



MAGIC SWITCH®

TOUCHLESS ACTIVATION COMPARISON



Adjustable range, IP65 rated



Adjustable range, relay hold time



Stainless steel, adjustable range, relay hold time



Battery-powered, stainless steel

MS09

MS31

MS41

MS51 & MS51W

TECHNICAL

Technology	microwave Doppler radar	microwave - doppler radar	microwave - doppler radar	active infrared
Supply Voltage*	12 – 24 VAC $\pm 10\%$ 12 – 24 VDC $+30\%$ / -10%	12 – 24 VAC/VDC	12 – 24 VAC/VDC	3 VDC (2 AA batteries, each ~ 1.5 V max.)
Supply Frequency	50 – 60 Hz	50 – 60 Hz	50 – 60 Hz	n/a
Power Consumption	< 1.5 W	< 1.5 W	< 1.5 W	< 0.5 mW (when idle) < 12 mW (upon activation) < 25 mW (upon RF transmission)
Relay	switch-over contact (voltage free)	switch-over contact (voltage free)	switch-over contact (voltage free)	electronic relay galvanic isolation, polarity free (MS51 only)
Output - relay contact rating (max. voltage)	60 VDC / 125 VAC	60 VDC / 125 VAC	60 VDC / 125 VAC	42 VAC/VDC (MS51 only)
Output - relay contact rating (max. current)	1 A (resistive)	1 A (resistive)	1 A (resistive)	100 mA (MS51 only)
Output - max switching power	30 W (DC) / 60 VA (AC)	30 W / 60 VA (AC)	30 W / 60 VA (AC)	4.2 W (42 VAC/VDC) (MS51 only)
Output Hold Time	0.5 s (in pulse mode)	0.5 – 30 s	0.5 – 30 s	n/a
Radio Control	n/a	n/a	n/a	digital (MS51W only) 900 – 918 MHz (frequency hopping)
Temperature Range	-4 – 131° F (-20 – 55° C)	-4 – 131° F (-20 – 55° C)	-22 – 158° F (-30 – 70° C)	-22 – 158° F (-30 – 70° C)
Enclosure Rating	IP65	IP54	IP55 / IP65**	IP65
Sensing Zone	4 – 24" (adjustable)	4 – 24"	4 – 24"	8" (20cm) max.
Material	ASA, PC	PC, PE	stainless steel	stainless steel
Color	white	white, black, gray	stainless steel	stainless steel
Size/Shape Options	square, surface-mount box	single gang, double gang, 6" round, jamb	single gang, double gang, 6" round, jamb	single gang, double gang, 6" round, jamb
Mounting Options	bollard	10MSBOXSGSM, 10MSBOXDGSM, 10MSBOXRNDISM, 10MSBOXJAMBISM	10MSBOXSGSM, 10MSBOXDGSM, 10MSBOXRNDISM, 10MSBOXJAMBISM	10MSBOXSGSM, 10MSBOXDGSM, 10MSBOXRNDISM, 10MSBOXJAMBISM

FUNCTIONALITY

Range (adjustable)	YES	YES	YES	YES
Relay Output Mode	pulse	timed / toggle	timed / toggle	pulse
Output Hold Time	NO	YES	YES	NO
Audible Alert	NO	NO	YES	NO
LED	LED (blue dot)	LED (blue dot) with logic	LED (blue/green ring) with logic	LED (green dot) with logic
Battery life	n/a	n/a	n/a	3 years

USER INTERFACE

Range	POT	POT	POT	DIP switch
Relay Output Mode	Slide Switch	DIP Switch	DIP Switch	n/a
Output Hold Time	N/A	POT	POT	n/a
Audible Alert	N/A	N/A	DIP Switch	n/a
LED	N/A	DIP Switch	DIP Switch	DIP switch
Immunity	N/A	N/A	N/A	DIP switch

* To be operated from SELV-compatible power supplies only

** Apply silicone to achieve IP65