



AIS-FSS-KF-2

The AIS or HERCULES is a single key access interlock complete with electrical contacts for use on hinged and sliding doors. The Hercules contacts can be used to switch off the machine via its control circuitry or to initialize a signal to visual beacons/sounders. The switch is sealed to IP65 with, 1N/O 2N/C contacts, rated to 6 amps making it ideal for use in cross monitored safety systems. The interlock is manufactured in a durable stainless steel making it ideal for use in harsh or corrosive environments and where the lock is subject to heavy use.

Operation

The Hercules Access Interlock with Safety Switch is used for machine isolation in order to protect the hazardous area from access while power is on.

AIS (Hercules) access interlock with safety switch: bolt trapped - key trapped condition

- ① Power is on, sidebolt is trapped and key is trapped
- ② Turn and release key, to change the switch contact condition and turn and release the bolt
- ③ Power is off, bolt is free and key is free



- While the power in the hazardous area is on, the sidebolt of the AIS is trapped in the mechanism. The door is locked and the key is trapped.
- By turning and releasing the key, the contact condition changes switching the power off. The bolt can now be released. The key should be kept by the personnel as long as the door is opened, ensuring the power cannot be turned on.
- With the sidebolt and key released, the switch condition cannot be reversed.

AIS (Hercules) access interlock with safety switch: bolt trapped - key free condition

- ① Power is on, sidebolt is trapped and key is free
- ② Insert and turn the key, to change the switch contact condition and release the bolt
- ③ Power is off, bolt is free and key is trapped



- While the power in the hazardous area is on, the sidebolt of the AIS is trapped in the mechanism. The door is locked and the key is free.
- By inserting and turning the key, the contact condition changes switching the power off. The bolt can now be released. This will trap the key.
- With the sidebolt released and key trapped, the switch condition cannot be reversed.

Usage

The AIS access interlock with safety switch is designed to be part of a safety system and is used to isolate the power which is then allows to gain access to a hazardous area.



The AIS access interlock is not designed for security purposes.

Installation

The housing of the AIS access interlock with safety switch 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 hole and mounting details. The AIS 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 AIS access interlock should be mounted on the guard using anti-tamper fasteners to prevent unauthorised removal.



The AIS 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.

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	Ambient temperature of stages: open at 100% Iu/Ith - 55°C during 24 hours with peaks up to 60°C, enclosed at 100% Ithe - 35°C during 24 hours with peaks up to 40°C
	Storage temperature: -40°C to 85°C (in case temperature below -5°C no shock load permissible)
Type of mounting	Surface mount using suitable fasteners (see drawing on page 4 for mounting details)
Weight	2,5 kg
Material	Stainless steel
Power isolation	10A
Motor Isolation (AC Values)	400V AC
Switch approvals	CE, UL, CSA, IP65
MTTF Certification	Available on request

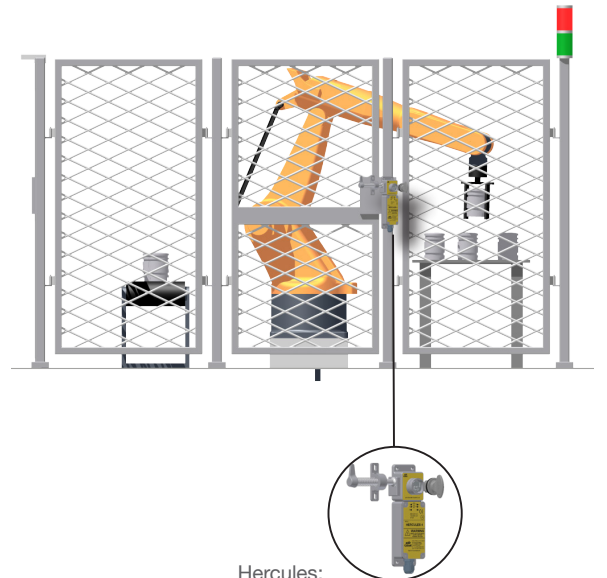
Application

The Castell Hercules (AIS) access interlock with safety switch is used as part of a safety system, typically in machine guarding applications.

The removal of the key from the AIS, isolates the electrical supply to the machine and allows the removal of the sidebolt. Therefore the guard can only be opened when the electrical supply has been switched into a safe condition.

This key is then taken into the area by the operative to safeguard against accidental lock in or start up or to initialize another part of the process, i.e. switching the machine into a teach mode.

The machine cannot be restarted until the door is closed, the bolt is trapped in the AIS access interlock and the key is replaced.



