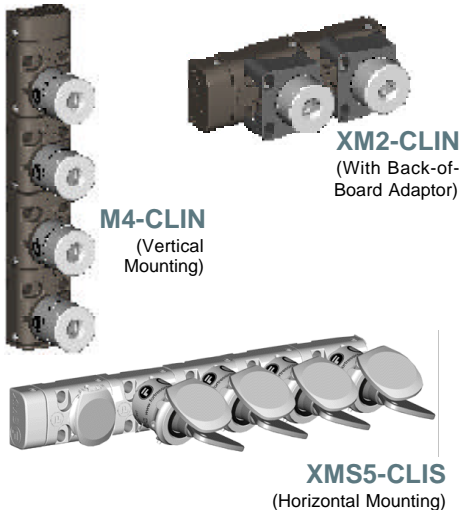


XM/XMS Key Exchange Box

Installation Instructions



The **XM** is a modular mechanical key exchange unit that is used to exchange one or more keys for a number of other keys. This device often forms the link between isolation devices and access locks. A number of combinations of isolation /access keys are possible. This product is also available in full stainless steel (**XMS**). **XM** may be surface or panel mounted using the optional M-BOB Adaptor. **XMS** is only surface mounted. Separate Installation Instructions for the M-BOB adaptor are available upon request. **XM** is available with a choice of CL or ML lock mechanisms. All CL / ML locks can be supplied with stainless steel spring-loaded dustcovers and/or colour coding as optional extras. **XMS** is available with a choice of CLS or MLS lock mechanisms. All CLS / MLS locks are supplied with stainless steel spring-loaded dustcovers as standard and colour coding as an optional extra.

IMPORTANT: This product is designed for use according to the installation and operating instructions enclosed. It must be installed by competent and qualified personnel who have read and understood the whole of this document prior to commencing installation. Any modification to, or deviation from these instructions invalidates all warranties. Fortress Interlocks Ltd accepts no liability whatsoever for any situation arising from misuse or mis-application of this product.

IF YOU HAVE ANY QUESTIONS OR QUERIES OF ANY NATURE WHATSOEVER PLEASE CONTACT THE SUPPLIER WHO WILL BE PLEASED TO ADVISE AND ASSIST.

Construction XM

Body Housing: Die-cast zinc body with pearl bronze finish.

Internals: All stainless steel.

Lock Mechanism: CL / ML lock types are of die-cast zinc body with stainless steel contact surfaces.

Key: Stainless steel.

M-BOB: Die-cast zinc with pearl bronze finish.

Construction XMS

Body Housing: Full stainless steel.

Internals: All stainless steel.

Lock Mechanism: CLS / MLS lock types are of all stainless steel.

Key: Stainless steel.

Tools and Fixings Required

2 off Cap head / hexagonal head bolts for each module.

Front of Board mounting:

M6 x 25 or 1/4" x 1"

Back of Board mounting:

M6 x 55 or 1/4" x 2 1/4"

Suitable driver for above.

If using through holes:

• 1 off Drill Ø6.5 (or Ø5/16").

• 2 off M6 (or 1/4") Full nuts per module.

If using threaded holes:

• 1 off Drill Ø5 (or Pilot Drill for chosen 1/4" Thread).

• 1 off M6 (or 1/4") Tap and wrench.

Mounting

Mount the unit only in its correctly assembled condition to flat steel plate of minimum thickness 3.0mm or 6.0mm if aluminum. **XM/XMS** can be mounted in any orientation, observing the following rules:

- 1 Locate the unit so that all the locks are within easy reach.
- 2 Mount the unit to the panel using the chosen fixings.
- 3 Tighten the fixings to a Torque of 8 to 10Nm (5.9 to 7.4 lbf.ft)
- 4 All fixing screws must be permanently prevented from removal, either by vibration or by personnel using standard tools.

All fixings must be used.

Functionality

Secondary keys are mechanically trapped until all the primary key(s) are inserted and turned. Only when all primary keys are inserted can the secondary key(s) be removed. Removing the first secondary key mechanically traps the primary key(s) in place.

Sequencing

The XM/XMS system is extremely flexible in terms of its sequencing possibilities. Two types of operation are possible. These are used individually or mixed to provide complex operation. The two types of operation are:

Sequential Operation

This is when the key in the module interacts only with its neighboring modules. This dictates the order in which keys are inserted and removed.

