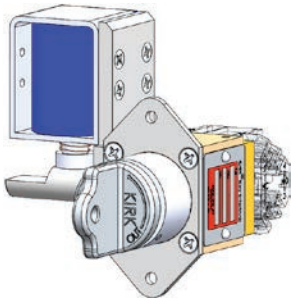
1

Key is trapped, control circuitry is powered on.



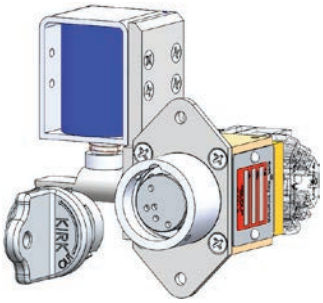
2

Turn the key, changing the state of power. Key is now released.



3

Power is isolated, and key can be taken to next sequential step in the interlock system.



Type SKPM Isolation Interlock

Solenoid Key Panel Mounted

USAGE

KIRK Type SKPM interlock should be used on equipment as an electrical barrier to switch controls, push buttons, or levers. KIRK solenoid interlocks ensure that only once a signal is received to the interlock can the key be turned and removed based on the desired position as defined by the end user's safety process and following the operations of the interlock, the switch is now blocked from changing state until the procedure is reversed.

KIRK solenoid interlocks are not designed to serve as an access interlock into hazardous areas.

No hazardous substances were used in the manufacturing of the product. The product can be disposed of in standard waste receptacles.

INSTALLATION

The KIRK Type SKPM solenoid interlock is panel mounted within equipment. Proper installation and connection of wiring is a critical element of a key interlock system. After installation of the solenoid interlock, the complete interlock system should be tested sequentially by person(s) familiar with the entire system, the key sequence, and its intended purpose. Any problems or discrepancies must be corrected prior to energization.

SD series (brass) interlocks are supplied with a key in each cylinder. These keys are needed during installation of the interlocks.

HD series (stainless steel) interlocks are not sold with keys. Keys must be ordered separately and may be required during the installation process.

For all interlock systems to maintain system integrity, additional keys must be removed from the system and destroyed or retained by a responsible person. There should only be enough keys to operate the interlock system sequentially. Kirk Key Interlock Company will not be responsible for extra keys left in the interlock system.

All interlocks and interlock systems must be installed by a competent and qualified person who has read and understood these instructions. Please retain this document in your technical files.

MAINTENANCE

Kirk key interlocks should be periodically lubricated with a small amount of dry powder graphite. DO NOT use oil or grease of any type as these will collect dirt and impede the proper operation of the lock cylinder.

SD SERIES: Apply a small amount of graphite to the key and insert the key into the lock cylinder. Work the key in an out and turn the key several times in order to distribute the graphite inside the lock cylinder.

HD SERIES: Apply a small amount of graphite behind the inner turn shaft. Insert and turn the key a few times in order to distribute the graphite below the lock cylinder.

KIRK offers a Graphite Lubrication kit (part# GL-1) complete with instructions for use.

Protective covers for most products are also available as accessories. Covers can be utilized to protect the lock cylinders when located outdoors or in a demanding environment.

Type SKPM Isolation Interlock

Solenoid Key Panel Mounted

TECHNICAL DATA

Type PPS	SD Series	HD Series
Cylinder Housing	Brass	Stainless Steel
Plug/Inner Turn Shaft	Brass	Stainless Steel
Key Material	Nickel-Silver	Stainless Steel
Key Style	7-Pin Tumbler	Dowel Pin
Type of Mounting	Panel mounted	
Temperature Ratings	-13F to 100F	-13F to 100F
Weight*	2.65lbs/1.20kg	2.65lbs/1.20kg
Certifications	Switch is UL listed	

* Weight of SKPM unit based on product with no key, accessories, or mounting hardware.

	Solenoid Voltage	Coil Resistance	VA Rating	Nominal Current Ratings (AMPS)	Max. Current Rating (AMPS)	In Rush Current
AC	24 VAC	163 OHMS	10	0.083A	0.098A	0.55A

* Each SKPM is furnihsed with two tandem mounted Square D Class 9001 KA1 contact blocks for a total of 2NO/2NC auxiliary contacts.

* The 9001 KA1 contact block is not intended to be utilized in the solenoid circuit. If your safety process requirements call for auxiliary contacts to break the signal to the solenoid, a KIRK SKRU should be implemented into your interlock safety solution.

