

MAGIC SWITCH: MS09

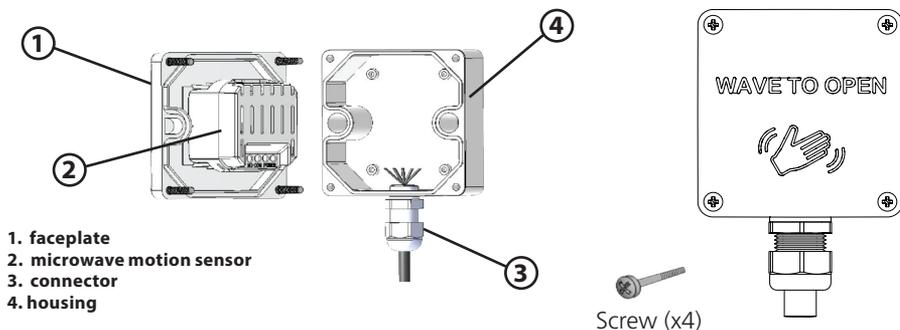
NEMA 4 | Touchless | Activation Sensor



10MS09TL (shown)
Text & Logo

10MS09L
Logo Only

DESCRIPTION



TECHNICAL SPECIFICATIONS

Technology	Microwave - Doppler Radar (24.125 GHz)
Detection Mode	Motion (bidirectional)
Radiated Frequency	24.125 GHz
Radiated Power Density	5 mW/cm ²
Supply Voltage	12 to 24VAC ± 10% 12 to 24VDC +30% / -10%
Current Consumption	< 1.2W
Temperature Range	-4°F to + 131°F (-20°C to +55°C)
Enclosure Rating	NEMA 4
Sensing Zone *	4 - 24 inches (adjustable)
Output	Relay with switch-over contact (voltage free)
Relay contact rating (max voltage)	60 VDC / 125 VAC
Relay contact rating (max current)	1 A (resistive)
Max switching power	30 W (DC) / 60 VA (AC)
Output Hold Time	0.5 s (in pulse mode)
Temperature Range	-4°F to +131°F
Material	ABS / PC
Certification	Electromagnetic compatibility (EMC) according to 2004/108/EC FCC: G9B-MS08 / 2ABWS-10TD900PB IC: 4680A-MS08 / 4680A-10TD900PB

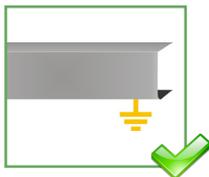
Specifications are subject to change without prior notice.

* Sensing Zone is dependent upon

- Size (area) of object
- Orientation of object
- Speed of object
- Environmental conditions

* Use of the device outside the intended application cannot be guaranteed by the manufacturer.

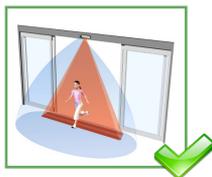
PRECAUTIONS



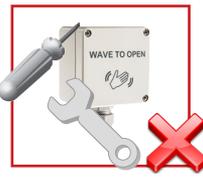
The door control unit and the door cover profile must be correctly grounded.



Only trained and qualified personnel may install and setup the sensor.



Always test the proper operation of the installation before leaving the premises.



The warranty is invalid if unauthorized repairs are made or attempted by unauthorized personnel.

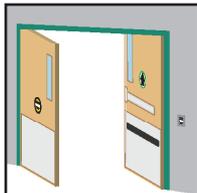
1 INSTALLATION

TIPS

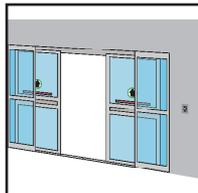
Run conduit prior to installing sensor

Fully adjust sensor after installation is complete

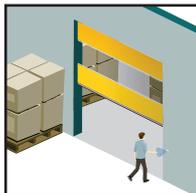
APPLICATIONS



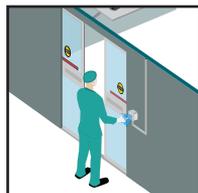
Swing Doors



Sliding Doors



Industrial Doors



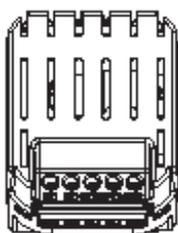
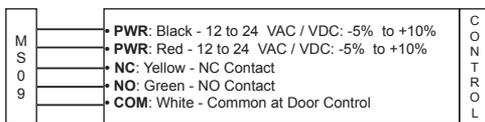
Cleanrooms

NOTE: Do not install the sensor within the swingpath of the door.

