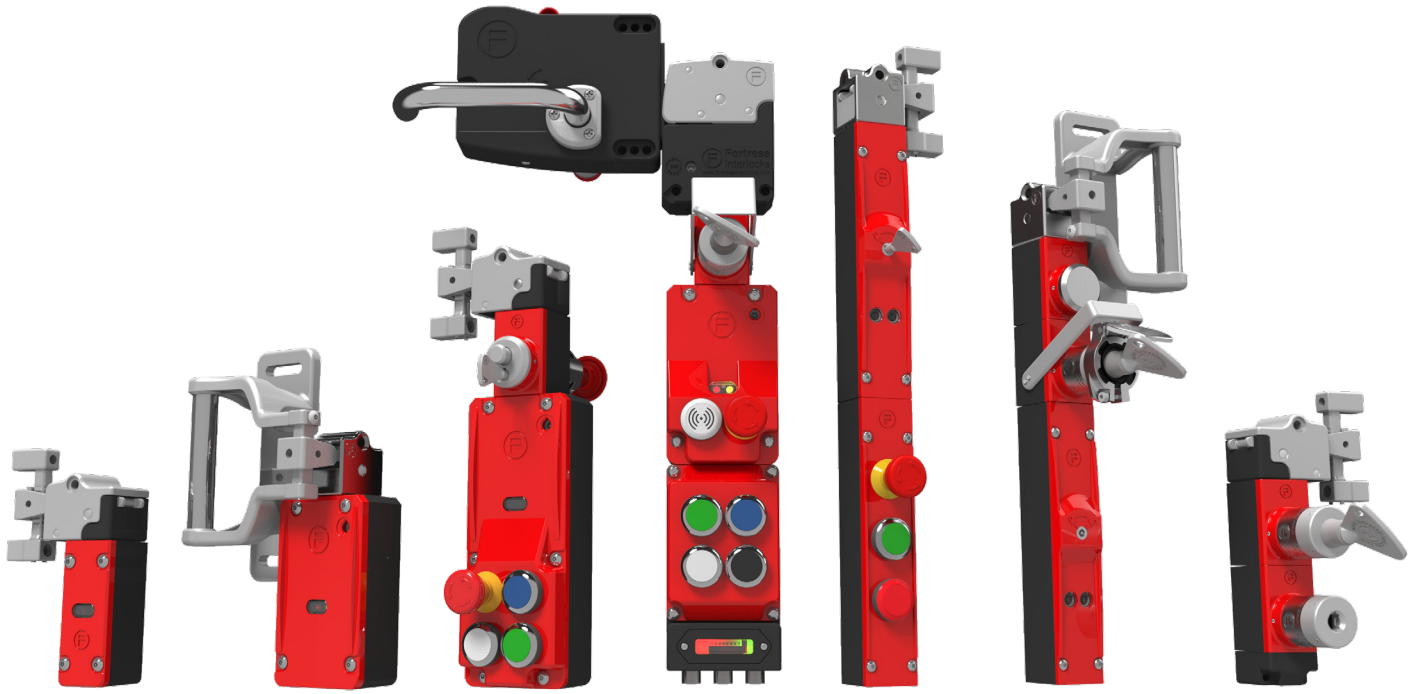
FORTRESS
INTERLOCKS

amGard pro

Heavy Duty Guard Locking with PROFIsafe and CIP Safety



THE QUEEN'S AWARDS FOR ENTERPRISE: INTERNATIONAL TRADE 2018

TÜV SÜD Safety tested Production monitored Functional Safety

TÜV SÜD Safety tested Production monitored C US

PI CERTIFIED PROFIBUS • PROFINET

PROFIsafe

PROFINET

EtherNet/IP

ODVA CONFORMANT

CIP Safety

Introduction to Fortress:

Fortress designs and manufactures customised safety equipment, protecting lives in hazardous workplaces. Our reputation is as a global provider of robust safety specifications for manufacturing environments.

Why Interlocks? Interlocking is a method of controlling two or more interdependent operations which must take place in a predetermined sequence, if necessary remotely controlled or time delayed. The need for this sequence may be safety to personnel and equipment, or it may be to control processes and productivity.

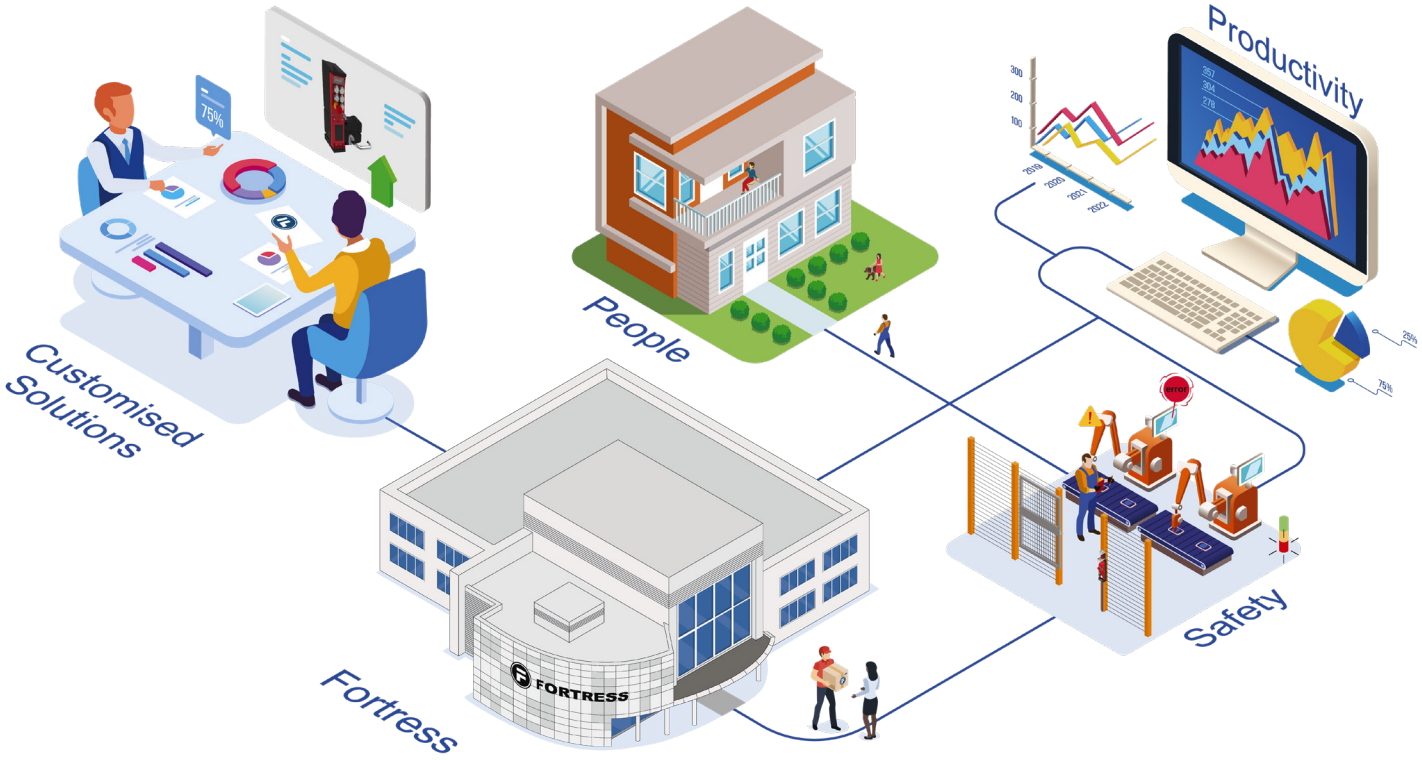
Over the last 40 years, Fortress has become well known in the industry for innovative design, robust engineering and reliability. Headquarters are in Wolverhampton (UK), with supporting offices and manufacturing facilities in the USA, Netherlands, Australia, China and India, further supported by a global network of trusted distributors and channel partners.

Fortress' current product portfolio includes:

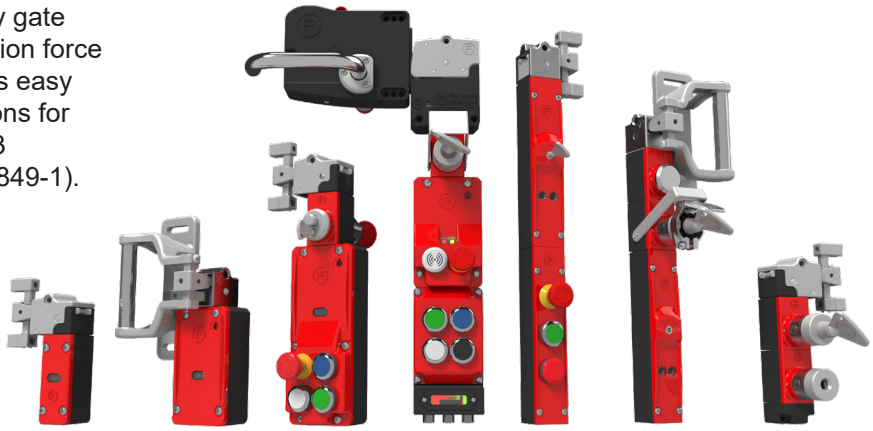
- **mGard** - The only range of mechanical interlocks independently certified to PLe
- **amGard*pro*** - Heavy duty safety gate switches with connectivity and trapped key integration certified to PLe
- **amGard*S40*** - Stainless steel IP69K safety gate switches independently certified to PLe
- **tGard** - Medium duty interlocks with configurable built-in control functionality independently certified to PLd
- **ncGard** - A range of safety switches with non-contact technology

FORTRESS

Saving lives by providing the best safety solutions



amGard*pro* is the ultimate range of modular safety gate interlocks for heavy duty applications with a retention force of 10,000N. Its unique modular construction allows easy configuration; providing electro-mechanical solutions for practically any safeguarding application up to SIL3 (EN/IEC 62061), Category 4 and PLe (EN/ISO 13849-1).



