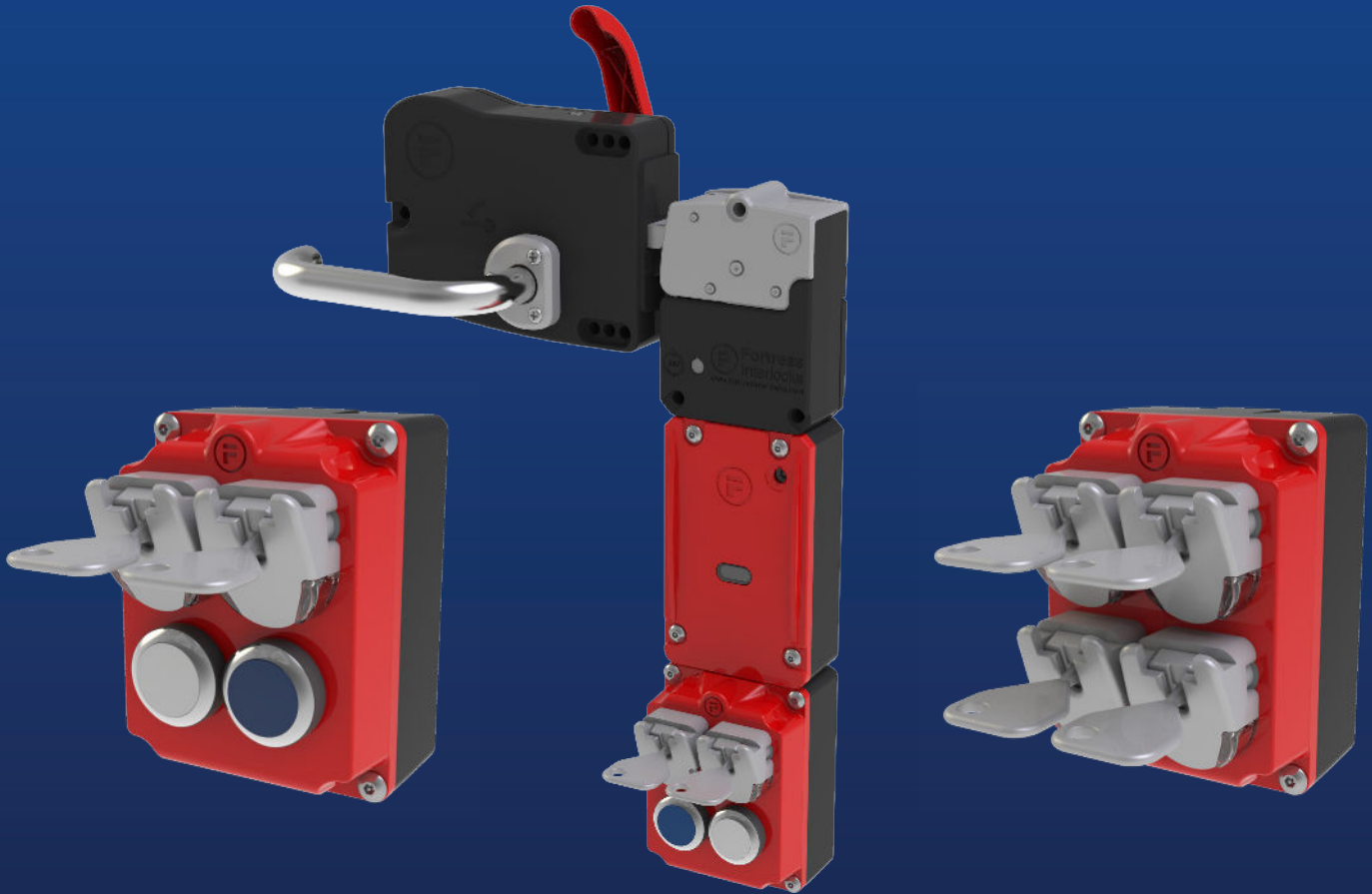


# FORTRESS



## RFID Safety Keys

**amGardpro**



# Protect Against Unexpected Start-Up and Personnel Key Loss



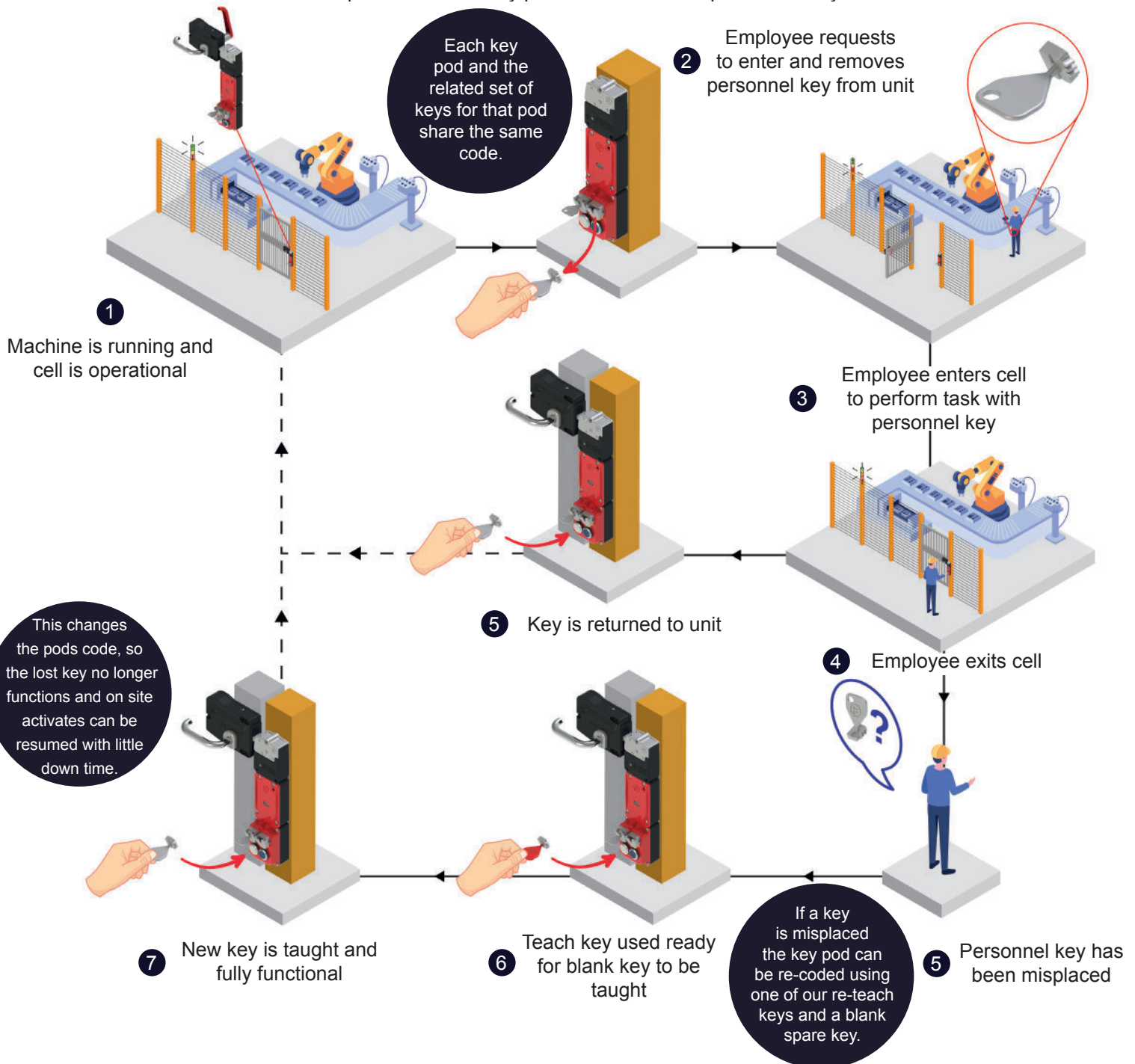
Protecting individuals from machines starting up unexpectedly is a key consideration in any machine safety risk assessment.

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'.

