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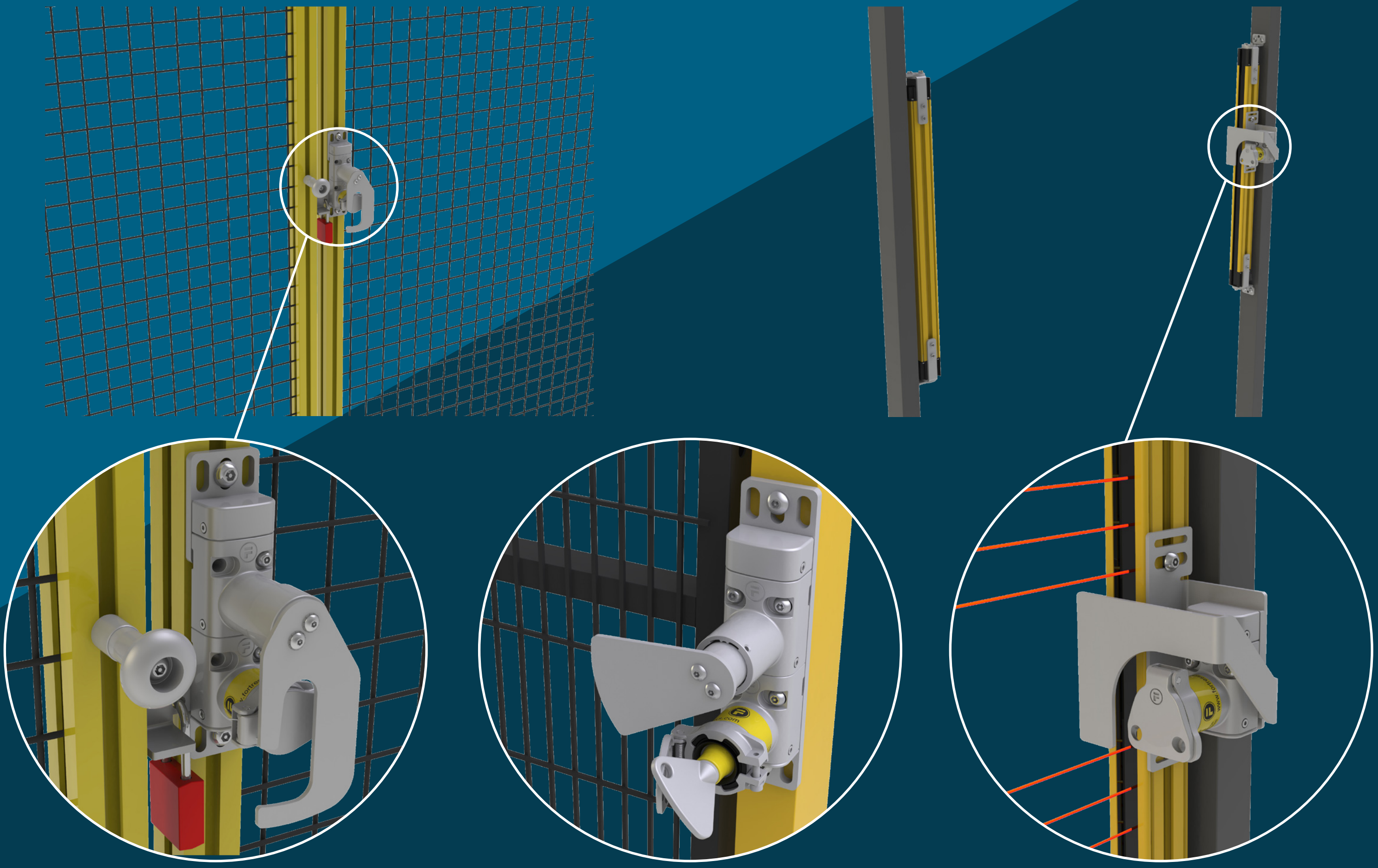


Supplementary Safety Devices to Prevent Unexpected Start-Up

Osbourn

Proactive Inhibit Functions to Prevent Unexpected Machine Start-Up

What is the purpose of Osbourn?

"When existing equipment needs to ***protect operators*** *during* ***whole body access****, preventing unexpected start-up until employees are outside the safeguarded space."*

"To provide the functionality of personnel keys to existing interlocked guards and even light curtains ***without having to replace, wire or reprogram any systems****."*

What has driven our development of the Osbourn range?

When whole body access exists and an individual is in the safeguarded space, it is necessary to prevent hazardous situations and prevent unexpected start-up. A risk assessment may consider several approaches depending on the application.