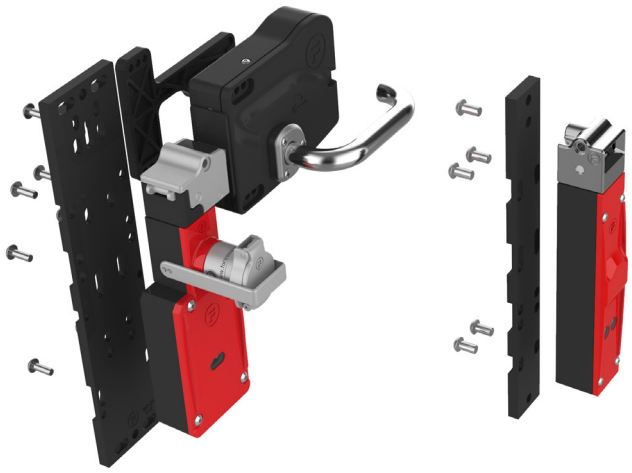
*pro*Net is an addition to the amGard*pro* range that adds an Ethernet based networking capability.

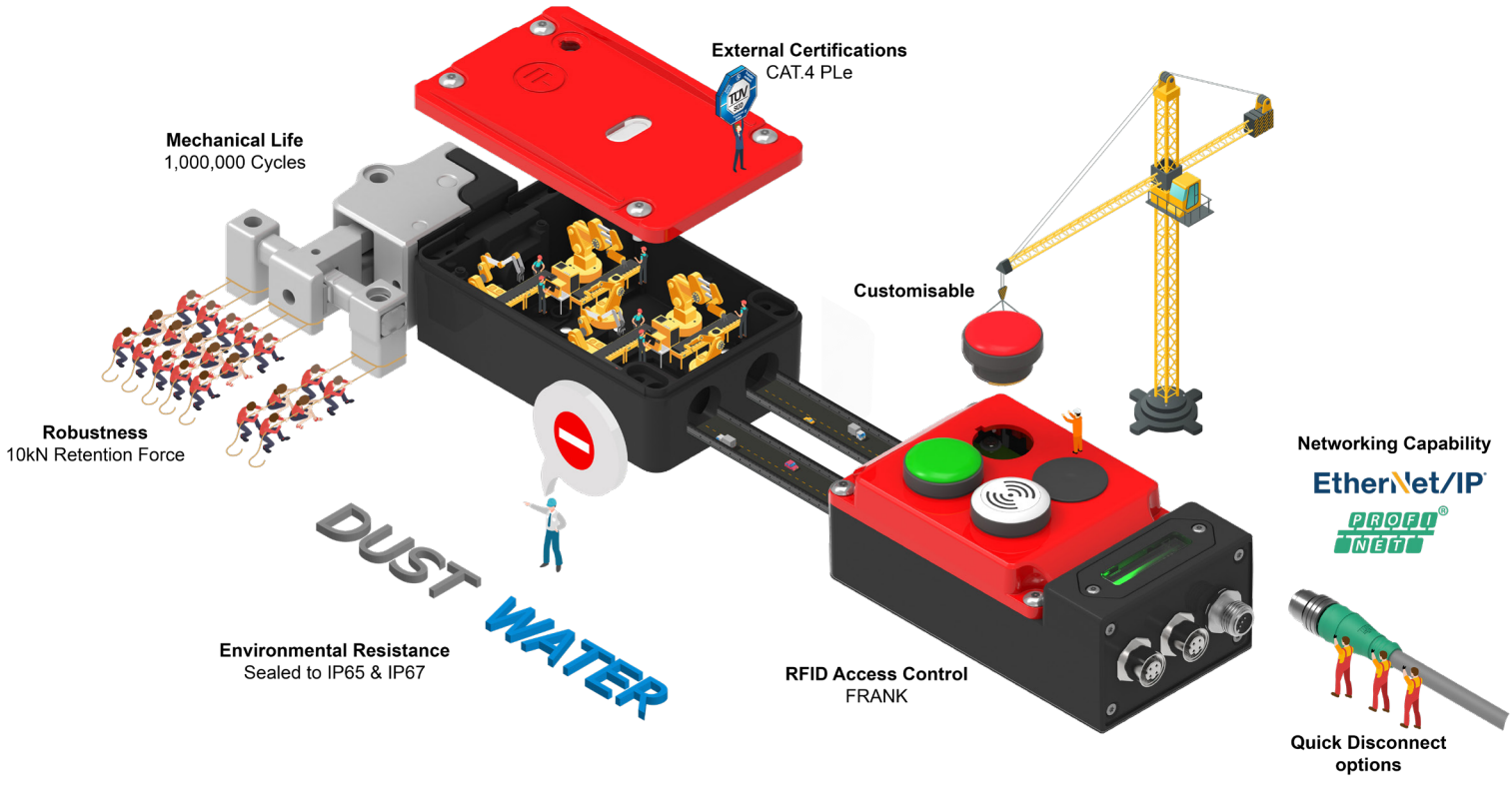
Slimline *pro* houses the solenoid locking functionality in a body just 40mm wide.

FRANK is the integration of existing site RFID access cards as part of a software based access approval system for manufacturing areas. Data is collected in the Fortress system for data insights that can support efficiency analysis.

Mounting Plates ensure most of our configured amGard*pro* safety gate interlocks can be easily and simply fitted to machine guarding. The units arrive pre-fitted when the mounting plate and/or actuator plate suffix 'MPB1' is added to the configured part number.

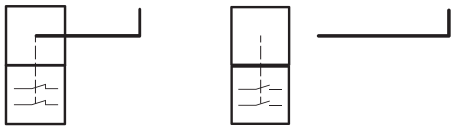
Note: Our online product configurators are available on our website - https://www.fortressinterlocks.com/





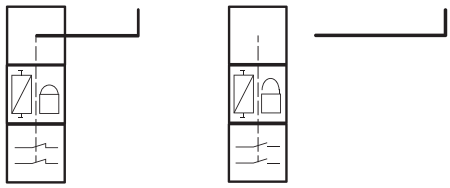
Access Hatches

Application Requirement:
Access points can require safeguarding with safety switches to ensure the process cannot run with guards open. Wire-to-the-guard solutions are suited to fast and frequent access demands. Processes that do not stop instantly should be safeguarded with solenoid guard locking solutions that only unlock the guard when it is safe to access.



