

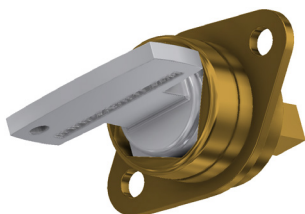
The FS and Q Interlocks are designed for use as a mechanical interlock for electrical switchgear. This is achieved through a mechanical connection to the isolation equipment. The standard unit is fitted with a 9.5mm square x 22mm spigot that can be used to operate an isolator. Inserting and turning the key moves the spigot through a predetermined angular position (45°/65°/90° clock or anti clock wise) moving the isolator to closed. Rotating the key in the opposite direction will open the isolator and will release the key. The free key can then be transferred to operate a parallel supply stream or an access interlock. The FS and Q locks are manufactured in brass or stainless steel.

## OPERATION

The FS/Q switchgear interlocks are designed to control the operation of HV/LV switchgear.

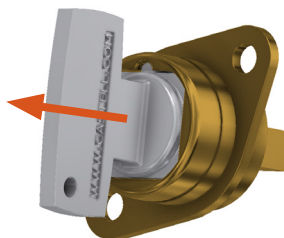
### FS/Q switchgear interlock

- 1** Key is trapped, HV/LV circuit is closed.



While the key is trapped, the isolator is closed providing the power supply.

- 2** Turn and release key to open the HV/LV circuit.



Turning the key opens the isolator. The key can then be released.

- 3** Key is free and the HV/LV circuit is open.



The free key can be used to operate either a parallel supply stream or an access interlock.

The FS/Q switchgear interlocks are available in a clockwise or in an anti-clockwise mounting position.

A set range of rotational movement and spigot lengths are available (see page 5 for ordering details).

## USAGE

The FS/Q switchgear interlocks should be used as part of an integrated safety system, to control the operation of HV/LV switchgear.


 The FS/Q switchgear interlocks are not designed for security purposes, such as access to a building.

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

## INSTALLATION

The FS/Q switchgear interlocks should normally be mounted to a panel using suitable fasteners. Please refer to drawing on page 4 for more details

 You must use M6 anti-temper stainless steel screws secured using threadlock set to a torque of 5 N/M.

 The FS/Q switchgear interlocks must be installed by a competent and qualified person who has read and understood these instructions. Please retain this document in your technical file.


 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 interlocks must be inspected every 6 months.

## 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>      | Panel mount using suitable fasteners (please refer to drawing on page 4 for more details) |
| <b>Weight</b>                | 0.2 kg  |
| <b>Material</b>              | Brass/Stainless steel/Nickel plated   |
| <b>PL rating</b>             | PLd   |
| <b>Shock &amp; vibration</b> | EN 60068  |
| <b>B10d</b>                  | 1,250,000   |

## APPLICATION

FS/Q lock safety components are used as part of an integrated safety system.

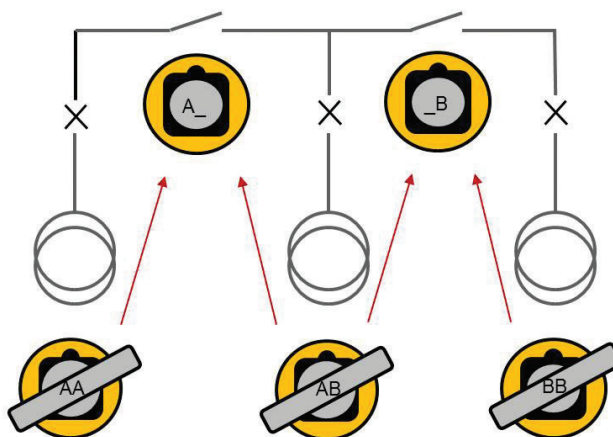
The FS/Q locks are used to ensure that multiple supplies are not applied to common bus bars.

When all incomers are closed the bus bars are open.

To close a bus bar, first the incomers must be switched to open.

In the shown is application to close Bus 1, either incomer AA or AB must be opened. The key is removed from either AA or AB connection and is then inserted into the bus switch A\_ (A BLANK).

To close Bus 2, either incomer AB or BB must be opened and the key AB or BB transferred to the switch \_B (BLANK B).



