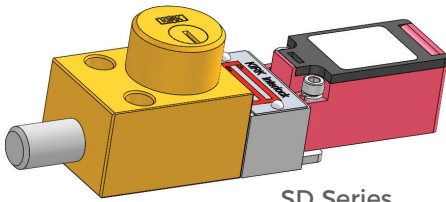


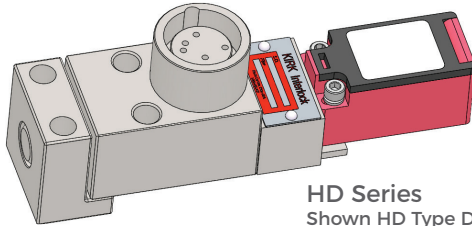
# Thermoplastic Bodied Switch



Part of the  
Sentric Group



SD Series  
Shown SD Type F with  
Thermoplastic Bodied Switch



HD Series  
Shown HD Type D with  
Thermoplastic Bodied Switch

A KIRK interlock equipped with a Thermoplastic Bodied Switch in an interlock system provides remote indication of the lock bolt position or to switch control circuitry. The Thermoplastic Bodied Switch electrical contacts are available in 2 N/O 1 N/C or 4 N/O 2 N/C contacts. This switch body provides the best protection against water ingress.

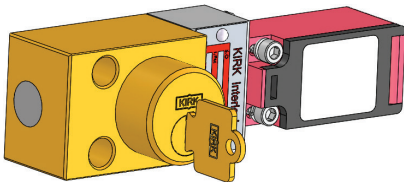
A Thermoplastic Bodied Switch can be added to a KIRK Type F, Type B, Type T, Type FN, Type D, and Type DM interlock.

## OPERATION

KIRK interlocks equipped with Thermoplastic Bodied Switches are mechanically operated and suitable for the control of electrical switchgear to break circuitry and inhibit movement of cams, toggles, or levers.

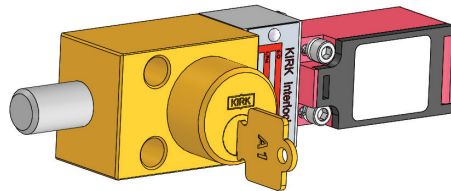
### Thermoplastic Bodied Switch

#### 1 Key is trapped, bolt is withdrawn



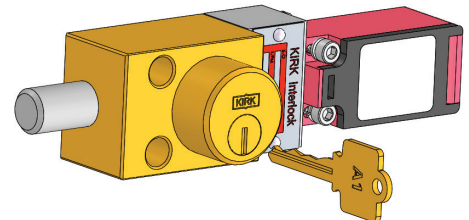
While the power is on, the key is trapped and the bolt is retracted.

#### 2 Change state of power, turn key, which extends bolt and changes the switch contacts condition. Key can be released



Turning the key drives the bolt to extended position, e.g. locking off the movement of a disconnecter. Turning the key also changes the contacts in the Thermoplastic Bodied Switch, which is connected to a display. The display then indicates that the access can be gained in the machine area.

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



### Contact Status for switch when used with KIRK Type F, Type B, Type T, Type FN & Type D

The contacts respond directly to the movement of the locking bolt when the key is turned. The contacts change state when the key is turned and the lock bolt is extended. When ordering the specific type of interlock;

- Option A comes with 2N/O & 1 N/C 5 amp contacts (locking bolt withdrawn).
- Option B comes with 4 N/O & 2 N/C 5 amp contacts (locking bolt withdrawn).

*For bolt interlocks equipped with Thermoplastic Bodied Switches, the length of the bolt is available in various lengths to suit each unique application. The travel of the bolt is always 3/4".*

Continues on next page.

# Thermoplastic Bodied Switch



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Continued from previous page.

