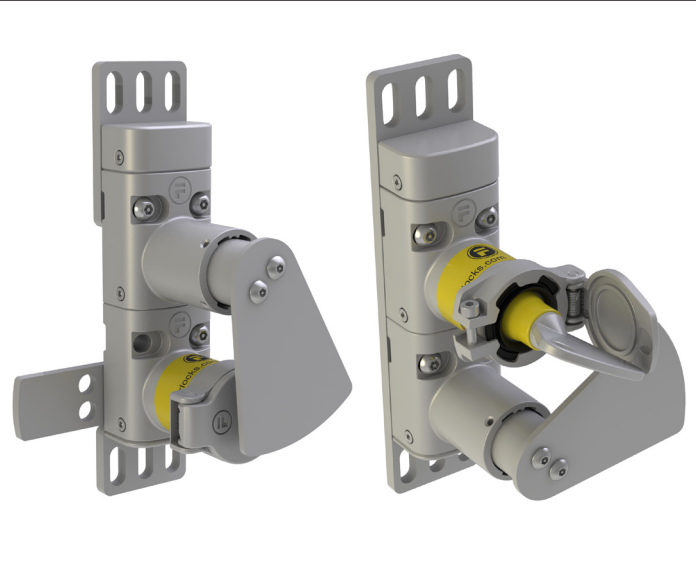


Operating Instructions: Interlock Blocking - IBL

Description

Fortress' IBL is an Interlock Blocking device designed to provide additional safeguarding to prevent operators being trapped inside a safeguarded space in machine guarding applications where whole body access is required. The IBL works in conjunction with existing interlocking to prevent the unexpected reset or restart of the safety-related circuit. It works by forcing the removal of a personnel or safety key before the guard can be fully opened and preventing the guard from fully closing until the key is returned. Thus, while the key is with the operator inside the area, the interlock is blocked from allowing the machine to be reset or restarted. Additional padlock points allow for each individual entering the area to apply their own means of control to the device.

As a purely mechanical component complete with an integrated mounting plate it is easily retrofitted or added to an existing system, regardless of interlock type, without the need for wiring or programming.



Options & Ordering Information

| Description | Part No. |
|--|--------------------|
| IBL device suitable for Left hand facing Hinged Doors | IBL2H-1-1-CLSS-MP1 |
| IBL device suitable for Right hand facing Hinged Doors | IBL4H-1-1-CLSS-MP1 |

NOTICE!

IBL is not an interlock and must only be used in addition to an interlock as part of a safety related part of a control system that meets required reliability.

The IBL device cannot be used in conjunction with an Interlock that includes an Escape Release or Internal facing handle.

Important:

The IBL Interlock Blocking Device is designed for use according to the installation and operating instructions enclosed. It must be installed by competent and qualified personnel who have read and understood the whole of this document prior to commencing installation.

If the Device or guarded machinery equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

Any modification to or deviation from these instructions invalidates all warranties.

Fortress Interlocks Ltd accepts no liability whatsoever for any situation arising from misuse or misapplication of the Device.

The IBL device alone is not an Interlock and must only be used in addition to an Interlock as part of a complete machine guarding system. The paired Interlock device must meet all relevant safety requirements and applicable safety standards.

BEWARE OF INTENTIONAL MISUSE CAUSED BY OPERATORS WANTING TO BYPASS SAFETY SYSTEMS. THE INSTALLER SHOULD ASSESS THE RISKS AND MITIGATE AGAINST THEM.

The installation and operation of the IBL Device and the complete machine guarding system must take into account the requirements of ISO 14119:2013, in particular Section 7 - Design for minimising defeat possibilities.

In order to maintain device safety rating, overall machine guarding system must be validated to EN ISO 13849-2 and/or evaluated in accordance with IEC 62061.

IF YOU HAVE ANY QUESTIONS OR QUERIES OF ANY NATURE WHATSOEVER PLEASE CONTACT THE SUPPLIER WHO WILL BE PLEASED TO ADVISE AND ASSIST.

Operating Instructions: Interlock Blocking - IBL

| Technical Specification | |
|--|--|
| Construction Materials | 316 Stainless Steel and Stainless Steel to BS3146-2:1975 (ANC4B) |
| Mechanical life | 1,000,000 operations |
| Ambient Temperature | -25°C to +80°C** |
| Shock and Vibration Resistance | Tested in accordance with IEC 60068-2-6 and IEC 60068-2-27 |
| Environment Type | Indoor & Outdoor |
| Maximum Door Thickness | 70mm at ≥600mm door width* |
| <small>*Note; any gaps in door frame when closed must not exceed the limits specified in BS EN ISO 13857. **The units will only continue to work below freezing point (0°C) where it can be guaranteed that ice will not form on or in the unit; as it will cause the mechanical parts to bind and jam.</small> | |