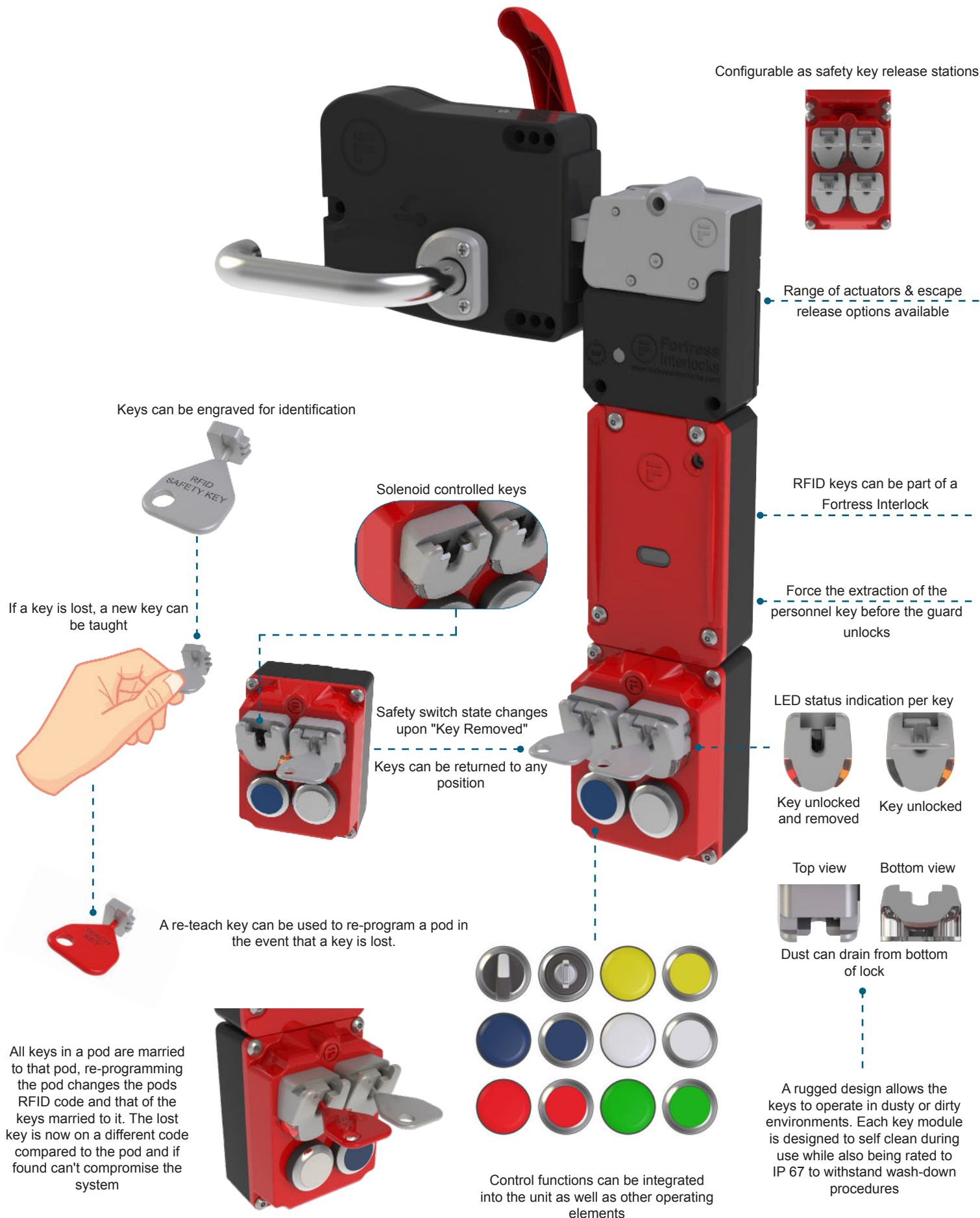
## Fortress RFID Keys

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<sup>pro</sup> 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

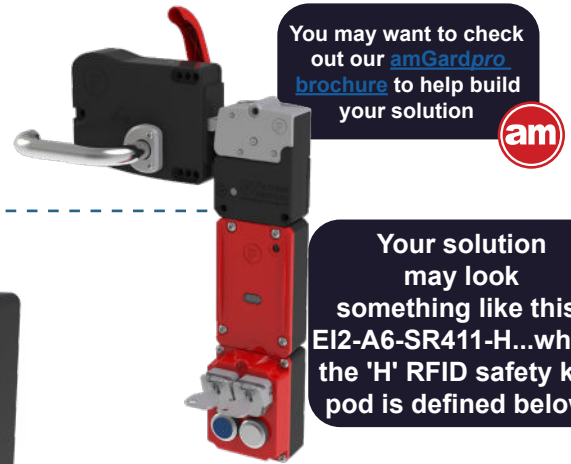


# How Can I Build My Safeguarding Solution?

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

1 **RFID Safety Key within an interlock**

2 **Standalone Key Pod**



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 3 RFID Safety Keys
- 4 4 RFID Safety Keys
- 1 Power-to-Unlock Keys
- 6 Power-to-Lock Keys