## Contact Status for switch when used with KIRK Type DM

The contacts respond directly to the position of the Type DM latch bolt. When the access point is locked, two sets of contacts are closed and one set is open. When access is unlocked the Thermoplastic Bodied Switch provides 2N/O 1N/C contacts that switch state once access is locked. When ordering the KIRK Type DM;

- Option A comes with 2N/O & 1N/C 5 amp contacts (latch bolt disengaged – access unlocked)

## USAGE

KIRK interlocks equipped with Thermoplastic Bodied Switches should be used to allow safe control of switchgear and disconnect switches.



KIRK interlocks with Thermoplastic Bodied Switches are not designed for security applications.

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

## INSTALLATION

The Thermoplastic Bodied Switch will be mounted to the interlock specified as ordered. Follow installation instructions for the specific interlock to ensure proper installation of the interlock system.

The switch is supplied with a .20 - .35" cable gland installed. A M20 x ½" FIP adapter is supplied with each switch for use with ½" conduit.



Auxiliary switches cannot be field installed.



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

Periodic visual check should be carried out by a site manager or safety officer.



In case of defects, please contact your KIRK interlock sales department for further actions.

# Thermoplastic Bodied Switch



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## TECHNICAL DATA

<b>Enclosure</b>	Thermoplastic, glass fiber reinforced (UL 94-V0)
<b>Hinged Lid</b>	Screwdriver release; opens to 135 degrees
<b>Mechanical Lifecycle</b>	200,000 operations
<b>Cable Entrance</b>	M20 x 1.5 thread
<b>Screw Terminals</b>	Self-lifting clamps numbered in accordance with DIN EN 50013
<b>Rated Insulation Voltage</b>	250V AC
<b>Rated Operational Voltage</b>	240V
<b>Continuous Thermal Current</b>	5 Amp
<b>Forced Disconnect of NC Contacts</b>	To IEC/EN 60947-5-1, Annex K
<b>Ingress Protection</b>	IP65 acc. to EN 60529
<b>Standards</b>	VDE 0660 T200, DIN EN 60947-5-1, IEC 60947-5-1
<b>Approvals</b>	cCSAus B300 (same polarity)
<b>Utilization Category</b>	AC-15, Ue/Ie 240V/1.5A
<b>EU Conformity</b>	CE marked
<b>Temperature Ratings</b>	-30 degrees C (ice free) to +80 degrees C
<b>Weight</b>	2N/O 1 N/C = 9.6oz / 272g and 4 N/O 2 N/C = 16oz / 453g

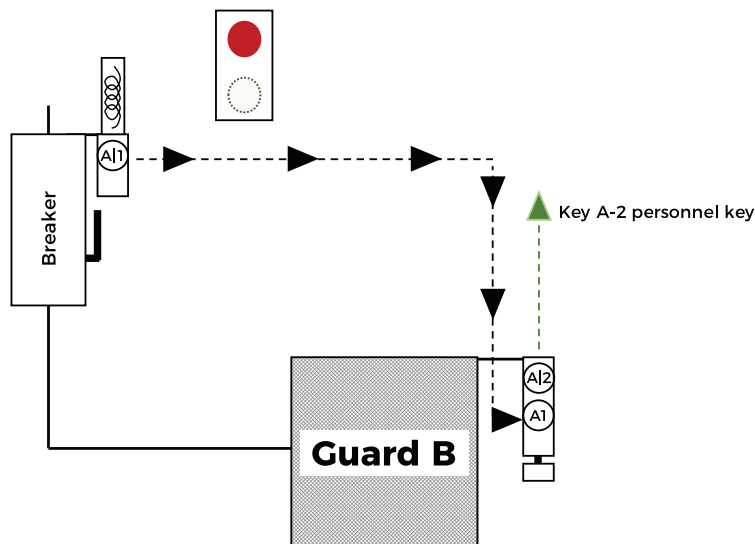
## APPLICATION

KIRK interlocks equipped with a thermoplastic bodied switch are used as part of safety systems suitable for the control of electrical switchgear and power isolation ensuring safe access to hazardous areas.

