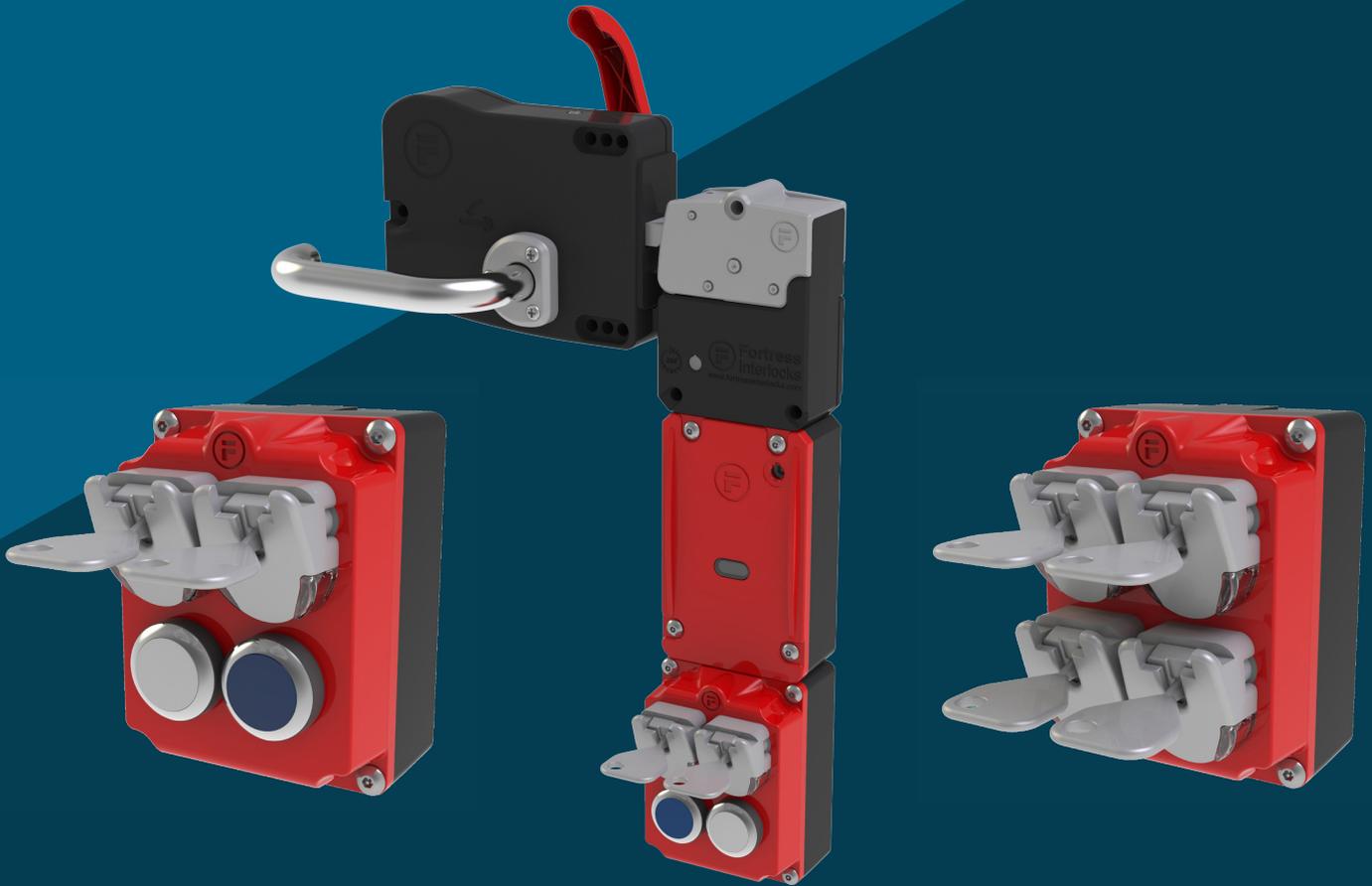




FORTRESS



RFID Safety Keys

am **Gard**
pro



THE QUEEN'S AWARDS
FOR ENTERPRISE:
INTERNATIONAL TRADE
2018



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US

