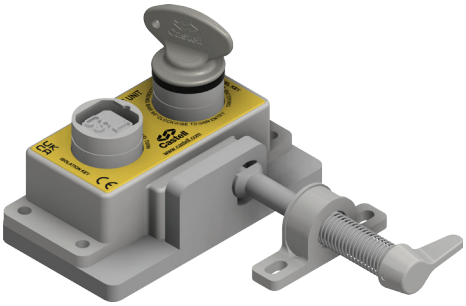
AIE-HD

Dual Key Heavy Duty Access Interlock



The AIE-HD is a Heavy Duty (HD) robust dual key access interlock that is suitable for use on hinged and sliding doors. The interlock has an open cavity design and is manufactured in stainless steel. The AIE-HD is available in two options: exchange key and double key.

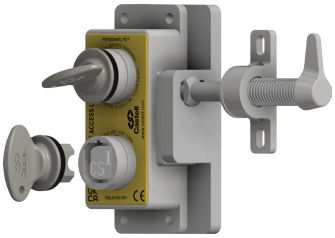
OPERATION

Castell Dual Key Access Interlocks are used in various applications to control full body access to hazardous areas.

AIE-HD Dual Key Access Interlock, exchange key condition (bolt trapped - personnel key trapped/isolation key free)

1

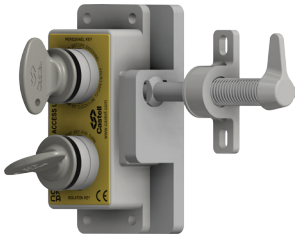
Side bolt is trapped and the personnel key is trapped, isolation key is free.



While the door is closed, the isolation key is free, the personnel key trapped in the AIE-HD, and the bolt of the AIE -HD is trapped in the mechanism.

2

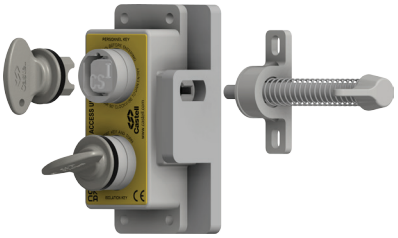
Insert and turn isolation key, then turn and release the personnel key. The side bolt may now be released.



By inserting and turning the isolation key in the AIE, the personnel key can be turned and released. This traps the isolation key, which enables the release of the side bolt. The personnel key should be returned by the operator while in the hazardous area.

3

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

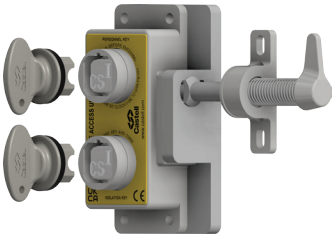


The isolation key stays trapped while the bolt is released and the door is open.

AIE-HD Dual Key Access Interlock, double key condition (bolt trapped - both keys are free)

1

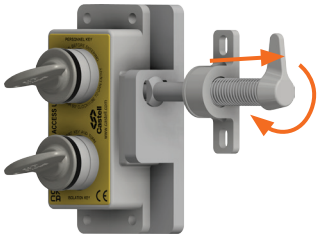
Bolt is trapped, while both keys are free.



While both keys are free, the bolt of the AIE-HD is trapped in the mechanism. The \door is locked.

2

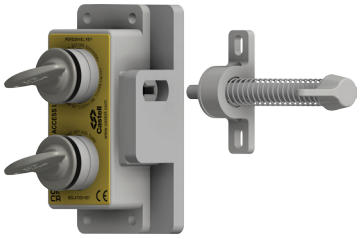
Insert and turn the keys, then turn and release bolt.



By inserting and turning the keys in the AIE-HD, the bolt is released by turning, and the door can be opened.

3

Keys are trapped, bolt is unlocked.



Both keys stay trapped while the bolt is released and the door is opened.

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

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AIE-HD

Dual Key Heavy Duty Access Interlock

USAGE

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

The AIE-HD Access Interlock is not designed for security purposes, such as 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-HD Access Interlock should be mounted on the guard using anti-tamper fasteners to prevent unauthorised removal.

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

You must use M6 anti-tamper stainless steel screws secured using threadlock set to a torque of 5 Nm.