Non-Sequential Operation

This is when two or more keys work together in a group. In a non-sequential system, any of the keys in the group can be operated together. Therefore, the order in which keys are inserted or removed from the group is not dictated. However, all of the keys in the group must be either all inserted and trapped or all removed.

The XM/XMS sequence should have been specified at the purchasing stage. If the sequence needs to be changed, contact Fortress Interlocks.

Fitting of Additional Key Exchange Modules

The XMA/XMSA is supplied with its own Installation Instructions.

Conversion from XM to DM or XMS to DMS (Exchange Module to a Door Module)

It is possible to convert an XM to a DM or XMS to a DMS. However, this must be done with care as the sequence may require modification. If the XM/XMS needs to be changed to a DM/DMS, contact Fortress Interlocks.

Conversion from XM to BM or XMS to BMS (Key Exchange Module to a Bolt Module)

It is possible to convert an XM to a BM or XMS to a BMS. However, this must be done with care as the sequence may require modification. If the XM/XMS needs to be changed to a BM/BMS, contact Fortress Interlocks.

Back of Board (BOB) Mounting

The M-BOB is supplied with its own Installation and Maintenance Instructions. Only applicable to the **XM** product.

Commissioning

Mechanical Function Test

- 1 Start with the secondary key(s) inserted.
- 2 Remove all primary keys.
- 3 Check that all the secondary keys are trapped in position.
- 4 Insert and turn the primary key(s).
- 5 Check that all of the secondary keys can be removed.
- 6 Ensure that when one secondary key is removed, all the primary keys remain trapped.

Service and Inspection

Regular weekly inspection of the following is necessary to ensure trouble-free, lasting operation:

- 1 Secure mounting of components.
- 2 Debris and wear.
- 3 All locks should be lubricated with WD40.

There are no user serviceable parts in an **XM/XMS** module. If damage or wear is found, the whole module must be replaced.

Disposal

The **XM/XMS** does not contain any certified hazardous materials so should be disposed of as industrial waste.

Liability coverage is voided under the following conditions:

- 1 If these instructions are not followed.
- 2 Non-compliance with safety regulations.
- 3 Installation not performed by authorised personnel.
- 4 Non-implementation of functional checks.



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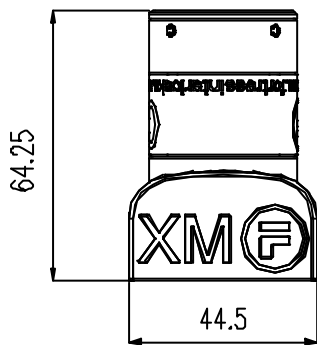
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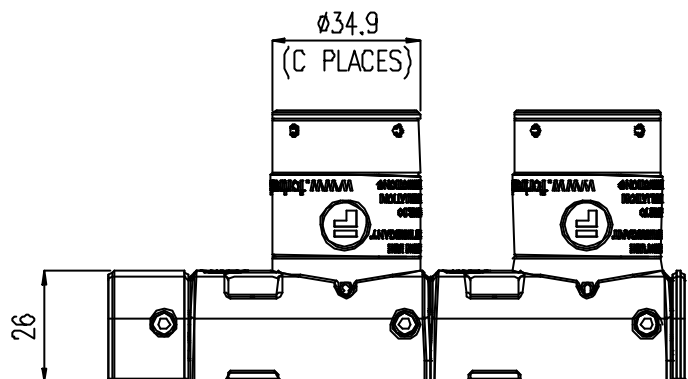
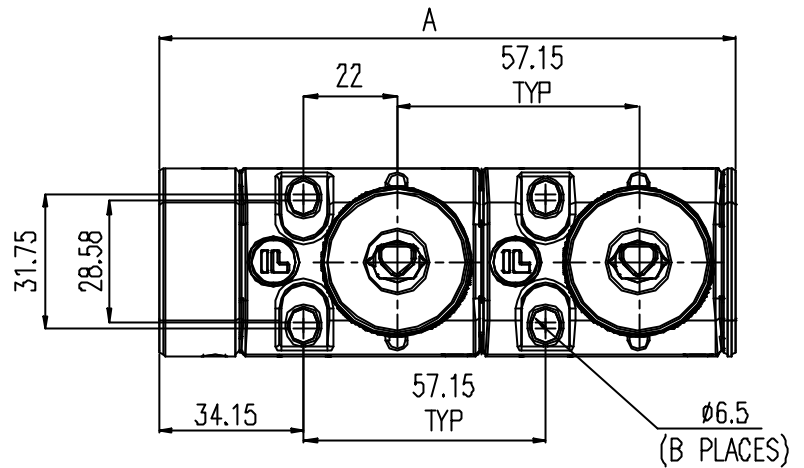
XM Drawing