Protect Against Unexpected Start-Up and Personnel Key Loss



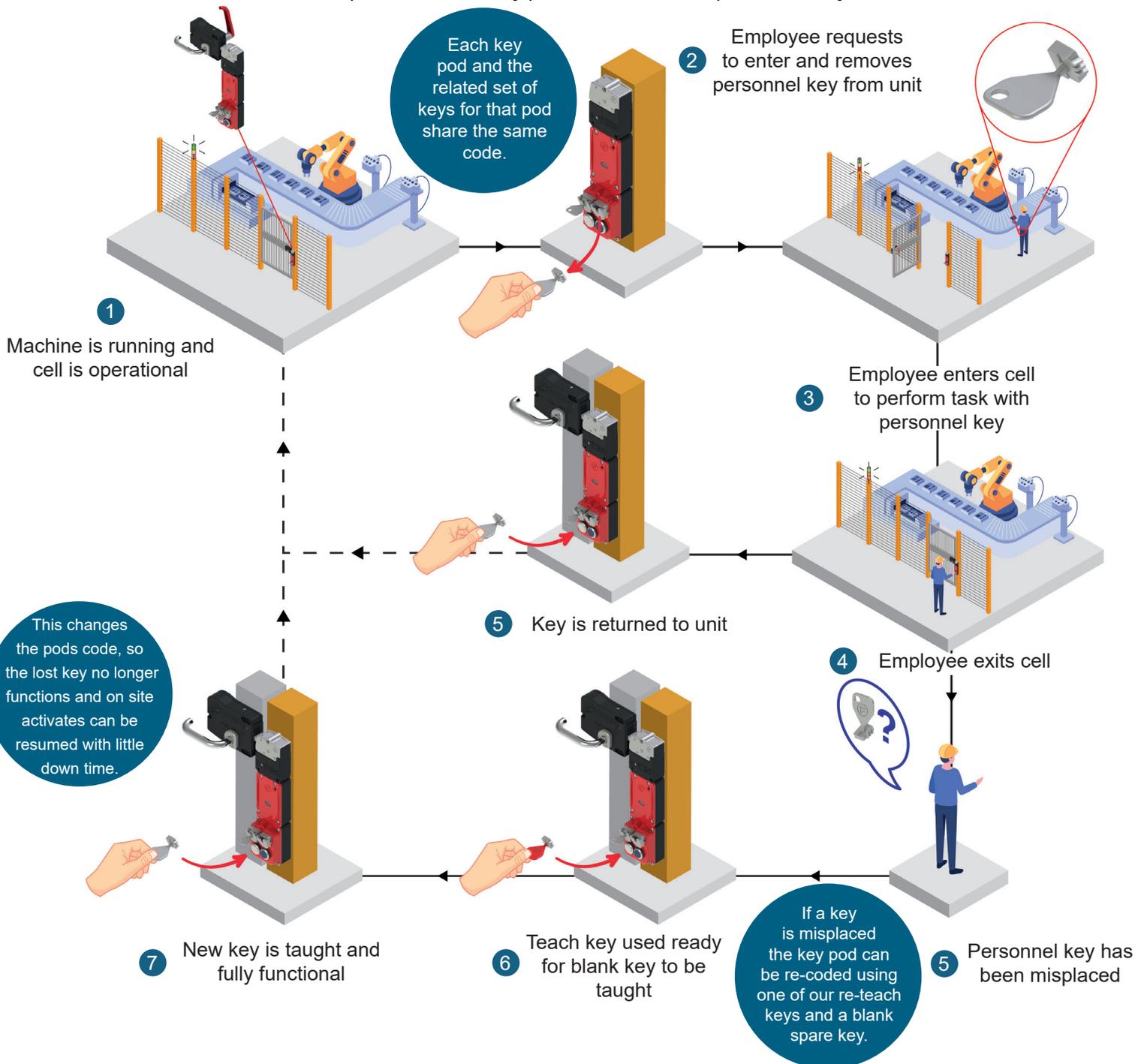
Protecting individuals from machines starting up unexpectedly is a key consideration in any machine safety risk assessment.