Manual Reset with a clear view of the safeguarded space.
Manual reset is often required to prevent unexpected start-up. However, poor visibility because of obstacles, machinery or low lighting may impair an individual's ability to identify when someone is inside the safeguarded space.

Continuous presence detection.
Presence sensing can ensure personnel are detected in locations which are not visible. However, covering all locations and surfaces may become both impractical and costly in larger spaces with obstacles.

Proactive inhibit functions.
Before accessing the safeguarded space, personnel inhibit the reset of the machine. For example; personnel may block a device in the open position, acting as a proactive inhibit function.

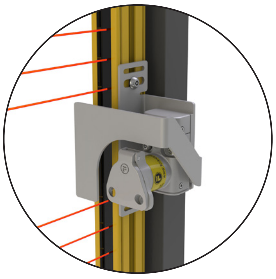
Osbourn devices add the ability to block existing interlock or light curtain devices open when personnel enter the safeguarded space.

1. **Where are you looking to add a proactive inhibit function?**

On a Guard (sliding or hinged guards)

On a light curtain

See page 4 to learn more



2. **Do you have an existing interlock?**

Yes I do, I just want to add a proactive inhibit function

No, can I create a solution with this functionality in?

Yes – you might find the solution you need in our amGard*pro* range. Contact us to learn more!

3. **Does your existing interlock include an escape release function?**

No? On which type of guard are you installing this device to?

Yes it does, is that an issue?

Osbourn devices cannot be used with interlocks with escape release.

See amGard*pro* brochure for possible solutions.

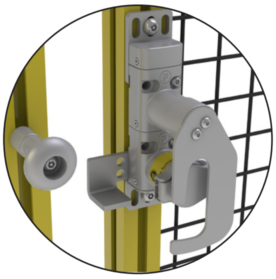
4.

Hinged Guard

See page 5 to learn more

Sliding Guard

See page 6 to learn more



Who is Osbourn?

The Osbourn range of products has been inspired by Osbourn Dorsey, the inventor of the ‘door holding device’. Osbourn was a key instigator to the development of the modern day door knob and door-holding devices to keep doors open. His simple design continues to be reflected in modern day technology.

We want to honour Osbourn and his success with our simple solutions for ‘holding guards open’ (essentially through preventing safety contacts from closing). In doing so we can keep operators safe, and prevent unexpected start-up.

What do I need to know about the Osbourn range?

Full Stainless-Steel Construction

Operate in dirty, dusty environments where harsh wash-down procedures are required

Simple Installation

Install devices into your system with just two fixings

A Solution for Any Application

Integrate multiple personnel keys into your solution

Easy Addition

Simple integration with no electrical installation to existing monitored and controlled systems

Padlockable Points

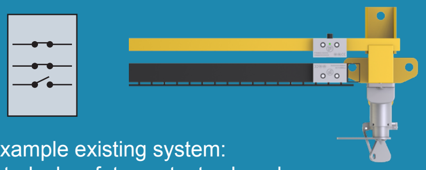
Prevent unexpected start-up with both mechanical trapped key and padlockable locations

Interlock Blocking Devices

The Interlock Blocking Device (IBL) comes in two variations to suit sliding and hinged guard applications. To learn more about the operation, see below or check out our product video on the hinged IBL (IBL-H) and the sliding IBL (IBL-S) on the Fortress website.

Below shows the operation of an interlock blocking device. The ‘example existing system’ uses an interlock with two NC (normally closed) safety contacts and one NO (normally open) monitoring contact. As shown in this diagram, the IBL devices work completely independently of the existing system. IBL devices are used to mechanically prevent the guard from closing, preventing the interlock safety contacts closing whilst operators are within the safeguarded space.

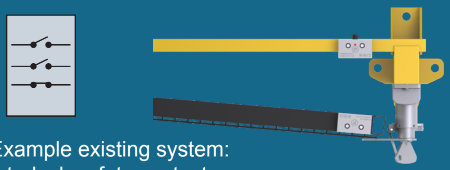
Normal State



Example existing system:
Interlock safety contacts closed
Guard is closed

Interlock blocking device

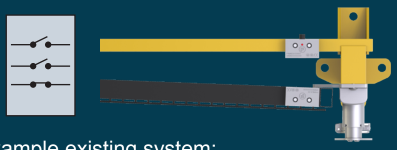
Transition State



Example existing system:
Interlock safety contacts open
Osbourn device prevents Guard from being fully opened without first removing the trapped key