PRODUCT	DIM A OVERALL LENGTH	DIM B NO. OF SLOTTED HOLES	DIM C NO. OF CL LOCKS
XM2	136.3	4	2
XM3	193.45	6	3
XM4	250.8	8	4
XM5	307.75	10	5
XM6	364.9	12	6
XM7	422.05	14	7
XM8	479.2	16	8
XM9	536.35	18	9
XM10	593.5	20	10

ALL DIMENSIONS ARE NOMINAL AND ARE SUBJECT TO MANUFACTURING TOLERANCES



Installation Instructions



Part Numbering

The XM uses a logical part numbering system: -

Example: XM3-CLIS

XM: Generic Product Type (Exchange Module)

3: Number of CL/ML Lock (**2** to **10**) or **A** for Add-On Module used to convert a DM/BM to an XM.

- *Separator.*

CL: Lock Type (**CL** / **ML**)

I: Stainless Steel CL / ML Internals

S: Dustcover Option (**S** for Stainless Steel or **N** for no dust cover)

M-BOB: Back of Board Mounting Adaptor



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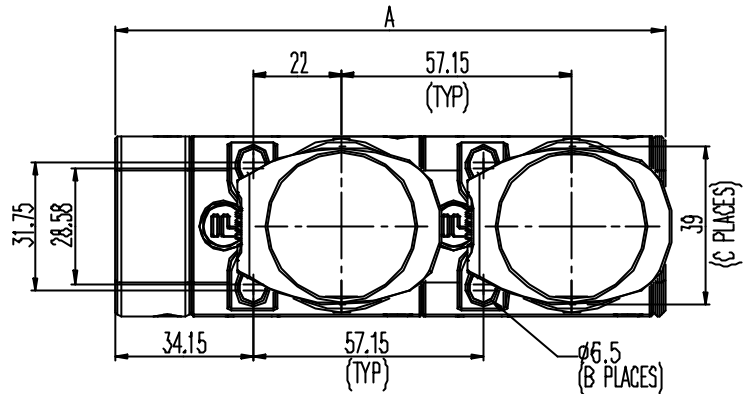
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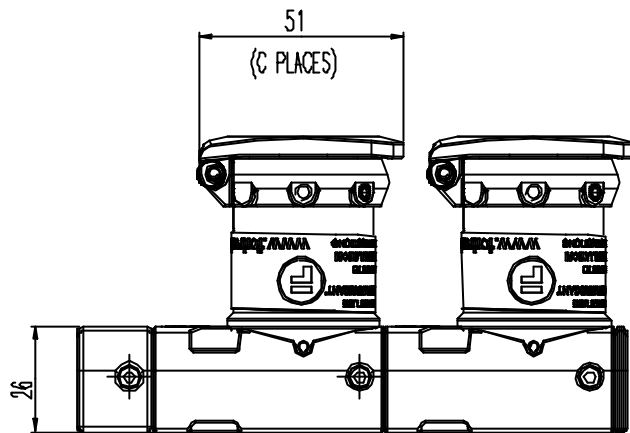
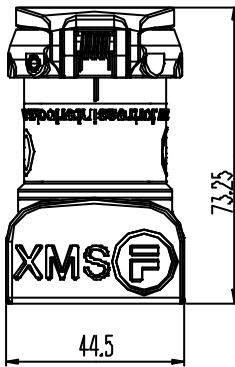
XMS Drawing

Installation Instructions

PRODUCT	DIM A OVERALL LENGTH	DIM B NO OF SLOTTED HOLES	DIM C NO OF CLS LOCKS
XMS2	136.3	4	2
XMS3	193.45	6	3
XMS4	250.6	8	4
XMS5	307.75	10	5



ALL DIMENSIONS ARE NOMINAL AND ARE SUBJECT TO MANUFACTURING TOLERANCES



Part Numbering

The XMS uses a logical part numbering system: -
Example: XMS4-MLSS

XMS: Generic Product Type (**Exchange Module Stainless Steel**)

4: Number of CLS/MLS Lock (**2 to 10**) or **A** for Add-On Module used to convert a DMS/BMS to an XMS.

- *Separator.*

ML: Lock Type (**CLS / MLS**)

S: Full **Stainless Steel** CLS / MLS.

S: **Stainless Steel** Dustcover as standard.

M-BOB: Back of Board Mounting Adaptor



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