

AIE-FSS-E-2

The AIE dual key access interlock is suitable for use on hinged and sliding doors. The interlock has an open cavity design and is manufactured in an aluminum alloy or durable stainless steel making it ideal for harsh or corrosive environments where the lock is subject to heavy use. The AIE is available in two options: exchange key and double key.

Operation

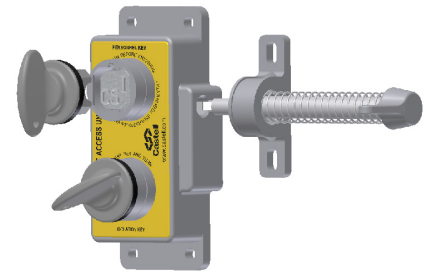
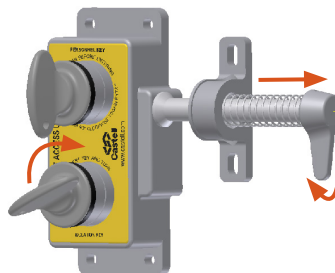
Castell dual key access interlocks are used in various applications to control full body access to hazardous areas.

AIE dual key access interlock, exchange key condition (bolt trapped - personnel key trapped/isolation key free)

① Side bolt is trapped and the personnel key is trapped, isolation key is free.

② Insert and turn isolation key, then turn and release the personnel key. The side bolt can now be released.

③ isolation key is trapped, the side bolt and personnel key are free.



1. While the isolation key is free and the personnel key trapped in the AIE, the bolt of the AIE is trapped in the mechanism. The door is closed.
2. By inserting and turning the isolation key in the access interlock, you can release the personnel key. This traps the isolation key, which enables the release of the side bolt. The personnel key should be taken by the Personnel to the hazardous area.
3. The isolation key stays trapped while the bolt is released and the door is open.

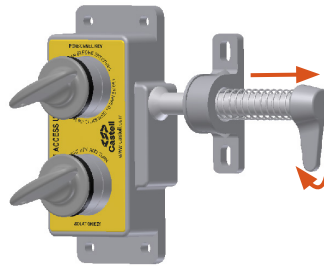
Operation

AIE dual key access interlock, double key condition (bolt trapped - both keys are free)

① Bolt is trapped, while both keys are free



② Insert and turn the keys, then turn and release bolt



③ keys are trapped, bolt is unlocked



1. While both keys are free, the bolt of the AIE is trapped in the mechanism. The door is locked.
2. By inserting and turning the keys in the access interlock, you can release the bolt and open the door.
3. Both keys stay trapped while the bolt is released and the door is opened.

Usage

The AIE access interlock should be used to allow safe access to potential hazardous and dangerous areas. The AIE access interlock should be used on full body access doors where the use of personal safety keys is essential (to prevent accidental lock in).



The AIE access interlock is not designed for security purposes, such as a safe or external access to a building.

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

Installation

The housing of the AIE access interlock should normally be mounted on the static frame of the guard and the bolt to the sliding or hinged door using suitable fasteners. Fixed bolt bracket is highly tolerant to misaligned guards and should be fitted with suitable fasteners. Please refer to the drawing on page 4 for mounting details for the housing and bolt. The AIE interlocks are available in Hand 1 and Hand 2 version suitable for left or right hinged doors, respectively. Anti vibration pads should be used on machines that generate a high level of vibration.



IMPORTANT:

The AIE access interlock should be mounted on the guard using anti-tamper fasteners to prevent unauthorised removal.



The AIE access 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 24KN for both stainless steel and brass interlocks.

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.

