

# **BEA MS09 Magic Switch Touchless Activation Sensor Instruction Manual**

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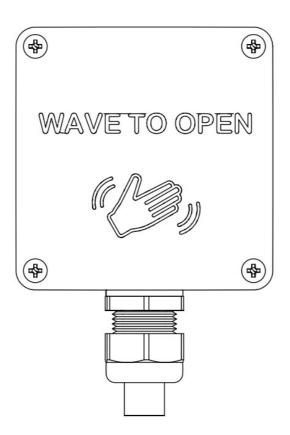
# **MS09 Magic Switch Touchless Activation Sensor**

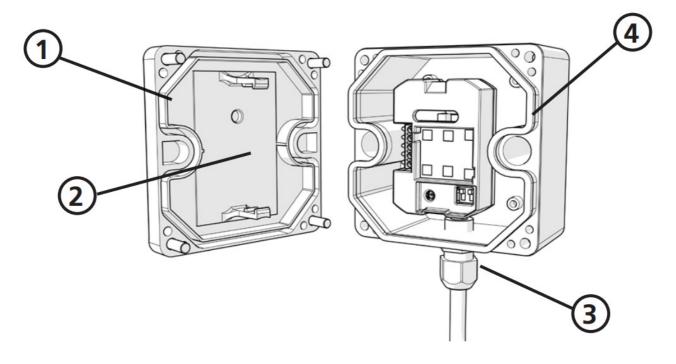
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https://www.qrfy.com/gxrJa8jkGE

# **DESCRIPTION**





- 1. Face place
- 2. Microwave motion sensor
- 3. Connector
- 4. Housing

# **TECHNICAL SPECIFICATIONS**

Technology:	microwave motion sensor	
Radiated frequency:	24.125 GHz	
Radiated power density:	< 5 mW/cm	
Supply voltage: to be operated from SELV-compatible power supplies only	2	
Supply frequency:	12 – 24 VAC ±10% 12 – 24 VDC +30% / -10%	
Power consumption:	50 – 60 Hz	
Output relay contact rating (max. voltage): relay contact rating (max. current):	< 1.5W	
Max. switching power:	relay with switch-over contact (voltage-free) 60 VDC / 125 V AC 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.

## **INSTALLATION**

- Run conduit prior to installing sensor.
- Fully adjust sensor after entire installation is complete.

## **TIPS APPLICATIONS**



**Swing Doors** 

Sliding Doors





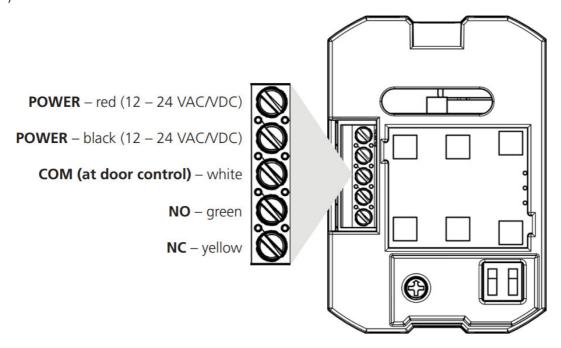
**Industrial Doors** 

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

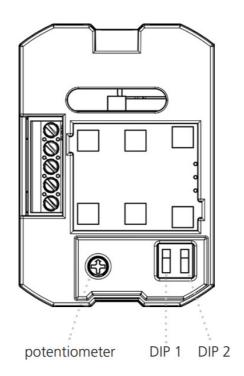
## **WIRING**

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).

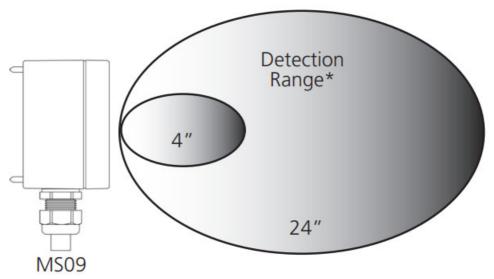


## **SETTINGS & ADJUSTMENTS**



Potentiometer: Detection Zone\*

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



<sup>\*</sup> Detection range is dependent upon object size, object orientation, object speed, and environmental conditions.

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 aroun d sensor.
	Incorrect wiring	Check wiring (NO and NC).
	Wrong output mode	Switch output mode to TIMED.

#### **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.

#### 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-certifi ed for pedestrian doors, IDA-certifi ed 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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General Tech

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Tech Docs: <a href="www.BEAsensors.com">www.BEAsensors.com</a> Can't find your answer? Visit <a href="www.beainc.com">www.beainc.com</a> or scan QR code for Frequently Asked Questions!



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# References

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