Interlock blocking device

Opened State



Example existing system:
Interlock safety contacts open
With the trapped key removed, Osbourn device blocking plate prevents the guard from being closed until the trapped key is returned

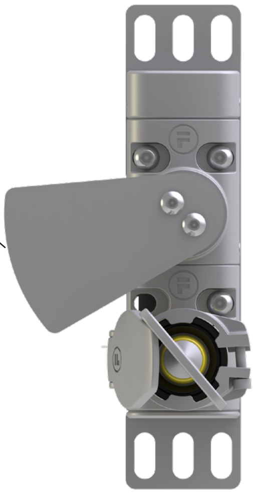
Interlock blocking device

Hinged Guards (IBL-H)

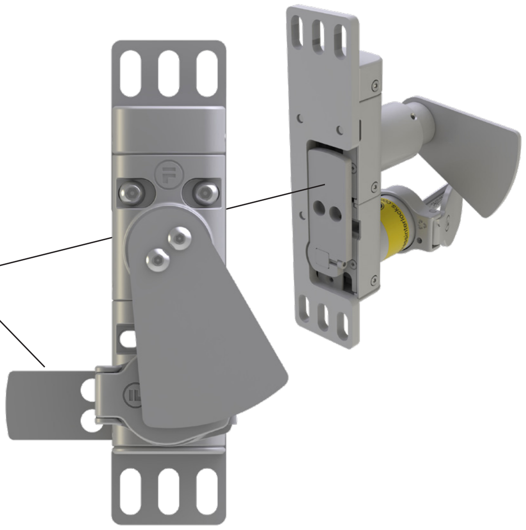
The IBL-H is designed to add an interlock blocking function to hinged guards which already have interlocks mounted. Visit the Fortress website to see a video of how it works.

The IBL-H

Guard Blocking Plate to prevent door opening



Interlock Blocking Plate to prevent the guard and interlock from being closed



Example Part Number: IBL2H-1-1-CLSS-MP1

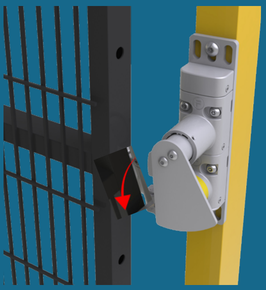
How does it operate?

In normal operation, the guard is closed and the interlock **safety contacts** in an existing system are **closed.**

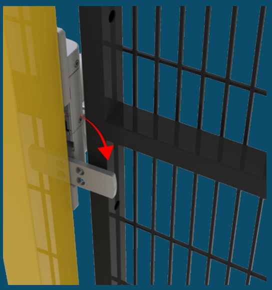
The **guard locking plate** prevents the guard opening until the trapped key is removed.

From behind, you can see the **guard can be closed** but not **fully opened.**

Rotating and removing the key performs **two functions.**

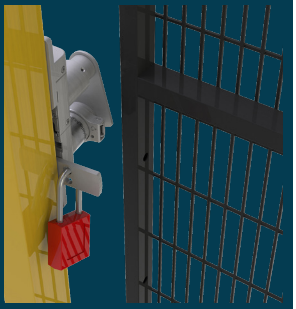


The **guard blocking plate** rotates to allow the guard to open.



The **Interlock Blocking Plate** is driven by the rotation, **preventing the guard and interlock from closing.**

Padlocks can be added for additional personnel.



Create your IBL-H Part Number

IBL🟨H	-	1	-	🟥	-	CLS🟩	-	MP1

Handing Type

- **2** Suitable for guard openings which are hinged on the **left**
- **4** Suitable for guard openings which are hinged on the **right**

Number of Personnel Keys

- **1** Contact Fortress if you require more than 1 personnel key

Dustcover Type

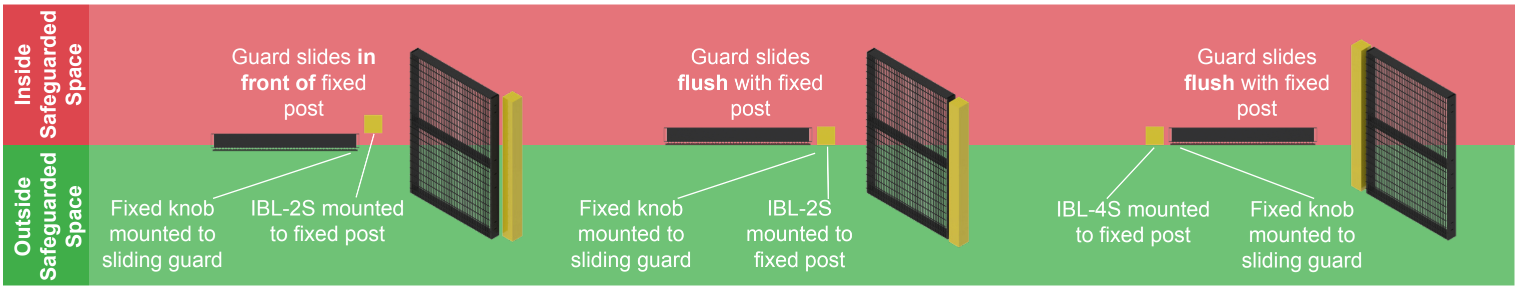
- **S** Standard stainless steel
- **L** Add the ability to add two padlocks to your IBL

