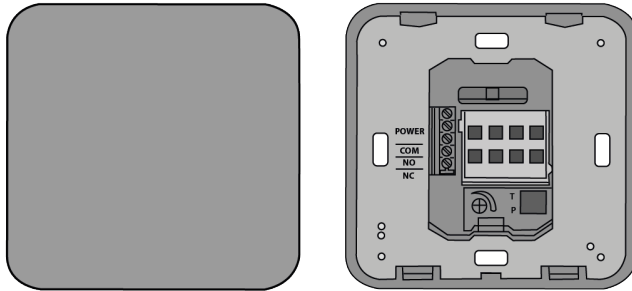


MAGIC SWITCH CHROMA

Contactless knowing act sensor for automatic doors

1. INTENDED USE

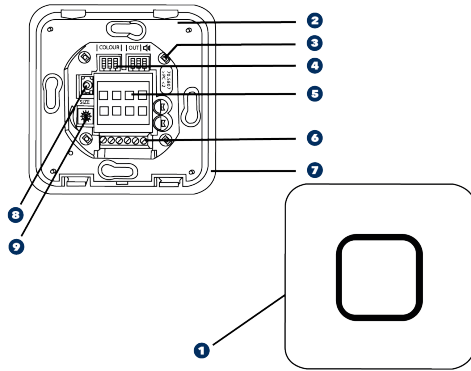
The Magic Switch is a touchless opening sensor for automatic doors. One hand motion in front of the sensor opens the door, completely contactless. Therefore, it is the perfect knowing act sensor for applications where hygiene is essential: hospitals, clean rooms, hotels & restaurants, pharmaceutical industries, airports, logistics and retail.



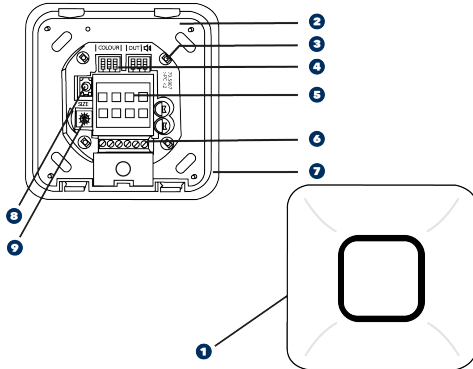
- The sensor cannot be used for purposes other than its intended use.
- The manufacturer of the door system incorporating the sensor is responsible for compliance of the system to applicable national and international regulations and safety standards.
- The installer must read, understand and follow the instructions given in this manual. Improper installation can result in improper sensor operation.
- The manufacturer of the sensor cannot be held responsible for injury or damage resulting from incorrect use, installation or inappropriate adjustment of the sensor.

2. DESCRIPTION

RECESSED INSTALLATION



SURFACE INSTALLATION



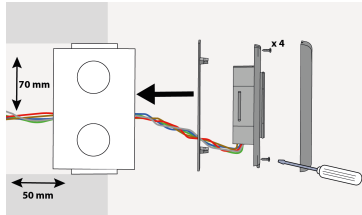
- | | | | |
|----------|--------------|----------|--------------------------|
| 1 | Front face | 6 | Terminal block |
| 2 | Fixing frame | 7 | Gasket/seal |
| 3 | LED (4x) | 8 | Remote control receiver* |
| 4 | Dip switches | 9 | Field size adjustment |
| 5 | Antenna | | |

3. VERSIONS

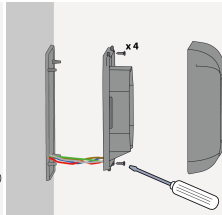
STANDARD VERSION		ADVANCED VERSION	
	Antimicrobial front face		Antimicrobial front face
	Multicoloured LED-feedback		Multicoloured LED-feedback
	IP65		IP65
	Toggle-function		Toggle-function
			Audible feedback
			Remote control adjustments (see remote control settings annex)
			Settings for specific application through external signal input