| Safety Functions | | Part No. |
|-------------------|-------------------------------------|----------|
| Safety Function 1 | Prevent unexpected machine restart. | IBL |

| Functionality |
|--|
| <p>IBL is to be used to add additional safeguard functionality to an existing Door, Gate or Hatch that is guarding a hazardous or unsafe area.</p> <p>The front mounted Paddle of the IBL device ensures the Door or Gate that the product is mounted to cannot be fully opened until a Personnel / Safety Key has been taken. Once the Key has been removed a rear mounted Blocker plate extends outwards between the Door or Gate and the hazardous or unsafe area. When extended, the Blocker plate prevents the Door or Gate from being re-closed and locked before the Personnel Key has been reinserted and rotated. Padlocks can be added to the Blocker plate for additional Interlock Blocking functionality.</p> |
| <p>Opening a Door or Gate with an IBL device fitted</p> <ul style="list-style-type: none"> Remove the locking mechanism of existing Door lock or Interlock product if fitted. Open the Door or Gate until it comes into contact with the extended Paddle of the IBL device. Rotate and remove the Personnel Key of the IBL device. The paddle is sprung loaded. As the key is removed it will spring away from the door, covering the Personnel lock. Simultaneously, rotation of the Personnel key will revolve the blocker plate behind the gate. Open the Door or Gate fully. |
| <p>Closing a Door or gate with an IBL device fitted</p> <ul style="list-style-type: none"> Close the Door or Gate until it rests against the extended Blocker plate of the IBL device. Rotate the paddle clockwise until the entry to the personnel lock is exposed. Open the dustcover insert and rotate the Personnel Key into the IBL device. Fully close the Door or Gate. |