ISO/TS 19837:2018 helps to define means of preventing hazardous situations such as unexpected start-up and introduces the concept of a personnel key. It defines a personnel key as 'keys released from a trapped key operating device and retained by a person to prevent a hazardous situation i.e. unexpected start-up'.

Fortress RFID Keys

Fortress's RFID Safety Key (RSK) is a compact key pod with ability to act as a standalone key station or integrate within a Fortress amGard^{pro} interlock. The RSK can be hard-wired or communicate via a PROFINET/ PROFIsafe or Ethernet/IP / CIP networks. RSK key pods help to reduce key management processes.

The RSK can be hard-wired, it can have OSSD inputs and outputs, or it can communicate over Ethernet using either PROFINET/ PROFIsafe, Ethernet IP / CIP safety or Ethercat Network Protocols. RSK Key pods can help to improve key management processes, keys can be stored as an unprogrammed blank key that does not compromise the safety of a system. If a key is lost from a key pod, the key pod can be re-programmed to accept a blank key. The key that has been lost would now be on a different code compared to its old key pod and can not compromise the system.



Protect Against Unexpected Start-Up - Reprogrammable Personnel Keys

Configurable as safety key release stations

Range of actuators & escape release options available

RFID keys can be part of a Fortress Interlock

Force the extraction of the personnel key before the guard unlocks

LED status indication per key

Key unlocked and removed Key unlocked

Top view Bottom view

Dust can drain from bottom of lock

A rugged design allows the keys to operate in dusty or dirty environments. Each key module is designed to self clean during use while also being rated to IP 67 to withstand wash-down procedures

Control functions can be integrated into the unit as well as other operating elements

Keys can be engraved for identification

Solenoid controlled keys

If a key is lost, a new key can be taught

Safety switch state changes upon "Key Removed"

Keys can be returned to any position

A re-teach key can be used to re-program a pod in the event that a key is lost.

All keys in a pod are married to that pod, re-programming the pod changes the pods RFID code and that of the keys married to it. The lost key is now on a different code compared to the pod and if found can't compromise the system

How Can I Build My Safeguarding Solution?

1. What type of product are you looking to create?

1 **RFID Safety Key within an interlock**

2 **Standalone Key Pod**



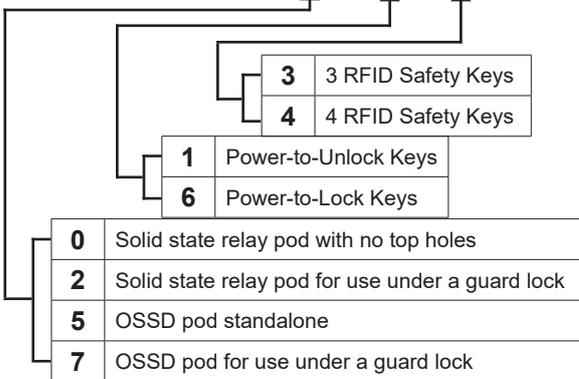
You may want to check out our [amGardpro brochure](#) to help build your solution



Your solution may look something like this; EI2-A6-SR411-H...where the 'H' RFID safety key pod is defined below:

H [] [] [] 0 0 0 0 N - TRSK 01 D7 00

In a 3 or 4 way key pod, this section will be '0000'

