



# FORTRESS

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## Interlocking in Hygienic and Wash-Down Environments



THE QUEEN'S AWARDS  
FOR ENTERPRISE:  
INTERNATIONAL TRADE  
2018



C

US



RPSCQC  
No.  
CERTIFICATE 68



# Louis



Fortress' Hygienic Interlocking Solutions or Louis includes the Hygienic Guard Lock and Non-Contact Switch product offering. Our inspiration for the name is based on Louis Pasteur who was a French biologist, microbiologist and chemist remembered for his remarkable breakthroughs into the causes and prevention of diseases. He is also known by name for the invention of the pasteurisation process.

Louis' discoveries and inventions have saved lives across the world, we want our products to do the very same by providing the best safety solutions possible.

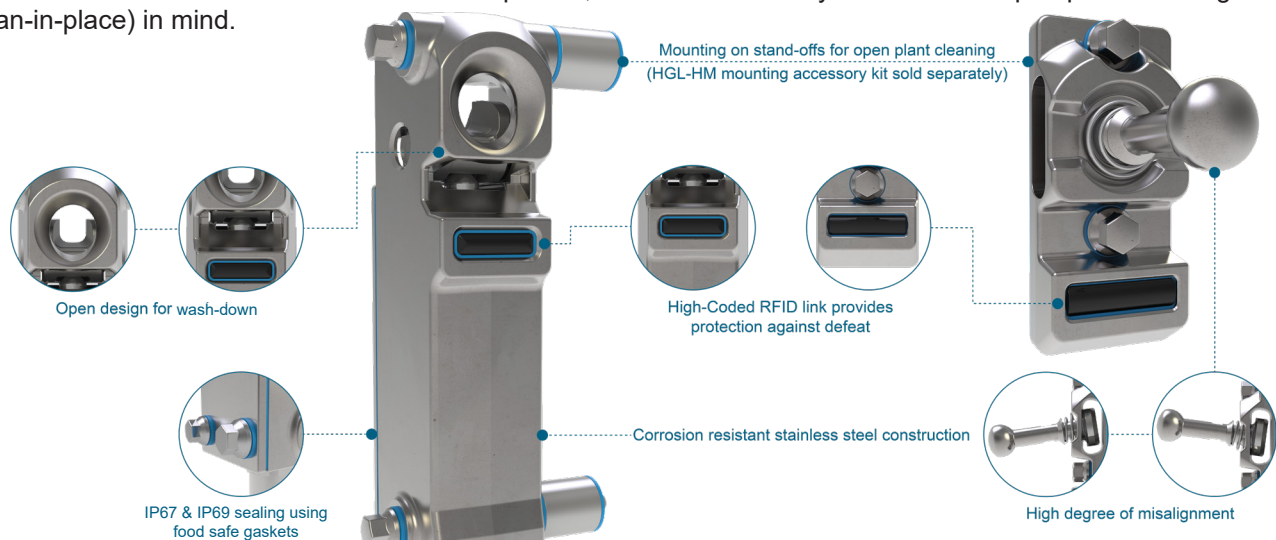
We have often seen safety interlock products not holding up to high intensity wash-down procedures. Fortress is able to not only provide solid state non contact sensors that resist high pressure cleaning, but we have also used RFID actuator coding for guard locking applications to create an extremely robust interlock with hygienic design features which is then ideal for use in a clean-in-place environment.



## The Louis Range

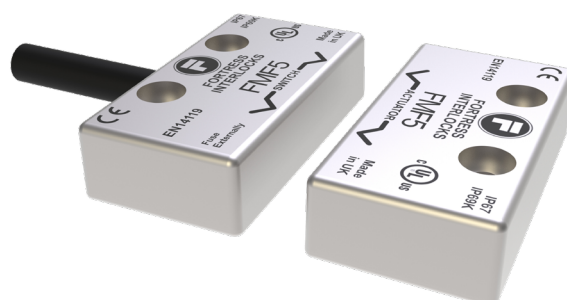
Stainless steel safety on guard switching devices have been routine within sterile manufacturing environments, to create instant stop commands upon a guard opening. However, in certain applications, processes do not instantly stop upon opening the guard, such as a mixing blade which will continue to rotate and present a danger upon the guard opening. Fortress now offer a stainless steel safety on guard locking product which has been third party verified for hygienic design and construction as part of the 3-A Replacement Parts and System Component Qualification Certificate (RPSCQC) Program.

The Hygienic Guard Lock (HGL) is designed for controlled access in environments where caustic wash-down processes are commonplace, and bacteria growth must be prevented. The HGL has an open design to maximise access for cleaning and minimise potential bacterial growth locations. The IP67 & IP69 sealing and FDA food contact compliant Silicon Rubber interfaces between stainless steel component, have been carefully selected with open plant cleaning and CIP (clean-in-place) in mind.



