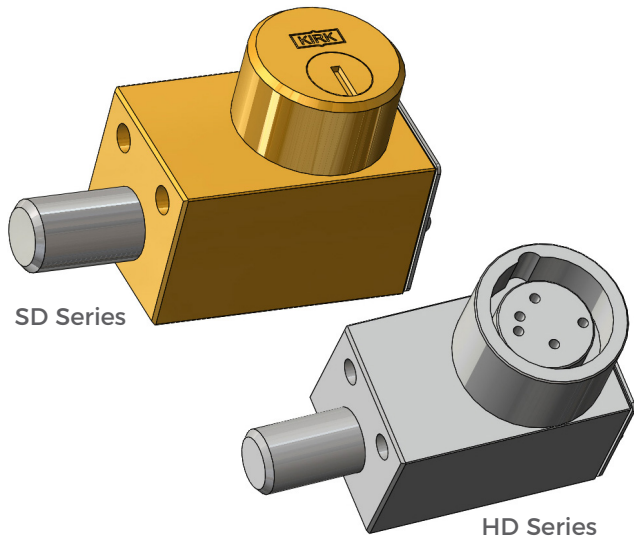


# Type FN Isolation Interlock



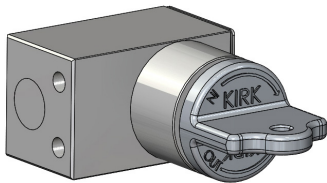
KIRK Type FN interlock is a key operated mechanical interlock that is suitable for the control of electrical switchgear. The standard unit comes with a stainless steel 5/8" diameter locking bolt with a throw or travel of 3/4". The locking bolt is used to control the rotation or movement of operating handles or toggles of electrical switchgear. Many suppliers of switchgear equipment have mounting provisions available for KIRK interlocks.

## OPERATION

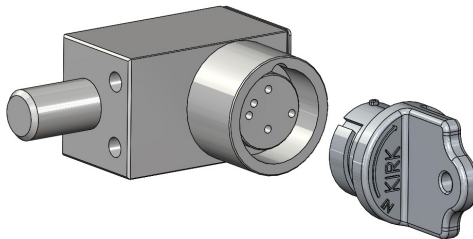
KIRK Type FN interlocks are mechanically operated and suitable for the control of electrical switchgear and to inhibit movement of cams, toggles, or levers.

### Type FN key operated mechanical isolation interlock

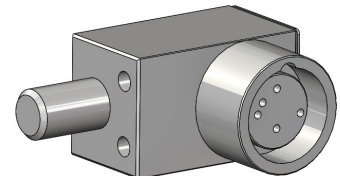
**1** Key is trapped, bolt is withdrawn.



**2** Change state of power, turn key, which extends bolt, releasing key.



**3** Bolt is now a physical barrier to switch and key is free to move to the next sequential interlock in the safety process.



The length of the bolt is available in various lengths to suit each unique application. The travel of the bolt is always 3/4"

For HD multiple cylinder interlocks, all missing keys must be inserted and turned before any trapped keys can be released.


# Type FN Isolation Interlock



## USAGE

The KIRK Type FN is designed for smaller spaces as the housing is narrower than the Type F interlock.

KIRK bolt interlocks should be used on equipment as a physical barrier to electrical switches, push buttons, or levers. KIRK bolt interlocks ensure that once the equipment is switched into 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 isolation 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 FN is mounted through the end of the housing. Proper installation of bolt interlocks is a critical element of a key interlock system. It is essential that each interlock be mounted so that the 5/8" lock bolt cannot be extended unless the equipment on which it is mounted is in the proper position/condition. After installation of the bolt interlocks, 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. SD series (brass) bolt interlocks with multiple cylinders require the insertion of all keys before the lock bolt can be extended or withdrawn. Do not try to force a multiple cylinder interlock that does not have the correct keys fully inserted in every cylinder!

