

# DM-I Door Module Internal Release

## General

The DM-I only works on outward opening doors.

The Internal Release attachment for the DM / DMS units allows personnel to open a gate from inside a guarded area in the event of exceptional circumstances while, also initiating a machines emergency stop process.

## 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. This product is not to be used as an Emergency Stop. The unit is a component to be added to a permanent electrical installation meeting the requirements of the applicable IEC/EN standards.

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

This installation instruction sheet should be read in conjunction with the DM(S) installation instructions.

## Drilling the Guard

The guard of the machine should be drilled and threaded as shown on the attached drawings and should be read in conjunction with the DM(S) – Door Module installation instructions.

## Tools and Fixings Required

M6 Tap Set  
M5 Tap Set  
Qty 2 M6 x 35(MIN) screws  
Qty 2 M6 x 10(MIN) screws  
Qty 4 M5 x 10(MIN) screws

## Installation Location

Choosing a mounting location for the interlock:  
Locate the interlock so that:

1. Access to the push button is easy for operating personnel when the protective guard is closed.
2. Inspection and replacement of the Interlock is possible.
3. Reset feature is easily accessible.

The depth of the post should have been specified when ordering to ensure correct operation. The intended post depth of an internal release unit can be checked in the part number. E.g. DM1-CLIN-IR040 is for a 40mm deep post.

## Installation Method

1. Drill a Ø40mm hole through the post to accept the spigot sleeve.
2. Use all associated drawings to determine required fixings and their locations.

**NOTE: EXTREME CARE SEPERATE SPIGOT SLEEVE UNIT FROM ASSEMBLY BY DEPRESSING RED BUTTON. BEWARE! 4 BALL BEARINGS ARE HELD IN PLACE ONLY BY GREASE.**

3. Securely fix the spigot sleeve unit to the outside of the post.
4. With the profile shaft held in place insert the switch assembly from within the guarded area.
5. Add the DM-I actuator to allow shaft to engage fully.
6. Ensure that the shaft can run freely and is aligned to both units then fix the switch housing in location.
7. Using the DM – Door Module drawing locate and fix the lock to the gate, ensuring the DM-I actuator is located within the DM's head and can be locked and unlocked in position.

## Switch Specification (2NC / 1NO)

- Hinged snap lid for quick and easy access (screwdriver release).
- Lid hinges to 135°.
- Screw terminals with self lifting clamps.

Normal state should be when actuator is trapped within spigot sleeve, unit is reset and switch contacts are:-

- 2NC - Contacts intended for interfacing with machinery safety circuits.
- 1NO – Contact intended for monitoring.

IEC/EN 60947-5-1  
AC15 Ue 240V / Ie 1,5A  
Ui 250V  
IP65  
CSA 5A/300V B300 Same Pol.

## Protection Against Environmental Influences

A lasting and correct safety function requires that the unit be protected against the ingress of foreign bodies such as swarf, sand, blasting shot, etc.

The unit is to be mounted away from the machine in order to avoid the effects of vibration, shock and bump.

## Mechanical Test

1. Ensure that the Internal Release button has been reset by ensuring the actuator is securely fixed and the knob is fully retracted.
2. Pressing the knob should allow the actuator to be removed from the mechanism.
3. Ensure the gate is free to open, especially when the actuator is still trapped in the associated interlock.
4. Two stage reset procedure. Stage 1 - insert tool and lift to disengage reset feature and allow knob to partially return. Stage 2 - with all personnel outside the guarded area insert the actuator to fully complete reset procedure. Typically as the unit resets an audible click should be heard.
5. To ensure the unit has correctly reset check that both the actuator is securely held in the spigot sleeve and associated interlocks head. Ensure the associated interlock can now be operated as intended.

## Electrical Test

1. Ensure that the Internal Release button has been reset by ensuring the actuator is securely fixed and the knob is fully retracted
2. Press the button and ensure the machine stops/ run down cycle begins.
3. Reset the unit as above
4. Ensure the machine is able to restart once safe to do so.

## Disposal

This product does not contain any certified hazardous materials so should be disposed of as industrial waste. Parts should be recycled wherever possible.

