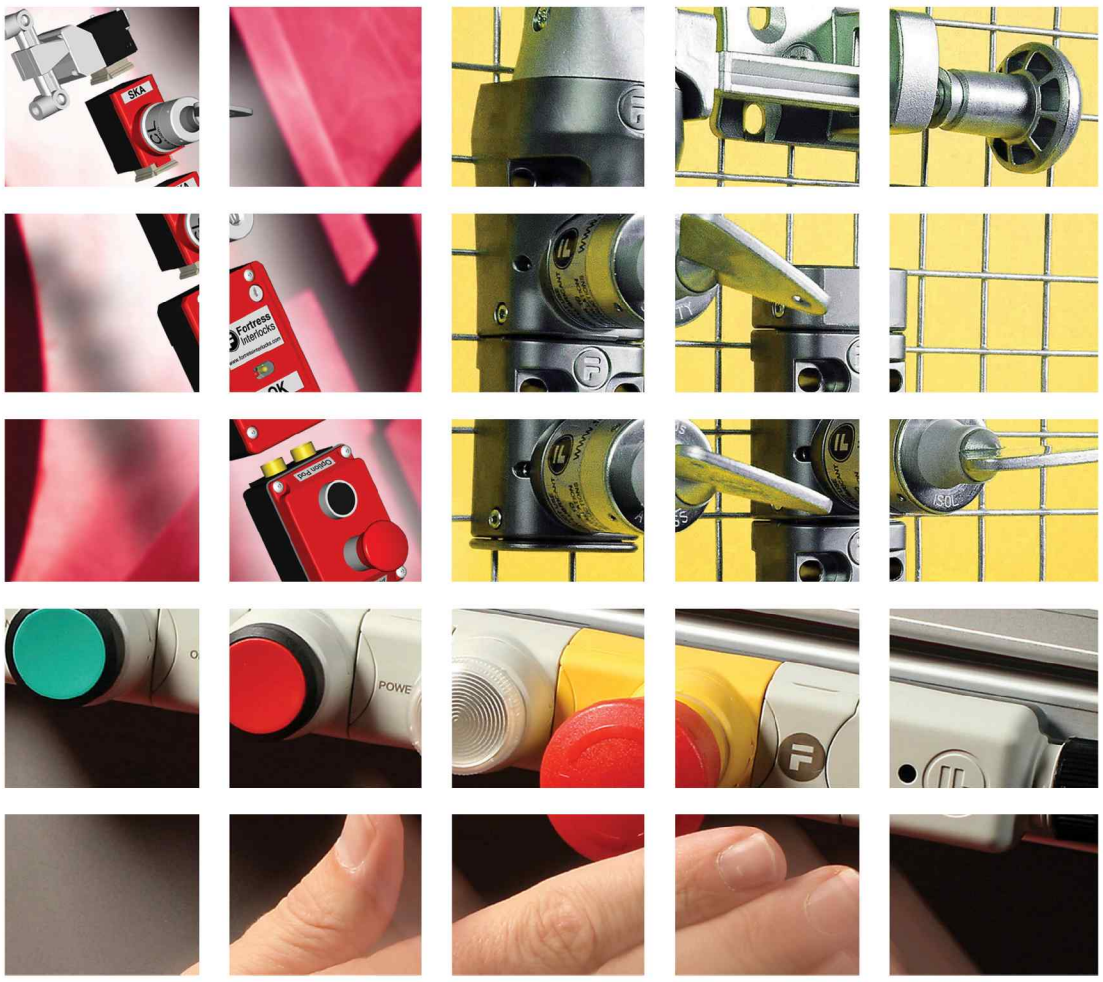
Fortress Interlocks

mGard Trapped Key Technology

amGard Safety Gate Switch Interlocks

eGard Total Access & Control



Product Catalogue

Total Access & Control

"Who we are"

A market leader, Fortress Interlocks design and manufacture safety access & control systems. Fortress offer an unrivalled portfolio suitable for applications across a wide industrial base from power generation and distribution, steel, automotive, recycling, building materials, through safeguarding robots and palletisers.

With in excess of 40 years experience in the safety market, Fortress are renown for their innovative design, robust engineering and reliability.

"What we do"

Fortress help customers protect their human and capital assets. We create safe workplaces where employees are safeguarded from injury and plant is protected from damage.

We are world leaders in access control systems, and our products guarantee that actions and events are undertaken in a pre-determined sequence ensuring a safe working environment.

"Total Access & Control"

With the introduction of **eGard**, Fortress can provide "Total Access & Control", from cost effective general duty access interlocks and simple automation control systems (**eGard**), to the most robust trapped key interlocks (**mGard**) or safety gate switches (**amGard**).

