FORTRESS
INTERLOCKS

ncGard

Protecting People, Protecting Productivity

Introducing ATOM, our RFID Safety Interlock

THE QUEEN'S AWARDS FOR ENTERPRISE: INTERNATIONAL TRADE 2018

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What is ATOM?

ATOM is a compact and ultra-robust RFID High-Coded Solenoid Interlock that we have added to our ncGard product range.

Suitable for use in applications up to PLe (Cat.4), **ATOM** provides a discreet, easy-to-install solution with monitored inputs and OSSD outputs.

Connection Options:

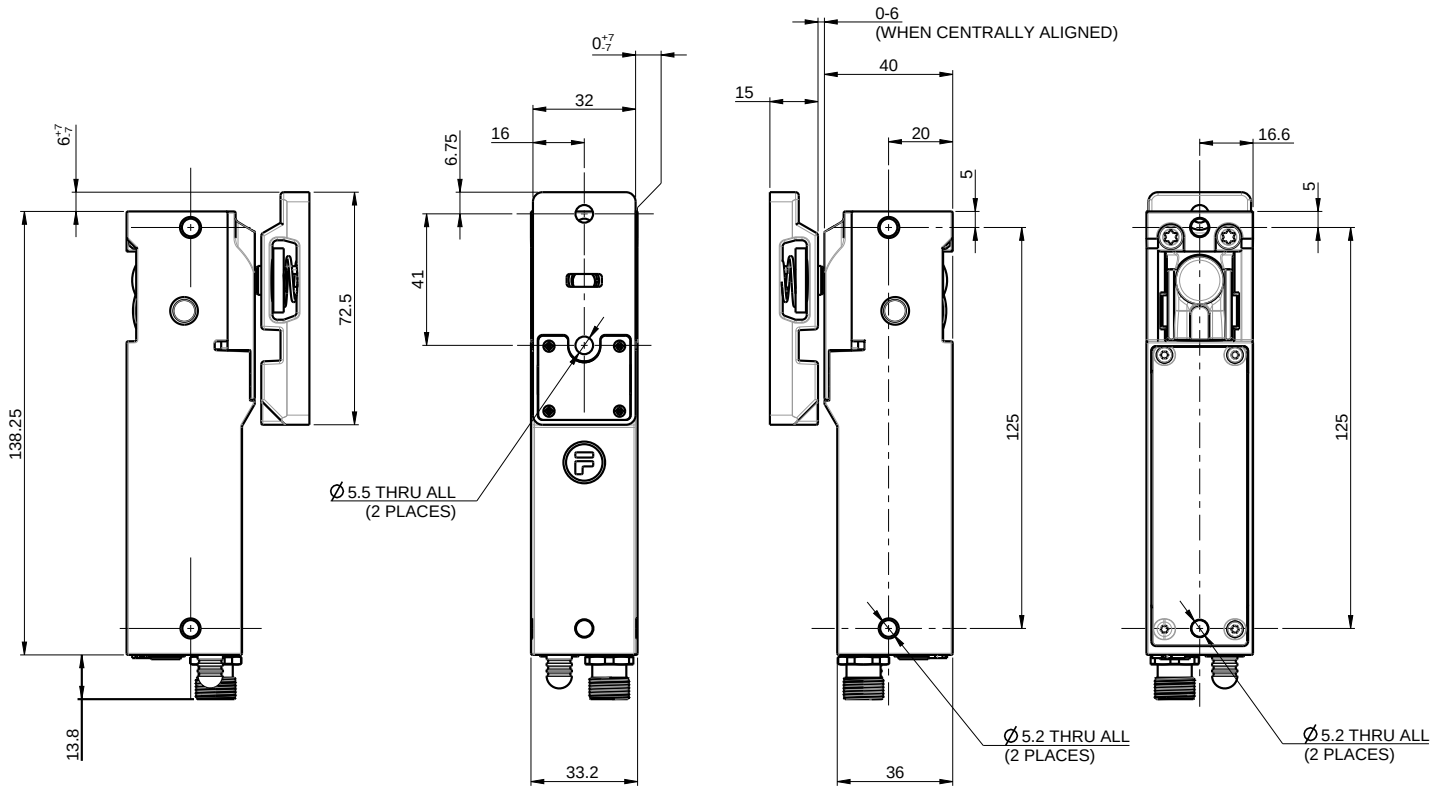
M12 Quick Disconnects (QD) are supported in single 5 pin, single 8 pin and double 5 pin configurations with the latter for Daisy-Chain applications.