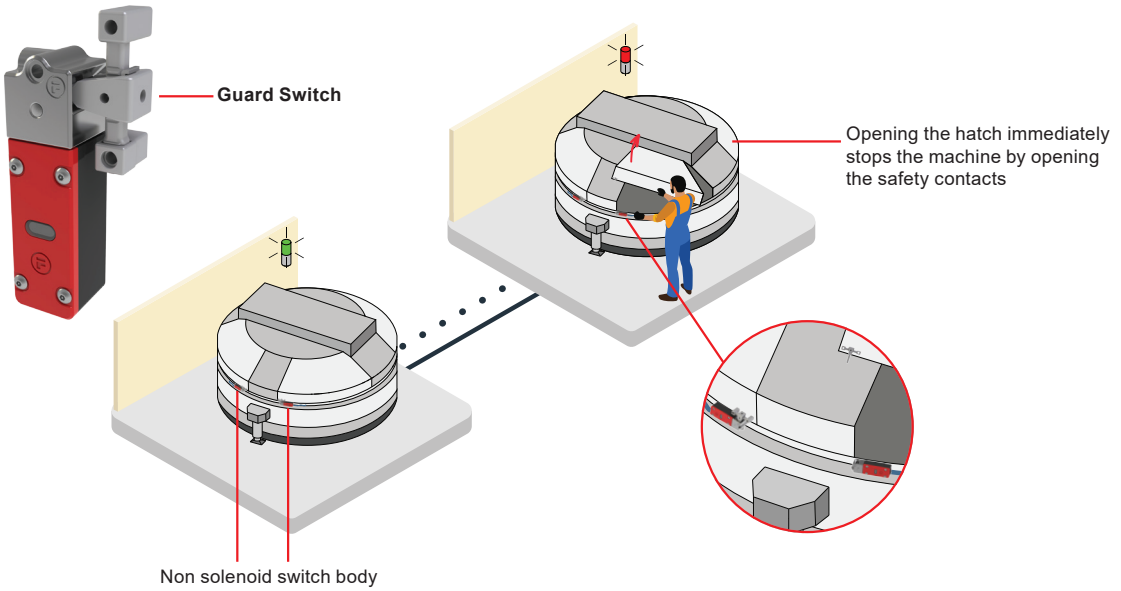
Guard Switch

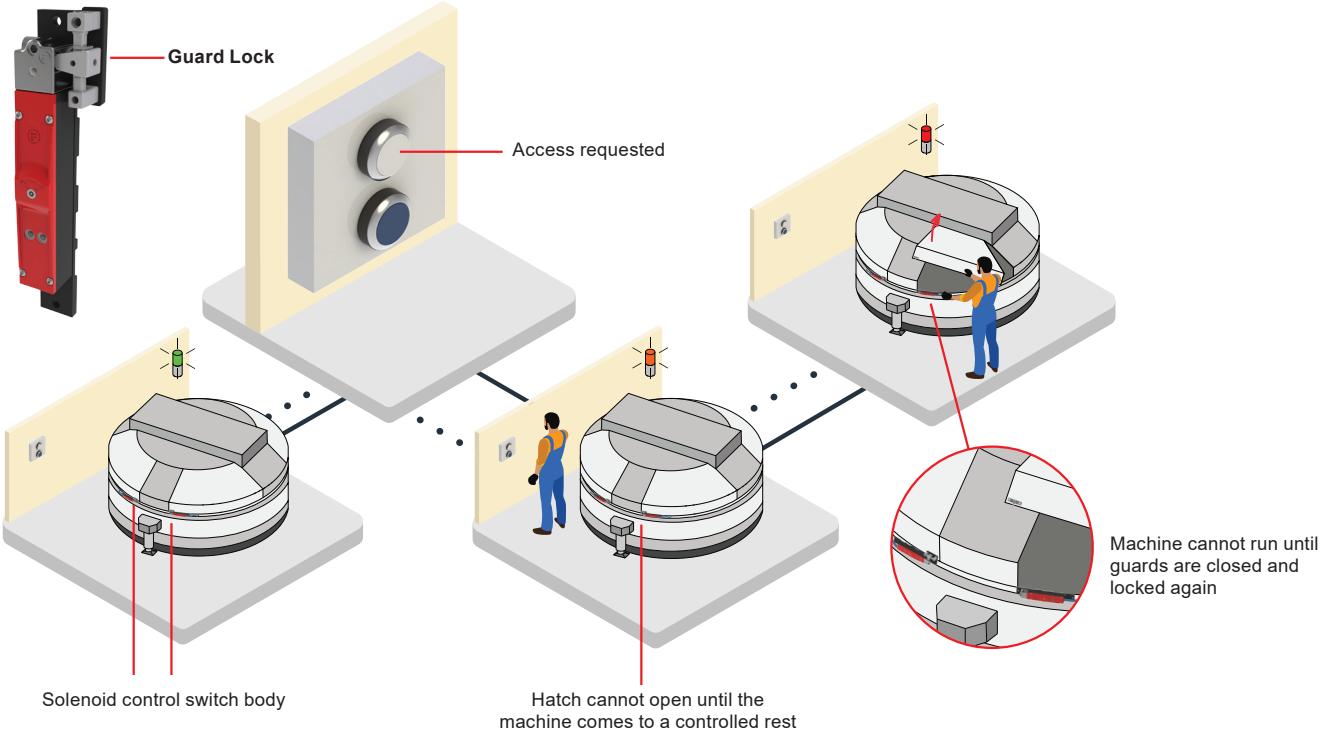
Guard opens, safety switches open



Guard Lock

Guard is locked until machine stops, guard unlocking opens safety switches

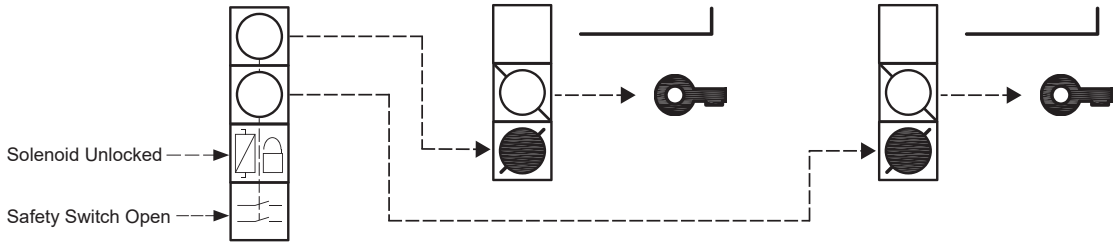




Robot Pallet Stacker

Application Requirement:

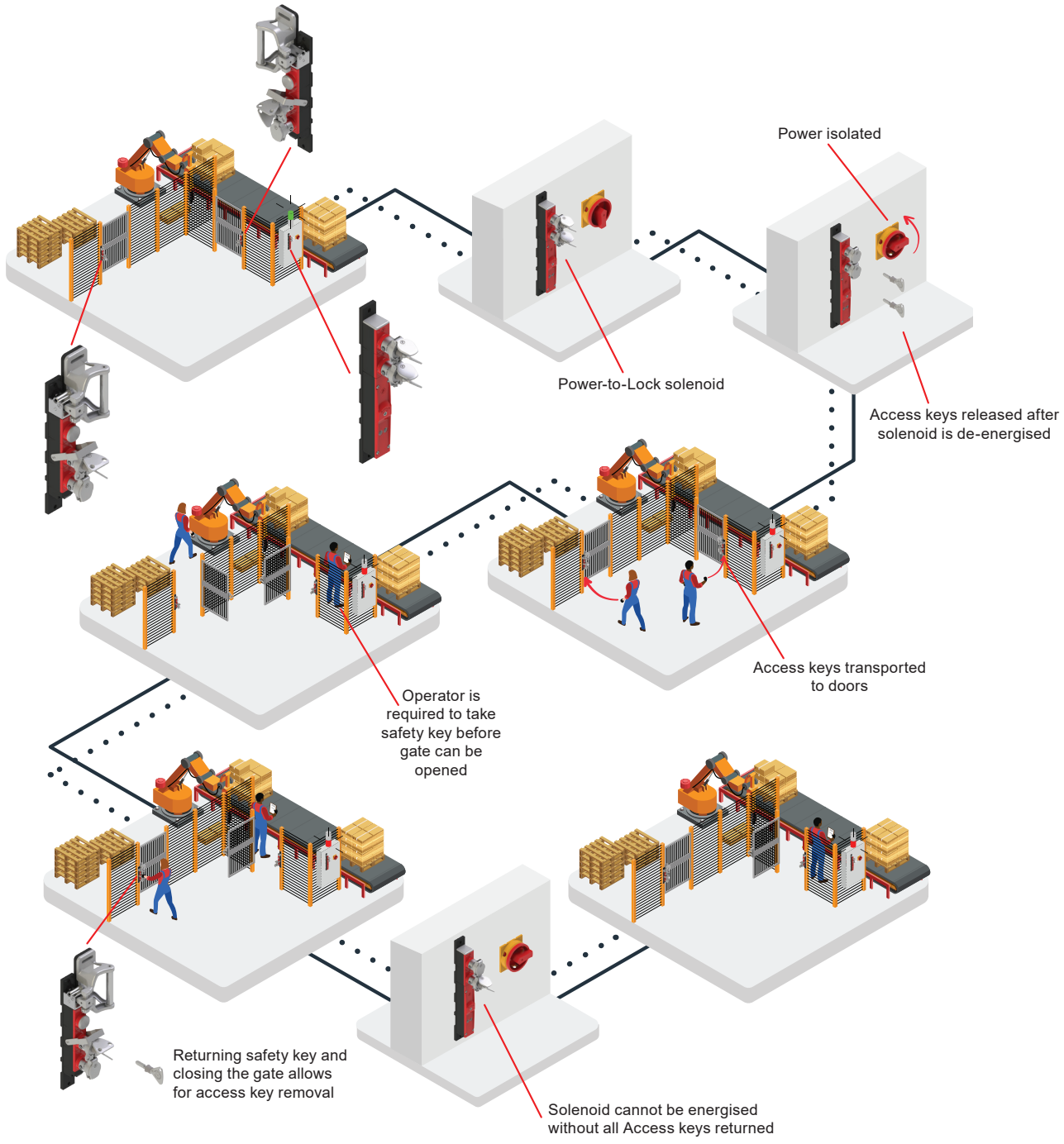
Robot arms require safeguarding measures during operation and when carrying loads. The robot pallet stacker below has two access points and a single central panel. When mains power is isolated to the system, the Power-to-Lock solenoid is de-energised and access keys for access points are release. Mechanical only interlocks at the guard can be opened with an access key whilst also providing a personnel key the operator is forced to take inside the cell to prevent restart in accordance to ISO 14118.



Power-to-Lock Solenoid
Access keys unlocked, safety switch open.

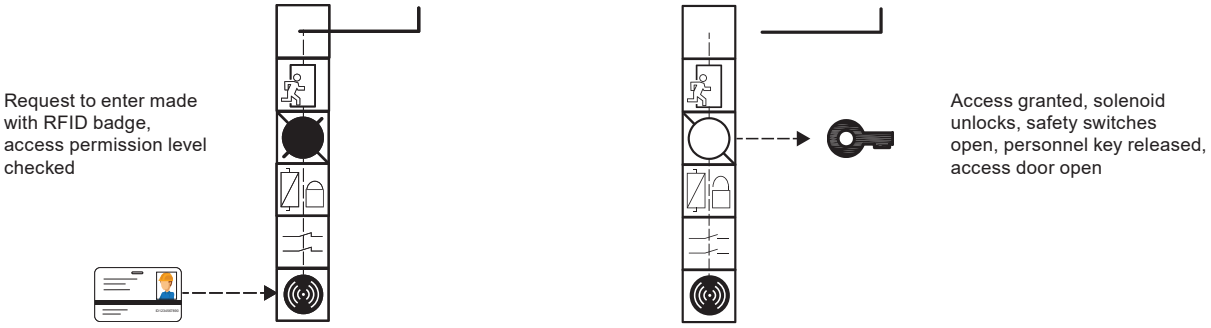
Access Lock No. 1
Access key trapped, personnel key released, access door open.

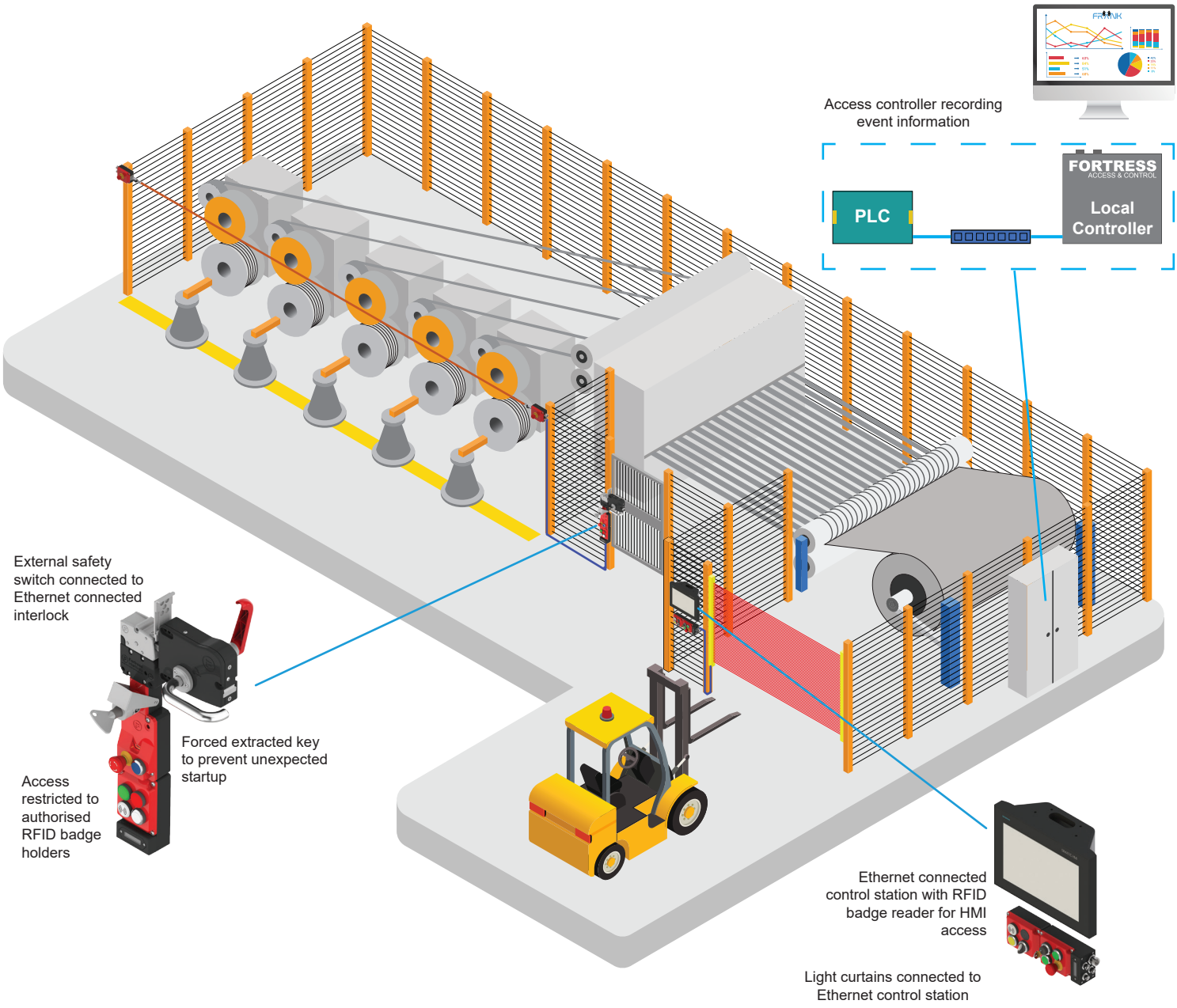
Access Lock No. 2
Access key trapped, personnel key released, access door open.