"Why choose Fortress"

Fortress are a solution provider and our extensive product offering and interlocking experience allows us to provide unique solutions for all safeguarding applications. We regularly create bespoke solutions, often by customising our standard products.

Fortress Interlocks

The Global Supplier of Total Access and Control Safety Systems.

NB Our brochure is designed to give an overview of our brand portfolio. For detailed technical information including 2D autocad file downloads, 3D animated product views and specific application information, visit our web site www.fortressinterlocks.com

mGard is the premier range of modular robust trapped key interlocks for heavy duty applications. Trapped key interlocking is a tried and tested method of mechanically safeguarding dangerous machines and hazardous processes, and is suitable for category 4 (EN 954-1) applications. It is called "Trapped Key" as it works by releasing and trapping keys in a predetermined sequence. After the control or power has been isolated, a key is released that can be used to grant access to individual or multiple doors.

The principles of trapped key technology apply to all industries where it is essential that all energy sources are isolated before gaining access to machinery. Almost all safety issues can simply be solved by selecting the required products in order of the steps shown on this page.

SE-CLIN

power/control isolation

Identify the energy sources to be isolated and/or any hazard that cannot immediately be isolated such as; heat, pressure, radiation or machine rundown time

power isolation

- Mechanical Bolt Interlock
- Bolt Interlock with Limit Switch
- Bolt Interlock with Switch
- Breaker Locks

control isolation

- Key Switches
- Solenoid Controlled Key Switch
- ATEX Key Switch
- ATEX Solenoid Controlled Key Switch
- Solenoid Controlled Key Switch Unit
- Electronic Time Delay Unit
- Voltage Sensing Unit
- Knob Operated Switch Control Unit

XM4-MLIN

key exchange

Identify the type and number of access points.

- Key Exchange Units
- Key Exchange Units with Switch

Because of the modular arrangement of **mGard** both key exchange and door lock units can easily be extended with an *extension module (XMA),* for instance when doors are added to the safeguarded area or machine.

The Fortress Trapped Key System allows the safeguarding of potentially hazardous areas without the need for wiring.

All mechanical **mGard** configurations are suitable for use in areas where explosive or flammable gases or dust particles may be present.

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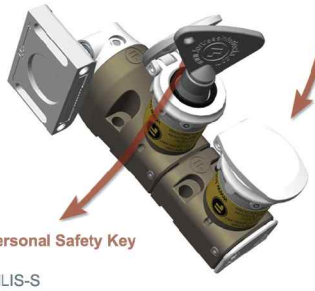


DM2-MLIS-S

door locks & actuators

Identify the type of access point; part body or full body access doors with or without the use of personal safety keys (to prevent accidental lock in).

- Single Door Interlocks
- Multiple Door Interlocks

- Fixed actuators
- Handle actuators
- Spring loaded handle actuators
- Self aligning actuators
- Compressible actuator

For dimensional drawings please use the Datasheets/Installation Manuals at **www.fortressinterlocks.com**

mGard Application Example I (safeguarding without rundown time)

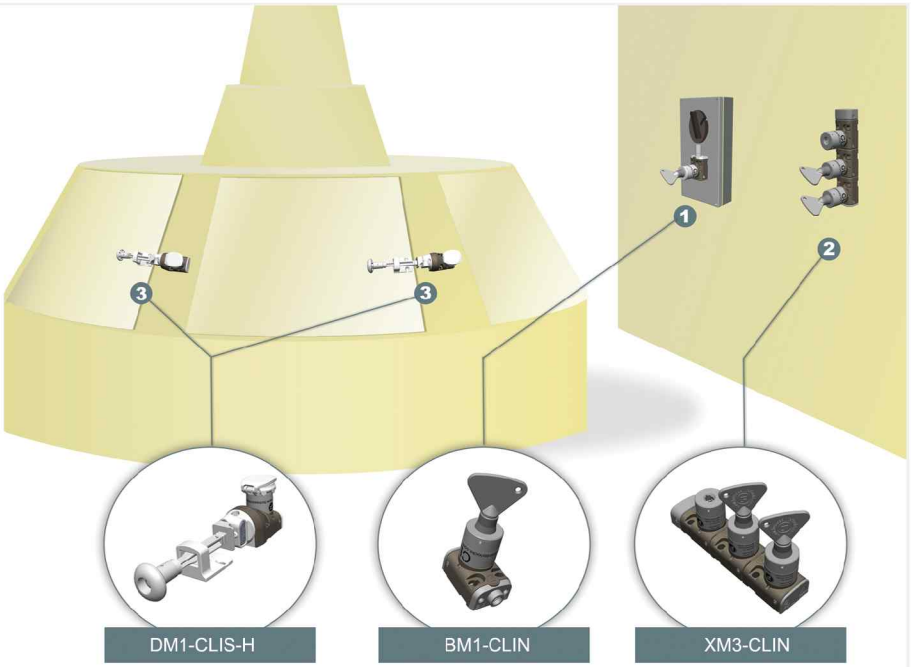
By using a trapped key system, this mixer is safeguarded in a pre-determined sequence without the need for wiring. **mGard** products are very robust and ideal for use in harsh conditions, such as heat, vibration, dust and moisture.