## Service and Inspection

To ensure trouble-free lasting operation regular inspection of the unit should include, but not be limited to, the following:

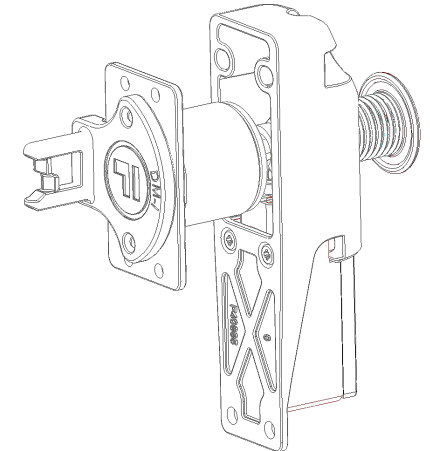
- Shaft lubrication through reset feature.
- Correct operation.
- Secure mounting of components.
- Debris and wear.

If damage or wear is found the whole unit must be replaced.

## Liability coverage is voided under the following conditions:

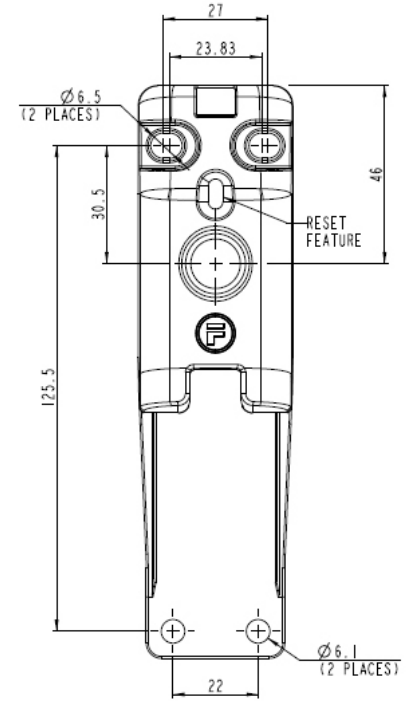
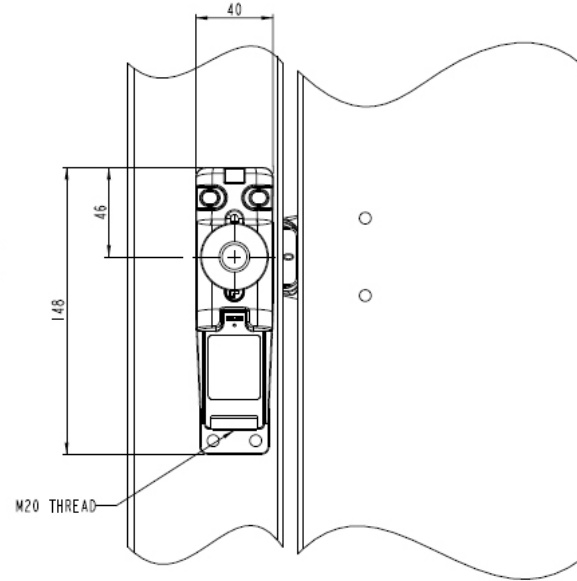
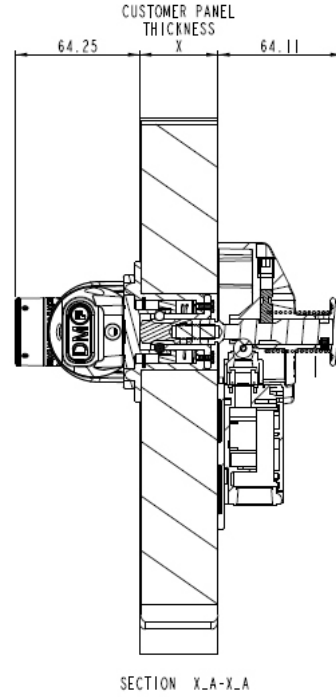
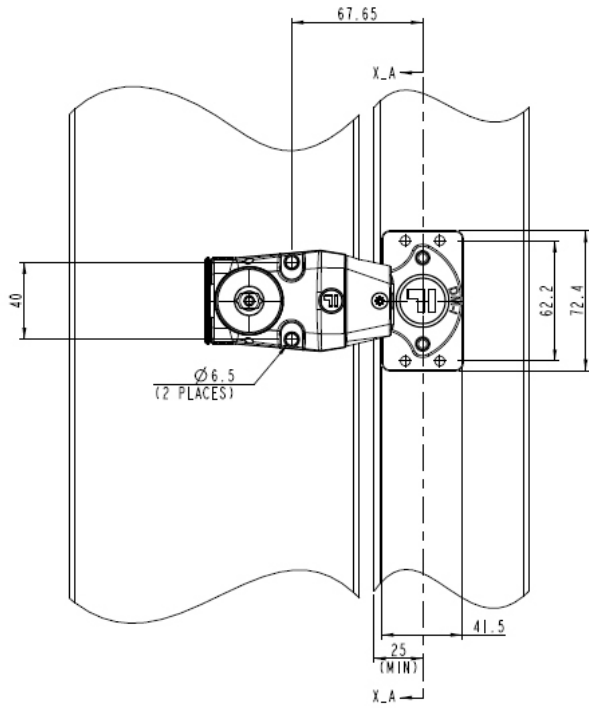
1. If these instructions are not followed
2. Non-compliance with safety regulations
3. Installation and electrical connection not performed by authorised personnel
4. Non-implementation of functional checks.