	Solenoid Voltage	Coil Resistance	Nominal DC Power	Nominal Current Ratings (AMPS)	Max. Current Rating (AMPS)
DC	24 VAC	50 OHMS	11.5 W	0.48A	0.533A
	125 VDC	1358 OHMS	11.5 W	0.092A	0.102A
	48 VDC	201.6 OHMS	11.5 W	0.238A	0.265A

* Each SKPM is furnihsed with two tandem mounted Square D Class 9001 KA1 contact blocks for a total of 2NO/2NC auxiliary contacts.

* The 9001 KA1 contact block is not intended to be utilized in the solenoid circuit. If your safety process requirements call for auxiliary contacts to break the signal to the solenoid, a KIRK SKRU should be implemented into your interlock safety solution.

Type SKPM Isolation Interlock

Solenoid Key Panel Mounted

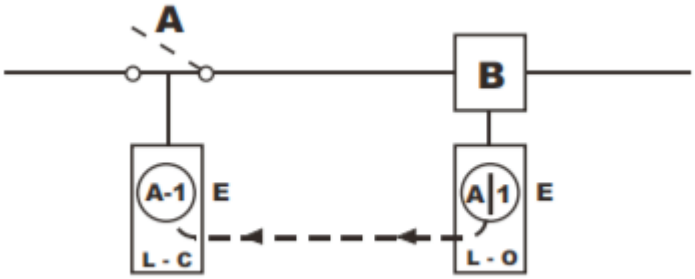
APPLICATION

The Type SKPM solenoid interlocks are used as part of safety systems suitable for the control of electrical switchgear.

The interlock application scheme 1 from the KIRK scheme book is to prevent the opening of switch A when breaker B is closed.

Initial system status: Power is on and Switch A and Breaker B are in the closed position. Key A-1 is held in Breaker B Type SKPM solenoid interlock.

To begin maintenance of switchgear system, a signal is sent to Type SKPM indicating isolation power to Breaker B. Turn key A-1 in L-O (locked open) SKPM solenoid interlock on Breaker B to lock open. Key A-1 is now free. Insert key A-1 into L-C (locked closed) bolt interlock on Switch A and turn and unlock. Open Switch A and key A1- is now trapped.

