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Door Controls

for Specifiers, Architectural Ironmongers & Door Hardware Specialists



**Introducing the NEW
Super Thriftee RELI261
a CE marked universal door closer**



Type A - Activation Controls and Accessories

Activation Controls - Basic Principles

An activation control is used to switch an automatic door operator. The correct choice of control is critical since this will dictate how well the automated entrance works. The choice of switching method will regulate traffic flow and prescribe how and by whom the door is used. Your choice may also dictate whether the automated doors are classed as Low Energy Swing Doors or Powered Doors.

...How to Make the Correct Choice

Initially the choice is two-fold between automatic activation and manual activation. Consideration should be given to the following:

- Traffic flow or density
- Traffic profile

High traffic situations, found in public or commercial buildings, require frequent unhindered switching of doors via microwave motion sensors (or detectors).

Low traffic situations, usually residential applications or automated doors specifically designed for the exclusive use of those requiring automated access, can be controlled manually using actuators (or push pads).

In summary:

- **High traffic – Powered doors**
Switched automatically via Microwave Motion Sensors or Proximity Sensors such as Contact Mats
- **Low traffic – Low energy swing doors**
Switched manually via Actuators (Push Pads) or Hand Held Fobs*



- **Access control – Low energy swing doors**
Switched manually via Card Swipe*, Proximity Tag*, Coded Entry* or Remote Control*.



CE

*see Access Control Brochure.

REL.MMS.ONE Microwave Motion Sensor

REL.MMS.ONE 'active' microwave motion sensors will detect a moving object or person and have the advantage over 'passive' infra-red sensors since they can detect and distinguish between a wide range of motion patterns.

The sensor emits microwaves that are reflected back from moving objects. The resultant shift in the frequency of the wave being proportionate to the speed of the object detected. This shift in frequency is the signal instructing the sensor to switch the operator and open the door.



General & Technical Characteristics

The REL.MMS.ONE can be set as a uni-directional sensor (default mode) or as an optional bi-directional sensor.

Uni-directional sensors will detect motion in one direction only, i.e. towards the sensor. Bi-directional sensors will detect motion both towards and away from the sensor.

- **Technology** - Microwave & microprocessor
- **Frequency emitted** - 24.175 GHz
- **Mounting height** - 4 metres maximum
- **Tilt angles** - 0° to 90° vertical and -30° to 30° lateral
- **Detection mode** - Motion
- **Min. detection speed** - 5cm per second
- **Supply voltage** - 12 to 24V ac/dc
Usually supplied by the operator with no additional power source required
- **Temperature range** - minus 20°C to +55°C
- **Materials** - High impact ABS plastic
- **Protection** - IP54

Optional Accessories

REL.FCA - False Ceiling Adaptor.

REL.FRA - Rain Cover.

REL.FBA - Alternative Fixing Bracket.



REL.FCA

Type A - Activation Controls and Accessories

REL.MMS.ONE - Mechanical & Remote Configuration

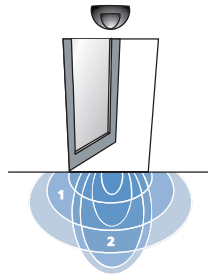
Sensing Field Adjustment

When specifying automatic activation controls it is important to understand the directional flow of the traffic around the door. This should not only include those wishing to use the door but also those passing in close proximity to the door without wishing to traverse the entrance.

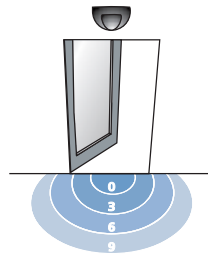
The sensitivity, orientation and shape of the sensing fields are adjustable directly at the sensor with various additional features (including sensitivity) adjustable via the infra-red remote control.

Each sensor is supplied with two planar antennae. The sensing field variations shown here reflect the capabilities of each antenna so far as the potential width of the sensing field is concerned.

- 1: Wide field, standard antenna.
- 2: Narrow field, optional antenna.

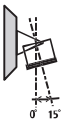


The size of the sensing field is determined by the sensitivity setting (0-9), vertical angle of the antenna and the mounting height.

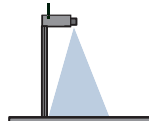


The position of the sensing field is determined by the vertical angle of the chosen antenna.