The interlock application is to prevent the opening of guard B with breaker circuit closed.

Initial system status: Power is on, breaker is normally closed. Key A-1 is trapped in interlock equipped with thermoplastic bodied switch on breaker. Thermoplastic bodied switch contacts are open. "Traffic Light" indicator is RED indicating power is still on and opening of Guard B (door) is not granted. Guard B (door) is locked closed by means of a 2-cylinder Type D interlock.

To safely gain access into guard B, power must first be isolated. Open breaker switch. Turn Key A-1 in interlock on breaker. This extends the interlock bolt, providing a physical barrier to the breaker handle and changes the state of contacts in the thermoplastic bodied switch to closed, sending a signal to the "traffic light" and changing the light to green. Key A-1 is now free. Key A-1 can now be inserted into the Type D interlock on guard B and turned to unlock. Guard B can be opened and Key A-2 can be released and held on personnel until service is completed.



# Thermoplastic Bodied Switch

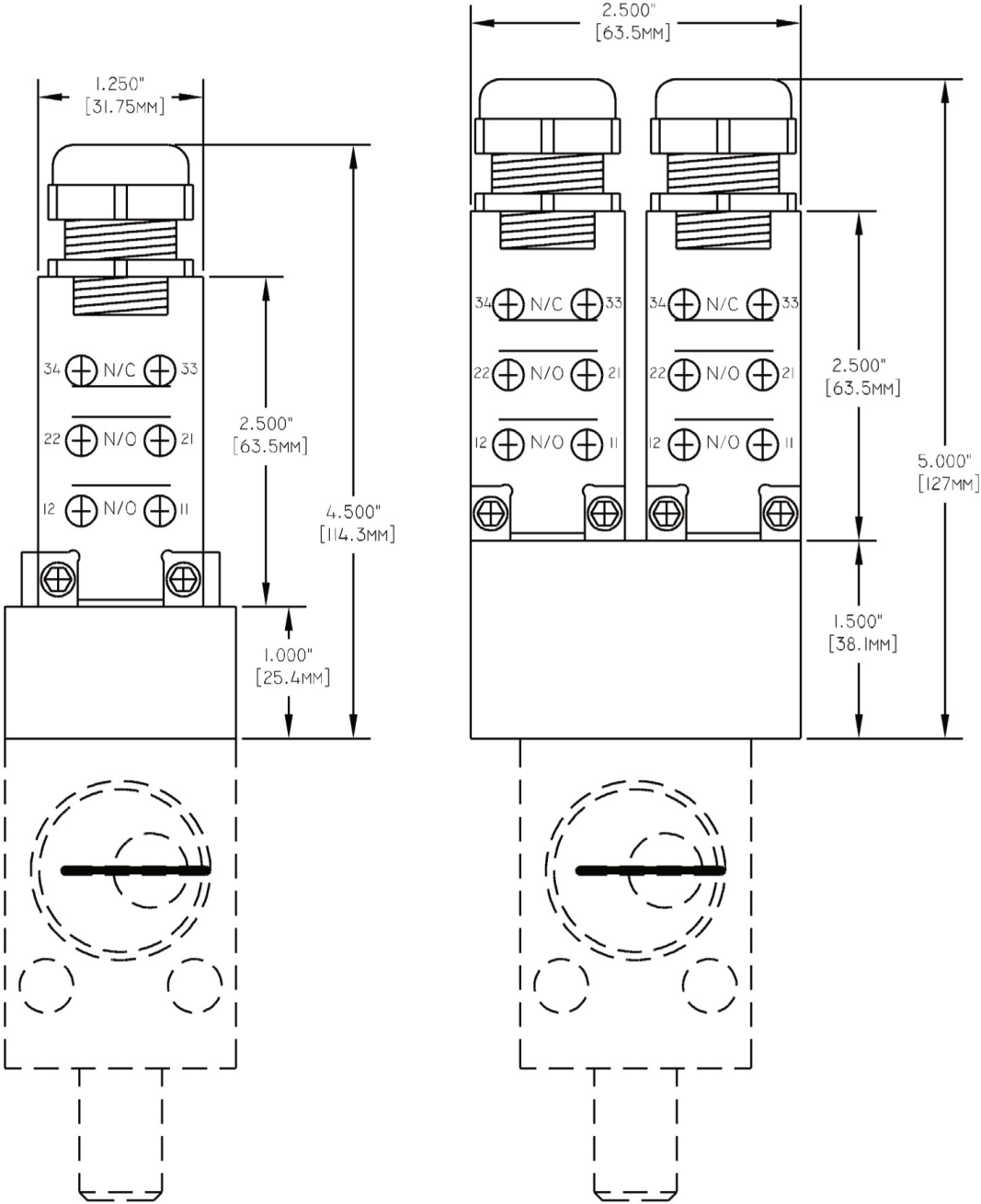


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## DRAWING

Dimensions: in inches

For type F, B, T, FN, & D interlocks



# Thermoplastic Bodied Switch

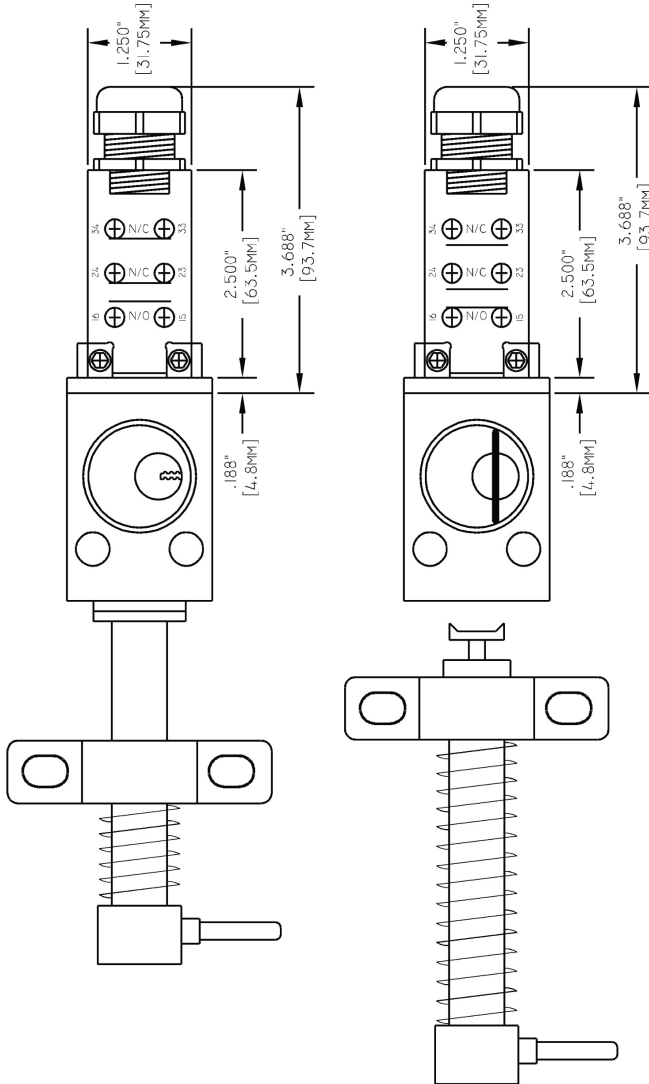


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## DRAWING

Dimensions: in inches

### For type DM interlocks



## ORDER INFORMATION

See ordering guide for **KIRK Type F, B, T, FN, D & DM**

## 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

Quotes & Inquiries: [sales@kirkkey.com](mailto:sales@kirkkey.com) | PO Submission & Orders: [orders@kirkkey.com](mailto:orders@kirkkey.com)