

# K Bolt Interlock



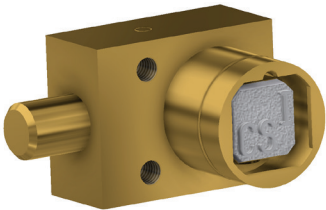
The K Lock is a key operated mechanical bolt interlock that is suitable for the control of electrical switchgear. The standard unit comes with a 15.88 mm diameter bolt available in various lengths, that is used to control the rotation or movement of operating handles or toggles of electrical switchgear. Many suppliers of switchgear equipment have mounting kits available for Castell interlocks. The lock is manufactured in brass or stainless steel.

## OPERATION

The Castell K bolt interlock range is used in switchgear control to inhibit movement of cams, toggles or levers.

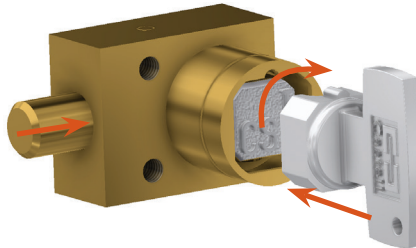
### K bolt interlock, Form 4

#### 1 Key is free, bolt is extended



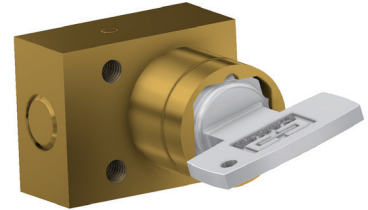
While the side bolt is extended, the key is free. The mechanism is locked.

#### 2 Insert and turn key to drive bolt



By inserting and turning the key in the bolt interlock, you can retract the bolt, e. g., releasing the disconnect. This will trap the key into the lock.

#### 3 Key is trapped, bolt is retracted




The key stays trapped while the bolt is retracted.

The length of the bolt is available in various lengths to suit the application, but the travel of the bolt is always 19,05 mm. The key is free when the bolt is extended. Insertion and rotation clockwise of the key will retract the bolt. The key will be trapped in the bolt retracted position.

## USAGE






The K bolt interlocks are used as a part of a safety system to allow safe control of valves or switches.

-  The K bolt interlock is not designed for security purposes, such as access to a building. The K bolt interlock is not recommended for interlock access gates or doors. Please refer to AI access interlocks.

No hazardous substances were used in the manufacture of this product.

## INSTALLATION



The housing of the K bolt interlock should normally be mounted to a panel using suitable fasteners. Please refer to drawing on page 4 for more installation details.

-  **IMPORTANT:** The interlock should be mounted using anti-tamper fasteners to prevent unauthorised removal.
-  The K bolt interlock must be installed by a competent and qualified person who has read and understood these instructions. Please retain this document in your technical file.
-  Force required to shear lock bolt is 30 KN for stainless steel and 19 KN for brass interlocks.
-  You must use M6 anti-tamper stainless steel screws secured using threadlock set to a torque of 5N/M.
-  The manufacturer should be consulted when use in a corrosive environment is planned.

## MAINTENANCE

Periodic visual checks should be carried out by the site manager / safety officer.

Do not lubricate lock barrel with oil or grease, use CK Dry Powder Graphite if necessary.

-  In case of defects being detected please contact your nearest Castell Support Department for further actions. Please see Contact section for contact details.
-  The interlock must be inspected every 6 months. Safety checks should include ensuring the keys and lock bolt can only be removed in the correct safety operating conditions (see page 1).

## TECHNICAL DATA

|                              |   |
|------------------------------|---|
| <b>Temperature rating</b>    | Minimum: -40°C [-40°F] ice free for Q & FS lock type  |
|                              | Maximum: 107°C [224.6°F] for Q lock type/140°C [284°F] for FS lock type                     |
| <b>Type of mounting</b>      | Surface mount using suitable fasteners (please refer to drawing on page 4 for more details) |
| <b>Weight</b>                | Brass: 0.7 kg   |
|                              | Stainless steel: 0.7 kg   |
| <b>Material</b>              | Brass/Stainless steel   |
| <b>B10d</b>                  | 2,500,000   |
| <b>Shock &amp; vibration</b> | EN 60068  |
| <b>PL rating</b>             | PLd   |

## APPLICATION

The K bolt interlock safety component is used as a part of an integrated safety system.