1 BM1-CLIN
First the isolation switch is operated into a safe condition. In this "off" position it is possible to shoot the bolt of the BM1 bolt-lock to isolate the switch and release the key.

2 XM3-CLIN
The isolation key can now be inserted into the XM3 key exchange box and trapped, allowing the two access keys to be released.

3 DM1-CLIS-H
The two access keys can be inserted into the handle operated door interlocks located on the mixer, enabling the hatches to be opened for maintenance or repair purposes.

Mixer restart is only possible after reversing the sequence.



mGard Application Example II (safeguarding with rundown time)

This enclosed machine area is safeguarded with the use of a solenoid controlled trapped key interlock system. The modular arrangement allows configurations of virtually any safeguarding application.

1 SS1-CLIN-A02022D024B
After remote request for access and/or rundown time, the solenoid of the SS1 solenoid controlled key switch is energised releasing the key. After releasing the isolation key, the machine is isolated.

2 XM3-CLIN
The isolation key can be inserted into the XM3 key exchange box to release two access keys.

3 DM1-CLIN-H & DM2-CLIN-H
The access keys can be used to open the doors to the safeguarded area. Full body access doors are equipped with a safety key, that can be taken into the safeguarded area, to prevent accidental lock in.

Machine restart is only possible after reversing the sequence.

mGard Application Example III (mGard linked to amGard)

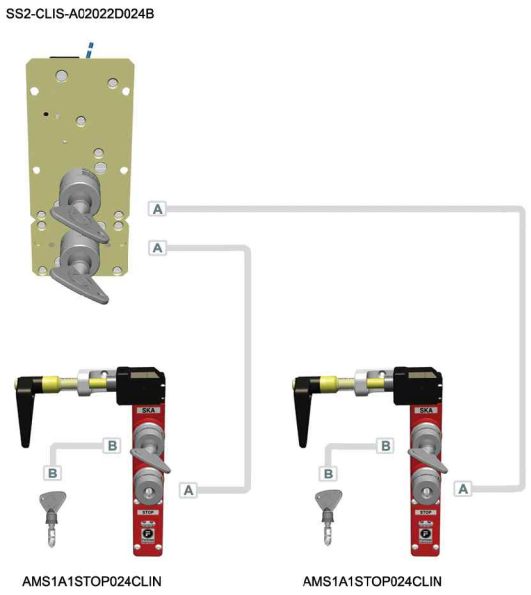
By combining the **mGard** range of trapped key interlocks, with the electro mechanical functions of the **amGard** range , additional safety features can easily be integrated to meet Category 4 (EN 954) requirements.

In this example an mGard solenoid controlled key switch unit is used to safely control the use of amGard switch controlled door locks.

1 SS2-CLIN-A02022D024B
After remote request for access and/or rundown time, the solenoid of the SS2 solenoid controlled key switch is energised releasing the two keys "A". After releasing at least one of these isolation keys, the machine is isolated.

2 AMS1A1STOP024CLIN
The two keys "A" can be inserted into the handle operated door locks, to access the safeguarded area.

This configuration is equipped with two additional safety functions: A Safety switch which monitors the presence of key "A" and a safety key adaptor with safety key "B' to prevent accidental lock in and/or machine restart.



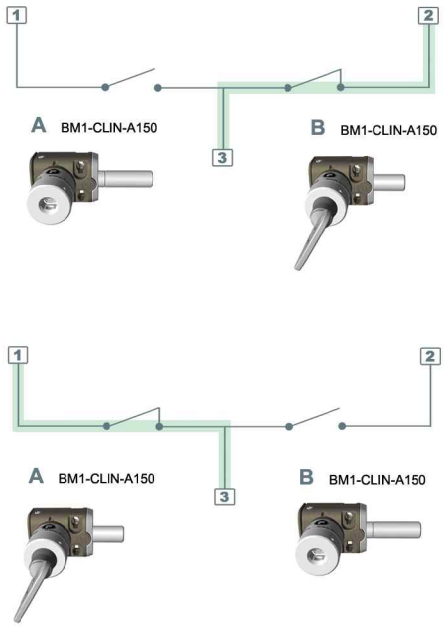
mGard Application Example IV (electrical switch gear interlocking)

To prevent paralleling of incoming or busbar power supplies, **mGard** mechanical trapped key systems are used to control safe operation.