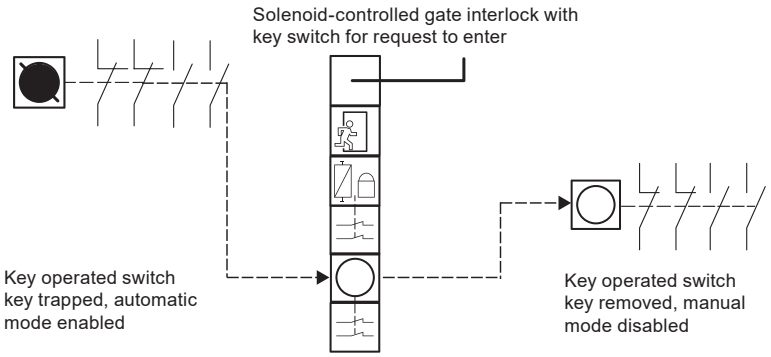
Slitting Line

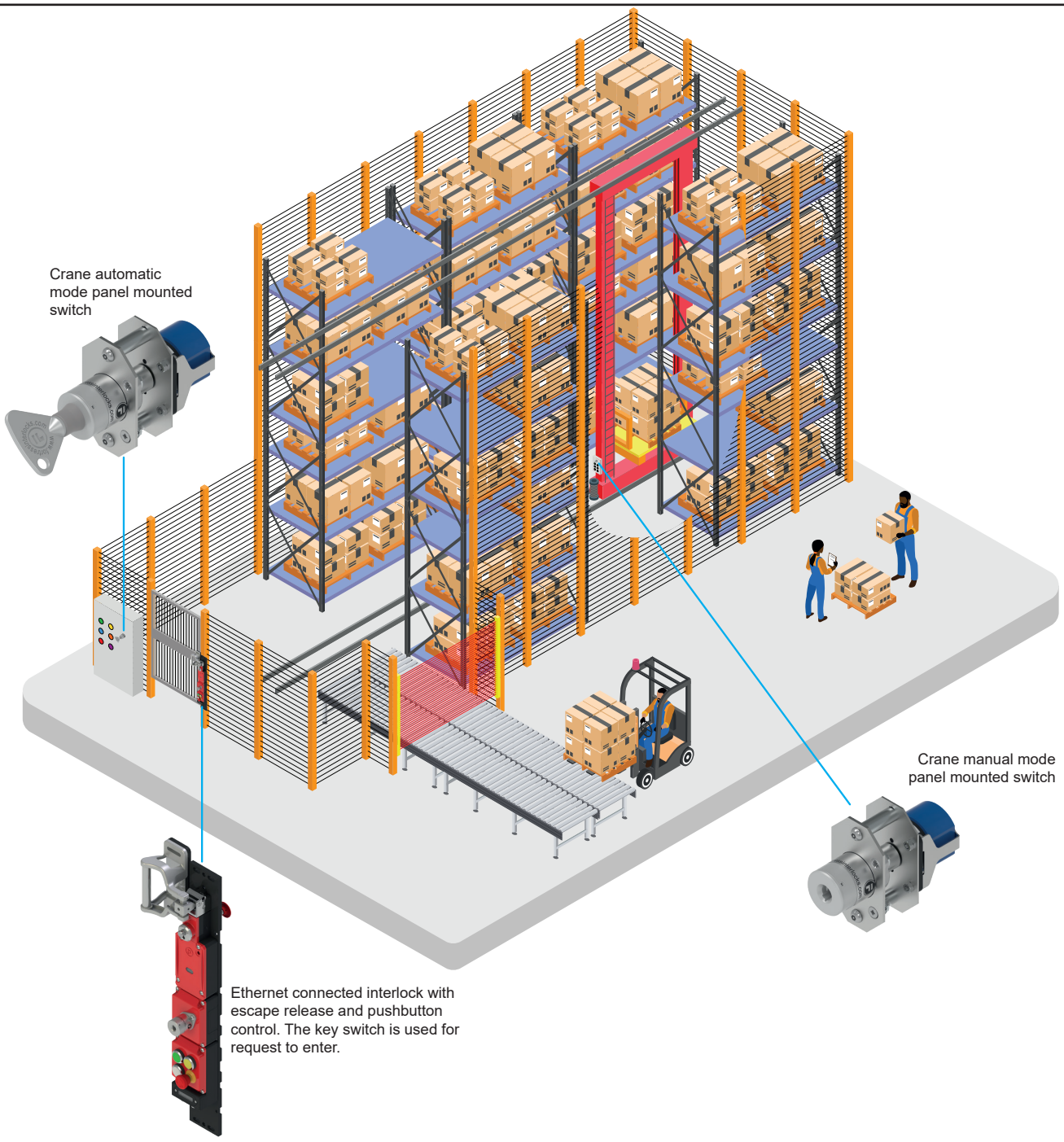
Application Requirement:
Slitting lines require multiple safeguarding methods to cover different hazards. Safety controls for light curtains, guard locks and grab wires are integrated into two Ethernet connected Fortress units in the below application. Access is provided via RFID badges. The Fortress FRANK controller manages permissions and records data insights to restrict access based on training levels; Access frequency and duration can then be used for productivity analysis.





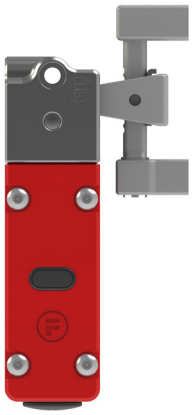
Application Requirement:
Automated storage and retrieval systems have aisle entry access at aisle ends and / or mid aisle points. For EN 528:2008 compliance, automatic crane control is disabled by a key switch mounted in an enclosure outside the aisle. This key permits access to the aisle via the interlock. The same key enables manual crane control via a key switch on the cart inside the aisle. See EN 528:2008 for further guidance.





Guard Switch

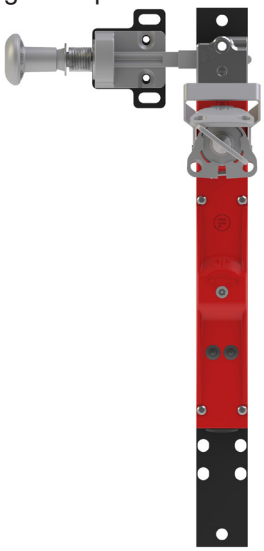
2NC, 1NO heavy duty safety switch.



SA4S6ST401

Guard Lock with Forced Extracted Key

Personnel key is required to be taken by the operator before guard opens.



SD2S6EKL3ZL411MPB1

Guard Lock

Heavy duty Power-to-Unlock solenoid safety interlock.

SA2S6ZL411MPB1

Guard Lock with Single Action Escape Release

Ergonomic handle incorporates escape release in a single action. Operating red handle overrides locking mechanism and opens guard.

EI2A6SR411

Guard Lock with Escape Release

Heavy duty safety interlock with escape release. Activation overrides locking mechanism and creates stop command.

HS1S6R2ZR411

Guard Lock with Integrated Ethernet Communication

PROFINET/PROFIsafe connectivity to the interlock. Pushbuttons & emergency stop incorporated at the guard. Ethernet/IP CIP safety also supported.

EI2A6SR411N2BUWYNPF10

What is *pro*Net?

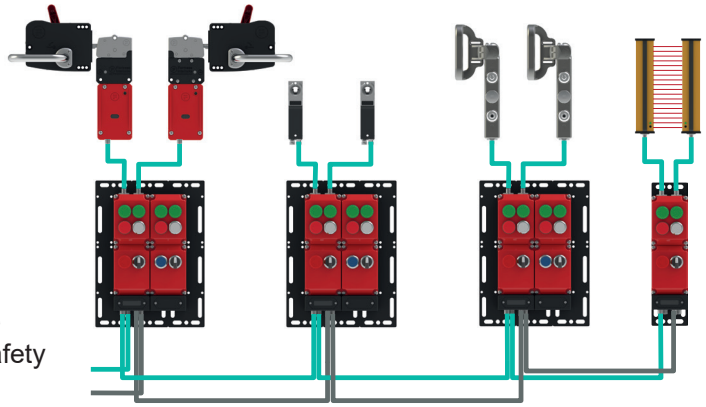
Fortress' *pro*Net allows Fortress devices to become distributed I/O on PROFINET or EtherNet/IP networks. Safety information is exchanged using the PROFIsafe or CIP Safety. The *pro*Net module can be configured for standalone control functionality, to power external devices via quick disconnects or as part of an amGard*pro* interlock unit.

