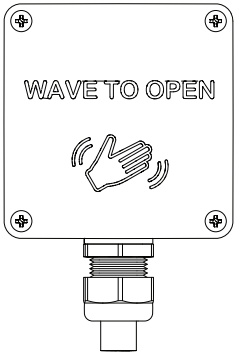
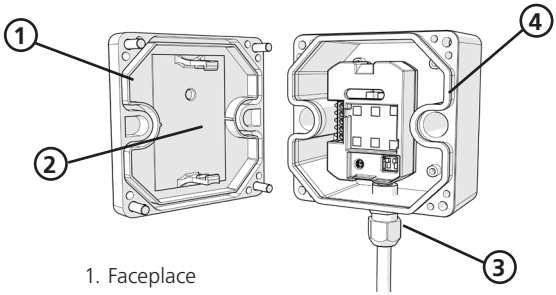
MAGIC SWITCH: MS09

IP65, touchless, activation sensor

Visit website for available languages of this document.

DESCRIPTION





1. Faceplace
2. Microwave motion sensor
3. Connector
4. Housing

TECHNICAL SPECIFICATIONS

Technology:	microwave motion sensor
Radiated frequency:	24.125 GHz
Radiated power density:	< 5 mW/cm²
Supply voltage: *to be operated from SELV-compatible power supplies only*	12 – 24 VAC ±10% 12 – 24 VDC +30% / -10%
Supply frequency:	50 – 60 Hz
Power consumption:	< 1.5W
Output relay contact rating (max. voltage): relay contact rating (max. current): Max. switching power:	relay with switch-over contact (voltage-free) 60 VDC / 125 VAC 1A (resistive) 30W DC / 60 VAC
Detection range*:	4 – 24" (adjustable)
Detection mode:	motion (bidirectional)
Output hold time:	0.5 – 30 sec
Temperature range:	-4 – 131 °F (-20 – 55 °C)
Weight:	0.34 lbs
Material:	ASA, PC
IP rating:	IP65
Certification:	Electromagnetic compatibility (EMC) according to 2004/108/EC FCC: G9B-210161 IC: 4680A-210161

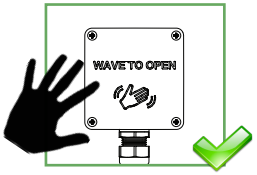
Specifications are subject to change without prior notice.
All values measured in specific conditions.

* Detection range is dependent upon object size, object orientation, object speed, and environmental conditions.

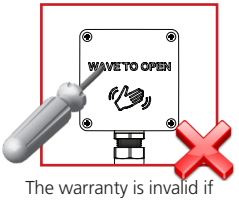
PRECAUTIONS



Only trained and qualified personnel are recommended to install and set up 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 entire installation is complete.**

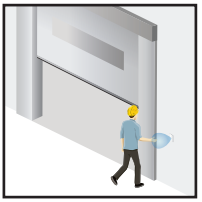
APPLICATIONS



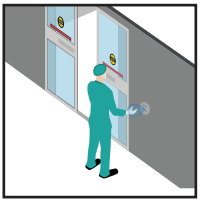
Swing Doors



Sliding Doors



Industrial Doors



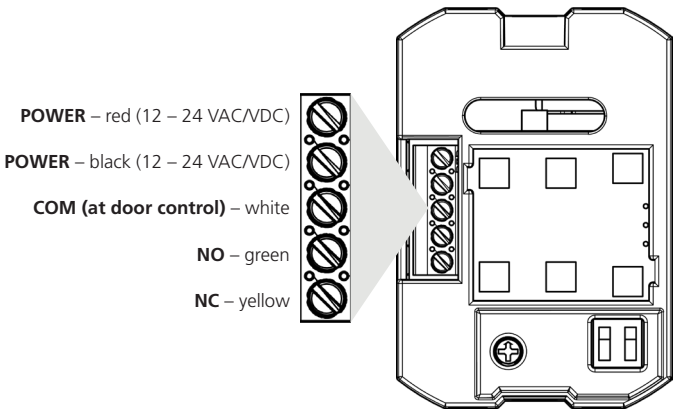
Cleanrooms

NOTE: *Do not install the sensor within the swing path of the door.*

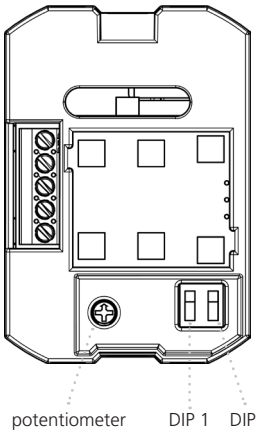
2 WIRING

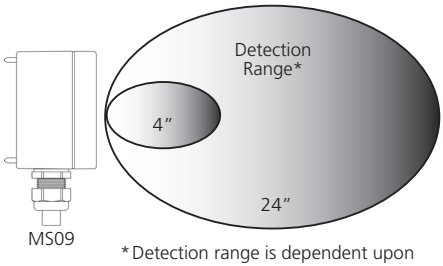
Connect the existing 2 wires running through the wall (previously used for the activation relay of the hardwired, mechanical push plate) to the MS09 sensor's PWR (black) and PWR (red) terminals.

At the door control, move the 2 wires from the activation circuit to power (see Technical Specifications for power information).



3 SETTINGS & ADJUSTMENTS





*Detection range is dependent upon object size, object orientation, object speed, and environmental conditions.

Potentiometer: Detection Zone*

countclockwise = decrease (4" minimum)
clockwise = increase (24" maximum)

DIP 1: Timed/Toggle

on (switch up) = toggle mode
off (switch down) = timed mode
0.5 sec only; not adjustable

DIP 2: LED

on (switch up) = LED on when not in detection
off (switch down) = LED on when in detection

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 (0.5 seconds, not adjustable).

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 75.5937 which comes with the 900 MHz wireless receiver (sold separately).

TROUBLESHOOTING

Sensor does not seem to detect	Bad or no power	Check power supply.
	Detection range too short	Adjust detection zone potentiometer.
	Incorrect wiring	Check wiring.
Sensor stays in detection	Environmental conditions	Remove moving objects from around sensor.
	Incorrect wiring	Check wiring (NO and NC).
	Wrong output mode	Switch output mode to TIMED.

Can't find your answer? Visit www.beainc.com or scan QR code for Frequently Asked Questions!

FCC

FCC: G9B-210161

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.

BEA, INC. INSTALLATION/SERVICE COMPLIANCE EXPECTATIONS

BEA, Inc., the sensor manufacturer, cannot be held responsible for incorrect installations or incorrect adjustments of the sensor/device; therefore, BEA, Inc. does not guarantee any use of the sensor/device outside of its intended purpose.

BEA, Inc. strongly recommends that installation and service technicians be AAADM-certified for pedestrian doors, IDA-certified for doors/gates, and factory-trained for the type of door/gate system.

Installers and service personnel are responsible for executing a risk assessment following each installation/service performed, ensuring that the sensor/device system performance is compliant with local, national, and international regulations, codes, and standards.

Once installation or service work is complete, a safety inspection of the door/gate shall be performed per the door/gate manufacturer's recommendations and/or per AAADM/ANSI/DASMA guidelines (where applicable) for best industry practices. Safety inspections must be performed during each service call – examples of these safety inspections can be found on an AAADM safety information label (e.g. ANSI/DASMA 102, ANSI/DASMA 107, UL294, UL325, and International Building Code).

Verify that all appropriate industry signage, warning labels, and placards are in place.

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