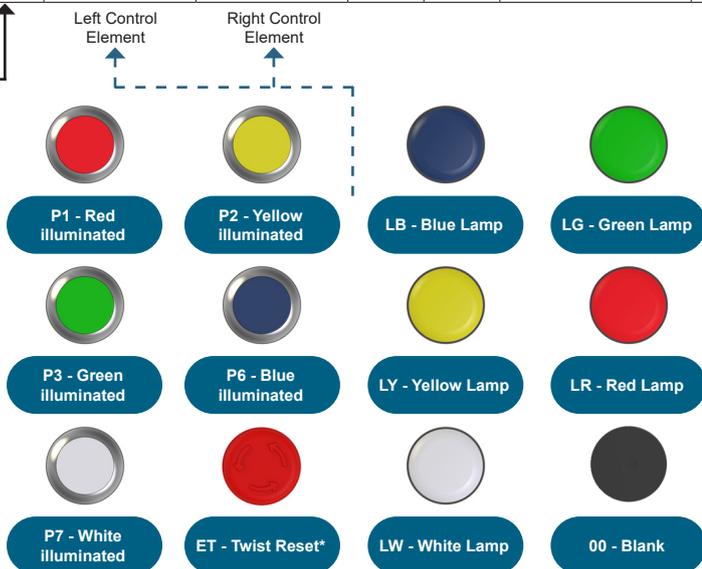
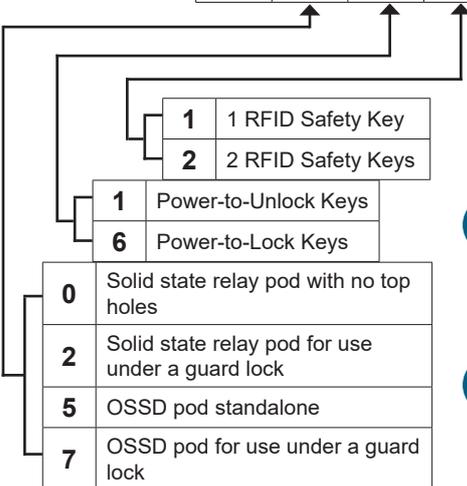


3 **Standalone Key Pod with additional functions**



In a 1 or 2 way key pod, you can add up to two control elements from those listed below

H [] [] [] [] [] [] N - TRSK xx D8 00



Speak to a member of our team for wiring configurations

*Please speak to a member of our team for our emergency stop options

How Can I Build My Safeguarding Solution?

2.

Do you want to create a second key pod or option pod below your safety key pod?

I need an additional key pod to extend the number of safety keys between 5-8



See page 3 to configure your additional pod

I need to add a pushbutton pod to add in extra functionality



Check out our [amGardpro Brochure](#) to configure your pushbutton pod

Not required

3.

What type of electrical connection do you require?

Pre-wired receptacle



Speak to a member of our team to confirm your wiring design

Communicate via a networked logic controller



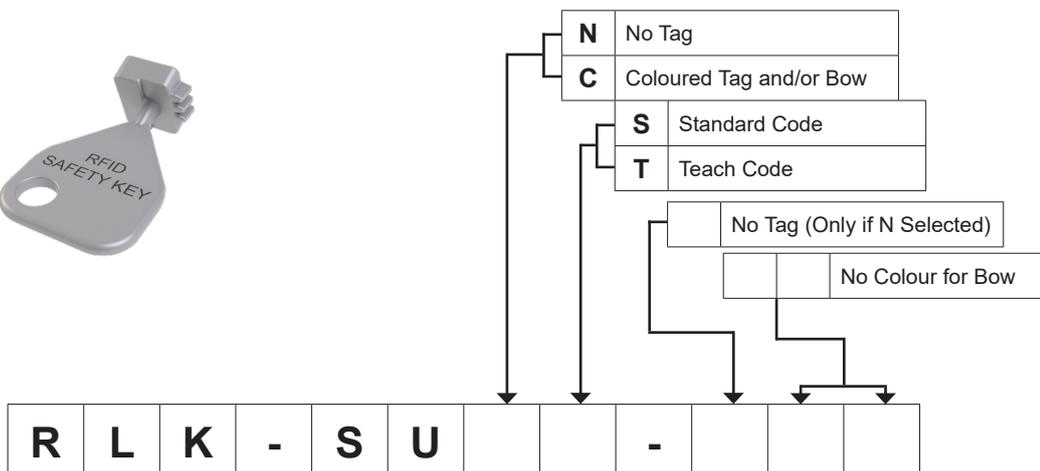
Check out our [amGardpro brochure](#) to configure your networked solution and choose your cable connector set