Manual Auxiliary release can be performed with the override driver bit provided (Power to Unlock Only).

Mounting Screws and Cable Requirements:

- **4 x M5 Security-Type Mounting Screws** for securing ATOM Switch and Actuator. (Please refer to ATOM Operating Instructions for specific detailed requirements).
- **4 x M5 Nut / T-Nut / Threaded Hole** for securing ATOM Switch and Actuator.
- **Adhesive Threadlocker** to secure Mounting Screws.
- **Auxiliary Release Driver Bit** (provided) to operate Auxiliary Release Function.
- **Standard M12 Cable(s)** to connect and operate ATOM Switch. (Exact cable depends on connector option).

Dimensional Drawing for ATOM with Actuator Unit



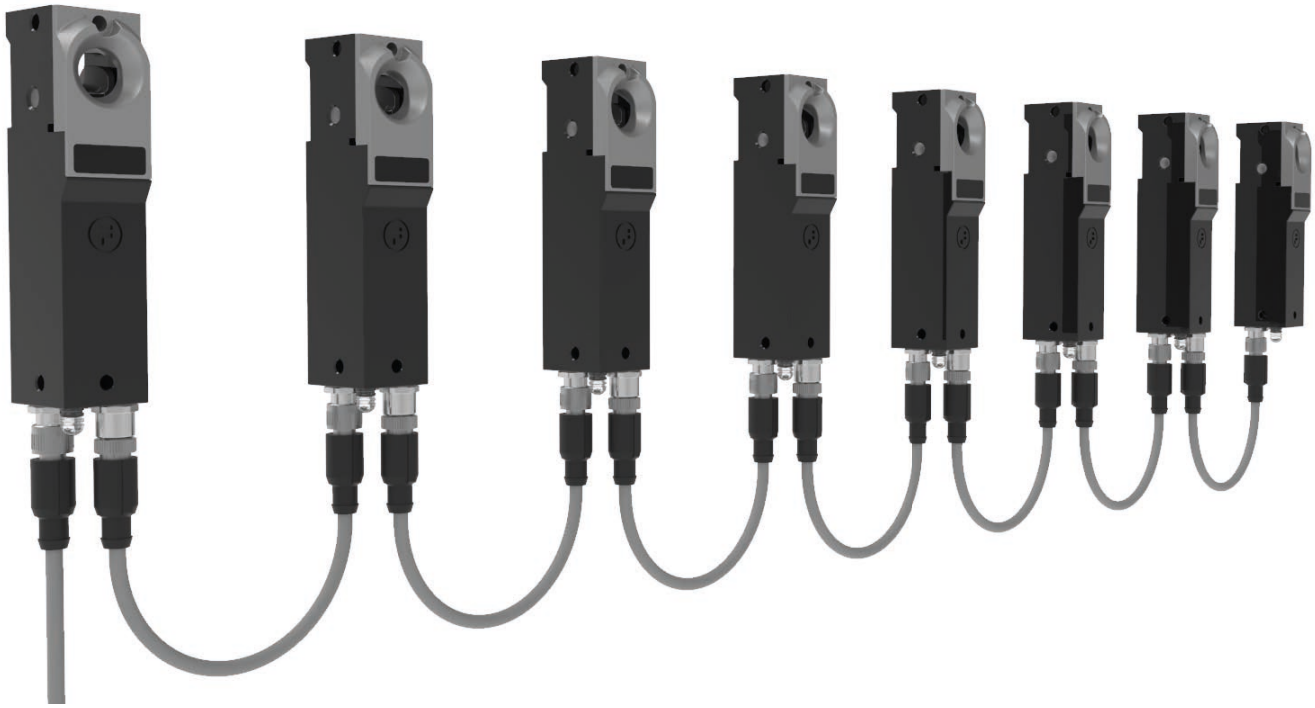
ATOM - High Coded RFID

ATOM has a High-Coded RFID technology that provides millions of different coding combinations and is classed as "high" coding by ISO 14119.