Access technical files for the IBL-H via the Fortress website.

Sliding Guards (IBL-S)

How the moving portion of the guard interacts with the fixed post can vary between guards. Whilst guards which align with the post are common, others which slide in front or behind exist in some guarding applications.

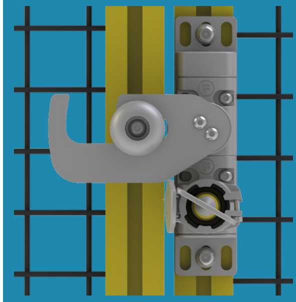
IBL can be used on differently aligned sliding guards with the appropriate part number. See our mounting options below. To learn more about our IBL-S, please see the video on the Fortress website.



How does it operate?

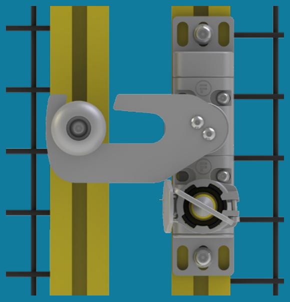
Example Part Number: IBL2S-1-1-CLSL-MP1

Guard closed



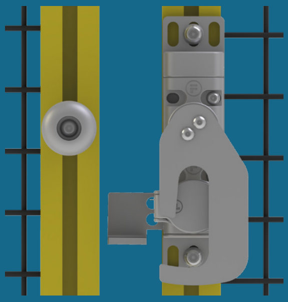
Existing interlock: Safety contacts **closed**

Sliding guard pulled open to end of ‘**Claw Plate**’. The guard is prevented from fully opening by the ‘**Fixed Knob**’



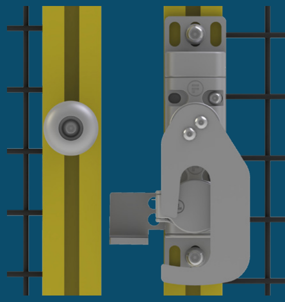
Existing interlock: Safety contacts **opened**

As the key is rotated, the ‘**Blocker Plate**’ rotates, and the ‘**Claw Plate**’ springs away from the ‘**Fixed Knob**’

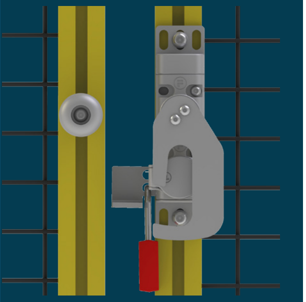


Existing interlock: Safety contacts **opened**

The **personnel key** is taken by the operator inside the safeguarded area. With the key removed, the guard cannot close and safety contacts cannot close



Padlocks can be added to the **blocking plate** for additional personnel.



Create your IBL-S Part Number

IBL 🟨 S	-	1	-	🟥	-	CLS L	-	MP1

Handing Type

2 Suitable for sliding guards which slide to the **left**

4 Suitable for sliding guards which slide to the **right**

Number of Personnel Keys

1 Contact Fortress if you require more than 1 personnel key

Dustcover Type

L Add the ability to add two padlocks to your IBL

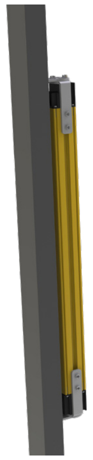
Instant CAD and Technical Files

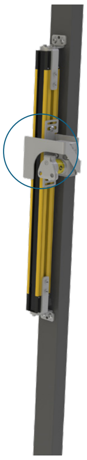
Configure your product using the 'Interlock Blocking Selector' for instant access to 3D models, technical drawings, and installation information. The selector can be found under the support section of the Fortress website.