The manufacturer should be consulted when use in a corrosive environment is planned.

Alignment limits of 0.5 mm must be set in all planes. Angular displacement +/-1˚ between lock and bolt.

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.

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).

In case of defects being detected please contact your nearest Castell Support Department for further actions. Please see Contact section for contact details.

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AIE-HD

Dual Key Heavy Duty Access Interlock

TECHNICAL DATA

	AIE-HD Dual Key Heavy Duty Access Interlock
Temperature rating	Minimum: -40°C [-40°F] ice free for FS lock type
	Maximum: 140°C [284°F] for FS lock 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	Stainless steel: 2.2 kg
Material	Stainless steel
B10d	1,250,0000
Operation	Suitable for 1,000,000 operations
Retention force	3.4 KN
Shock & vibration	In accordance with BS EN 60068-2-6 & BS EN 60068-2-27
Retention force	3.4 KN
Shock & vibration	In accordance with BS EN 50155 & IEC 61373

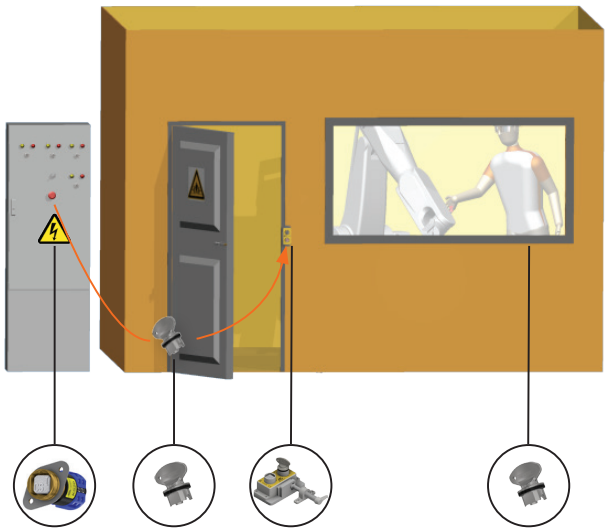
APPLICATION

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

The AIE-HD 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-HD 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-HD and the isolation key is removed and taken to the KS key switch.



