



# MAGIC SWITCH®

## TOUCHLESS ACTIVATION COMPARISON

### SOLUTION COMPARISON



**MS08**  
Adjustable range,  
4 to 24 inches



**MS09**  
Adjustable range,  
IP65 rated



**MS11**  
Adjustable range,  
stainless steel



**MS21**  
Short range,  
capacitive



**MS31**  
Adjustable range,  
relay hold time



**MS41**  
Stainless steel,  
adjustable range &  
relay hold time



	MS08	MS09	MS11	MS21	MS31	MS41
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#### TECHNICAL

	MS08	MS09	MS11	MS21	MS31	MS41
Technology	Microwave - Doppler Radar	Microwave - Doppler Radar	Microwave - Doppler Radar	Capacitance	Microwave - Doppler Radar	Microwave - Doppler Radar
Detection Mode	Motion (Bi-directional)	Motion (Bi-directional)	Motion (Bi-directional)	Proximity	Motion (Bi-directional)	Motion (Bi-directional)
Radiated Frequency	24.125 GHz	24.125 GHz	24.125 GHz	N/A	24.125 GHz	24.125 GHz
Radiated Power Density	< 5 mW/cm <sup>2</sup>	< 5 mW/cm <sup>2</sup>	< 5 mW/cm <sup>2</sup>	N/A	< 5 mW/cm <sup>2</sup>	< 5 mW/cm <sup>2</sup>
Supply Voltage*	12 – 24 VAC ±10% 12 – 24 VDC, +30% / -10%	12 – 24 VAC ±10% 12 – 24 VDC, +30% / -10%	12 – 24 VAC / VDC	12 – 24 VAC / VDC	12 – 24 VAC ±10% 12 – 24 VDC +30% / -10%	12 – 24 VAC ±10% 12 – 24 VDC +30% / -10%
Supply Frequency	50 – 60 Hz	50 – 60 Hz	50 – 60 Hz	50 – 60 Hz	50 – 60 Hz	50 – 60 Hz
Power Consumption	< 1.5 W	< 1.2 W	< 2.8 W	37 mA	< 1.5 W	< 1.5 W
Relay	Switch-over Contact (voltage free)	Switch-over Contact (voltage free)	1-Form C Solid State Relay	1-Form C Solid State Relay	Switch-over Contact (voltage free)	Switch-over Contact (voltage free)
Output - relay contact rating (max. voltage)	60 VDC / 125 VAC	60 VDC / 125 VAC	30 VAC / VDC	60 VAC / VDC	60 VDC / 125 VAC	60 VDC / 125 VAC
Output - relay contact rating (max. current)	1 A (resistive)	1 A (resistive)	1 A	0.4 A	1 A (resistive)	1 A (resistive)
Output - max switching power	30 W (DC) / 60 V (AC)	30 W (DC) / 60 V (AC)	30 W (DC) / 60 V (AC)	30 W (DC) / 60 V (AC)	30 W (DC) / 60 V (AC)	30 W (DC) / 60 V (AC)
Output Hold Time	0.5 s	0.5 s	1 – 30 s	0.5 s	0.5 – 30 s	0.5 – 30 s
Temperature Range	-4 – 131° F (-20 – 55° C)	-4 – 131° F (-20 – 55° C)	-22 – 158° F	-20 – 120° F	-4 – 131° F (-20 – 55° C)	-22 – 158° F (-30 – 70° C)
Enclosure Rating	IP54	IP65	IP65	IP65	IP54	IP55 / IP65**
Sensing Zone	4 – 24"	4 – 24"	2 – 24"	0 – 4"	4 – 24"	4 – 24"
Material	Polycarbonate	ABS, PC	Stainless Steel, Acrylic	Stainless Steel, Polycarbonate	PC, PE	Stainless Steel
Certification	FCC / IC	FCC / IC	FCC	FCC	FCC / IC	FCC / IC
Wire Harness Length	6'	6'	12"	6"	6"	N/A
Color	White, Black, Cream	White	Stainless Steel	Stainless Steel	White, Black, Gray	Stainless Steel
Dimensions	Single Gang, Double Gang	Square Surface Mount Box	Jamb, Single Gang, Double Gang	6" Round, 4.75" Square	Jamb, Single Gang, Double Gang, 6" Round	Single Gang, Double Gang, 6" Round
Mounting Options	10BOX24SGSM; 10BOXDGSM	10BOLLARD series - without hole	10BOX24SGSM; 10ABOXSGSMS; 10BOXDGSM; 10BOLLARD series; 10BOXJAMBST	10BOLLARD series	10BOXDGSM; 10ABOXSGSMS; 10BOXJAMBST; 10BOX24SGSM; 10BOX455SQSM; 10BOX455QFM; 10BOX4755QSM; 10BOX4755QFM; 10BOX6RNDISM; 10BOX6RNDIFM; 10BOLLARD series	70.5236; 10BOXDGSM; 10ABOXSGSMS; 10BOX24SGSM; 10BOX455SQSM; 10BOX455QFM; 10BOX4755QSM; 10BOX4755QFM; 10BOX6RNDISM; 10BOX6RNDIFM; 10BOLLARD series

#### FUNCTIONALITY

Sensitivity (Adjustable)	YES	YES	YES	YES	YES	YES
Relay	Pulse	Pulse	Timed / Toggle	Pulse	Timed / Toggle	Timed / Toggle
Output Hold Time	NO	NO	YES	NO	YES	YES
Audible Alert	NO	NO	YES	YES	NO	YES
LED	LED [dot] (Blue)	LED [dot] (Blue)	LED [window] (Blue / Green Toggle)	LED [ring] (Blue w/ Logic)	LED [dot] (Blue w/ Logic)	LED [ring] (Blue / Green w/ Logic)

#### USER INTERFACE

Sensitivity	POT	POT	POT	POT	POT	POT
Relay	Slide Switch	Slide Switch	Jumper	N/A	DIP Switch	DIP Switch
Output Hold Time	N/A	N/A	POT	N/A	POT	POT
Audible Alert	N/A	N/A	Jumper	DIP Switch	N/A	DIP Switch
LED	N/A	N/A	N/A	DIP Switch	DIP Switch	DIP Switch

\* To be operated from SELV-compatible power supplies only  
\*\* Apply silicone to achieve IP65