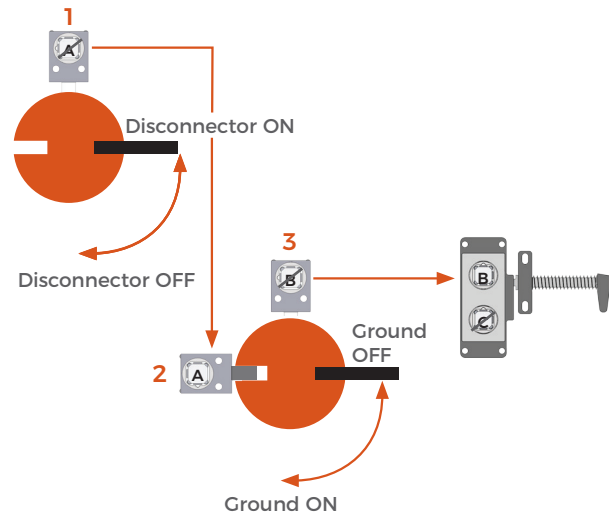
While power supply to the system is switched on, the access doors to the hazardous area are locked closed.

Key A is trapped in the disconnecter K bolt interlock (1) while the process is on.

To enter the hazardous area, the disconnecter is turned to the off position and key A is turned and released, locking the disconnecter in the disengaged position.

Key A is then taken to the grounding switch. Key A is inserted in the second K lock (2) which retracts the bolt enabling the cammed switch lever to be rotated to engage the ground. Once rotated, the recess in the cam aligns with the next K lock (3) with key B trapped in its lock. Key B can now be removed from K lock (3), which now locks the lever in place ensuring that the ground connection cannot be broken.

The system is now disconnected and grounded, key B can be taken to operate the access interlock on the door of the hazardous area to gain access into it.



## EC-DECLARATION

We, the manufacturers, declare that the components detailed herein and placed on the market comply with all the essential health and safety requirements applying to them.

ISO 13849-1:2015 Safety of Machinery

2006/42/EC Machinery Directive

Empowered signatory:

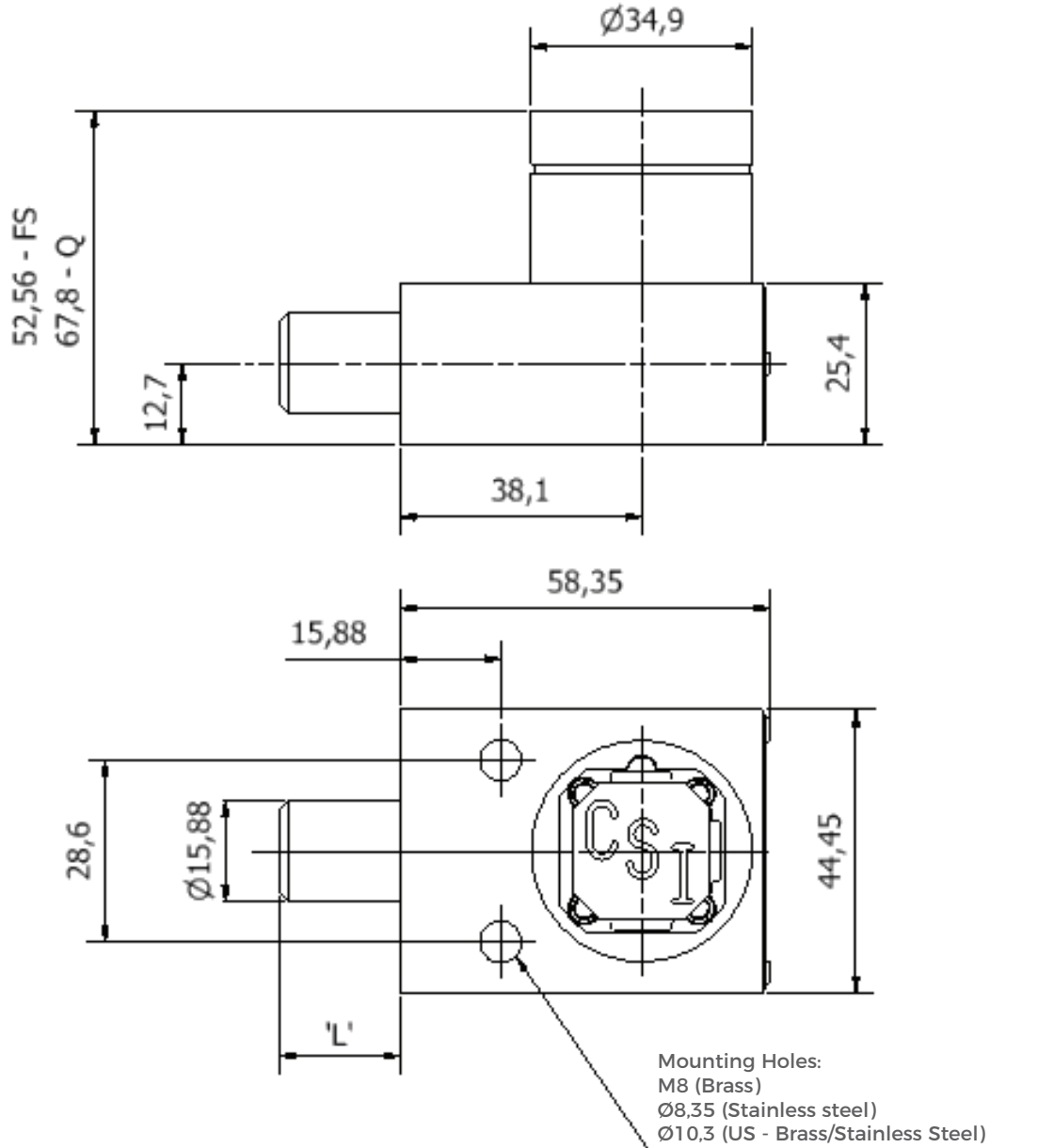
Kirstie Van Oerle  
Business Unit Director 