Technical Data

Temperature rating	Minimum: -40°C [-40°F] ice free for Q & FS type
	Maximum: 107°C [224,6°F] for Q type/140°C [284°F] for FS type or 288°C [550°F] upon request
Type of mounting	Surface mount using suitable fasteners (please refer to drawing on page 4 for more details)
Weight	Brass: 0,8 kg
	Stainless steel: 1,0 kg
Material	Aluminium alloy/brass or stainless steel
MTTF Certification	Available on request

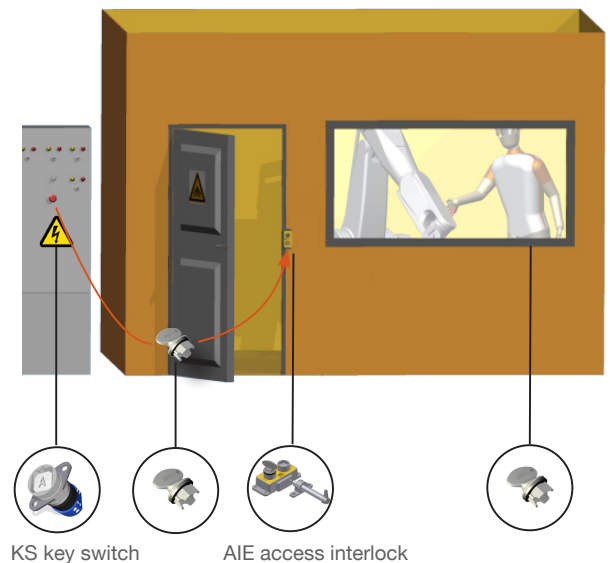
Application

A typical application of the AIE dual key Access Interlock is machine guarding with full body access.

The AIE is used as part of a safety system, which ensures a machine is shut down, before access to the hazardous area is allowed.

The system involves a KS key switch for the electrical supply. The removal of the isolation key from the key switch isolates the electrical supply to the machine. This key is taken to the AIE and inserted into the lock. This allows the release of the personnel key and then the sidebolt, which traps the isolation key. The personnel key is then taken into the area by the operative to safeguard themselves against accidental lock in and start up.

The machine cannot be restarted until the personnel key is returned, the bolt is replaced in the AIE and the isolation key is removed and taken to the KS key switch.



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.

Empowered signatory:

Mr T.C. Whelan
Managing Director

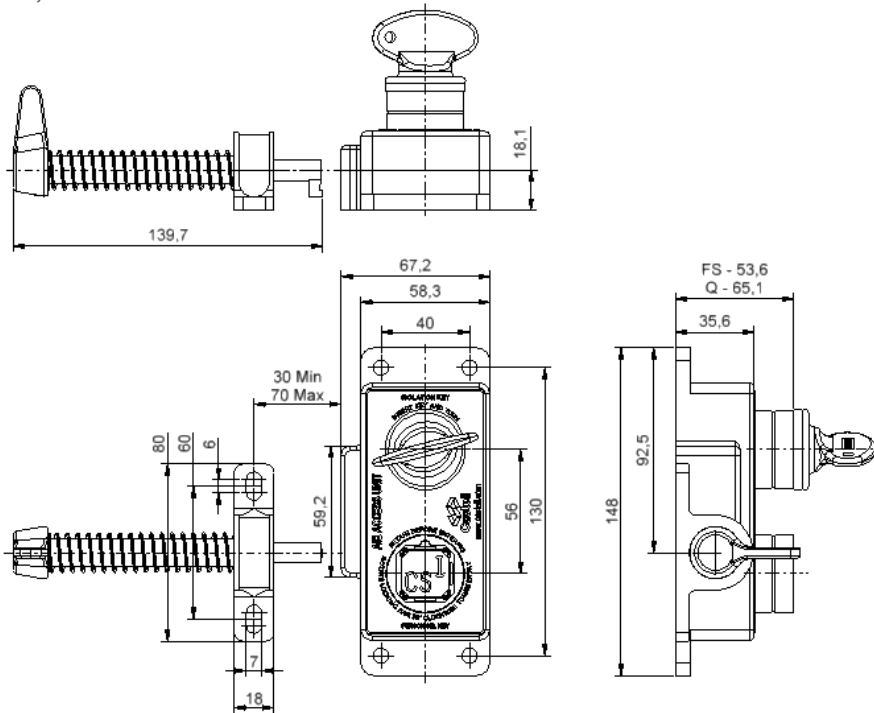


Drawing

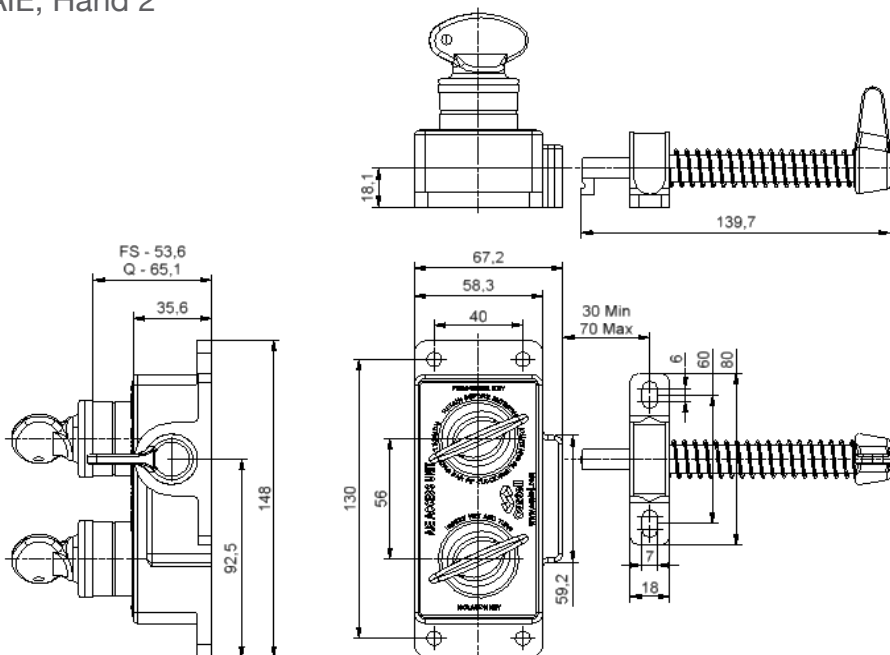
Dimensions:
in mm

Note: For safe mounting, use security screws

AIE, Hand 1



AIE, Hand 2



While every effort has been made to ensure the accuracy of the information provided, no liability can be taken for any errors or omission. Castell Safety International Limited reserves the right to alter specifications and introduce improvements without prior notice.

Order Information

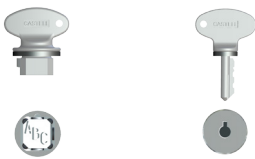
Product Type **1** **2** **3** **4**
Part Number AIE - - -
Example AIE - FS AL - E - 1

5 A1 **Isolation Key Symbol** (exchange key condition)
 OR
 Primary Key Symbol (double key condition)

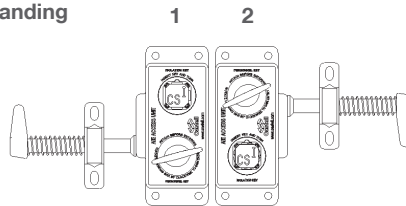
6 B1 **Personnel Key Symbol** (exchange key condition)
 OR
 Secondary Key Symbol (double key condition)

1	Lock portion type	FS ⁽¹⁾ / Q ⁽¹⁾
2	Material	AL = Aluminium alloy/brass S = Stainless steel
3	Key Condition	E = Exchange key Condition D = Double key Condition
4	Handing	1 = left hinged door ⁽²⁾ 2 = right hinged door ⁽²⁾
5	Lock portion symbol: Isolation key symbol (for exchange key condition) Primary key symbol (for double key condition, lock next to the bolt)	FS ⁽¹⁾ up to 3 characters / Q ⁽¹⁾ up to 6 characters
6	Lock portion symbol: Personnel key symbol (for exchange key condition) Secondary key symbol (for double key condition)	FS ⁽¹⁾ up to 3 characters / Q ⁽¹⁾ up to 6 characters

(1) FS - Lock type **Q - Lock type**
 Up to 3 characters Up to 6 characters



(2) Handing



Special construction available upon enquiry

Contact Information

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