Operating Instructions: Interlock Blocking - IBL

Figure 1: Dimensional Drawing - IBL for Hinged, Left Hand Entry

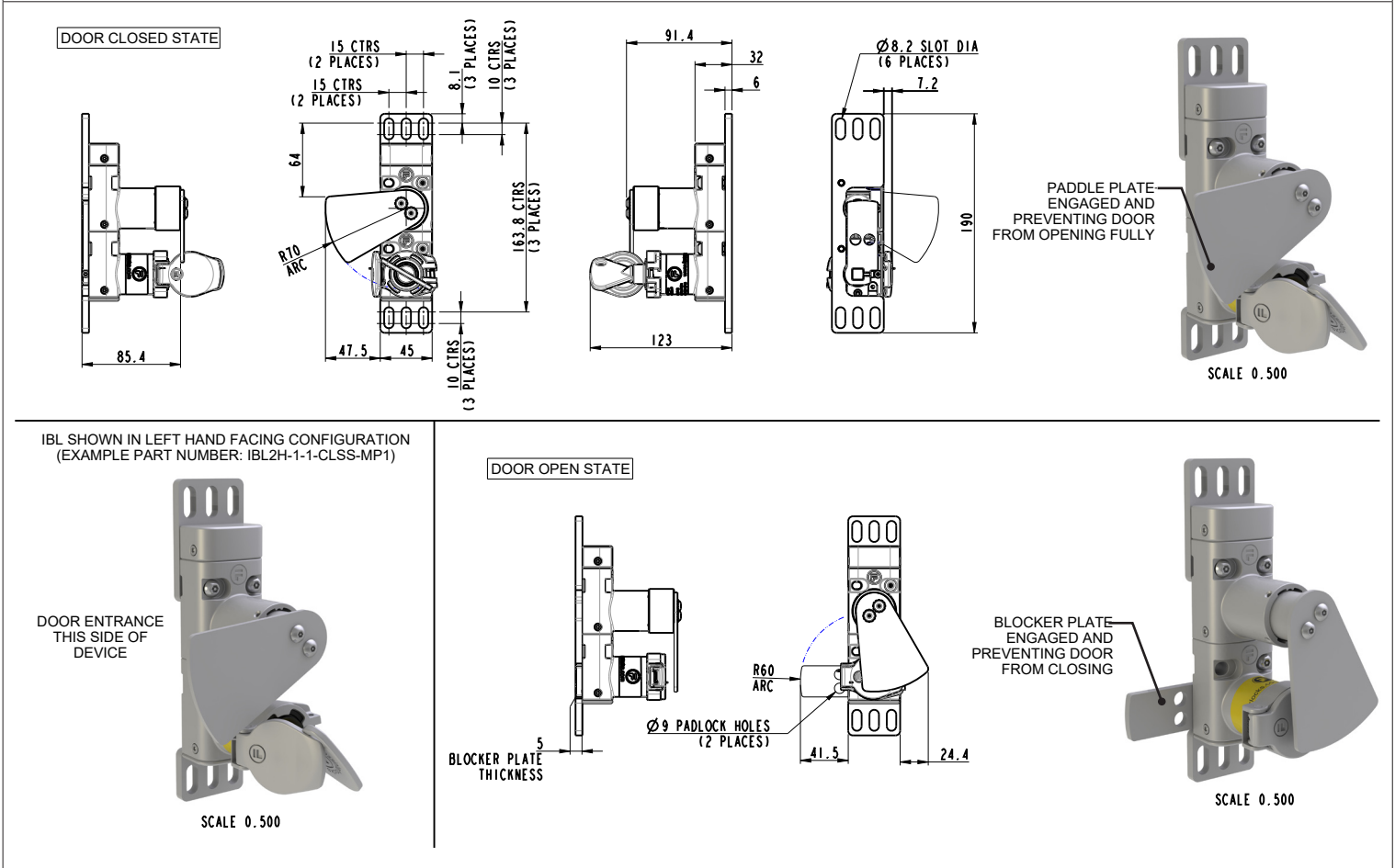
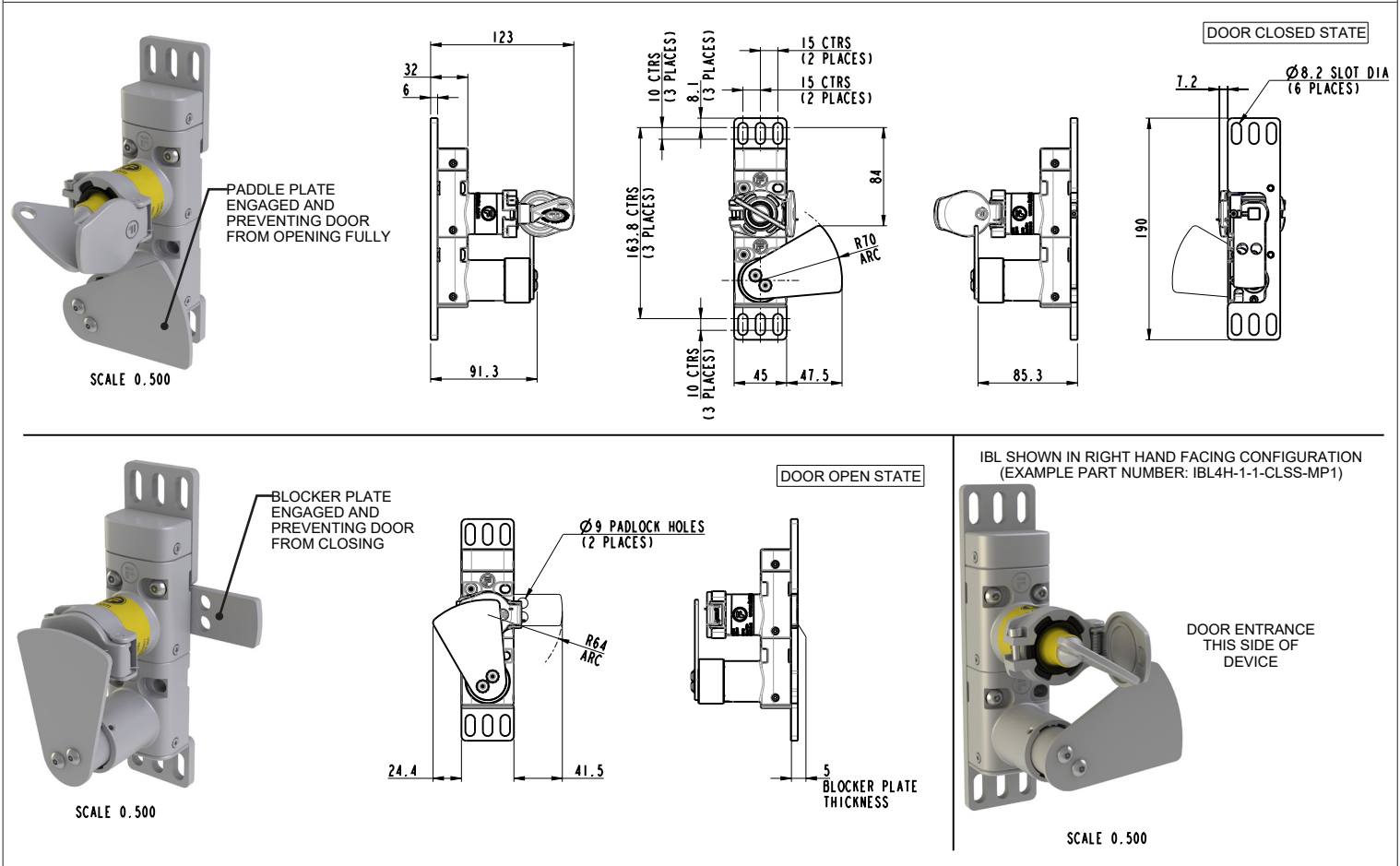