Non-standard wiring

Speak to a member of our team to create your solution

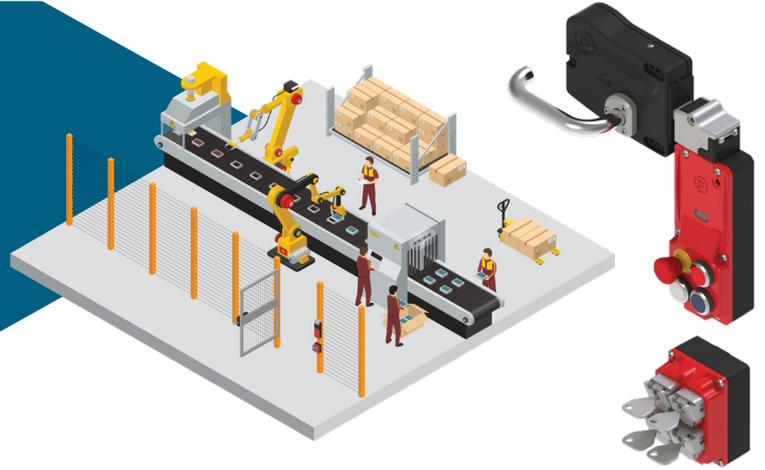
The Safety Key

Up to 2 lines of 10 characters engraving



Retrofitting a Proactive Inhibit Function with Multiple Operators

In this example an existing system provides safe access. Whilst operators perform whole body access and enter this area they must be protected from unexpected restart. The RFID safety key pod is retrofitted aside the existing solution. Operators must remove the keys to break safety contacts; preventing unexpected restart whilst they operate within the safeguarded space as safety contacts remain open until the keys are returned.

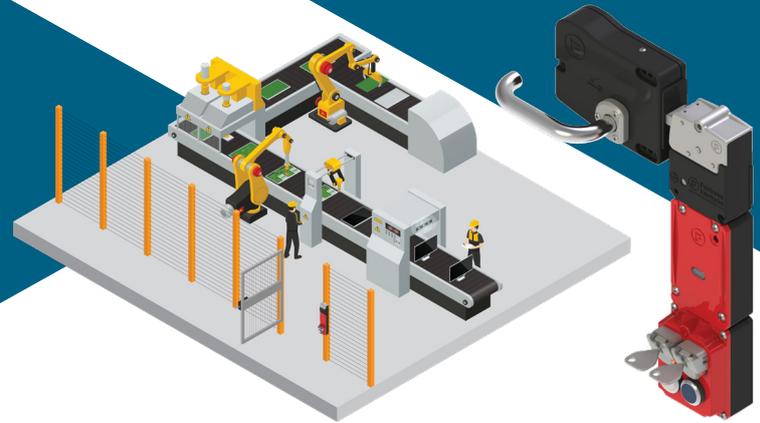


RFID Personnel Keys with Other Safety Devices

Our personnel keys can be used as a standalone unit and integrated with systems which are not only using our amGuard product range but any safety devices. You can use them alongside our other ranges such as tGuard for less heavy duty applications or they can be retrofitted alongside non Fortress safety products. If you have a whole body access situation where a personnel key may help you stop an unexpected start up then RSK is a good fit for you whatever you already have in place or standardise on.

Integrated Interlocking Solution with RFID Safety Keys

In this example, an interlock is combined with this proactive inhibit function and two button controls to create a compact all-in-one solution local to the access point. When entering, an operator presses the white 'request to enter' pushbutton to begin a forced run down cycle. When this is complete, the safety keys are released, the door can be opened, and operators can pocket the safety keys inside the safeguarded space. Manual reset via the blue pushbutton is not possible until these keys are returned to the device.



Networked Process Control with a Proactive Inhibit

Retrofittable solutions do not have to be hard-wired. In this solution, the RFID safety keys are linked to a networked device which communicates the key status over Ethernet/IP (with CIP safety) or PROFINET (with PROFIsafe). Solutions can integrate both button controls and safety keys to perform multiple safety and non-safe functions.



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



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“ 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

www.fortress-safety.com

Fortress Interlocks Ltd

+44 (0)1902 349000

Fortress Interlocks Pty Ltd

+61 (0)3 9771 5350

Fortress Interlocks Europe

+31 (0)10 7536060

Fortress Interlocks China

+86 (021) 6167 9002

Fortress Interlocks USA

+1 (859) 578 2390

Fortress Interlocks India

+91 7042358818

Contact us



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