4. INSTALLATION

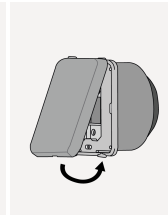
RECESSED INSTALLATION



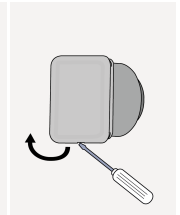
SURFACE INSTALLATION



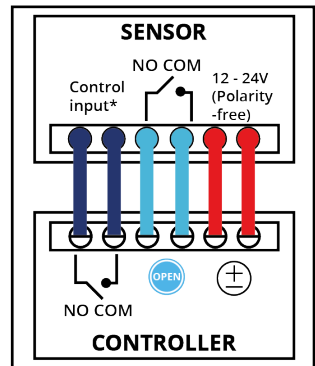
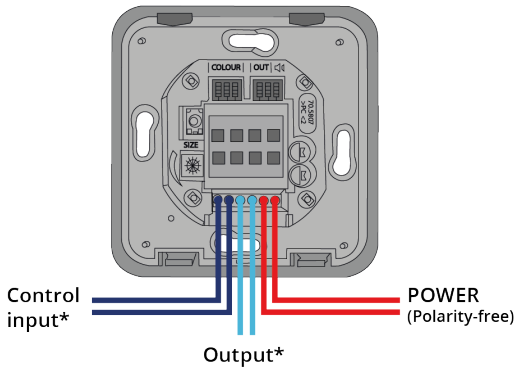
CLOSE



OPEN

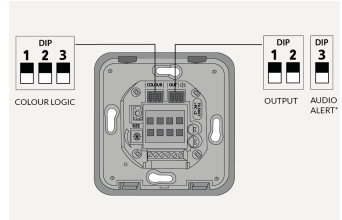
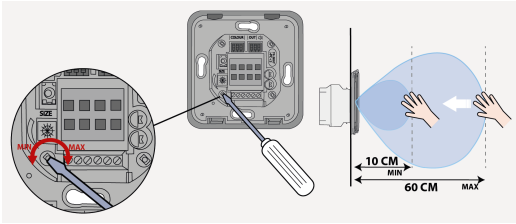


5. WIRING



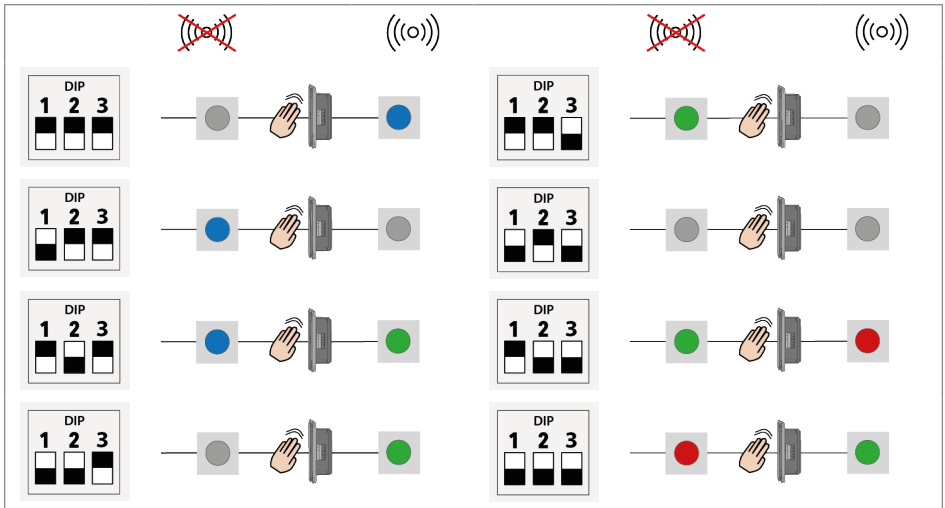
6. ADJUSTEMENT

1 DETECTION FIELD 2 DIP SWITCH SETTINGS



*available only in the advancer version

LED COLOUR LOGIC

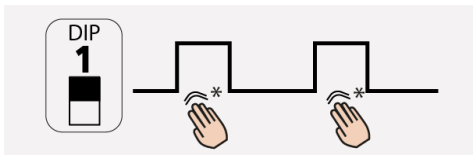


OUTPUT MODE

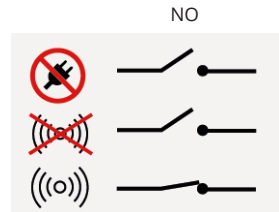
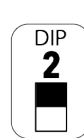
PULSE MODE :