Hercules:
AIS access interlock with safety 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

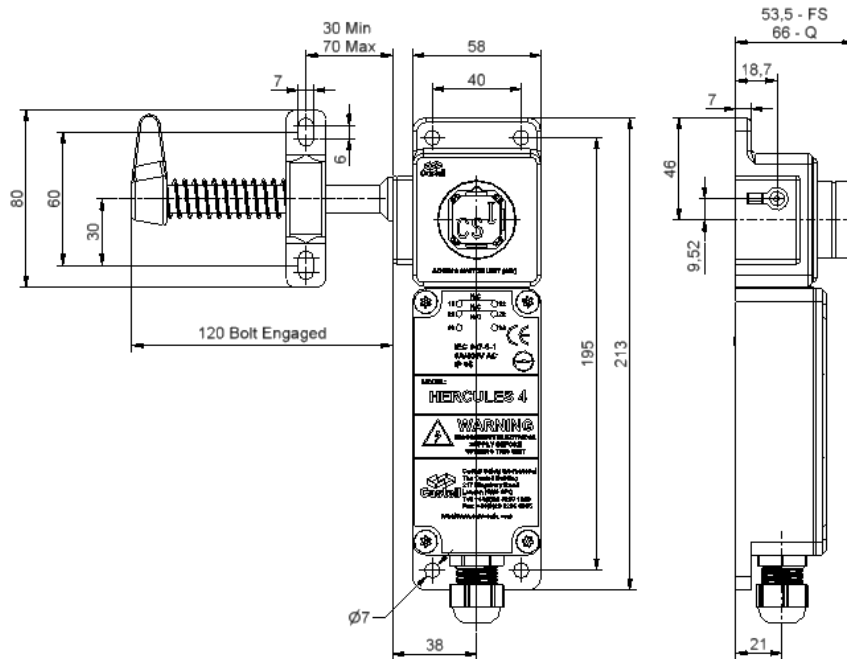


Drawing

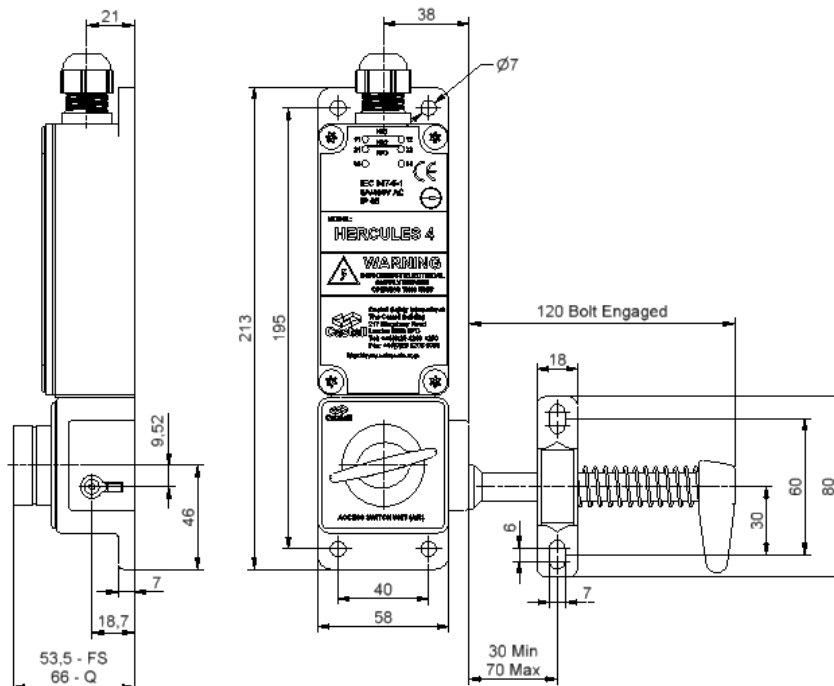
Dimensions:
in mm

Note: For safe mounting, use security screws

AIS, Hand 1, key free - bolt trapped



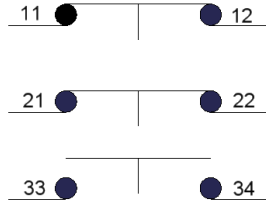
AIS, Hand 2, key free - bolt trapped



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.

Wiring Diagram

2 NC/1NO



Contacts as shown in the following positions:

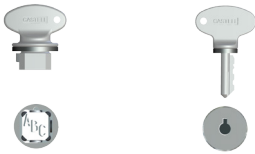
	Key	Bolt
Version 1 - KF	FREE	TRAPPED
Version 2 - KT	TRAPPED	TRAPPED

Order Information

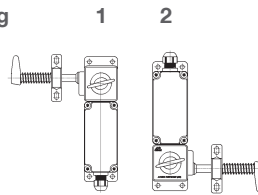
	Product Type	1	2	3	4
Part Number	AIS				
Example	AIS	FS	S	KT	1
	5				
	ABC				

1	Lock portion type	FS ⁽¹⁾ / Q ⁽¹⁾
2	Material	S = Stainless steel (standard)
3	Condition (by bolt trapped)	KT = key trapped while bolt trapped KF = key free while bolt trapped
4	Handing	1 = left hinged door (bolt enters left) ⁽²⁾ 2 = right hinged door (bolt enters right) ⁽²⁾
5	Lock portion symbol	FS ⁽¹⁾ up to 3 characters / Q ⁽¹⁾ up to 6 characters

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




(2) **Handing**



Special construction available upon enquiry

Accessories

	Product	Part number
	Flip Cap	FLIP-S

Contact Information

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