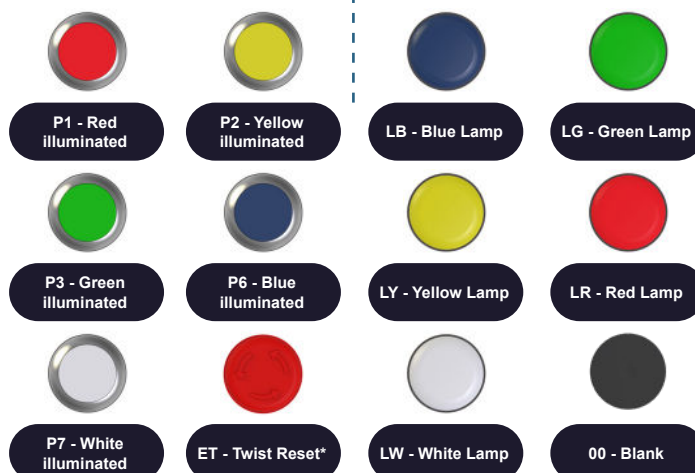
- 0 Solid state relay pod with no top holes
- 2 Solid state relay pod for use under a guard lock
- 5 OSSD pod standalone
- 7 OSSD pod for use under a guard lock

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
---	--	--	--	--	--	--	--	---	---	------	----	----	----

Left Control Element Right Control Element



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



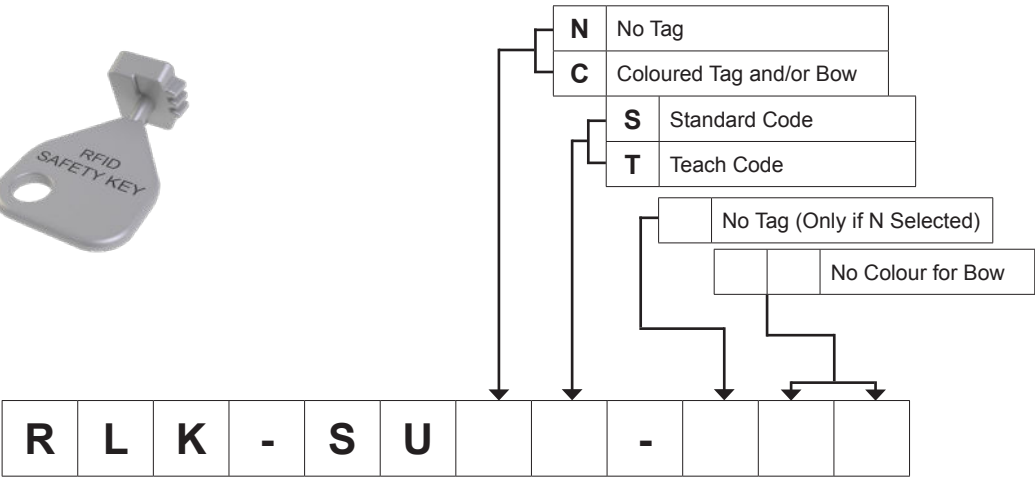
Check out our [amGardpro brochure](#) to configure your networked solution and choose your cable connector set

Non-standard wiring

Speak to a member of our team to create your solution

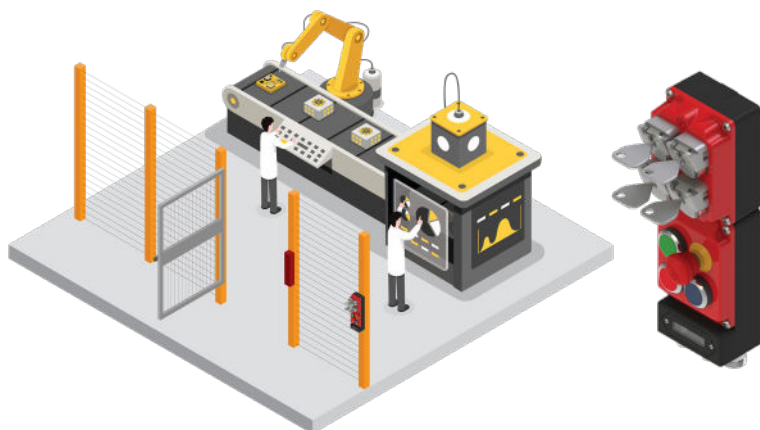
## The Safety Key

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.

