KIRK 316 SERIES INTERLOCKS

Stainless Steel Key Interlocks For Electrostatic Precipitators
Built to Last

The KIRK 316 Series offers a simple, heavy-duty key and cylinder mechanism with no openings and very few moving parts. The shaft driven design helps resist dirt and debris from impeding normal interlock operation. The gasketed key and dust cover further prevent debris from entering the interlock cylinder.

The oversized key is designed to be tough. Precision drivers located on the inner key disk are not susceptible to wear and slippage like etched style keys. The unique two piece key offers the flexibility of rekeying or servicing the key in the field, thereby reducing expensive downtime waiting for an entire replacement key. The key is robust, cannot be duplicated, and will not pass through standard floor grating if accidentally dropped.

All the components of the Kirk 316 Series are electropolished, thus making the interlocks operate smoothly time and time again.
The Type F is well suited for interlocking Main Breakers, T/R Sets, and Nuclear Level Detectors.

The Type B is designed for T/R Sets and Level Detectors with base mounted interlock provisions.

Transfer Panel Enclosures are available in NEMA 4 and NEMA 4X for outdoor applications.

The Type DM is ideal for securing access doors and hopper doors.

Step 1 - Interlock main circuit breakers open.

Step 2 - Interlock T/R sets in grounded position.

Step 3 - Release access door keys previously held in key transfer panel.
Electrostatic Precipitator Interlocking System

Scheme Options for Steps 1 and 2:
The main breakers and T/R sets can be interlocked in many ways - two of the most common are shown below. Configurations can be easily customized to function per your project specifications.

Option 1: For interlocking T/R’s
Option 2: For interlocking T/R’s and isolating fields within the precipitator

Step 4 - Unlock the access doors and perform maintenance.
Why 316 Stainless Steel?

Each component of the KIRK 316 Series interlocks is made from 316 stainless steel. Benefits include:

- 316 provides a good blend between hardness, toughness, rigidity and corrosion resistance in a variety of industrial applications.
- 316 offers high performance by retaining design strength at temperatures exceeding 700 °F.
- 316 has a high level of resistance to corrosion. The molybdenum added to 316 contributes to withstanding attack by sodium and calcium brines, hypochlorite solutions, phosphoric acid, and the sulfite liquors and sulfuric acids used in the paper pulp industry.
- 316 is among the least corrodible metals listed on galvanic corrosion table shown on the left.

Electropolishing

Electropolishing removes iron and nickel elements from the metal surface, generating a higher concentration of smooth corrosion resistant chromium oxide. This process passivates the stainless steel surface while leaving a mirror-bright finish that further guards against possible contamination.

- Increases corrosion resistance
- Removes contaminants, oxides and tarnishes
- Maximizes passivation
- Improves surface smoothness by 50% and reduces surface friction
- Reduces surface occlusions and directional lines by micro-deburring

The end result - every component of the interlock is treated to withstand the harshest of environments.
Other Applications for KIRK 316 Series Interlocks

- Cement Processing Plants
- Pulp and Paper Mill Facilities
- Steel Manufacturing Plants
- Refineries
- Kilns
- Mining
- Power Generation
- Wind Power
- Electrical Switchgear
- Conveyors
- Machine Guarding
- Marine Applications:
  - Gantry Cranes
  - Dockside Power

KIRK Applied Engineering Services

- Field sales & site surveys
- KIRK key interlock solutions & integration with existing interlocks
- Custom interlock product solutions
- Bill of materials

Comprehensive Record Keeping

Comprehensive record keeping dating back to 1945 prevents duplication errors. Every Kirk® key interlock is assigned a specific lock number, which is marked on both the key and the lock cylinder. For every application, only locks and keys having the appropriate lock numbers are used. We can easily facilitate replacements, revisions, or extensions to any KIRK 316 Series interlock system because we carefully record each key and lock number.

Why Interlock?

When appropriately applied, Kirk® key interlock systems ensure that a pre-determined sequence of operation is followed by maintenance personnel. Each step in the interlock sequence releases a key or keys, which permits personnel to safely proceed to the next step in the sequence. When properly applied, a Kirk® key interlock system prevents unauthorized access to a live precipitator.

WE BELIEVE THAT EVERYONE HAS THE RIGHT TO BE SAFE AT WORK!

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For more information about our company and our products, please visit us on the Internet. Our website contains many useful documents to help assist you with your next order.