2 WIRING

SENSOR

Connect the exiting 2 wires running through the wall (previously used for the activation relay of the hardwired, mechanical pushplate) to the MS09 sensor's PWR (black) and PWR (red) terminals. At the door control, move the 2 wires from the activation circuit to power (see Technical Specifications for power information).



3 SETTINGS & ADJUSTMENTS

DETECTION ZONE - potentiometer

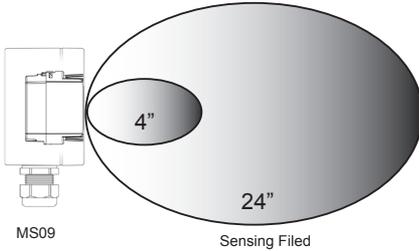
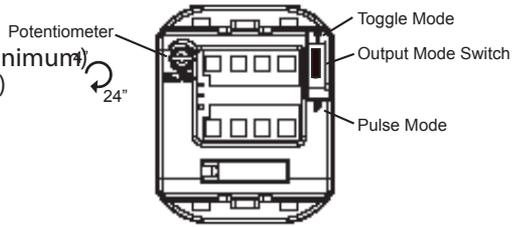
COUNTERCLOCKWISE - decrease (4" minimum)

CLOCKWISE - increase (24" maximum *)

OUTPUT MODE - slide switch

PULSE - switch down

TOGGLE - switch up



*** Maximum Detection Zone will vary depending on size (area), orientation, and speed of object as well as environmental conditions.**

SENSOR FUNCTIONALITY

TIMED MODE - Recommended for automatic door applications. In Timed Mode, a detection activates the relay and the relay holds for a predetermined amount of time adjusted by the Output Time potentiometer (1 to 30 seconds, counterclockwise - decrease, clockwise -increase).

TOGGLE MODE - Recommended for switch applications. In Toggle Mode, a detection activates the relay and a second detection deactivates the relay. The relay will hold indefinitely until a second detection occurs.

WIRELESS FUNCTIONALITY

For the 900 MHz wireless programming instructions, please reference BEA User's Guide 75.5786 which comes with the 900 MHz wireless receiver (sold separately).

FCC: G9B-21019

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by BEA Incorporated could void the user’s authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d’Industrie Canada applicables aux appareils radio exempts de licence. L’exploitation est autorisée aux deux conditions suivantes : (1) l’appareil ne doit pas produire de brouillage, et (2) l’utilisateur de l’appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d’en compromettre le fonctionnement.

TROUBLESHOOTING

Sensor does not seem to detect	<ol style="list-style-type: none"> 1. Bad or no power 2. Detection range too short 3. Incorrect wiring 	<ol style="list-style-type: none"> 1. Check power supply 2. Adjust detection zone 3. Check wiring
Sensor stays in detection	<ol style="list-style-type: none"> 1. Environmental conditions 2. Incorrect wiring 3. Wrong output mode 	<ol style="list-style-type: none"> 1. Remove moving objects from around sensor 2. Check wiring (NO and NC) 3. Switch output mode to pulse

©BEA | Original instructions | 75.5746

A HALMA COMPANY

ANSI / AAADM Compliance   *American Association of Automatic Door Manufacturers*

Upon completion of the installation or service work, at a minimum, perform a daily safety check in accordance with the minimum inspection guidelines provided by AAADM. Provide each equipment owner with an owner’s manual that includes a daily safety checklist and contains, at a minimum, the information recommended by AAADM. Offer an information session with the equipment owner explaining how to perform daily inspections and point out the location of power/operation switches to disable the equipment if a compliance issue is noted. The equipment should be inspected annually in accordance with the minimum inspection guidelines. A safety check that includes, at a minimum, the items listed on the safety information label must be performed during each service call. If you are not an AAADM certified inspector, BEA strongly recommends you have an AAADM certified inspector perform an AAADM inspection and place a valid inspection sticker below the safety information label prior to putting the equipment into operation.

The complete declaration of conformity is available on our website: www.beasensors.com