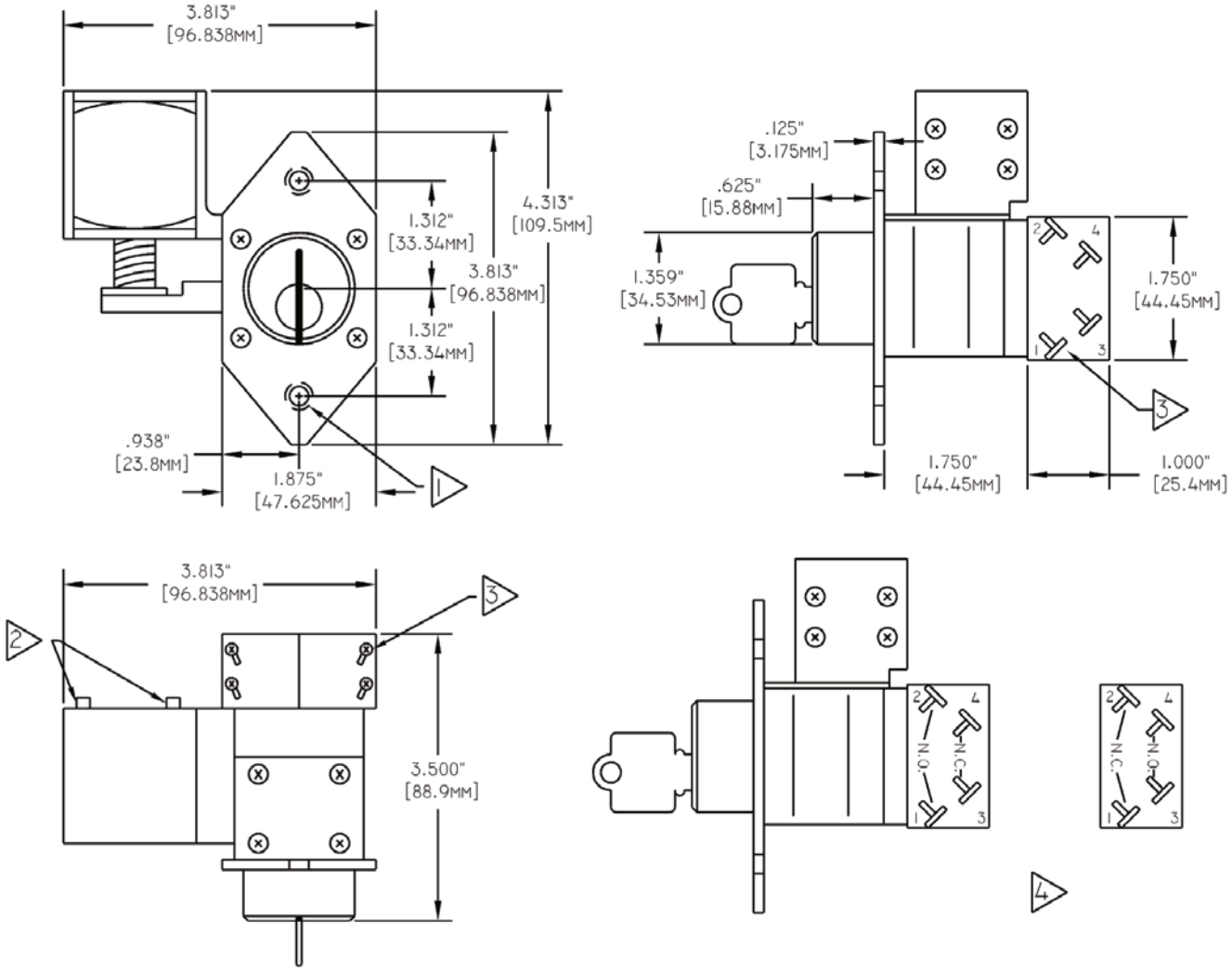


Type SKPM Isolation Interlock
Solenoid Key Panel Mounted

DRAWING

Dimensions: in inches

SD Series Type SKPM



NOTES:
1) 1/4"-20 tapped mounting holes (2 holes).
2) .187 QC terminals.
3) Contact block terminal screws (8 screws).
4) Contact Arrangement: On the left is the contact position with the solenoid de-energized and key trapped - contacts 1 & 2 are open, 3 & 4 are closed. On the right is the contact position with the solenoid energized and the key released - contacts 1 & 2 are closed, 3 & 4 are open.