Product Features:

- 3 dual channel safety inputs are supported. Can be utilised for guard locking, emergency stops and enabling switch connection all within one unit.
- Standard I/O for pushbutton/lamp functionality is extendable up to 40 I/O per configuration.
- An integrated network switch facilitates 'daisy-chain' bus topologies with no additional hardware.
- I6 I/O is available as protected external I/O via quick disconnects.
- F-address are set via web interface or DIP switches.
- Diagnostic functions available via web interface (Supply voltage, Current F-address, Ethernet connection statistics).
- Variety of connection options including AIDA specification, M12 and 7/8" receptacles.

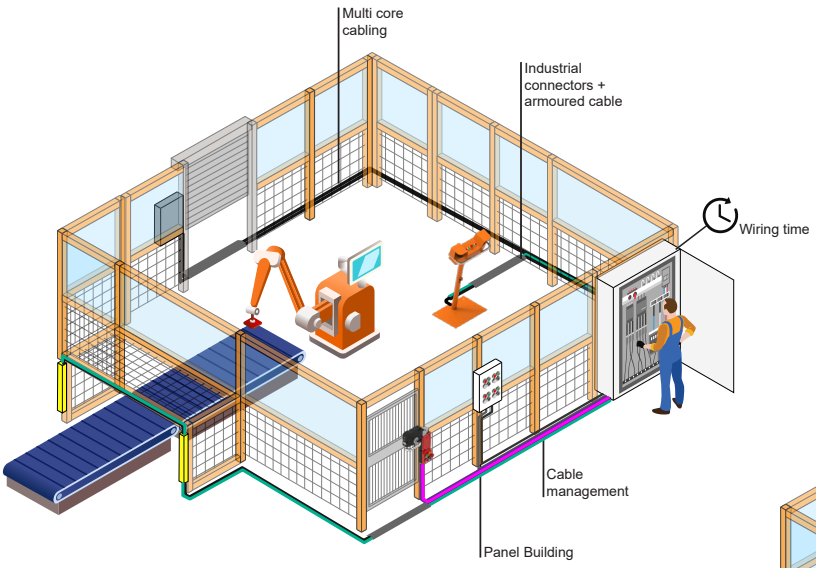
Control Stations

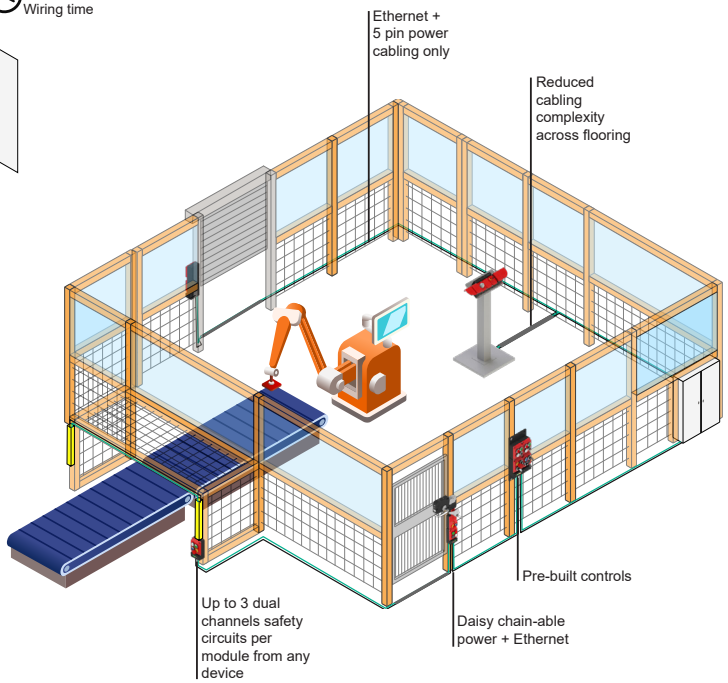
Fortress' *pro*Net Control Stations are configurable network solutions aimed at reducing the cost of installation / ownership of bespoke fabrications with hardwired control functionality.



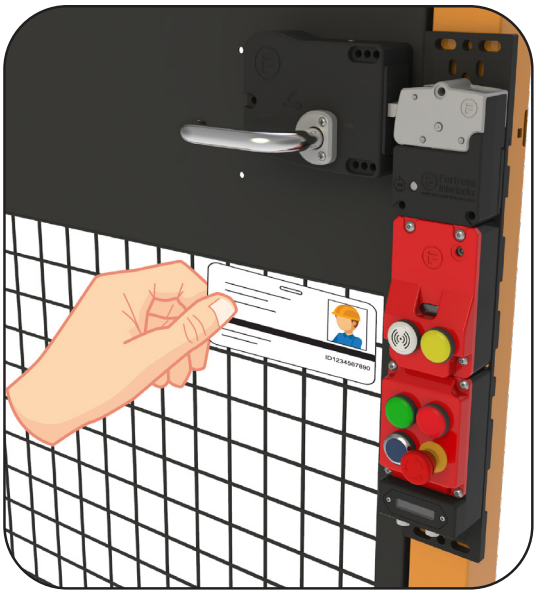
Costs associated with wiring time, panel building, panel space and the purchasing of enclosures, IO modules, terminals, multi core cables, industrial connectors at the machine or cell for the safety switches, sensors and interlocks can be avoided. Units arrive ready to be plugged into the network via quick disconnects.

Control and safety communication are transmitted over a single Ethernet cable plugged into the Fortress unit. 3 dual channel safety inputs are supported with 1 dual channel safety output.





Fortress RFID Access Network Keys



Interlocks control when you can access equipment safely, FRANK controls who can access equipment safely.

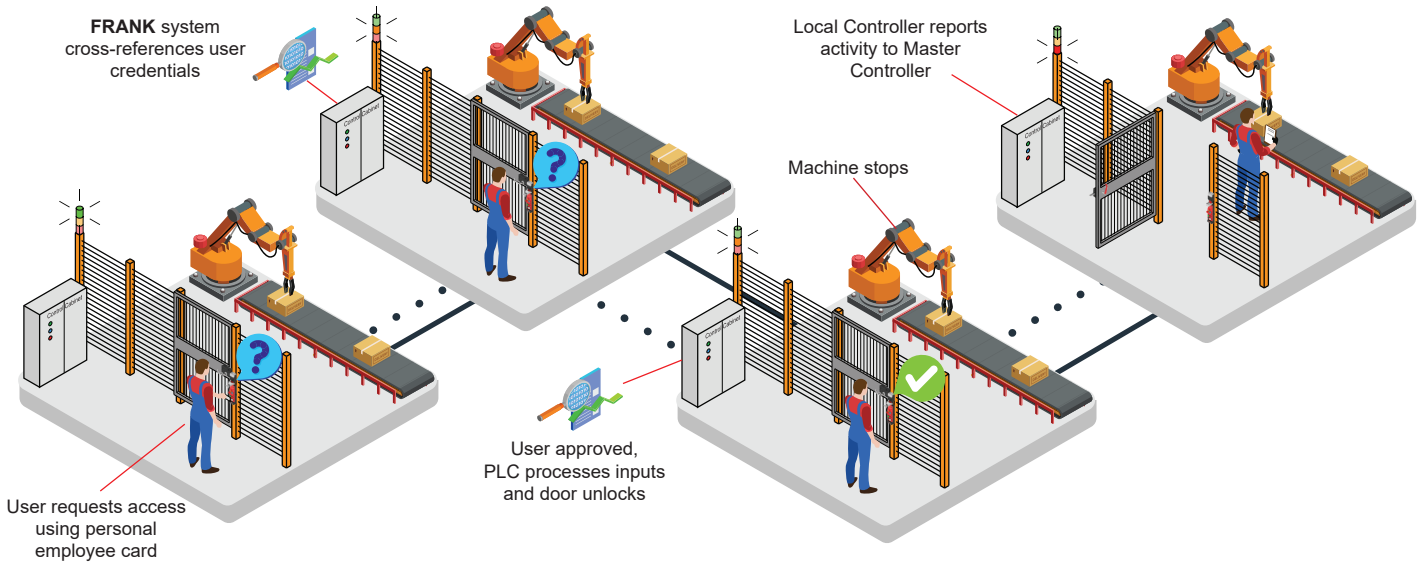
By integrating readers to suit the existing site RFID access cards into a Fortress device and providing a software based access approval control system; FRANK can be integrated into automation systems with simple input/outputs to a PLC.

Data of who, when and where from access events is collated to a central point within facilities to allow for viewable events lists and data insights that can support efficiency analysis.

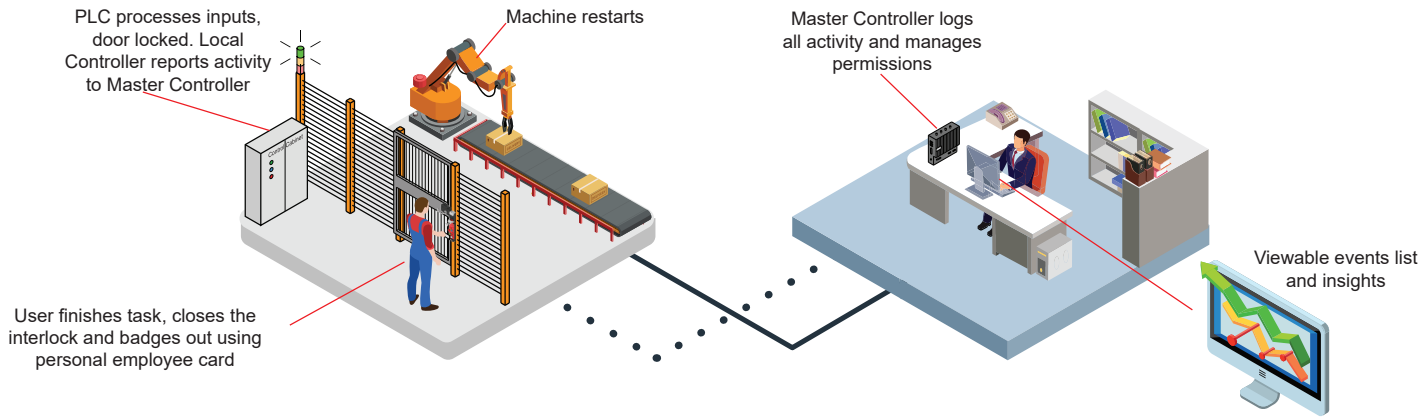
Fortress supports common card types including:

- 13.56MHz ISO 15693
- 13.56MHz with manufacturer's specific protocol
- 13.56MHz ISO 14443A
- 125kHz with manufacturer's specific protocol

Control Access



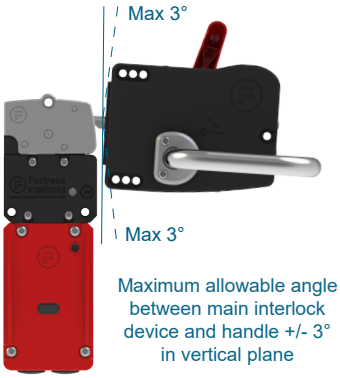
Manage Productivity



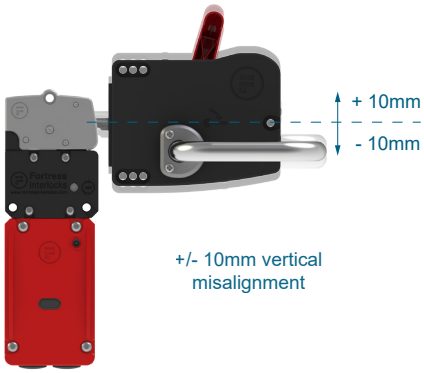
Misalignment Capability

Recognising that machine guarding installations often have a degree of variability and that guards move over time during use, Fortress provides market leading misalignment capability in the actuator offerings.