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AIE-HD

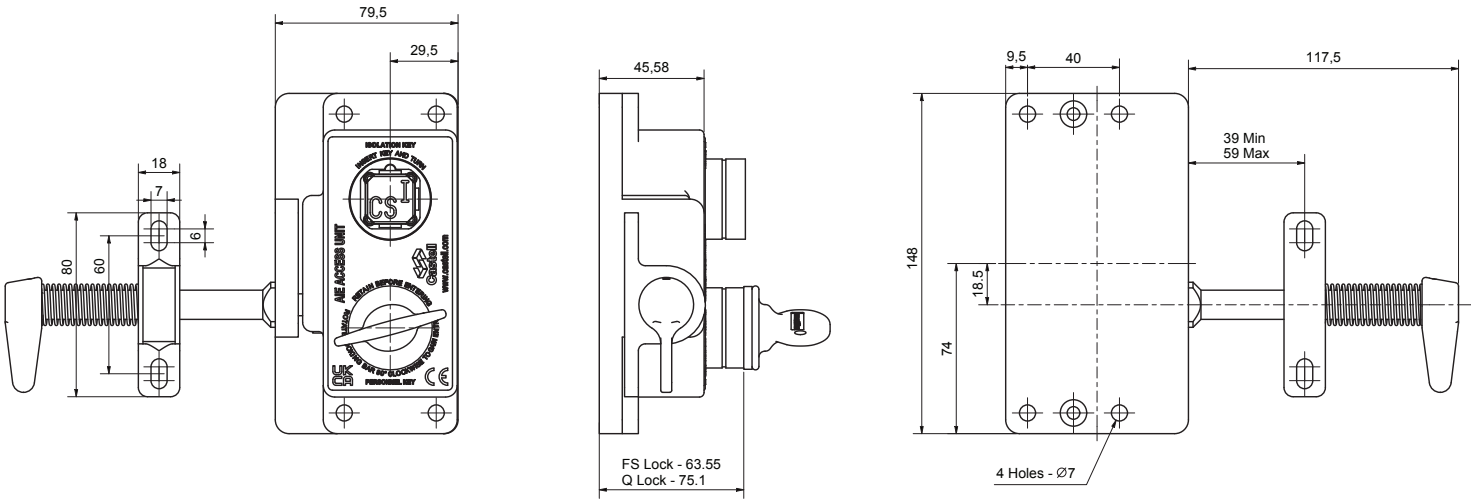
Dual Key Heavy Duty Access Interlock

DRAWING

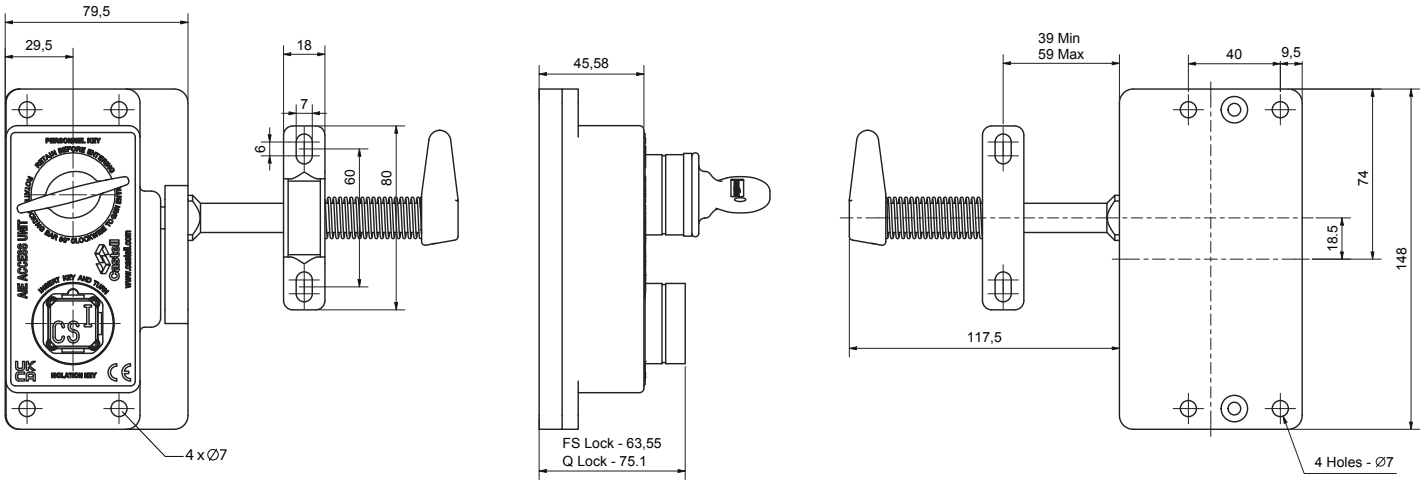
Dimensions: in mm

Note: For safe mounting, use security screws

AIE-HD, Hand 1



AIE-HD, Hand 2



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AIE-HD

Dual Key Heavy Duty Access Interlock

ORDER INFORMATION

	Component type		1	2		3		4		5		6
Part number	AIE-HD	-			-		-					
Example	AIE-HD	-	FS	S	-	E	-	1				

1	**Lock portion type**	FS [1]
2	**Material**	S = Stainless steel
3	**Key condition**	E = Exchange key condition D = Double key condition
4	**Handing**	1 = Left hinged door (bolt enters left) [2] 2 = Right hinged door (bolt enters right) [2]
5	**Lock portion symbol** Personnel 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** Isolation 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

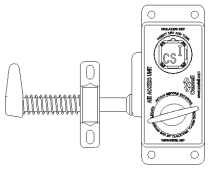
(1) **FS - Lock type**

Up to 3 characters

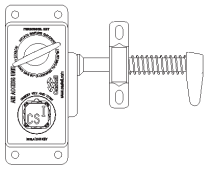


(2) **Handing**

1



2



Special construction available upon enquiry

Castell Safety International
The Castell Building, 217 Kingsbury Road, London, NW9 9PQ, UK
Tel: +44 (0)20 8200 1200 **Email:** sales@castell.com

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