Reasons for increase in growth of Magnetic Locking

- Replacing Tongue Types - Traditional Tongue type cam systems require good actuator alignment and make no provision to prevent debris ingress into the head.
- S/Steel 316 versions – replacing plastic or die-cast versions in food industry or applications were moisture, water or cleaning is present. Can be CIP / SIP cleaned.
- Replacing Mechanical contacts – solid state outputs have no wear condition.
- Fully encapsulated – can be mounted in any position – moisture will not ingress.
- Can replace standard non contact when a guard locking function is required. Traditionally in Food Production processes with cleaning no guard locking was possible using traditional encapsulated switches. More and more requirements to hold the guard locked during food production or packaging is increasing with emphasis on risk reduction/prevention and increase productivity speeds.
- Power loss causes unlocking – an increasing requirement in Food Production is to have quick access after power loss or removal therefore reducing down time. (The remanence feature still holds the guard closed with reduced force).
- Can offer high anti-tamper RFID sensing – not easy to by-pass. Can be uniquely coded for manufacturing plants with many guards.
- Sensing technology is non contact based upon 2 technologies – both need to be satisfied to allow the machine to start.

RFID Non Contact Switches with Magnetic Holding MGL series

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 - 1000N and 1500N to give different retention forces 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 ISO 13849-1.

The actuator (plastic, die cast metal or stainless steel) has been designed to be flexible and therefore has a degree of tolerance to misalignment.

MAIN USER BENEFITS:

- 2NC Safety Outputs plus 1 external Auxiliary Output (door open)
- High anti-tamper locking switch
- Not susceptible to mechanical wear
- Unique or Master Coding available
- No moving parts – IP69K S/Steel versions
- High holding force suitable for heavy duty doors

Engineering advantages MGL range

- Solid state components – no mechanical wear
- Can be high pressure hosed – fully encapsulated assembly - IP69K S/Steel versions.
- Unique fully Stainless Steel holding magnet and actuator plate – no tarnishing of surfaces.
- Unique flexible actuator design to ensure correct seating of magnet plates.
- Unique sensing feature – lock cannot be achieved until guard is closed.
- Remanence magnetisation feature acts as a light magnetic latch before and after unlocking.

Customer advantages MGL range

- Can be connected to most Safety Relays or Controllers to achieve Ple / Cat.4.
- Easy to connect - non polarity sensitive solid state outputs
- Can be connected in series – up to 20 MGL to one Safety Controller.
- Can be connected in series with other switches – E Stops, Tongue Types etc.
- Fully Stainless Steel 316 housings for Food Applications

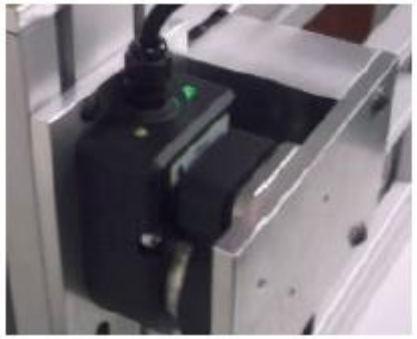
Simple LED diagnostics -

Shown in Guard Open position.

Yellow LED indicates OPEN.

Shown in Guard Closed position.

Green LED indicates CLOSED.



The MGL switch uses 2 LEDs to indicate all the different possible switch states.

The LEDs are in a clearly visible location at either side of the cable exit point.

SWITCH STATUS	GUARD	GREEN LED	YELLOW LED
Locked	Closed	Steady	Off
Solenoid Power OFF (Unlocked)	Closed	Flashing	Off
Guard Open	Open	Off	Steady
Door Forced Open	Open	Off	Flashing
Wrong Actuator Code	Closed	Flashing	Flashing

MGL Operating Directions