The manufacturer reserves the right to modify the design at any time and without notice. This guide should be retained for future reference



# DM-I Door Module Internal Release

# Installation Instructions



## DMI WIRING DETAILS

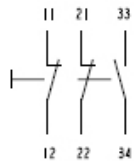
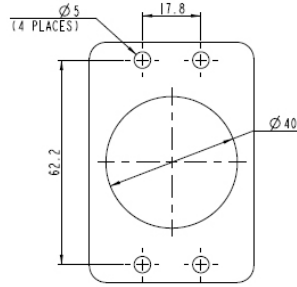
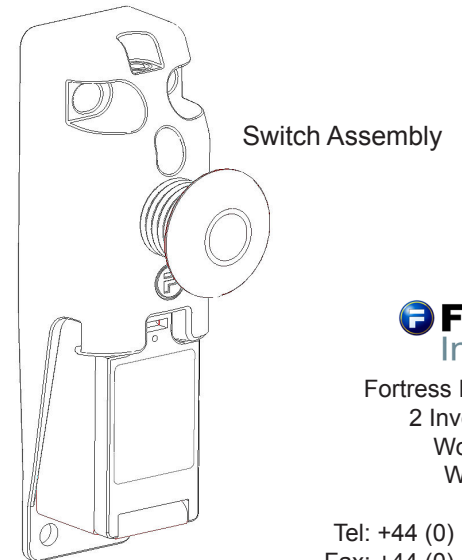
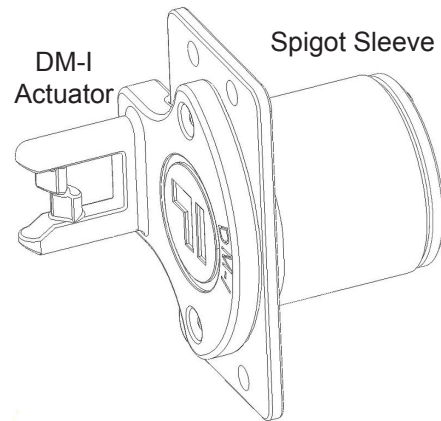
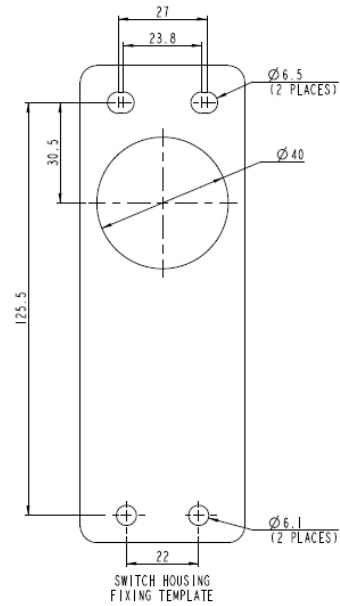


DIAGRAM SHOWS SWITCH STATE WHEN ACTUATOR IS IN FIXED POSITION.



SCALE 1.000  
SPIGOT SLEEVE  
FIXING TEMPLATE



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