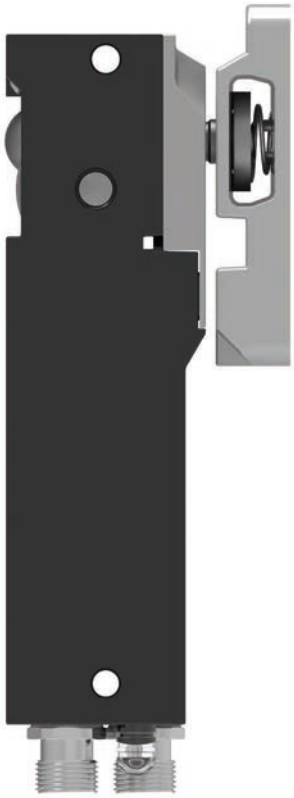
The uniquely coded actuator helps to create a tamper-proof system that prevents unauthorised access.

ATOM - OSSD Outputs

ATOM supports OSSD output (**O**utput **S**ignal **S**witching **D**evice) with Daisy-Chain connection that enables ease of wiring installation and prevents fault masking powered from the same supply.
Each **ATOM** unit in series draws current and causes a voltage drop on the power line. For a detailed calculation please see the Voltage Drop Tool on the Fortress website.



ATOM - High Mechanical Misalignment



The **ATOM** Actuator can pivot and self-centre to operate under a high degree of misalignment.

High maximum retention force of up to 8kN.

Pivoting mechanism is particularly well suited to small radius hinged doors and hatches.

Application Example - ATOM in Action: CNC Machine

If a person requires entry to the machine they must press the 'Request to Stop' button.

The **ATOM** will prevent guard doors from opening whilst the machine is still operating during rundown time.

Once the machine has stopped, the **ATOM**'s solenoid is energised which breaks the dual safety circuit to prevent unexpected restart.

Opening the guard door disconnects the RFID connection which prevents inadvertent restart.

High-Coded RFID Technology prevents any attempts to manually defeat the unit.

When intervention is complete, closing the machine door will re-establish the safety circuits and providing the solenoid is de-energised, the **ATOM** unit will then relock and allow for machine restart.

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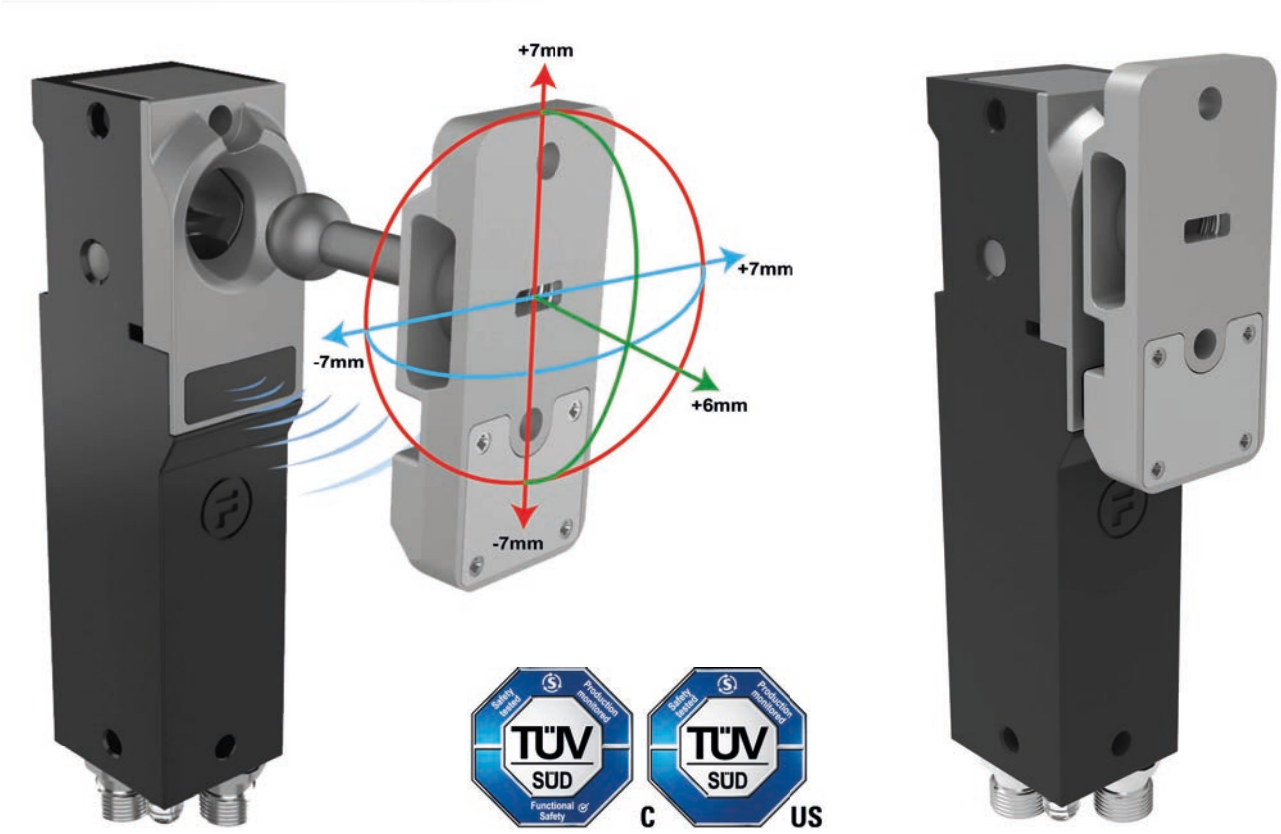