recommended for automatic doors applications

*Door opens and closes



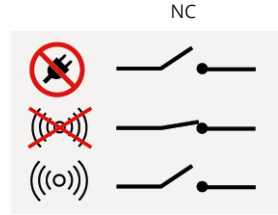
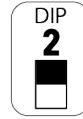
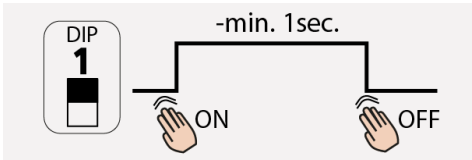
NORMALLY OPEN (NO)



TOGGLE MODE:

NORMALLY CLOSED (NC)

recommended for switch applications



7. SETTINGS FOR ADVANCED VERSION ONLY

CONTROL INPUT

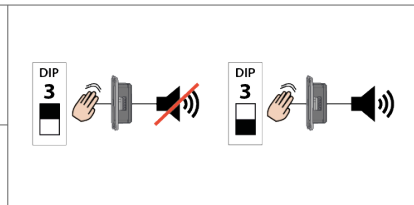
Connect the input to an external signal to lock the switch and make the LED red.

⚠ Input signal must be a dry contact (no voltage)

Input closed 	Sensor is in standby and does not detect.
Input open 	Sensor operates normally.

AUDIO ALERT

Detection activates an audio alert.



For restroom application, see application note for more details.

8. TROUBLESHOOTING

Status	Explanation / Solution
Door does not open even when moving the hand towards the sensor.	Bad or no power supply. Check power supply. If LED switches on or flashes, power connection is OK.
	Incorrect wiring / connection. Check wiring and relay connection.
	Detection range is too short. 1. Adjust the detection range. 2. Remove any metal plates in front of the sensor.
Sensor stays in detection.	The environment influences the good functioning of the sensor. Remove any moving object around the sensor.
	Incorrect wiring / connection. Check wiring and relay connection.
Door remains open after detection/activation.	Wrong output mode. Switch the output mode to PULSE.
	Incorrect wiring / connection. Check wiring and relay connection.

9. TECHNICAL SPECIFICATIONS



Technology	Microwave motion sensor
Radiated frequency	24.150 GHz
Radiated power	< 20 dBm EIRP
Radiated power density	< 5mW/cm ²
Detection range (hand)	+/- 10 to 60 cm if movement towards sensor at 90° (adjustable)*
Detection mode	Motion (bidirectional)
Speed of target to create detection	Min. 5Hz or +/- 3cm/s, Max. 200Hz or +/- 1.2m/s
Supply voltage**	12 - 24V AC +/- 10% (50 - 60 Hz). 12 - 24V DC +30% / - 10%
Power consumption	< 1.5 W
Output** Max. voltage Max. current Max. switching power	Electronic relay (galvanic isolation - polarity free) 42V DC/30 VAC 100 mA 15 W
Output hold time	0.5s (in PULSE mode)
Temperature range	-20°C to +55°C
Degree of protection	IP65 with front face and gasket mounted on a smooth surface
Material	PMMA / PC Front face is treated with biomaster silver biocide tested to ISO 22196:2011. Please use biocides responsibly.
Dimensions	80 x 80 x 21mm
Wiring cable	Stranded cable up to 16 AWG - 1.5mm ²
*An adjustment of the detection field below 10 cm is possible but the detection capability of the sensor can not be guaranteed.	



CAUTION

**External electrical sources must be within specified voltages, max 15W and ensure double insulation from primary voltages.

10. CONFORMITY

<p>BEA hereby declares that this product is in compliance with European directives 2014/53/EU (RED) and 2011/65/EU (RoHS).</p>	
<p>The complete declaration of conformity is available on our website. This product should be disposed of separately from unsorted municipal waste.</p>	



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A **Halma** company

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