## DRAWING

Dimensions: in mm

**Note:** For safe mounting, use security screws

### K, form 4




| L Dimension<br>Retracted bolt length (in mm) | Extended bolt length (in mm) |
|--|------------------------------|
| 0  | 19.05                        |
| 6.35   | 25.40                        |
| 12.70  | 31.75                        |
| 19.05  | 38.10                        |
| 25.40  | 44.45                        |

## ORDER INFORMATION


|             |                       |          |          |          |          |          |
|-------------|-----------------------|----------|----------|----------|----------|----------|
|             | <b>Component type</b> | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| Part number | K                     |          |          |          |          |          |
| Example     | K                     | FS       | B        | 6.4      | 1        | ABC      |

|          |   |  |
|----------|---|--|
| <b>1</b> | <b>Lock portion type</b>                              | FS <sup>(1)</sup> / Q <sup>(1)</sup>                                       |
| <b>2</b> | <b>Material</b>                                       | B = Brass / S = Stainless steel  |
| <b>3</b> | <b>L dimension (bolt length when retracted) in mm</b> | 0 / 6.4 / 12.7 / 19.1 / 25.4   |
| <b>4</b> | <b>Form</b>   | 1 / 2 / 3 / 4 <sup>(2)</sup>   |
| <b>5</b> | <b>Lock portion symbol</b>                            | FS <sup>(1)</sup> up to 3 characters / Q <sup>(1)</sup> up to 6 characters |


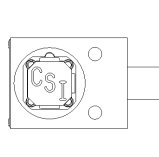
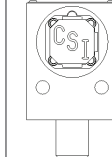
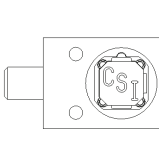
(1) **FS - Lock type**  
Up to 3 characters



**Q - Lock type**  
Up to 6 characters




(2) **Form**

|  |  |   |  |
|--|--|---|--|
| <b>1</b>   | <b>2</b>   | <b>3</b>  | <b>4</b>   |
|  |  |  |  |

Special construction available upon enquiry

## ACCESSORIES

|  |                |                    |
|--|----------------|--------------------|
|  | <b>Product</b> | <b>Part number</b> |
|  | Flip Cap       | FLIP-S             |

## CONTACT INFORMATION

### Castell Safety

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