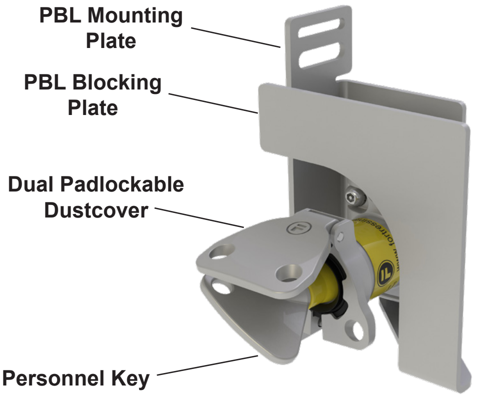
Photo-electric Blocking Solutions

The Photo-electric Blocking Device (PBL) comes in multiple configurations to support installation on different brands of light curtains. Contact our team to learn more about our options and to learn more about the function of the PBL, watch our video available on the website.

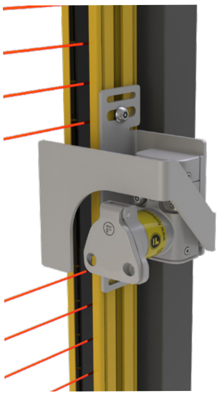
The PBL



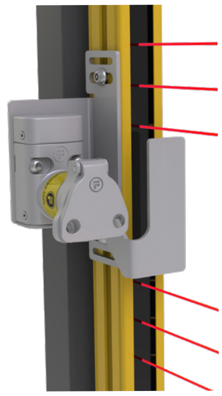




Example Part Number: PBL2A-1-1-CLSL-MP1



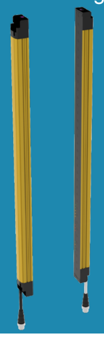
PBL2 - Actuating to the left



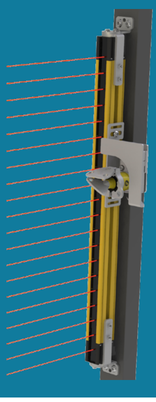
PBL4 - Actuating to the right

How does it operate?

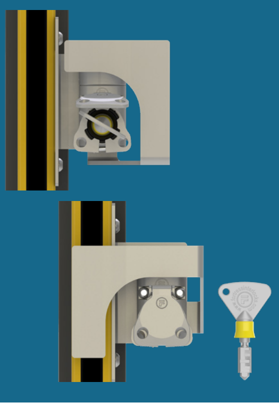
Light Curtain access in normal operation. Unexpected start-up is possible whilst operators are within the safeguarded space as nothing inhibits the signal remaking.



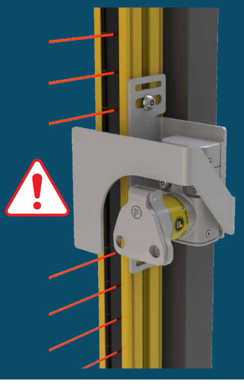
The PBL can be mounted beside the transmitter or receiver as an addition.



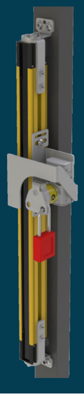
The key is removed which drives the rotation of the blocking plate.



Whilst an operator is inside the safeguarded space with this key, unexpected start-up is prevented by the blocking plate.



Protection for additional operators can be achieved through a padlockable dustcover.



Create your PBL Part Number

PBL 🟨 A	-	🟦	-	1	-	CLSL	-	MP 🟧

Handing Type

2

Mounted right end of safeguarded opening

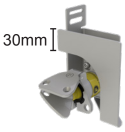
4

Mounted left end of safeguarded opening

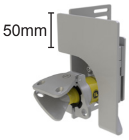
Mounting to emitters or receivers at either end of your access point, we have the solution to support

Blocker Plate Size

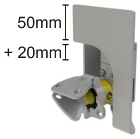
1



2



3

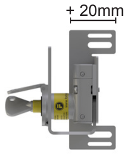


Increase the size of your PBL plate to appropriately block your light curtain

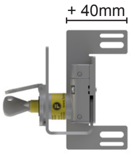
Mounting Plate Size

1

2



3



Select the appropriate PBL mounting plate for your installed light curtain

Access technical files for the PBL via the Fortress website.

Notes

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> “We have the peace of mind that our workers are safe and protected by Fortress equipment.”

FORTRESS

> “Fortress’ best quality is providing each customer the most robust and safe solution - all while being completely customizable and retaining a high level of quality.”

FORTRESS

> “Fortress is best at providing customised solutions at a rapid turnaround - reacting immensely to a challenge to put the customer’s needs first.”

FORTRESS

> “We value suppliers that can help navigate the standards and provide guidance that is directly linked to our applications.”

Fortress Global Offices and Manufacturing Facilities

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Contact us

Notes

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