In this application example two incomming supply isolators are fitted with BM1 bolt interlocks, allowing only one isolator to be closed (switched "on") at any time.

Each bolt lock is equipped with a blocking device such that when the bolt is shot, the isolator cannot be closed.

Only one key is supplied with this system in order to prevent parralleling of incoming or busbar power supplies.



Power Isolation

Mechanical Bolt Interlock

BM

The BM is used to interlock circuit breakers, valves earth switches etc. It is used where hazards needs to indirectly interlocked.

- No product handing issues
- 16mm diameter bolt with 16mm of travel standard (extended bolt lengths available)
- Standard operation: Key free, bolt shot (other sequences available)

This product may not be used as an access lock.

Product Types

Nº of Locks	Ref Nº
1 » 10	BM1 » BM10
Nº of Locks (Full Stainless Steel)	**Ref Nº**
1 » 5	BMS1 » BMS5
Lock Type	
For key and lock specifications view page 12	
Bolt Lengths	**Ref Nº**
6.35mm	-
50mm extension	50
150mm extension	150

Bolt Interlock with Limit Switch

BML

This device is used to interlock circuit breakers, valves, earth switches etc. It additionally provides eletrical indication of the bolt position.

- No product handing issues
- 16mm diameter bolt with 16mm of travel standard (extended bolt lengths available)
- Standard operation: Key Free, bolt shot (other sequences available)
- Standard IP67 switch

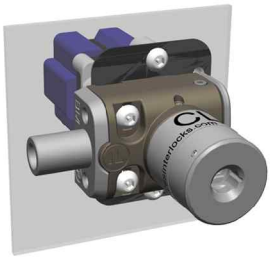
This product may not be used as an access lock.

Product Types

Nº of Locks	Ref Nº
1 » 4	BML1 » BML4
Nº of Locks (Full Stainless Steel)	**Ref Nº**
1 » 4	BMSL1 » BMSL4
Switch AMPS	**Ref Nº**
3A	-
Switch Contacts	**Ref Nº**
1NO / 1NC	-
Lock Type	
For key and lock specifications view page 12	
Bolt Lengths	
See BM specification	

Bolt Interlock with Switch

BMR



This device is used to interlock circuit breakers, valves, earth switches etc. It additionally provides eletrical indication of the bolt position.

- No product handing issues
- 16mm diameter bolt with 16mm of travel standard (extended bolt lengths available)
- Standard operation: Key free, bolt shot (other sequences available)
- Special switch ratings and/or contact arrangements available on request

This product may not be used as an access lock.

Product Types

Nº of Locks	Ref Nº
1 » 10	BMR1 » BMR10
Nº of Locks (Full Stainless Steel)	**Ref Nº**
1 » 5	BMSR1 » BMSR5
Lock type	
For key and lock specifications view page 12	
Switch AMPS	**Ref Nº**
20A	020
32A	032
63A	063
Switch Contacts	**Ref Nº**
4NO / 0NC	40
2NO / 2NC	22
Bolt Lengths	**Ref Nº**
6.35mm	-
50mm extension	50
150mm extension	150

Circuit Breakers

AC090AB

When mounted on the front of the circuit breaker, this lock allows or prevents switching of the breaker.

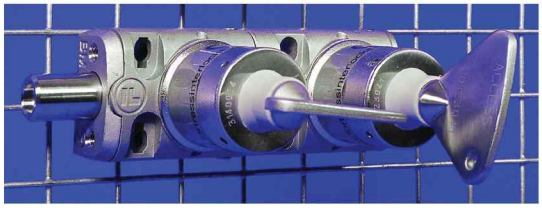
- All circuit breakers make and type must be specified

Product Types

Breaker Type	Ref Nº
ABB (SACE EMAX)	CLIN-AC090AB
Merlin Gerin (Masterpact)	CLIN-MC090MG
Siemens (3WL)	CLIN-X002
Key Type	**Ref Nº**
Standard	CLK-SUS
Low Profile	CLK-LP
Low Profile (Siemens)	CLK-SBS

Bolt Interlocks

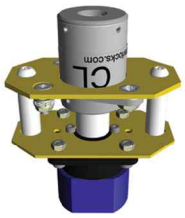
For isolation of existing machinery or equipment, Fortress bolt interlocks are a simple mechanical solution to guarantee a safe work place, without the need for wiring.
The robust design for both keys and locks can withstand harsh environments, such as dust, moisture and vibration.