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 FN Isolation Interlock



## TECHNICAL DATA

Type FN	SD Series	HD Series
Interlock Housing	Brass	Electropolished 316 SS
Cylinder Housing	Brass	Electropolished 316 SS
Plug/Inner Turn Shaft	Brass	Electropolished 316 SS
Key Material	Nickel-Silver	Electropolished 316 SS
Key Style	7-Pin Tumbler	Dowel Pin
Lock Bolt	303 SS	Electropolished 316 SS
Type of Mounting	Mounted through the end of the housing using suitable fasteners. Refer to drawing for details.	
Temperature Ratings	-65F to +250F	-65F to +700F
Weight	1.68 pounds	1.47 pounds

\* Weight based on product with 1 cylinder, 0" bolt length, no key, accessories, or mounting hardware

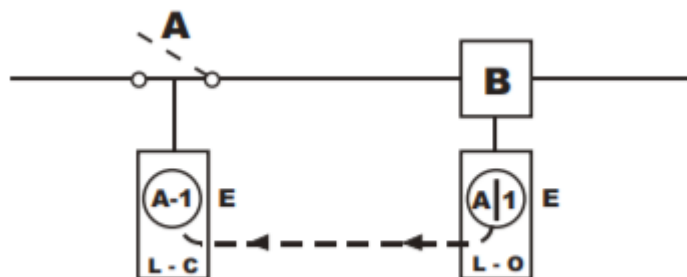
## APPLICATION

The Type FN 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 FN interlock.