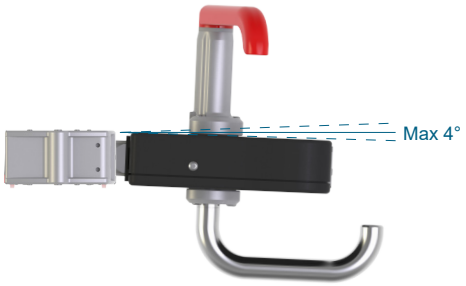
Actuator tongues can be moved vertically on a ratchet with angular misalignment also adsorbed by actuator design.



Maximum allowable angle between main interlock device and handle +/- 3° in vertical plane



+/- 10mm vertical misalignment

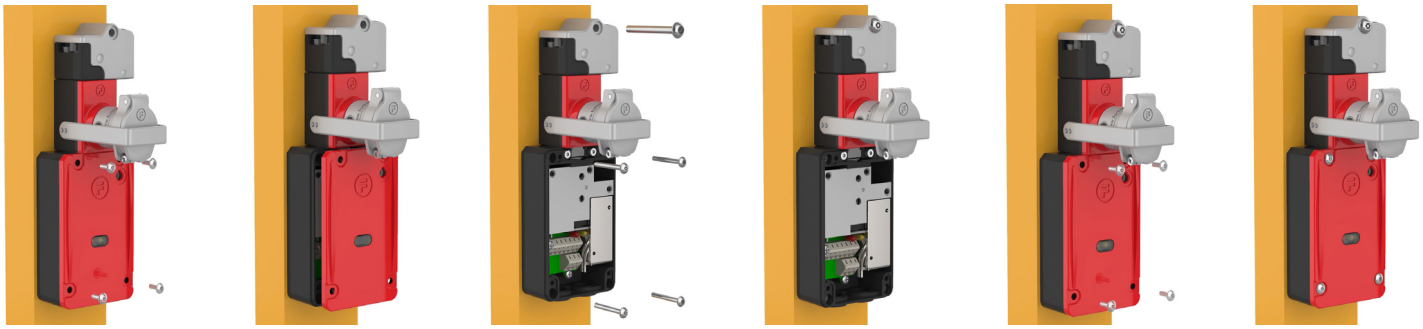


Maximum allowable angle between assembly faces of main interlock device and handle +/- 4°

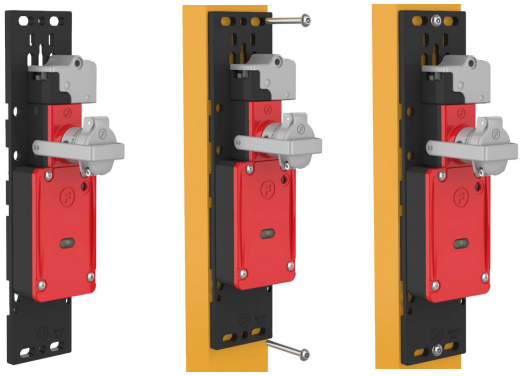
Mounting Plates

A series of packing and mounting plates to ensure most configured amGard*pro* safety gate switches can easily and simply be fitted to machine guarding. The configurable plates are a robust design of die cast aluminium and are suitable for both hinged and sliding guards. The packing and mounting plates are pre-fitted to the interlock when ordered together and the mounting plates. However, they can also be ordered separately.

Without Mounting Plates



With Mounting Plates



How To Configure:

The amGard*pro* online configurator allows you to add a mounting plate at the end of your configuration which will automatically select the correct mounting and packing plate that your configured unit requires.

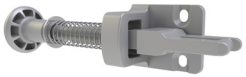
FORTRESS INTERLOCKS

amGard pro Range Card

Actuator

Tongue

Handle Actuator



Short Hinged Handle

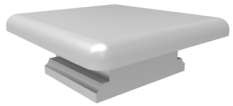
Long Hinged Handle

Slidebar

Rotary Insertion Handle

Mechanical Ends

Cap

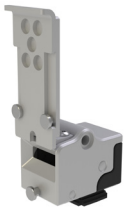


Ergonomic Handle, No Interior Handle

Ergonomic Handle, Open & Close from Both Sides

Accessories

Drop Down Lock-Out



Lock-Out Clip

Single Action Escape Release Handle

Heads

Slimline Linear Insertion Head

Rotary Insertion Head

Linear Insertion Head

Single Action Escape Release Head

Escape Release Adaptors

Security Tool Reset

Pushbutton Reset

Trapped Key Adaptors

Extracted Key Adaptor

Safety Key Adaptor

Access Key Adaptor

Switches / Locks

Slimline Solenoid Controlled Switch Body

Solenoid Controlled Switch Body

Non Solenoid Switch Body

Option Pods

Slimline Pod

Key Switch Pod

Option Pod

Networked Option Pod

Mounting Plates

Tongue & Rotary Insertion Handle

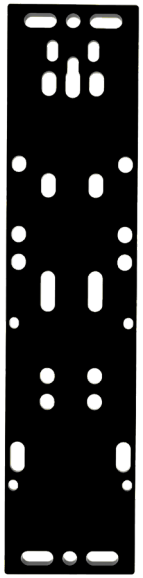
Ergonomic Handle

Slidebar

Hinged Handle

40 mm

80 mm



Mechanical Ends

Foot

Quick Disconnects

5 Pin M12

8 Pin M12

10 Pin M12

12 Pin M12

19 Pin M23

Power & Data Connector Sets

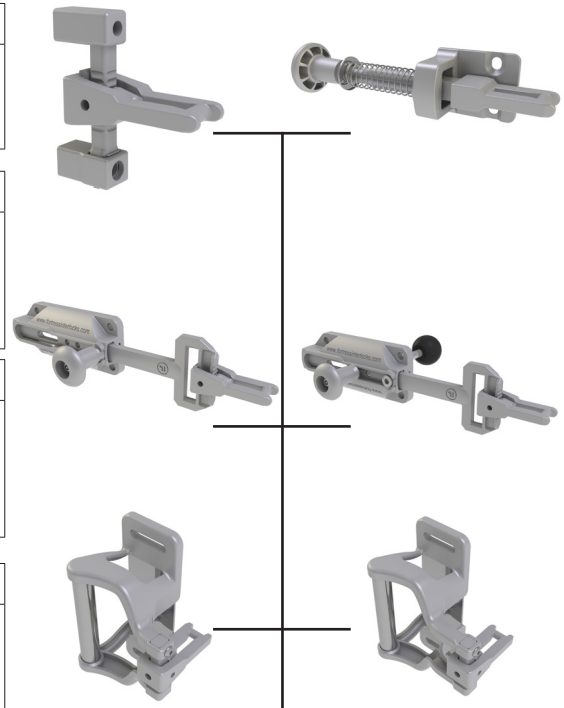
Step 1: Choose the Actuator, Handing & Head

Description	Information	Part No.
Linear Insertion Tongue	High strength and misalignment, suitable for all 'S' head configurations.	SA

Description	Information	Part No.
Tongue Slidebar Without a Spring	Sliding motion holds door closed. With no return spring slidebar remains in the position it is left in.	SN

Description	Information	Part No.
Tongue Slidebar With Return Spring	Sliding motion holds door closed. Return spring pulls the slidebar open when unlocked. Collision with interlock when closing guard avoided.	SS

Description	Information	Part No.
Short Hinged Handle	Short reach for use with 40mm wide units. (Removes need for separate handle on hinged guards).	HS1



Description	Information	Part No.
Hand Operated	Hand operated actuator with return spring.	SD

Description	Information	Part No.
Tongue Slidebar With Internal Handle But No Return Spring	Sliding motion holds door closed. Same as a SN but escape release knob allows door to be **opened only** from the inside when main unit is unlocked.	SI

Description	Information	Part No.
Slimline Tongue Slidebar With Internal Handle c/w Spacer Behind The Knob	Same as a SI but escape release knob allows door to be opened **and closed** from the inside when main unit is locked.	SF

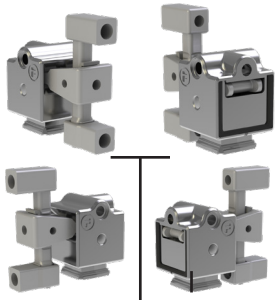
Description	Information	Part No.
Long Hinged Handle	Long reach hinged handle for use with 80mm wide units.	HL1

Description	Part No.
Front Facing	1

Description	Part No.
Rear Facing	3

Description	Part No.
Left Facing	2

Description	Part No.
Right Facing	4

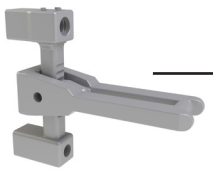


Description	Information	Part No.
Linear Insertion Slimline Head	High strength and durability, suitable for all 'S' actuators and front / left / rear / right facings.	S6

Insert Your Part Number Selection Here	Actuator	Handing	Head	Push Escape Release Adaptor	Trapped Key Adaptors			Guard Switch / Guard Lock