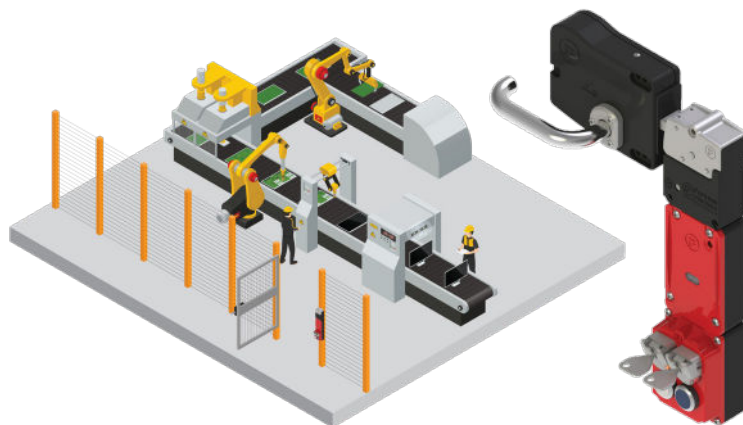


## Networked Process Control with a Proactive Inhibit

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.

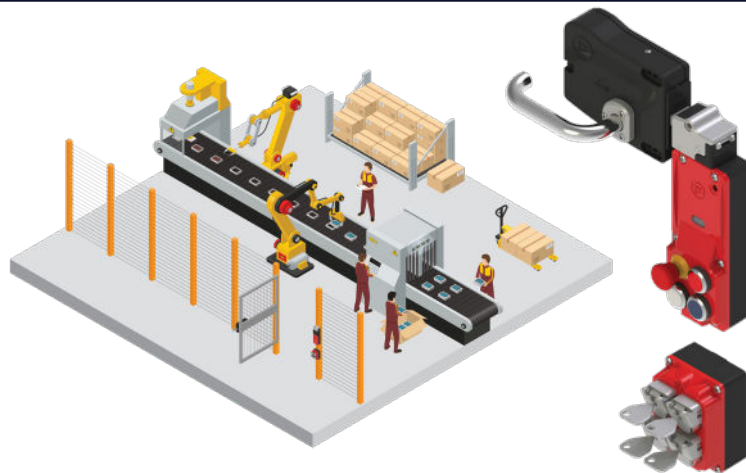
## Integrated Interlocking Solution with RFID Safety Keys

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.



## Retrofitting a Proactive Inhibit Function with Multiple Operators

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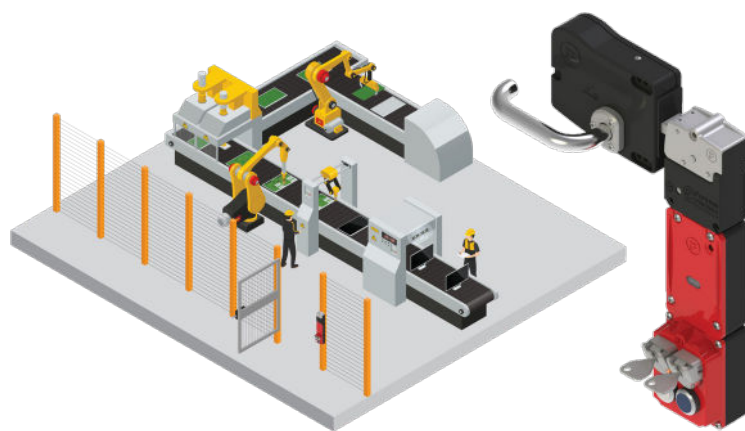
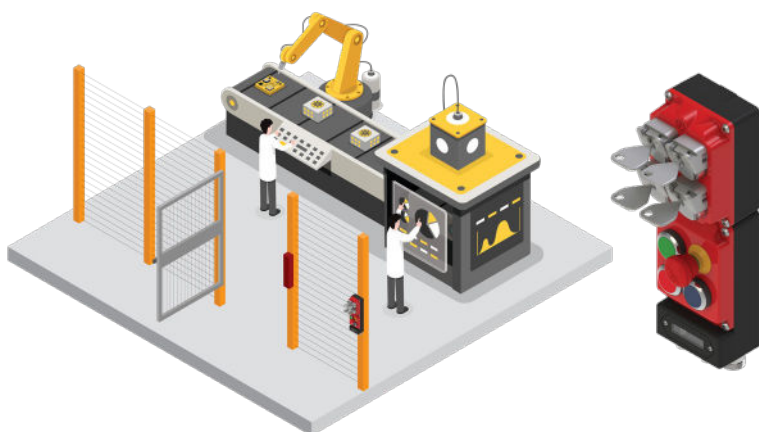


## RFID Personnel Keys with Other Safety Devices

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

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# FORTRESS

## FORTRESS

“

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.”

”



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## Notes