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



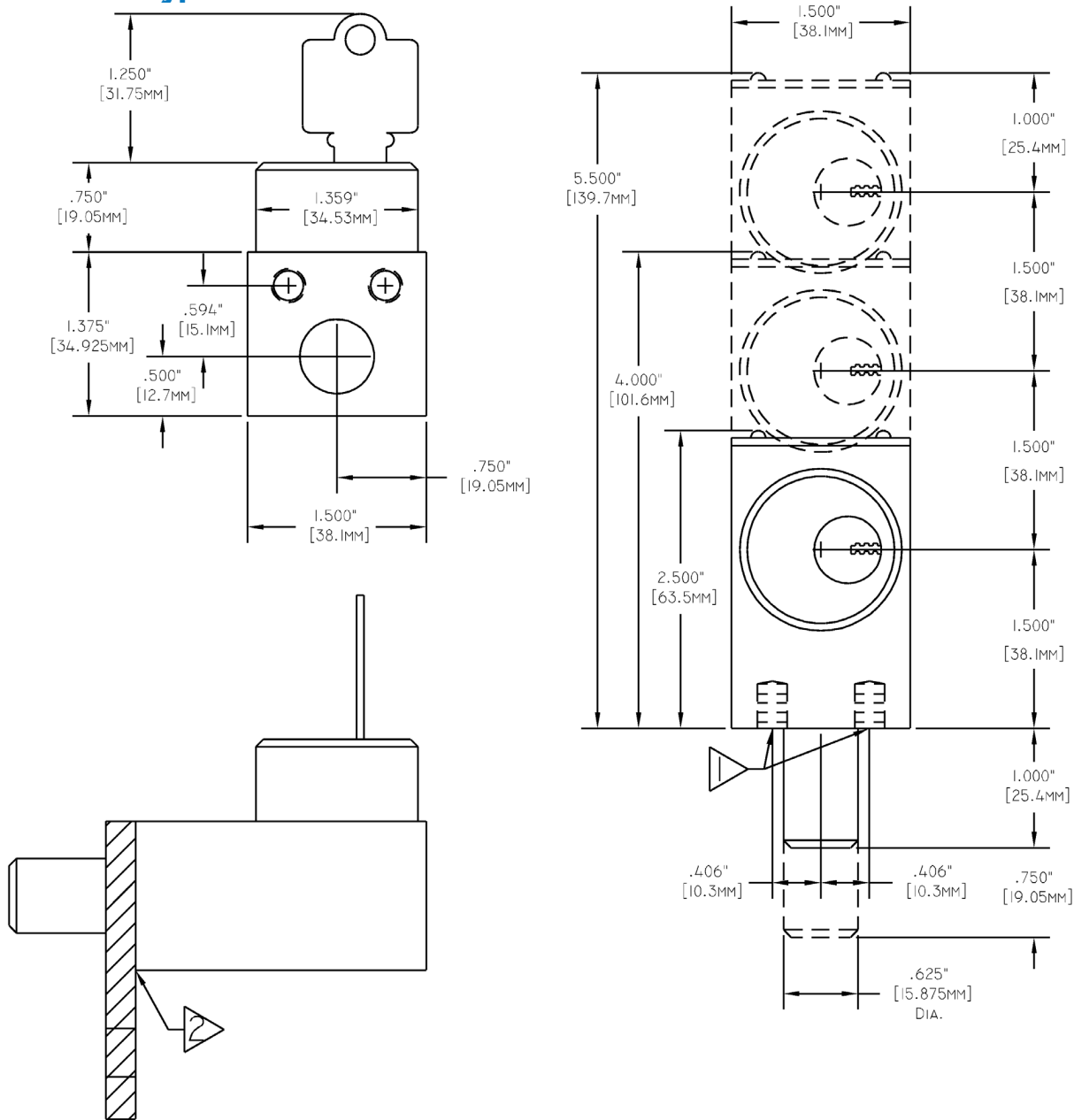
# Type FN Isolation Interlock



## DRAWING

Dimensions: in inches

### SD Series Type FN



#### NOTES:

- 1) 1/4"-20 x 3/8" (9.525mm) deep for mounting (2 holes).
- 2) Optional FN adapter plate (see SD Series Data Sheet 3.3 for details).