The Non-Contact safety switch is a magnetically coded, robust stainless steel IP67 and IP69 proximity switch ideal for any environment which requires wash-down procedures or caustic cleaning.

The simple design of these switches minimises surfaces for contaminants to grow and maximises accessibility for cleaning.



# Hygienic Guard Lock

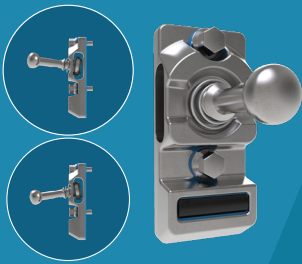
High-Coded  
Versatility

Localised Indication

Robust

Hygienic Design

Maximise Ingress  
Protection



Over 4x10<sup>9</sup> RFID codes



Device status outputs via  
shatter-proof LED



316 and CF8M Stainless  
steel enclosure construction



Minimises risk of bacteria  
growth and contamination



IP67 / IP69 protection for use  
in wash-down

Part Number

Select a Hygienic Guard Lock beginning HGL-

Safety on  
Guard Locking

Connector  
Option

Safety on  
Guard Only

Safety on  
Guard Only

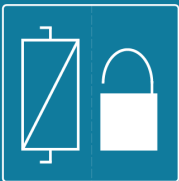
HGL-100A2-A

HGL-100A3-A

HGL-100A1-A

HGL-100A4-A

24V  
Power-  
To-Unlock



Daisy chain  
with 2 x 5-Pin  
M12

8-Pin M12

5-Pin M12

2 x 5-Pin  
M12

Power-  
To-Unlock

HGL-110A2-A

HGL-110A3-A

HGL-110A1-A

HGL-110A4-A

Power-  
To-Lock

HGL-610A2-A

HGL-610A3-A

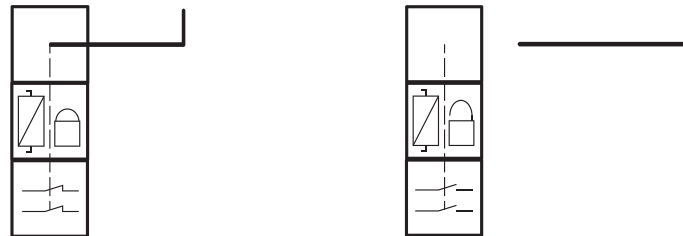
HGL-610A1-A

HGL-610A4-A

# Food Mixer Application

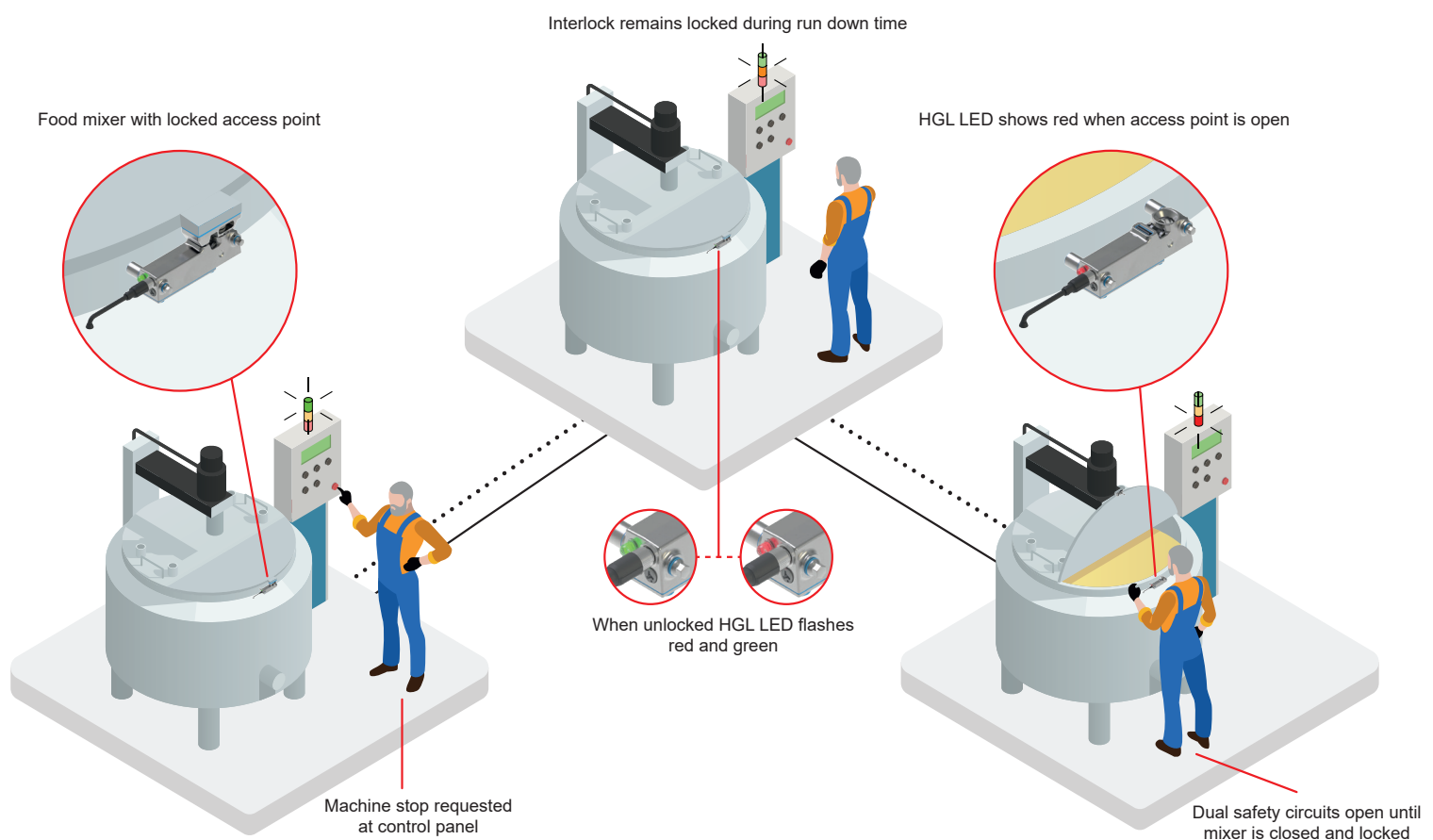
Food mixers with rotating internal blades continue to pose a hazard when power to the motor is initially isolated. Access to cleaning and inspection hatches needs to be prevented until the run down time has elapsed and the blade has stopped moving.

