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# IDEM NON-CONTACT RFID LOCKING SWITCH MGL

463003
MGL-1P-U QC-M12



- Heavy or medium duty holding force
- Available in robust plastic or die-cast metal
- Operates with most safety relays to achieve up to PLe/Cat.4
- RFID master coded or unique coding

### PRODUCT DESCRIPTION

The MGL range of Non Contact RFID Coded switches has been developed in order to provide and maintain a high level of functional safety whilst providing a reliable magnetic door interlock.
Flexibility for holding force is provided by the provision of 2 different switch sizes - Heavy Duty 1500N (F1Max) Plastic and Die Cast) and Medium Duty 1000N (F1Max) Plastic and Die Cast) to cover all applications.
Coding is achieved by using magnetic and RFID techniques and both principles need to be satisfied for the switch to operate safely.
The MGL range will connect to the majority of popular standard safety relays to achieve up to PLe/Category 4 to ISO13849-1.
Offered in high specification robust Plastic or Die-Cast Metal housings the MGL switch can be used in almost any environment including high pressure cleaning following contact with foreign particles.

RFID coding options

The RFID coding is offered in two types and can be either coded by series or uniquely coded.

- Type 1: Master Code - by series (any actuator will operate any switch) this is used when unique door activation is not required, but the benefit of RFID makes it virtually impossible to be overridden or by-passed by simple means.
- Type 2: 32,000,000 Unique Codes - the switch is factory set and used when unique activation is required in areas where there are many interlocked doors and security of individual areas is required.

The MGL combines magnetic sensing and RFID technology to provide non contact operation and high anti-tamper coding. In addition an electromagnet is used to lock machine guards.

Only when the actuator is in the correct position can the lock be achieved and the safety outputs closed.

The switch provides two safe switching outputs for use with popular safety relays as well as a semi conductor auxiliary signal to indicate the door position.

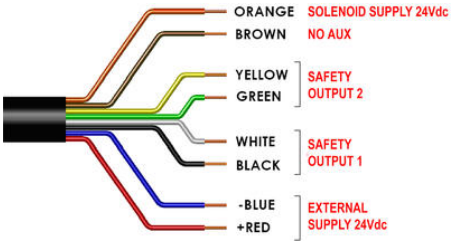
There are 2 LEDs that offer 5 diagnostic functions to the user.

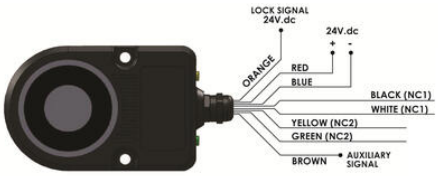
The switch is “Power to Lock” and therefore consideration must be given in the event of a power failure to machines where a run down time is present before the hazard is removed.

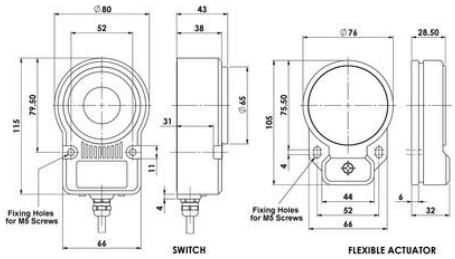
# TECHNICAL DATA

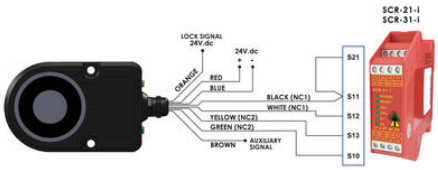
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|---|---|
| **Approvals** | ISO 14119, EN60204-1, ISO 13849-1, EN62061, UL 508, EN60947-5-3 |
| **Cable length** | 0.25 m |
| **Cable type** | PVC 6 or 8 core 6mm OD |
| **Coding** | Uniquely coded |

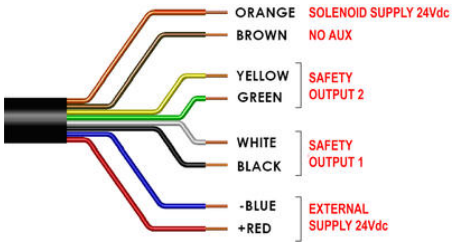
| | |
|---|---|
| **Contact type** | 2NC safety outputs overload protected, 1NO auxiliary output for indication of door open |
| **Contacts** | 2NC 1NO |
| **Holding force (F1Max)** | 1500 N |
| **Housing material** | Polyester |
| **Integrated LED indication** | Yes |
| **IP class** | IP67 |
| **Mechanical reliability B10d** | No mechanical parts implemented |
| **Mounting** | 2 x M5 |
| **MTTFd** | 1100a |
| **Operating temperature** | -25°C...+40°C |
| **PL** | e |
| **Safety category** | 4 |
| **SIL** | 3 |
| **Solenoid Voltage** | 24V dc |
| **Switching current min** | 10V dc 1mA |
| **Switching distance** | Sao 1mm close Sar 10mm open |
| **Switching frequency max** | 1.0 Hz maximum |
| **Weight** | 1740 g |

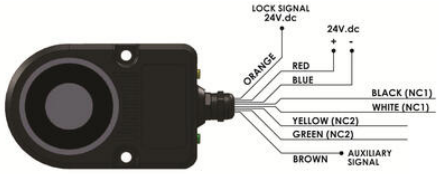


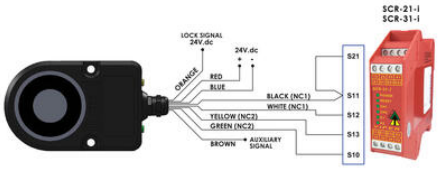




SCR-21-I
SCR-31-I
LOCK SIGNAL
24V.dc
24V.dc
ORANGE
RED
BLUE
BLACK (NC1)
WHITE (NC1)
YELLOW (NC2)
GREEN (NC2)
BROWN
AUXILIARY SIGNAL
S21
S11
S12
S13
S10


ORANGE
SOLENOID SUPPLY 24Vdc
BROWN
NO AUX
YELLOW
GREEN
SAFETY
OUTPUT 2
WHITE
BLACK
SAFETY
OUTPUT 1
-BLUE
+RED
EXTERNAL
SUPPLY 24Vdc


LOCK SIGNAL
24V.dc
24V.dc
ORANGE
RED
BLUE
BLACK (NC1)
WHITE (NC1)
YELLOW (NC2)
GREEN (NC2)
BROWN
AUXILIARY SIGNAL


SCR-21-I
SCR-31-I
LOCK SIGNAL
24V.dc
24V.dc
ORANGE
RED
BLUE
BLACK (NC1)
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GREEN (NC2)
BROWN
AUXILIARY SIGNAL
S21
S11
S12
S13
S10