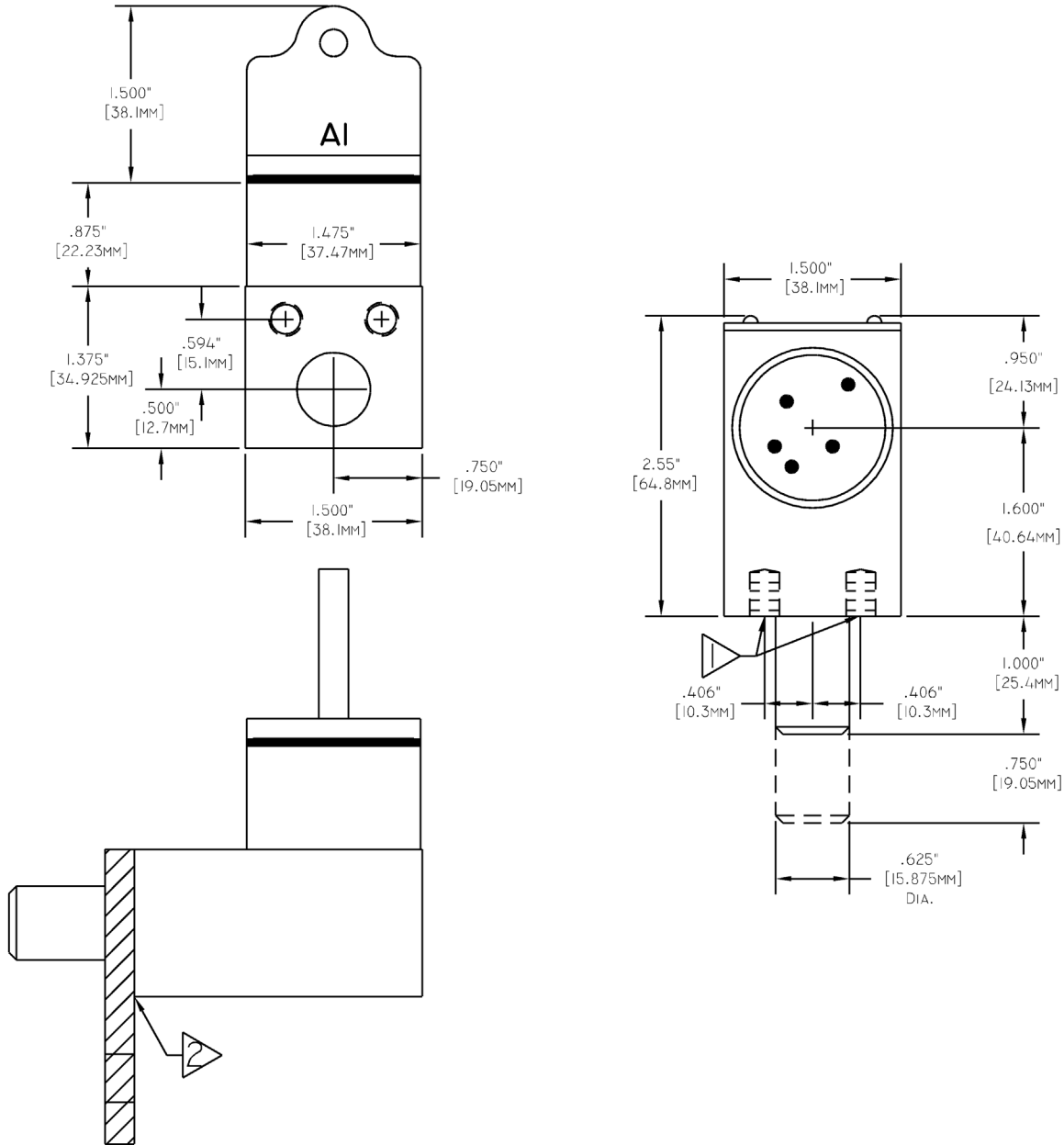
# Type FN Isolation Interlock



## DRAWING

Dimensions: in inches

### HD Series Type FN



#### NOTES:

- 1) 1/4"-20 x 3/8" (9.525mm) deep for mounting (2 holes).
- 2) Optional FN adapter plate (see HD Series Data Sheet 3.3 for details).

# Type FN Isolation Interlock



## ORDER INFORMATION

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>
Part number		F	N											

1	Series	K = SD Series (brass)						S = HD Series (stainless)					
4	Auxiliary Switch	0 = none A = 2 N/O 1 N/C			Only available for single cylinder			Auxiliary switch option not available for HD series					
5, 6, 7	Bolt Projection (in withdrawn position)  Maximum bolt projection for both series is 7"	Bolt projection for both series											
		0	0	0	0", 0 mm			1	0	0	1", 25.4 mm		
		0	2	5	1/4", 6.4 mm			1	2	5	1-1/4", 31.7 mm		
		0	3	7	3/8", 9.5 mm			1	3	7	1-3/8", 34.9 mm		
		0	5	0	1/2", 12.7 mm			1	5	0	1-1/2", 38.1 mm		
		0	6	2	5/8", 15.8 mm			2	0	0	2", 50.8 mm		
		0	7	5	3/4", 19.1 mm			3	0	0	3", 76.2 mm		
8, 9	Cylinder(s) Multiple cylinders require longer lead times. Please consult our sales team.	SD Series - max cylinders 3						HD Series - max cylinders 3					
		1	0	= E 1 CYL			1	0	= E 1 CYL				
		1	1	= W 1 CYL			1	1	= W 1 CYL				
		2	0	= EE 2 CYL			2	0	= EE 2 CYL				
		2	1	= EW 2 CYL			2	1	= WE 2 CYL				
		3	0	= EEE 3 CYL			3	0	= EEE 3 CYL				
		3	1	= EEW 3 CYL			3	1	= WEE 3 CYL				
3	2	= EWW 3 CYL			3	2	= WWE 3 CYL						
10	Stamp Key Interchange	- = No S = Yes			Stamp Key interchange only available for HD series when protective Flip Open Cover is added								
11	Opposite Hand	- = No H = Opposite Hand			Opposite hand not available for HD Series								
12	Protective Covers see protective covers data sheet	- = No C = Push On F = Flip Open			- = No F = Flip Open with LOTO provision								
13	Mounting Bolts see mounting bolt data sheet	- = No M = Hex T = Tamperproof											
14	Adapter Plate	- = No P = Adapter Plate			see adapter plate data sheet for more information								

# Type FN Isolation Interlock



## ACCESSORIES

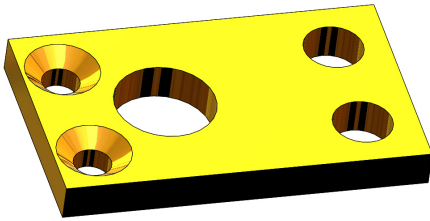
### FN Plate

The FN Plate is made of brass or 316 stainless steel and fastened to the end of a Type FN interlock to allow for alternative mounting options. The thickness of the FN plate is ¼".

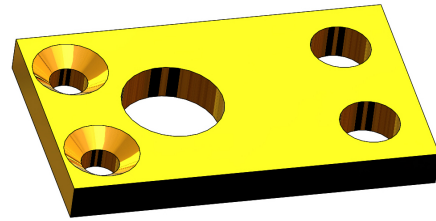
To order with the Type FN, indicate the letter "P" in column 14 of the Type FN ordering guide.

See Adapter Plate data sheet for technical data or to order adapter plate separately.

SD



HD



## CONTACT INFORMATION

### The Kirk Key Interlock Company LLC

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Toll Free: +1 800-438-2442 O: +1 234-209-9301 F: +1 330-497-4400

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