Control Isolation

Key Switch

S



The S(E) unit is suitable for isolation or switching current and may be used to isolate power to machinery.

- Direct drive operation - positively opens contacts
- The standard sequence is: Key trapped - Power on, Key free - Power off (other sequences to be specified)
- Special switch ratings and/or contact arrangements available on request
- Enclosed version (SE) in Polycarbonate (IP66) as standard

Product Types

Mounting	Ref N°
Back of Board	S
In Enclosure (IP66)	SE

Lock Type

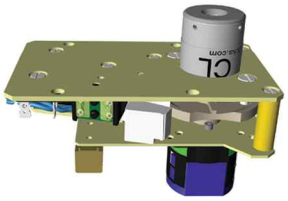
For key and lock specifications view page 12

Switch AMPS	Ref N°
20A	A020
32A	A032
63A	A063

Switch Contacts	Ref N°
4NO / 0NC	40
2NO / 2NC	22

Solenoid Controlled Key Switch

SS



The SS unit is used where the key(s) need(s) to remain trapped until an electronic signal has been received.

- Direct drive operation - positively opens contacts
- Suitable for machines with a rundown cycle
- The standard sequence is: Key trapped - Solenoid de-energised, Key free - Solenoid energised, (other sequences available)
- Special switch ratings, solenoid voltage and/or contact arrangements available on request
- Solenoid monitoring contacts as standard
- Enclosed version (SS-F) in Polycarbonate (IP66) as standard

Product Types

N° of Locks	Ref N°
1 » 8	SS1 » SS8

Lock type

For key and lock specifications view page 12

Switch AMPS	Ref N°
20A	A020
32A	A032
63A	A063

Switch Contacts	Ref N°
4NO / 0NC	40
2NO / 2NC	22

Solenoid Voltage	Ref N°
24V DC	D024
110V AC / 110V DC	A110 / D110

Mounting	Ref N°
Back of Board	B
In Enclosure (IP66)	F

ATEX Key Switch

FLP

A key switch for use in areas where explosive/flammable gases or dust particles may be present.

- Direct drive operation - positively opens contacts
- The standard sequence is: Power on - Key trapped (other sequences to be specified)
- BASEEFA (ATEX directive 94/9/EC Certification)
- EExdIIC T6 Zones 1 & 2
- Special switch ratings and/or contact arrangements available on request

Product Types

Mounting	Ref N°
In Enclosure (IP65)	FLP

Lock type

For key and lock specifications view page 12

Switch AMPS	Ref N°
20A	A020
32A	A032
63A	A063

Switch Contacts	Ref N°
4NO / 0NC	40
2NO / 2NC	22

ATEX Solenoid Controlled Key Switch

EEXSS1

A solenoid key switch for use in areas where explosive, flammable gases or dust particles may be present.

- Direct drive operation - positively opens contacts
- The standard sequence is: Power on - Key trapped - Solenoid de-energised (other sequences to be specified)
- Ex II 2 GD, EEx IIC T6 IP66 T85oC, according to CENELEC standard EN 50018 and EN 50281-1-1.
- Special switch ratings, solenoid voltage and/or contact arrangements available on request.
- Solenoid monitoring contacts as standard

Product Types

Mounting	Ref N°
In Enclosure (IP66)	EEXSS1

Lock type

For key and lock specifications view page 12

Switch AMPS	Ref N°
20A	A020
32A	A032

Switch Contacts	Ref N°
4NO / 0NC	40
2NO / 2NC	22

Solenoid Voltage	Ref N°
24V DC	D024
110V AC / 110V DC	A110 / D110

Solenoid Controlled Key Switch

The device is used where the key(s) need(s) to remain trapped until an electronic signal has been received.

(e.g. for machine rundown time or cycle end)

Solenoid Controlled Key Switch Unit

SLS

This device ensures that keys may not be released untill both the solenoid has been energised and the control power has been isolated.

- Suitable for machines with a rundown cycle
- Fortress key operated override facility for mechanical release of the keys
- LED status indication

Product Types

Nº of Locks (excl. overide lock)	Ref Nº
1 » 6	SLS1 » SLS6
Lock type	
For key and lock specifications view page 12	
Switch AMPS	**Ref Nº**
10A	A010
Switch Contacts	**Ref Nº**
2NO / 2NC	22
Solenoid Voltage	**Ref Nº**
24V DC	D024
110V AC / 110V DC	A110 / D110

Electronic Time Delay Unit

ET

The ET unit releases keys at the end of a pre-determined time period.