## 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

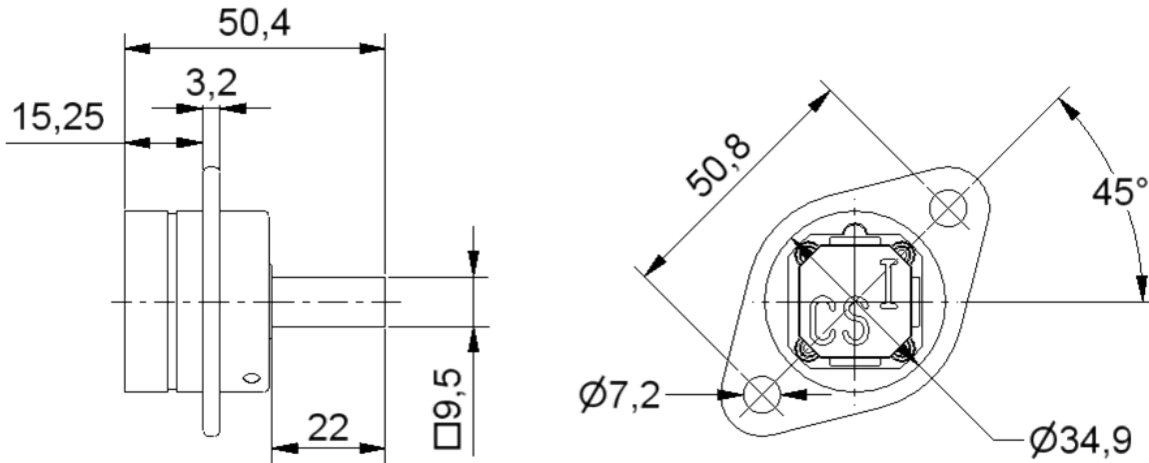


## DRAWING

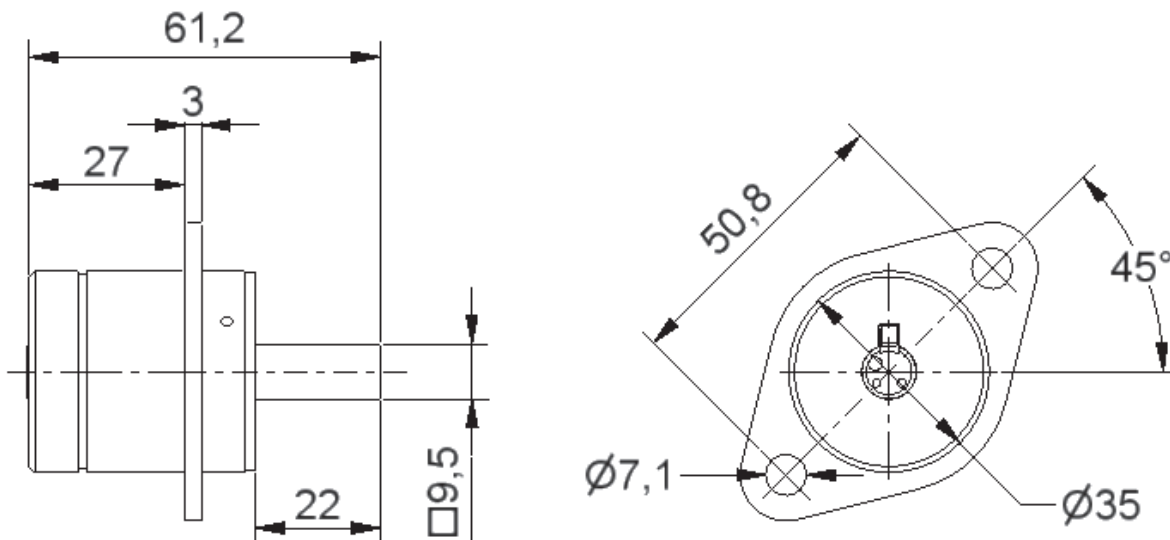
Dimensions: in mm

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

### FS1 lock (45° clockwise mount)





### Q1 lock (45° clock wise mount)

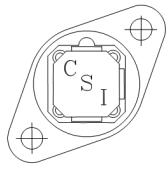
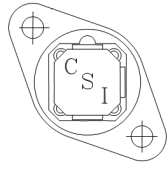
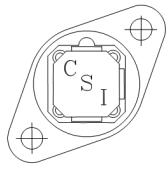
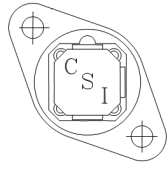
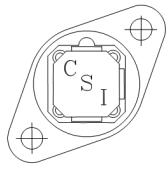
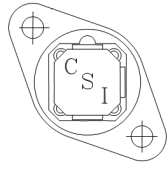


## ORDER INFORMATION

|             |                       |          |          |          |          |          |          |          |          |
|-------------|-----------------------|----------|----------|----------|----------|----------|----------|----------|----------|
|             | <b>Component type</b> | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> | <b>7</b> | <b>8</b> |
| Part number | FS/Q                  |          |          |          |          |          |          |          |          |
| Example     | FS/Q                  | FS       | 1        | B        | ACW      | 45       | 9.5      | 22       | ABC      |


|          |                                       |  |
|----------|---------------------------------------|--|
| <b>1</b> | <b>Lock portion type</b>              | FS <sup>(1)</sup> / Q <sup>(1)</sup>                                       |
| <b>2</b> | <b>Mounting position</b>              | 1 = 45° clockwise / 2 = 45° anti clockwise <sup>(2)</sup>                  |
| <b>3</b> | <b>Material</b>                       | B = Brass / S = Stainless steel / PL = Nickel plated                       |
| <b>4</b> | <b>Rotational movement</b>            | CW = clock wise / ACW = anti clockwise                                     |
| <b>5</b> | <b>Key rotation (degree movement)</b> | 45°/ 65°/ 90°  |
| <b>6</b> | <b>Spigot square profile</b>          | 9.5 = 9.5 x 9.5 mm (standard)  |
| <b>7</b> | <b>Spigot length</b>                  | 22 = 22 mm (standard)  |
| <b>8</b> | <b>Lock portion symbol</b>            | FS <sup>(1)</sup> up to 3 characters / Q <sup>(1)</sup> up to 6 characters |

|     |  |  |
|-----|--|--|
| (1) | <b>FS - Lock type</b><br>Up to 3 characters  | <b>Q - Lock type</b><br>Up to 6 characters   |
|     |  |  |

|  |  |          |          |  |   |
|--|--|----------|----------|--|---|
| (2)  | <b>Mounting position</b>   |          |          |  |   |
|  | <table border="1"> <tr> <td><b>1</b></td> <td><b>2</b></td> </tr> <tr> <td></td> <td></td> </tr> </table> | <b>1</b> | <b>2</b> |  |  |
| <b>1</b>   | <b>2</b>   |          |          |  |   |
|  |   |          |          |  |   |

Special construction available upon enquiry

## ACCESSORIES

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

## CONTACT INFORMATION

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