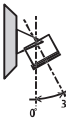
To obtain a sensing field as close to the door as possible, set the antenna at its minimum tilt angle (0° to 15°).



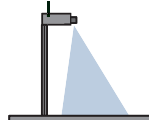
Example of deep-field operator application.



To obtain a sensing field close to the door set the antenna at a tilt angle of 30°.



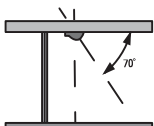
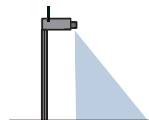
Example of standard operator application.



To obtain a sensing field distant from the door set the antenna at a tilt angle of 45°.



Example of standard operator application (with dead zone)



The REL.MMS.ONE may be fixed to the ceiling as shown here or via the false ceiling adaptor with an angular setting of around 70° for the antenna.

REL.956 Actuators

Manual Activation - Actuators (Push Pads)

We offer surface and flush mounted actuators primarily for manually switched automated entrances. These switches can be incorporated also in access control systems where larger, easily operable switches are required.

Correct Specification

For manual activation (single or double doors) specify REL.956 actuators and accessories as follows:

REL.956.Blank – Actuator only (no engraving).



Optional Engraving

Actuators can be supplied with a number of standard engraved designs.

REL.956.PTO – Push to Open (black infill).

REL.956.PTE – Push to Exit (black infill).

REL.956.WC – Wheelchair Symbol (blue infill).



Designs incorporating the wheelchair symbol are blue infill.

General & Technical Characteristics

114mm diameter switch plate - satin stainless steel.

Single pole (SP) momentary switch requiring 19mm mounting depth.

Flush back box provided standard.

Optional Accessories

REL.958 – Surface Escutcheon US32D Satin Stainless Steel.



2 Pole – Double Pole (DP) Switch – Requires 45mm mounting depth.

Type A - Safety

An Overview

Provision should be made to protect users occupying the swept area on all automated swing door applications. Safety devices take many forms and careful consideration must be given to their inclusion in the design of any system. A hazard analysis and risk assessment will determine the extent to which these products are used.

Potential hazards include traffic being struck and/or trapped by doors during both the opening and closing cycles, tripping hazards, congestion and other hazards such as a lack of supervision.



At Powered Doors

Signage is of particular importance and requirements vary between doors designed for uni-directional and bi-directional traffic.

Finger guards overcome potential finger traps created at the heel of the door on both the pull side and the push side.

Presence sensing devices are a necessary part of any powered door installation and can be set to interrupt a door's movement at any point during both the opening and closing cycle.

Barriers should be included along the line of the door leaf in its open position where doors can be approached from the side.

Refer to BS 7036 part 3: 1996 for definitive guidance on safety at powered doors including **Means of Escape** and **Break-out** facilities.

At Low-Energy Doors

Opening and closing speeds on low energy swing door installations are, by definition, adjusted so that the kinetic energy of the door does not exceed the safe maximum (See page 7). This means that of the areas mentioned in the section above (**Powered Doors**) presence sensors and barriers may be considered as an optional resource. All other items should be included.

Refer to BS 7036 part 4: 1996 for definitive guidance on safety at low energy swing doors including **Means of Escape**.

Signage

Various signs are recommended for use in different situations. These include 'Keep Clear' signs for use at powered doors, 'Direction of Travel', 'Emergency Break-Out' and 'Automatic Door' signs amongst others. Details of their design and required placement can be found in BS 7036 part 1: 1996.



We can supply signs and will include 2 off (as shown) per operator. If additional signs are required we suggest a specialist signage supplier is used.

REL.2000.FG Finger Guard (Push Side Only)

The **REL.2000.FG** incorporates a flexible blind preventing fingers entering the gap between the heel of the door & the frame when the door is open.

The flexible blind is retained within the housing and is exposed only when the door is ajar. Supplied in finished lengths of 1950mm the installation can be cut to suit a desired length where required.



Please be aware that doors incorporating the **REL.2000.FG** are restricted in their opening angle to a maximum of 135° and the operator should be set accordingly.

Correct Specification

REL.2000.FG - Finger Guard @ 1950mm.

Door Thickness - 44mm & 54mm (please specify).

Finishes

US28 - Satin Anodized Aluminium Housing (White PVC).