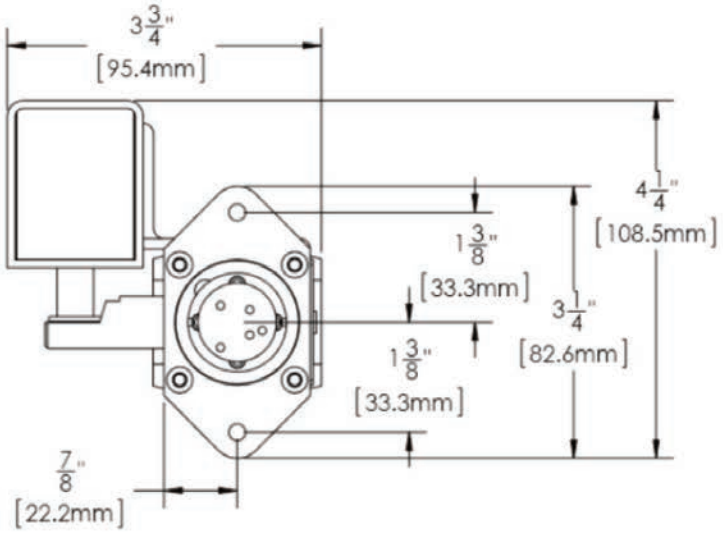
Type SKPM Isolation Interlock

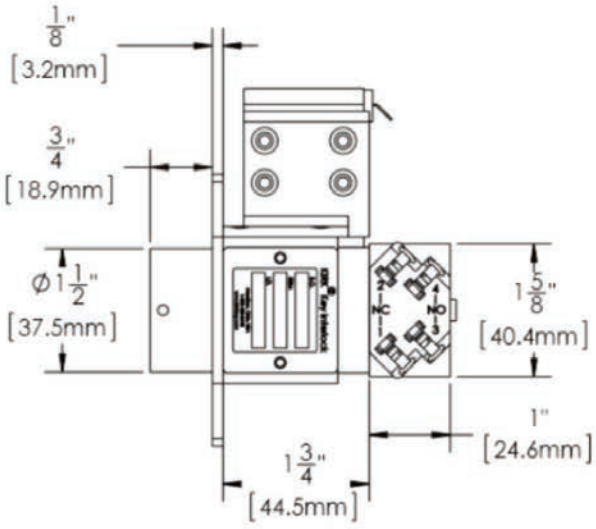
Solenoid Key Panel Mounted

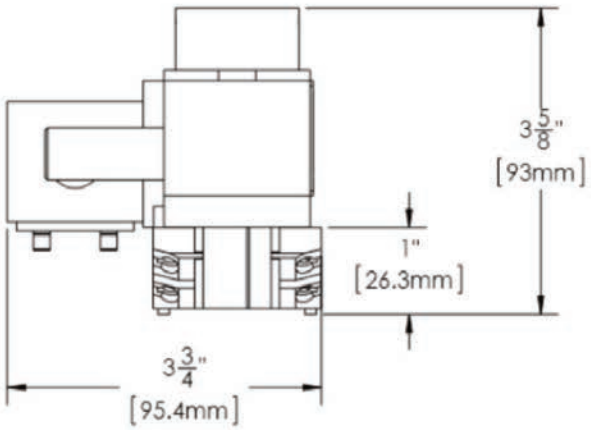
DRAWING

Dimensions: in inches

HD Series Type SKPM

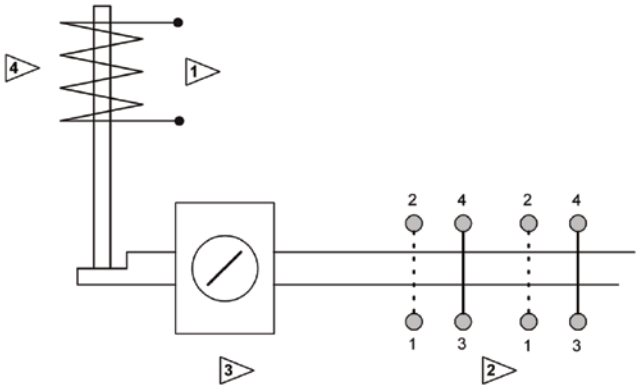


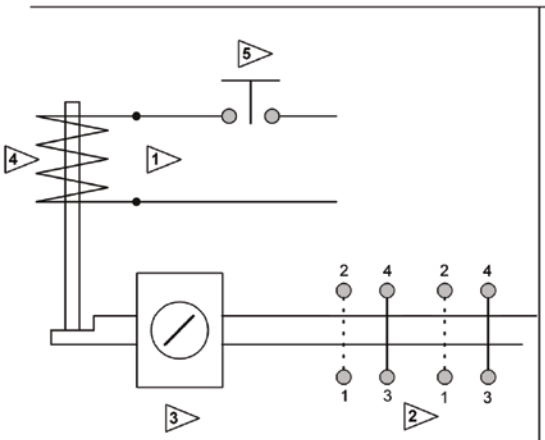


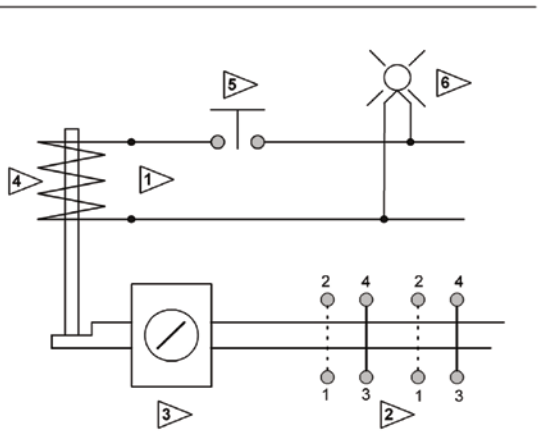


WIRING DIAGRAM

Type SKPM







NOTES:
1) Solenoid contact terminals.
2) Auxiliary contacts: two Square D Class 9001 KA1 contact blocks. Contacts 1-2 normally open and contacts 3-4 normally closed. The contacts change state when, after the solenoid is energized, the key is turned and removed.
3) KIRK® key interlock - key is normally retained in lock. Key is removable when solenoid is energized.
4) Solenoid (normally de-energized).
5) Optional pushbutton - close to energize solenoid.
6) Optional signal lamp indicates when solenoid is energized.
7) Do not wire the solenoid circuit through the SKPM aux contacts.

Type SKPM Isolation Interlock

Solenoid Key Panel Mounted

ORDER INFORMATION

	1	2	3	4	5	6	7	8	9	10	11
Part number		S	K	P	M				S		

1	**Series**	**K** = SD Series (brass)			**S** = HD Series (stainless)
6	**Solenoid Voltage**	**Switch Ratings for both series**			
		1	120VAC		
		2	24VDC		
		3	125VDC		
		4	48VDC		
		5	250VDC		
		6	240VAC		
		7	24VAC		
7	**LED Signal Light**	**—** = No			
		1 = Yes			
8	**Push Button**	**—** = No			
		1 = Yes			
9	**Stamped Key Interchange** max. 5 alphanumeric characters	**S** = Yes			HD Series Stamp key interchange on Key only, unless flip cover is selected
10	**Mounting Bolts** see mounting bolt data sheet	**—** = No		**T** = Tamperproof	
11	**Protective Covers** see protective covers data sheet	**—** = No	**C** = Push On	**F** = Flip Open	**—** = No **F** = Flip Open with LOTO provision

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