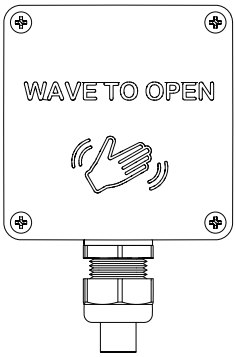
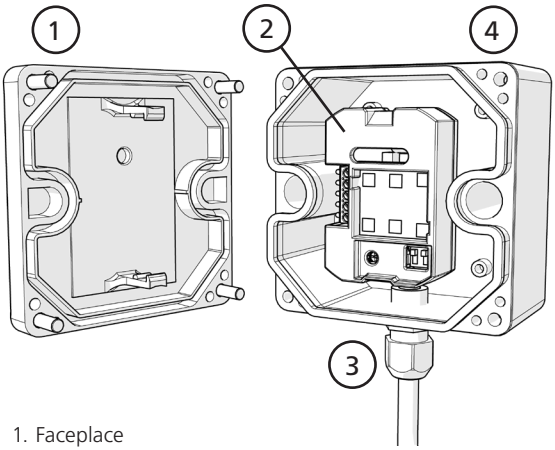
MS09

IP65, touchless, activation sensor

Visit website for available languages of this document.





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

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.

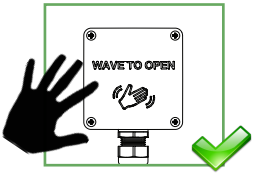
Once installation or service work is complete, a safety inspection of the door/gate shall be performed per the door/gate manufacturer's recommendations and/or per AAADM/ANSI/DASMA guidelines (where applicable) for best industry practices. Safety inspections must be performed during each service call – 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.

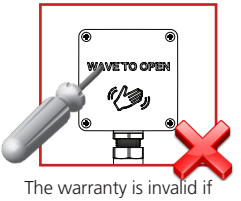
AAADM ANSI Member DASMA Door & Access Systems Manufacturers Association International IDA International Door Association Enhancing the Value and Professionalism of Door & Access Systems Dealers

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.

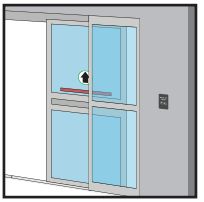
1 INSTALLATION

TIPS

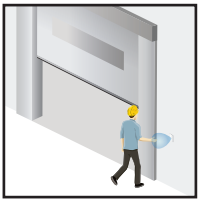
- **Run conduit prior to installing sensor.**
- **Fully adjust sensor after entire installation is complete.**

APPLICATIONS

Swing Doors



Sliding Doors



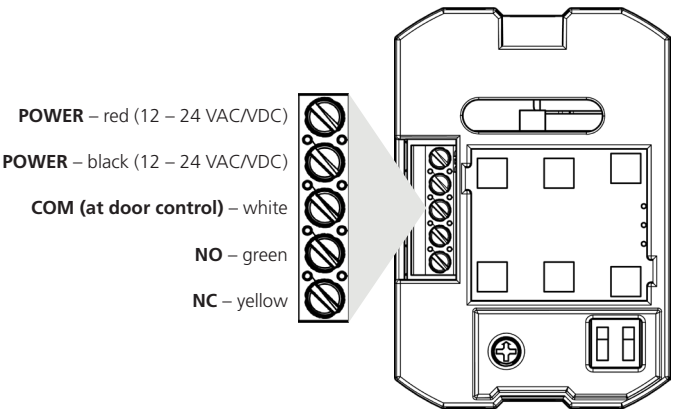
Industrial Doors

Cleanrooms

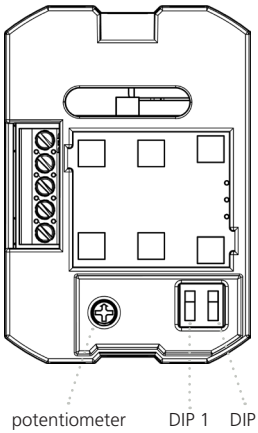
NOTE: *Do not install the sensor within the swing path of the door.*

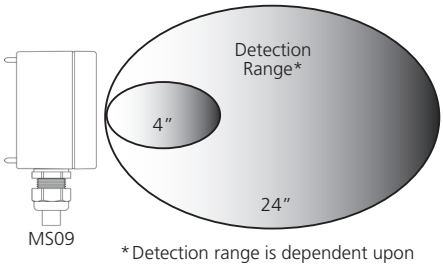
2 WIRING

Wire the cable to the door operator according to manufacturer specifications, then wire the cable to the MS09.



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.
	Wrong output mode	Switch output mode to TIMED.

TECHNICAL SPECIFICATIONS

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

TECHNOLOGY / PERFORMANCE	
Technology	microwave Doppler radar
Detection mode	motion (bidirectional)
Detection range*	4 – 24" (adjustable)
Product temperature range	-4 – 131 °F (-20 – 55 °C)
Output hold time	0.5 s (in pulse mode)
ELECTRICAL	
Supply voltage**	12 – 24 VAC ±10% 12 – 24 VDC +30% / -10%
Supply frequency	50 – 60 Hz
Radiated frequency	24.125 GHz
Radiated power density	< 5 mW/cm^2
Power consumption	< 1.5W
Output	relay with switch-over contact (voltage-free)
relay contact rating (max. voltage)	60 VDC / 125 VAC
relay contact rating (max. current)	1A (resistive)
max. switching power	30 W (DC) / 60 VA (AC)
Cable type	Compatible with standard, 4-conductor low voltage cable (cable not supplied)
PHYSICAL	
Dimensions	3.15" (W) × 3.23" (H) × 2.165" (D)
Material / Color	Enclosure: PC / white Cable gland: ASA
Weight	0.5 lbs
COMPLIANCE	
IP rating	IP65
Certification	Electromagnetic compatibility (EMC) according to 2004/108/EC FCC: G9B-210161 IC: 4680A-210161

* Detection range is dependent upon object size, object orientation, object speed, and environmental conditions.
** to be operated from SELV-compatible power supplies only

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

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.