- Direct drive operation - positively opens contacts
- Suitable for machines with a rundown cycle
- Enclosures in Polycarbonate (IP65) as standard
- Special switch ratings, solenoid voltage and/or contact arrangements available on request
- Solenoid monitoring contacts as standard
- Remotely (ETR) and knob operated (ETS) version available on request

Product Types

Nº of Locks	Ref Nº
1 » 3	ET1 » ET3
Lock type	
For key and lock specifications view page 12	
Switch AMPS	**Ref Nº**
20A	A020
32A	A032
63A	A063
Switch Contacts	**Ref Nº**
4NO / 0NC	40
2NO / 2NC	22
Solenoid Voltage	**Ref Nº**
24V DC	D024
110V AC / 110V DC	A110 / D110
Time Delay Up To	**Ref Nº**
5 Min	05
30 Min	30

Voltage Sensing Unit

VS

Releases key(s) after zero voltage detection of the BEMF.

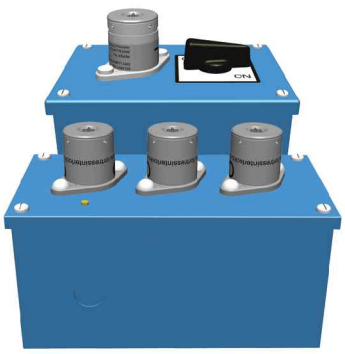
- Direct drive operation - positively opens contacts
- Suitable for machines with a rundown cycle
- Enclosures in Polycarbonate (IP65) as standard
- Special switch ratings, solenoid voltage and/or contact arrangements available on request
- Solenoid monitoring contacts as standard

Product Types

Nº of Locks	Ref Nº
1	VS1
Lock type	
For key and lock specifications view page 12	
Switch AMPS	**Ref Nº**
20A	-
Switch Contacts	**Ref Nº**
2NO / 2NC	-
Solenoid Voltage	**Ref Nº**
24V AC	024
110V AC	110
230V AC	230

Knob Operated/Key Operated Switch Control Unit

ODS Knop operated
ODL Key operated



The ODS Releases key(s) after switching the knob into a visible off position.

The ODL is a 'key bank' with a switch. It incorporates one or more rotary switches and any combination of trapped or freed keys.

- Direct drive operation - positively opens contacts
- Mild steel enclosure as standard
- Stainless steel enclosure as standard in combination with CLSS or MLSS lock types
- Special switch ratings and/or contact arrangements available on request

Product Types

Operation Type	Ref Nº
Knob operated	ODS
Key operated	ODL
Nº of Locks Released or Trapped	**Ref Nº**
1 » 8	OD(S/L)1 » OD(S/L)8
Lock type	
For key and lock specifications view page 12	
Vertical/Horizontal	**Ref Nº**
Vertical	V1
Horizontal	H1
Linking System	**Ref Nº**
Cams (stainless steel)	C(S)
Runnerbar (stainless steel)	R(S)
Mounting	**Ref Nº**
Back of Board	B
In Enclosure	F
Switch AMPS	**Ref Nº**
20A	A020
32A	A032
63A	A063
150A (ODS only)	A150
Switch Contacts	**Ref Nº**
4NO / 0NC	40
2NO / 2NC	22

Key Exchange

Modular Key Exchange Unit

XM

The XM unit is used to exchange one or more keys for a number of other keys. This device forms the link betweeen isolation devices and access locks.

- No product handing issues
- Any combination of isolation/access keys possible
- Sequential or Non-sequential key operation
- Simply add modules to existing configurations

Product Types

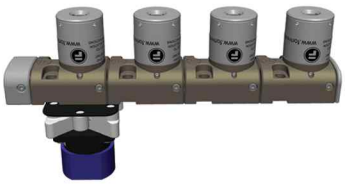
N° of Locks	Ref N°
1 » 10	XM1 » XM10
N° of Locks (Full Stainless Steel)	Ref N°
1 » 5	XMS1 » XMS5

Lock type

For key and lock specifications view page 12

Modular Key Exchange Unit with Switch

XMR



Besides exchanging one or more keys for a number of other keys the XMR is additionlly fitted with rotary switch(es) that can be used for power or control isolation.