Step 1: Choose the Actuator, Handing & Head

Description	Information	Part No.
Linear Insertion Tongue	High strength and misalignment, suitable for all 'T' head configurations.	TA



Description	Information	Part No.
Slidebar Without a Spring	Sliding motion holds door closed. With no return spring slidebar remains in the position it is left in.	TN

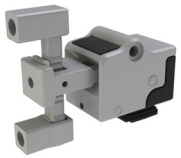
Description	Information	Part No.
Slidebar With a Return Spring	Sliding motion holds door closed. Return spring pulls the slidebar open when unlocked. Collision with interlock when closing guard avoided.	TS

Description	Information	Part No.
*pro*Handle No Internal Release	Ergonomic handle for machine guarding, but no method to open door from inside.	EN

Description	Information	Part No.
*pro*Handle, With Internal Access Handle	Ergonomic handle for machine guarding. Internal access handle allows to be opened and closed from the inside.	EF

Description	Information	Part No.
Slidebar with Internal Handle But No Return Spring	Sliding motion holds door closed. Same as a TN but escape release knob allows door to be **opened only** from the inside when main unit is unlocked.	TI

Description	Information	Part No.
Slidebar With Internal Handle c/w Spacer Behind The Knob	Same as a TN but escape release knob allows door to be opened **and closed** from the inside when main unit is locked.	TF



Description	Part No.
Left Facing	2

Description	Part No.
Right Facing	4

Description	Information	Part No.
Linear Insertion Head	High strength and durability, suitable for all 'T' actuators and left / rear facings.	T6

Insert Your Part Number Selection Here	Actuator	Handing	Head	Push Escape Release Adaptor	Trapped Key Adaptors			Guard Switch / Guard Lock

Step 1: Choose the Actuator, Handing & Head

Description	Information	Part No.
Rotary Insertion Handle	Turning motion holds door closed. Ideal for non locking set ups.	MA

Description	Information	Part No.
Single Action Escape Release Handle	Red handle overrides all locking mechanisms and opens safety contacts to allow escape release.	EI

Description	Information	Part No.
Single Action Escape Release Handle	Red handle overrides all locking mechanisms and opens safety contacts to allow escape release. Red handle can also close door from inside.	EJ

Description	Part No.
Left Facing	2

Description	Part No.
Right Facing	4

Description	Information	Part No.
Rotary Insertion Head	Rotary insertion head suitable for MA actuator and left / right facings.	M6

Description	Information	Part No.
Single Actions Escape Release Head	Single action escape release head with automatic reset. Suitable for EI and EJ handle actuators and left / right facing.	A6
Single Actions Escape Release Head with Key Reset	Single action escape release head with key reset. Suitable for EI and EJ handle actuators and left / right facing.	I6

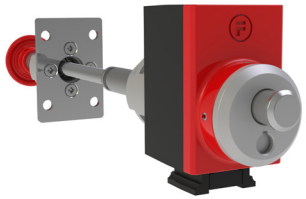
Insert Your Part Number Selection Here	Actuator	Handing	Head	Push Escape Release Adaptor	Trapped Key Adaptors			Guard Switch / Guard Lock

Adaptors

Step 2: Do you want a Push Escape Release?

Description
A push escape release adaptor will allow guard to open even if unit is locked by keys and / or solenoid. A push escape release adaptor is not needed if a single action escape release head and handle combination have already been specified.

Description	Information	Part No.
Pushbutton Reset	Overrides all locking mechanisms and opens safety contacts to allow escape release. Simple push reset allows quick restart. Suitable for guards up to 60mm thick.	RX



Description	Information	Part No.
Pushbutton Reset Variable Length	Same as RX but suitable. Suitable for guards up to 300mm thick.	RZ

Description	Information	Part No.
Security Tool Reset	Same as RX but key reset to ensure all incidents are reported those employees with a reset key.	R2

Description	Information	Part No.
Security Tool Reset Variable Length	Same as R2 but suitable. Suitable for guards up to 300mm thick.	R4

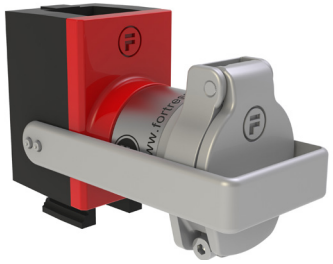
If a push escape release is not required leave part number blank and go to step 3.

Insert Your Part Number Selection Here	Actuator	Handing	Head	Push Escape Release Adaptor	Trapped Key Adaptors			Guard Switch / Guard Lock

Adaptors

Step 3: Choose an Trapped Key Adaptor

Forced Extracted Key For Personnel To Carry Inside Area



If you've selected an I6 / I7 / A6 / A7 or a push escape release adaptor then select a releasing lock.

Description	Part No.
Standard Lock	L
Releasing Lock (must be used if a push escape release or single action escape release head & handle selected).	R

Description	Part No.
Standard Lock no dustcover	1
Standard Lock with dustcover	2
Standard Lock with padlockable dustcover	3
Masterable Lock no dustcover	6
Masterable Lock with dustcover	7
Masterable Lock with padlockable dustcover	8

Additional Safety Keys For Multiple Personnel - SK

Access Key Required To Unlock Guard - AK

Description	Part No.
Standard Lock	L
Releasing Lock (must be used if a push escape release or single action escape release head & handle selected).	R

Description	Part No.
Standard Lock no dustcover	1
Standard Lock with dustcover	2
Standard Lock with padlockable dustcover	3
Masterable Lock no dustcover	6
Masterable Lock with dustcover	7
Masterable Lock with padlockable dustcover	8

Description	Part No.
Number of key adaptors required	1 - 9

Total extracted, safety & access locks in one configuration is 9.

EK | | |

SK | | | |

AK | | | |

Insert Your Part Number Selection Here	Actuator	Handing	Head	Push Escape Release Adaptor	Trapped Key Adaptors			Guard Switch / Guard Lock

Step 4: Choose an Electrical Switching / Locking Body

Description	Information	Part No.
Slimline LOK Body	Solenoid controlled safety switch. Holds door locked until signal sent to unlock. 40mm wide.	ZL
Slimline LOK Body - Releasing	Same as ZL but allows push escape release adaptor override locking means. Only 40mm wide.	ZR

Description	Information	Part No.
LOK Body	Solenoid controlled safety switch. Holds door locked until signal sent to unlock. 80mm wide.	SL
LOK Body - Releasing	Same as SL but allows push escape release adaptor or single action escape release head and handle to override locking means. Only 80mm wide.	SR

Description	Information	Part No.
STOP Body	Non-locking safety switch.	ST

am

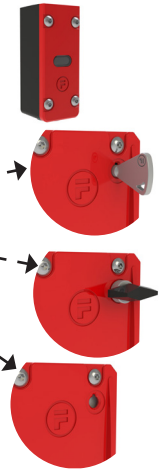
If you have selected a push escape release adaptor or single action escape release head and handle then select a releasing lock.

Voltage Options	Part No.
24v	4
*pro*Net Connection (80mm wide variants only)	P
110v (80mm wide variants only)	1
230v (80mm wide variants only)	2
ASi (80mm wide variants only)	8

am

Slimline *pro*LOK can only be configured in 24v

Solenoid Type & Override Options	Part No.
No Locking (Safety switch units only)	0
Power-to-Unlock Auxiliary Release	1
Power-to-Unlock Emergency Release	2
Power-to-Lock (24v, 110v & ASi only)	6



Safety Switching Principle Options	Part No.
Safety on guard locking for Power-To-Unlock solenoid locking units. Power-To-Lock solenoid locking units are always safety on guard.	1
Safety on guard power solenoid locking units.	6

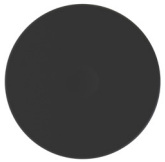
am

If no additional control functionality is required, skip to wiring step 9.

Insert Your Part Number Selection Here	Actuator	Handing	Head	Push Escape Release Adaptor	Trapped Key Adaptors			Guard Switch / Guard Lock

Option Pods

Control Options - Once the basic interlock configuration is establish, control functions can be added in 'Option Pods'



00
Blank

LR
Red Lamp

LY
Yellow Lamp

LG
Green Lamp

LB
Blue Lamp

LW
White Lamp

2E, 2F & K5 options can only be fitted in top right or bottom left position.

ET
E-Stop (Twist Reset)

EP
E-Stop (Pull Reset)

EI
E-Stop (Illuminated Twist Reset)

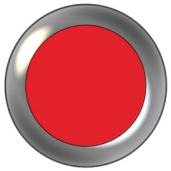
EM
E-Stop (With Additional Monitoring Contacts, Twist Reset)

2E
Latching Selector Switch (Illuminated)

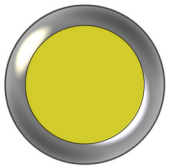
2F
Momentary Selector Switch (Illuminated)

K5
Latching Key Switch (90 Degree)

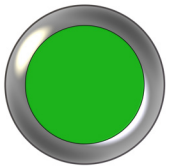
PB
Black Non Illuminated Pushbutton



P1
Red Illuminated Pushbutton



P2
Yellow Illuminated Pushbutton



P3
Green Illuminated Pushbutton

P6
Blue Illuminated Pushbutton

P7
White Illuminated Pushbutton

If you don't require any additional control function, skip to step 9.

Step 5: Slimline Option Pod

Individual power supply units are available on request.

Select Unit	Pod Type
Stand alone Slimline Pod with common power supply	Y0
Slimline Pod to be fitted below *pro*Stop or Slimline *pro*LOK unit with common power supply	Y1

Select your pushbuttons, selector switches and lamps from the control option section in this ordering sequence:

1. Top Position
2. Middle Position
3. Bottom Position

If an option Pod isn't required leave part number blank and continue to Step 9.