Mixing operation should only begin again once all guards are confirmed as closed and locked. During operation the locking method of the guard is required to be sufficiently strong and monitored to prevent opening while a hazard exists.



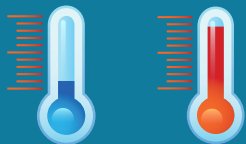
## Guard Lock

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



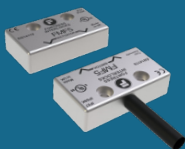
# High Temperature Non-Contact Switch

## Environment Resistance



Use in temperatures between -25°C and 125°C

## Robust



316 stainless steel housing

## Compact



Installation envelope of 29 x 53 x 13.5mm

## Maximise Ingress Protection

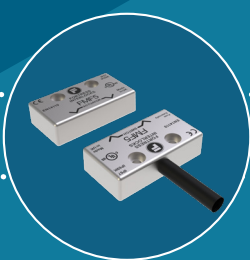


IP67 / IP69 protection for use in wash-down

## Part Number

Select a Non-Contact Switch beginning FMF5-

### Material



Stainless Steel

### Pre-Wired Lead

5 m

10 m

FMF5-SS-21-DC-05M-HT

FMF5-SS-21-DC-10M-HT

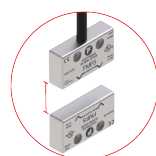
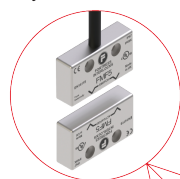
## Food Hatch Application

Access hatches on processing equipment typically allow fast and frequent access to certain parts of the machinery for cleaning and minor maintenance. Where immediate stopping times are present, guard locking is not required.

However, a stop command must be generated upon the guard opening. The non-contact sensor uses no moving parts to facilitate a long life in operation alongside high temperature, misalignment, and cleaning procedures.

Non-Contact switches fitted to conveyor machine hatches

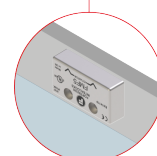
Opening hatch will open safety circuits to stop machine



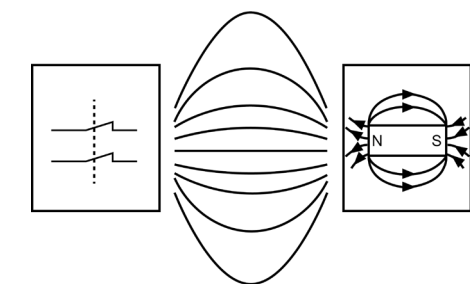
7-10mm operating distance



Able to operate in temperatures up to 125°C



Switch & Actuator IP69 rated manufactured from 316 stainless steel



Machine safe to run when coded magnet actuator present, opening guard creates stop command by opening safety switches





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“

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

”



### 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

“

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

“

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

”



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