Figure 2: Dimensional Drawing - IBL for Hinged, Right Hand Entry



Operating Instructions: Interlock Blocking - IBL

Tools and Fixings Required

- Minimum 2 x M8 screws for securing IBL device.
- Screws must be suitable length for a minimum of 10mm thread engagement.
- Screws must be security type to prevent unauthorised removal or tampering.
- Required torque setting; 40 Nm.
- 2 x M8 Nut / T-Nut / Threaded Hole for securing IBL device
- Driver suitable for securing M8 screws.
- Adhesive Threadlocker to secure mounting fixings from loosening due to vibration

Mounting

1. Locate the IBL device so that it can correctly Block the Door or Gate with both the front mounted Paddle and rear mounted Blocker plates. See Fig. 1 and Fig.2 for details.
2. Secure the IBL device using minimum 2 x M8 screws through the available mounting holes at the top and bottom of the rear mounted mounting plate.
3. Perform Mechanical Function tests before completing installation and commission. See Mechanical Function test section for more details.

Mount the complete device only in the correctly assembled condition.

- All mounting surfaces should be flat, stable and suitable of providing a minimum of 10mm M8 thread engagement or sufficient support to either an M8 Nut or M8 T-Nut.
- The IBL device must be located so that scheduled inspection and maintenance procedures are all easily possible.
- The complete machine guarding installation must conform to all relevant design, construction and installation standards and guidelines.
- Any gap around the perimeter of the machine and guarding when closed and locked (Safety Outputs High) must not exceed the limits specified in ISO 13857 & ISO 14120.
- All fixing screws used to mount the complete Device must be permanently prevented from removal. If mounting fixings are visible, they must be secured against removal by personnel using standard tools, manipulation and un-authorised or un-identifiable removal. If mounting fixings are not visible or hidden, they must be secured against removal or loosening due to vibration. In both cases, a middle strength adhesive threadlocker is required.
- The complete Device must not be used as a mechanical stop. Where applicable, precautions must be made to ensure the door or gate of any guarded area has sufficient support and stops to prevent the impact on the Device.
Note: that it is not possible for a left-hand facing IBL2H device to be reconfigured or re-assembled as a right-hand facing IBL4H device. If alternative handing and orientation is required, please contact your local Fortress representative.

Mechanical Function Test Instructions

Test 1

1. Remove the locking mechanism of existing Door lock or Interlock product if fitted.
2. Open the Door or Gate.

It must not be possible to fully open the Door or Gate until the Personnel Key has been rotated and removed.

Test 2

1. Fully open the Door or Gate open and remove the Personnel Key.
2. Close the Door or Gate.

It must not be possible to fully close the Door or gate until the Personnel Key has been re-inserted and rotated.

It must not be possible for the existing Door lock or Interlock (if fitted) to re-engage until the Personnel Key has been re-inserted and rotated.

It must not be possible for a machine restart signal to be generated (such as via an additional Door lock or Interlock) until the Personnel Key has been reinserted and rotated.

Service and Inspection

Regular inspection of the following is necessary to ensure trouble-free, lasting operation:

- Correct operating function
- Secure mounting of components
- Debris and wear
- WD40 lubricant or equivalent, should be applied to each mechanical element every 10,000 operations, or sooner, to ensure smooth product operation and function. There are no user serviceable parts in this product. If damage or wear is found with an assembly, please contact your local Fortress Channel Partner for a replacement. The complete device must be replaced after 1 million operations.

Operating Instructions: Interlock Blocking - IBL

Disposal

This interlock does not contain any certified hazardous materials so should be disposed of as industrial waste. Electrical items should not be disposed of in general waste and must be appropriately recycled.

Liability Coverage is Voided Under the Following Conditions:

- If these instructions are not followed.
- Non-compliance with safety regulations.
- Installation and electrical connection not performed by authorised personnel.
- Non-implementation of functional checks.

Protection Against Environmental Influences

A lasting and correct safety function requires that the device be protected against the ingress of foreign bodies such as swarf, sand, blasting shot, etc. The device is to be mounted away from the machine, or by the use of anti-vibration mountings, in order to avoid the effects of vibration, shock and bump.

Use in Dusty Environments: Careful product selection is required, which is best performed under the guidance of a Fortress Representative, in order to assess the dust type and product style required.

Use in Corrosive Environments: Careful product selection is required, which is best performed under the guidance of a Fortress Representative.

The manufacturer reserves the right to modify the design at any time and without notice.

This guide should be retained for future reference.