					Top	Middle	Bottom		
Insert Your Part Number Selection Here								0	N

Insert Your Part Number Selection Here	Actuator	Handing	Head	Push Escape Release Adaptor	Trapped Key Adaptors			Guard Switch / Guard Lock	Slimline Option Pod

Option Pods

Step 6: Key Switch Pods

Select Unit	Part No.
Stand alone key switch pod with no holes on top of pod case	0
Key switch pod with two holes on top for fitting to guard interlock assembly	2

Description	Part No.
Standard Lock no dustcover	1
Standard Lock with dustcover	2
Standard Lock with padlockable dustcover	3
Masterable Lock no dustcover	6
Masterable Lock with dustcover	7
Masterable Lock with padlockable dustcover	8

am

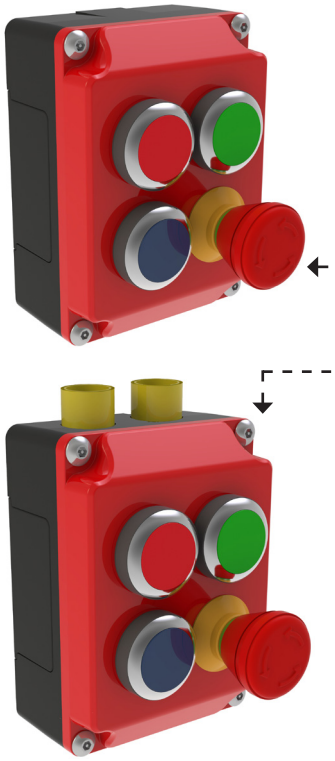
2NO / 2NC safety switch activated by key and separate from locking switches. Common uses are to request machine stop enable teach modes or prevent machine restart.

B	K		

Insert Your Part Number Selection Here	Actuator	Handing	Head	Push Escape Release Adaptor	Trapped Key Adaptors			Guard Switch / Guard Lock	Key Switch Option Pod

Option Pods

Step 7: Option Pods



Select Unit	Pod Type
Stand alone option pod with no holes on top of pod case	0
Option pod with two holes on top of pod case for fitting to *pro*LOK body	2
Option pod with AS-i safe communication	5

Select your pushbuttons, selector switches and lamps from the control option section in this ordering sequence:

1. Top Left
2. Top Right
3. Bottom Left
4. Bottom Right

Sensors - 24v Only	Part No.
No Sensor	N
Coded Magnet - Left Hand	C
Coded Magnet - Right Hand	D
RFID Sensor - Left Hand	X
RFID Sensor - Right Hand	Q
Magnetic Sensor - Left Hand	F
Magnetic Sensor - Right Hand	J

am

See step 1 for handing options.

Top Left | Top Right | Bottom Left | Bottom Right

Insert Your Part Number Selection Here	Actuator	Handing	Head	Push Escape Release Adaptor	Trapped Key Adaptors			Guard Switch / Guard Lock	Option Pod
	B								

Option Pods

Step 8: Networked Option Pods

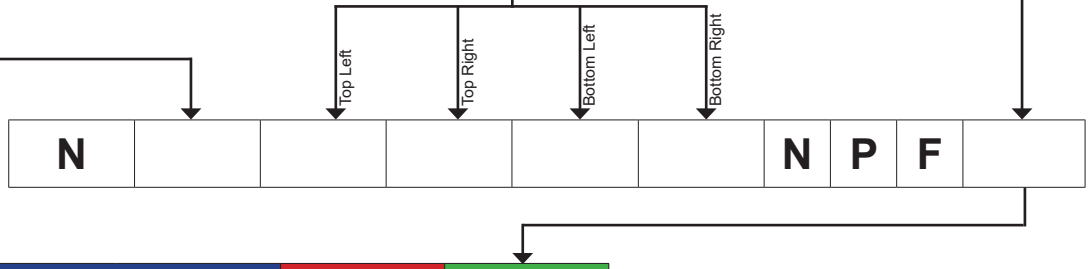
Select Unit	PROFINET	Ethernet/IP
Networked Option Pod fitted to guard interlock assembly	D	H

If you have selected a *pro*Net Option Pod then your amGard*pro* unit is now complete. If you don't require a *pro*Net Option Pod proceed to step 9.

Select your pushbuttons, selector switches and lamps from the control option section in this ordering sequence:

1. Top Left
2. Top Right
3. Bottom Left
4. Bottom Right

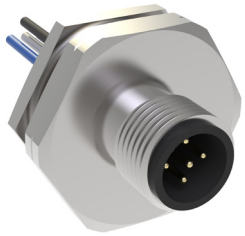
Connection Options	Part No.
3 QD set - 1 male power, 2 data	07
4 QD set - 1 male power, 2 data, 1 external safety switch	09
4 QD set - 1 male power, 1 female power, 2 data	10
4 QD set – 1 male power, 1 female power (5 pin 7/8" connectors), 2 data	11
4 QD set - 1 female data in, 1 female data out, 4 pin 7/8" female power,4 pin 7/8" male power	14
4 QD set - 8 pin M12 female to power a stop, 1 female data In, 1 female data out, 1 male dual power in	16
4 QD set - 1 female for hardwired safety outputs, 1 female data in, 1 female data out, 1 male power in	19



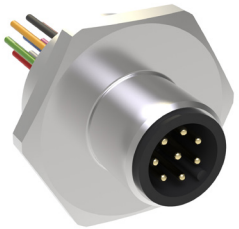
Insert Your Part Number Selection Here	Actuator	Handing	Head	Push Escape Release Adaptor	Trapped Key Adaptors			Guard Switch / Guard Lock	Networked Option Pod

Step 9: Quick Disconnect Connector Options

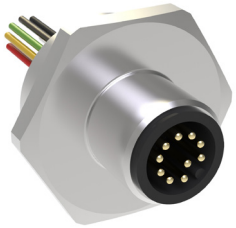
If no pre-wiring is desired or a *pro*Net option pod selected, there is no requirement to specify a quick disconnect connector.



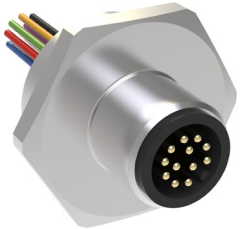
D1
5 Pin M12 QD



D3
8 Pin M12 QD

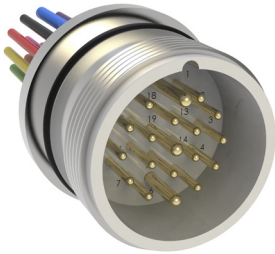


D7
10 Pin M12 QD



D8
12 Pin M12 QD

D9
12 Pin M23 QD



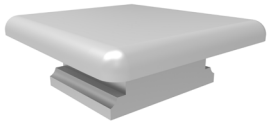
F2
19 Pin M23 QD

Fortress can wire amGard*pro* units to a customers requirements or we can recommend a wiring scheme. Contact your local Fortress representative for details.

Wiring Diagram No.	Left	Right
T######		

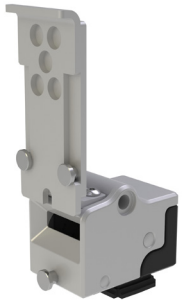
Insert Your Part Number Selection Here	Actuator	Handing	Head	Push Escape Release Adaptor	Trapped Key Adaptors			Guard Switch / Guard Lock	Quick Disconnects

Step 10: Accessories

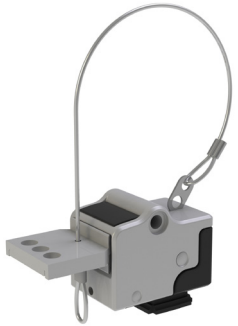


Description	Information	Part No.
Cap	To terminate assemblies without heads.	C6

Description	Information	Part No.
Foot	To terminate non-switch configurations.	FT



Description	Information	Part No.
Drop Down Lock-Out	Padlockable addition to amGard*pro* head modules. Padlock holes only align when actuator is removed.	DD7

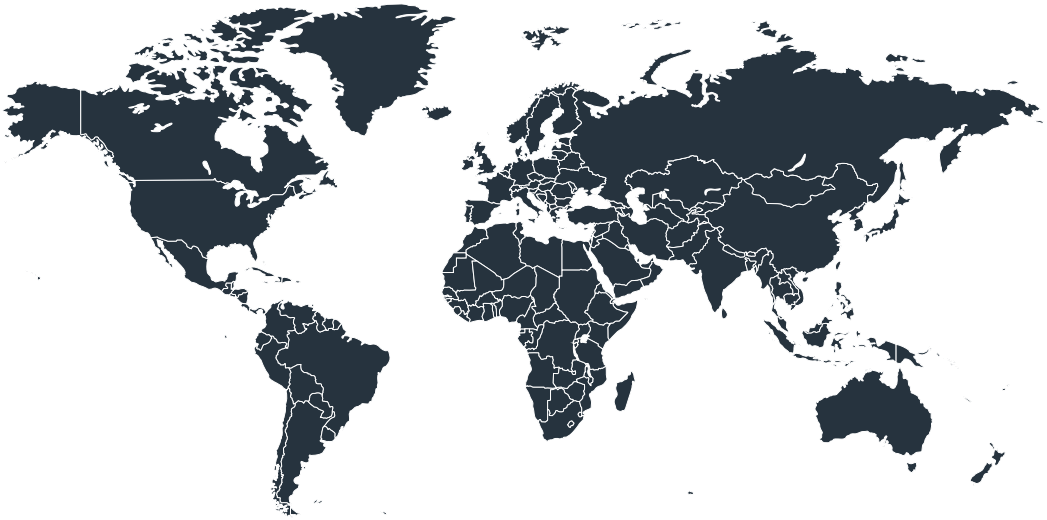


Description	Information	Part No.
Lock-Out Clip	Padlockable addition to amGard*pro* head modules. 3 x 8mm padlock holes only align when clip is fixed into head.	SL8 - suitable for ‘S’ head
		TL8 - suitable for ‘T’ head

FORTRESS INTERLOCKS

amGard pro

Heavy Duty Guard Locking with PROFIsafe and CIP Safety



Official Distributor

A **Halma** company

Fortress Interlocks Ltd
+44 (0)1902 349000
sales@fortressinterlocks.com

Fortress Interlocks Europe
+31 (0)10 7536060
europe@fortressinterlocks.com

Fortress Interlocks USA
+1 (859) 578 2390
us@fortressinterlocks.com

Fortress Interlocks Pty Ltd
+61 (0)3 9771 5350
australia@fortressinterlocks.com

Fortress Interlocks China
+86 (021) 6167 9002
china@fortressinterlocks.com

Fortress Interlocks India
+91 7042358818
india@fortressinterlocks.com

Follow us

September 2020 v1.0