What are the features of ATOM?

Solenoid Controlled Interlock

High-Coded RFID

Robust Actuator design with high locking and retention force (8kN)

Ultra compact mounting footprint, easy to mount with 4 x M5 screws

Safeguarding application up to PLe and SIL3 rating

Provides OSSD outputs with Daisy-Chain connection, connects up to 8 **ATOM**s in series

High Mechanical Misalignment and open head to prevent dust, dirt and corrosion from impacting performance

Sealed to IP65 and IP67

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Robust Safety for Manufacturing Environments

www.fortressinterlocks.com

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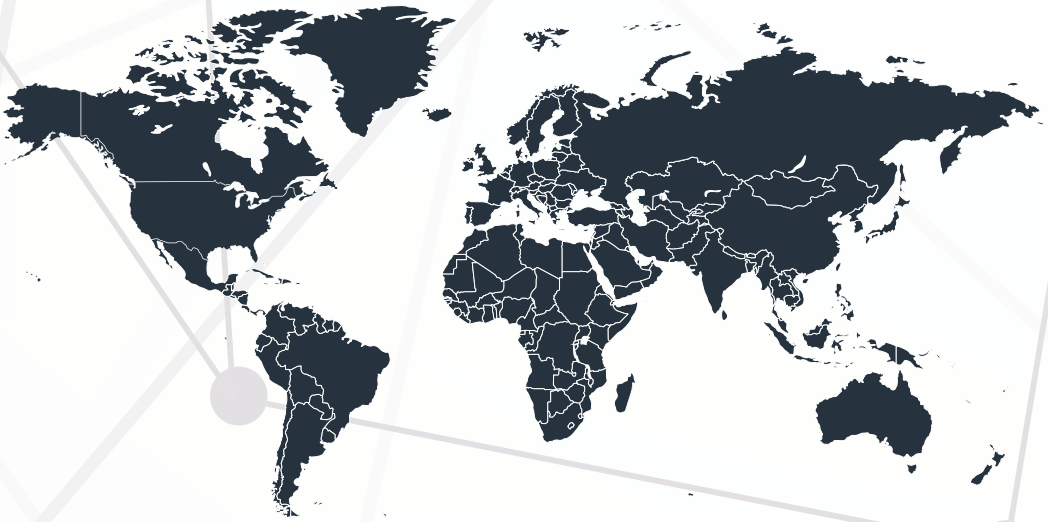

A **Halma** company

Fortress Interlocks Ltd
+44 (0)1902 349000
sales@fortressinterlocks.com

Fortress Interlocks Europe
+31 (0)10 7536060
europe@fortressinterlocks.com

Fortress Interlocks USA
+1 (859) 578 2390
us@fortressinterlocks.com

Fortress Interlocks Pty Ltd
+61 (0)3 9771 5350
australia@fortressinterlocks.com

Fortress Interlocks China
+86 (021) 6167 9002
china@fortressinterlocks.com

Fortress Interlocks India
+91 8657445479
india@fortressinterlocks.com

Official Distributor

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