- No product handing issues
- Any combination of isolation/access keys possible
- Sequential or Non-sequential key operation
- Simply add modules to existing configurations
- Enclosed version (XMR-E) in Polycarbonate (IP67) as standard

Product Types

N° of Locks	Ref N°
1 » 10	XMR1 » XMR10
N° of Locks (Full Stainless Steel)	Ref N°
1 » 5	XMSR1 » XMSR5

Lock type

For key and lock specifications view page 12

Switch AMPS	Ref N°
20A	020
32A	032
63A	063
Switch Contacts	Ref N°
4NO / 0NC	40
2NO / 2NC	22
Mounting	Ref N°
Sealed Enclosure (IP67)	-E
Back of Board	-P

Door Locks

Single Door Interlock

DM1

- No product handing issues:
  4 head rotation angles with an adjustment of 360° at 90° increments with +/- 5° fine adjustment
  Two actuator entry points
- All DM locks have stainless steel heads
- Tamper resistant head mechanism
- Choice of actuators

Product Types

N° of Locks	Ref N°
1	DM1
N° of Locks (Full Stainless Steel)	Ref N°
1	DMS1

Lock type

For key and lock specifications view page 12

Multiple Modular Door Interlock

DM

- No product handing issues:
  4 head rotation angles with an adjustment of 360° at 90° increments with +/- 5° fine adjustment
  Two actuator entry points
- Any combination of isolation/access keys possible
- Sequential or Non-sequential key operation
- Simply add modules to existing configurations
- All DM locks have stainless steel heads
- Tamper resistant head mechanism
- Choice of actuators

Product Types

N° of Locks	Ref N°
2 » 10	DM2 » DM10
N° of Locks (Full Stainless Steel)	Ref N°
2 » 5	DMS2 » DMS5

Lock type

For key and lock specifications view page 12

DM Handing Options

The DM and DMS modules benefit from a revolutionary new patented head design. With 5 actuators to choose from, the head features a choice of 4 head rotation angles and 2 actuator entry points with an adjustment of 360° at 90° increments with +/- 5° fine adjustment

Actuators

Fixed Actuator

DM-F * is displayed as -F in part N°

- For use with all DM type locks
- Ideal for most aligned guarding doors
- Compact (fits within DM body's space envelope)
- Version with chain available (DM-F-chain)

Handle Actuator

DM-H * is displayed as -H in part N°

- For use with all DM type locks
- Suitable for use where secondary action is required
  to overcome misalignment
  to prevent lock damage by slamming doors
- Vertical adjustment: +/- 6mm
- Rotational adjustment of bracket

Spring Operated Handle Actuator

DM-A * is displayed as -A in part N°

- For use with all DM type locks
- Suitable for use where secondary action is required
  to overcome misalignment
  to prevent lock damage by slamming doors
- Detent holds actuator in place when door is open
- Vertical adjustment: +/- 6mm
- Rotational adjustment of bracket

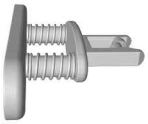
Self Aligning Actuator

DM-S * is displayed as -S in part N°

- For use with all DM type locks
- Ideal for small radius hinged doors
- Horizontal adjustment: +/- 7.50mm
- Vertical adjustment: +/- 3.75mm
- Rotational adjustment: any angle in 360°

Compressible Actuator

DM-C * is displayed as -C in part N°



- For use with all DM type locks
- Ideal to absorb vibration on hatches/doors
- Can be used on small radius hinged doors
- Suitable for situations where the door is likely to be slammed

Accessories

Extension Module

XMA

- For adding lock units onto existing BM, BMR, XM, XMR, DM and DMR configurations

Product Types

Housing Material	Ref Nº
Standard	XMA
Full Stainless Steel	XMSA

Lock type

For key and lock specifications view page 12

Back of Board Mounting Kit

MBOB

- To provide back of board mounting possibilities for BM, BMR, XM, XMR, DM and DMR configurations

Not suitable for use onto full stainless steel configurations

Product Types

Housing Material	Ref Nº
Standard	MBOB

Lock and Key Specifications

Fortress locks have over 200,000 different lock combinations. Besides the standard basic (CL) it also is also possible to have a master series (ML) which can be operated by a special cut master key (MLK-SUGS) that fits any mastered lock in a specific mastered lock series. For ease of use all Fortress locks provide key insertion in two directions.

Lock and key engravings

Each different key combination is allocated with an engraved code onto the lock and key, of up to maximum 30 characters (3 lines of 10 characters), this engraving code is used to identify locks and keys and is recorded in a database for continuous cross reference. Required engravings are therefore to be provided with each order.

Standard

CLIN lock
Standard CL lock no dustcover

CLIS lock
Standard CL lock with stainless steel dustcover

CLSS lock
Full Stainless Steel CL lock with stainless steel dustcover

CLK-SUS
Standard key for use on all CL lock types

Master

MLIN lock
Masterable ML lock no dustcover

MLIS lock
Masterable ML lock with stainless steel dustcover

MLSS lock
Full Stainless Steel masterable ML lock with stainless steel dustcover

MLK-SUGS
Standard cut key for use on all ML type locks

MLK-SUCM
Master cut key for use on all ML lock types

As an option Fortress locks can also be supplied with Padlockable dustcovers, that incorporates two padlock holes which can be fitted with lockout hasps and scissor hasps between 3mm and 8mm in diameter as shown below.

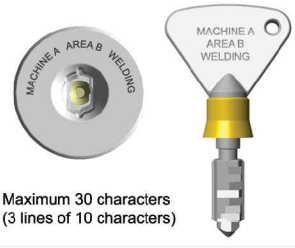
Dustcover Options

CLDC Stainless Steel Dustcover
PLDC Stainless Steel Padlockable Dustcover

LOH3 Lock-Out Hasp
LOH3C Lock-Out Hasp c/w Cable

LOS3 Lock-Out Scissor Hasp
LOS3C Lock-Out Scissor Hasp c/w Cable

Key and lock engravings



Maximum 30 characters
(3 lines of 10 characters)

mGard Range Card

Power Isolation

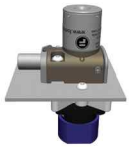
Mechanical Bolt Interlock

- BM — BM1 » BM10 (Standard)
- BMS — BMS1 » BMS5 (Full Stainless Steel)

Bolt Interlock with Limit Switch

- BML — BML1 » BML4 (Standard)
- BMSL — BMSL1 » BMSL4 (Full Stainless Steel)

Bolt Interlock with Switch



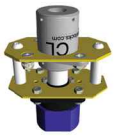
- BMR — BMR1 » BMR10 (Standard)
- BMSR — BMSR1 » BMSR5 (Full Stainless Steel)

Circuit Breakers

- CLIN-AC090AB — ABB (SACE EMAX)
- CLIN-MC090MG — Merlin Gerin (Masterpact)
- CLIN-X002 — Siemens (3WL)

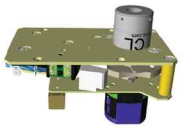
Control Isolation

Key Switch



- S — Back of Board
- SE — In Enclosure

Solenoid Controlled Key Switch



- SS-B — SS1-B » SS8-B (Back of Board)
- SS-F — SS1-F » SS8-F (In Enclosure)

ATEX Key Switch

- FLP — In Enclosure

ATEX Solenoid Controlled Key Switch

- EEXSS1 — In Enclosure

Solenoid Controlled Key Switch Unit

- SLS — SLS1 » SLS6

Electronic Time Delay Unit

- ET — ET1 » ET3 (In Enclosure)

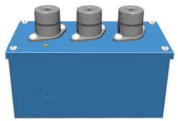
Voltage Sensing Unit

- VS — In Enclosure

Knob Operated Switch Control Unit

- ODS — ODS1 » ODS8 (In Enclosure)

Key Operated Switch Control Unit



- ODL — ODL1 » ODL8 (In Enclosure)

Key Exchange

Modular Key Exchange Unit

- XM — XM1 » XM10 (Standard)
- XMS — XMS1 » XMS5 (Full Stainless Steel)

Modular Key Exchange Unit with Switch(es)

- XMR — XMR1 » XMR10 (Standard)
- XMSR — XMSR1 » XMSR5 (Full Stainless Steel)

Accessories

Extension Module

- XMA — Standard
- XMSA — Full Stainless Steel

Back of Board Mounting Kit

- MBOB

Dustcovers

- CLDC — Stainless Steel Dustcover
- PLDC — Padlockable Dustcover

Lock-Out Hasps

- LOH3
- LOH3C — c/w cable

- LOS3 — Scissor Hasp
- LOS3C — Scissor Hasp c/w cable

Door Locks

Single Door Interlock

- DM1 — Standard
- DMS1 — Full Stainless Steel

Multiple Modular Door Interlock

- DM — DM2 » DM10 (Standard)
- DMS — DMS2 » DMS5 (Full Stainless Steel)

Actuators

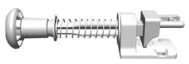
Fixed Actuator

- DM-F

Handle Actuator

- DM-H

Handle Actuator (spring)



- DM-A

Self Aligning Actuator

- DM-S

Compressible Actuator

- DM-C

Fortress Interlocks

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