

## MICROWAVE SENSOR SUPPLEMENT

MSHYTHC403V9RC



### PRODUCT DESCRIPTION:

The motion and daylight sensor helps to further conserve energy by turning the fixture on or off, or by dimming the light level when motion is detected or the level of daylight drops.

### FEATURES:

- 24-hour daylight monitoring
- Tri-level controls
- 1-10V dimming
- Hold-time 2s-30min
- Ambient daylight threshold sensing
- Loop-in/loop-out easy wiring
- Soft-on/Soft-off controls
- Easy user resettable functions via DIP switches
- 3 year warranty

### COMPATIBLE PRODUCTS:

- WP-WMP Wall Pack Series (MS2)
- LSU Utility Wraps (MSC)
- LSV Vapor Tights (MSC)
- TriMax Vapor Tights (MS)
- LS Linear Strip (MS)
- RS Retrofit Strip (MS)
- BLHE Linear High Bay (MS)
- MLFP V2 Premium Flat Panel (MS) (Daylight harvesting not available)
- ArcMax Single Basket Troffer (MS)

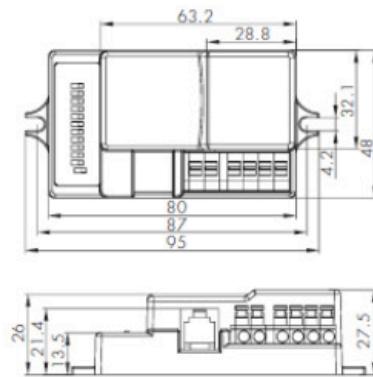
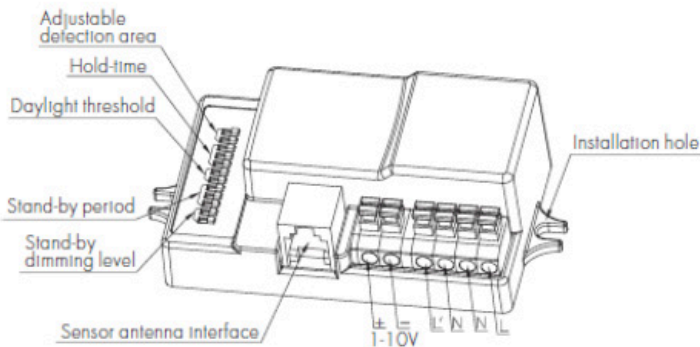
### INSTRUCTIONS:

See compatible product instruction manual.

### NOTES:

\*INSTALLERS SHOULD CONFIRM MOUNTING LOCATIONS OR APPLICATIONS ARE NOT IN AREAS SENSITIVE TO RADIO FREQUENCY SIGNALS OR DETECTION

### DIMENSIONS:



### ORDERING:

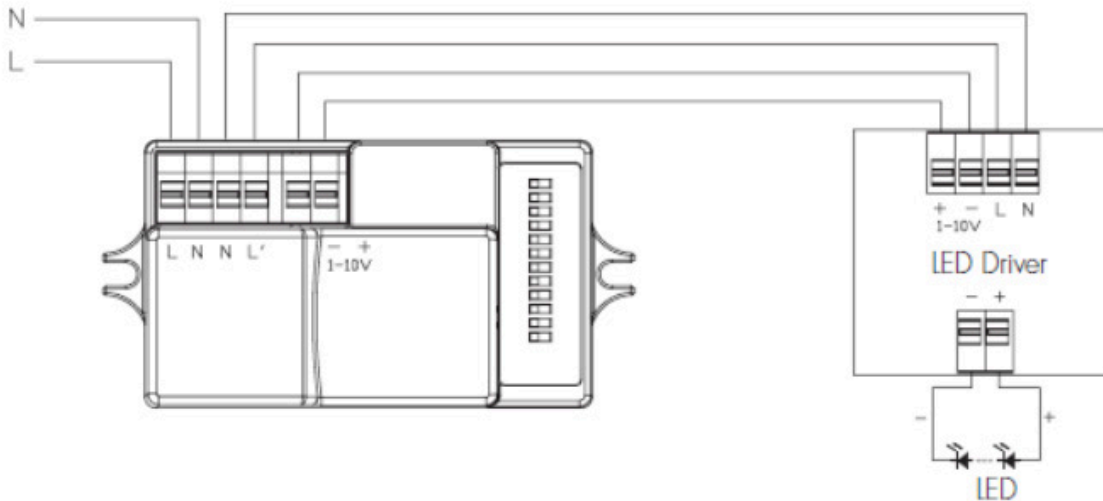
ORDER CODE	MODEL NUMBER	DESCRIPTION
108132	MSHYTHC403V9RC	SENSOR ASSY MOTION/DAYLIGHT REMOTE CTRL COMPATIBLE RF5.8GHZ 120-277V OCC DLH ON-OFF IP20 SAM5 REMOTE DETECTION
108133	RMHYTHRC-05	REMOTE CONTROL FOR COMMISSIONING

**SPECIFICATIONS:**

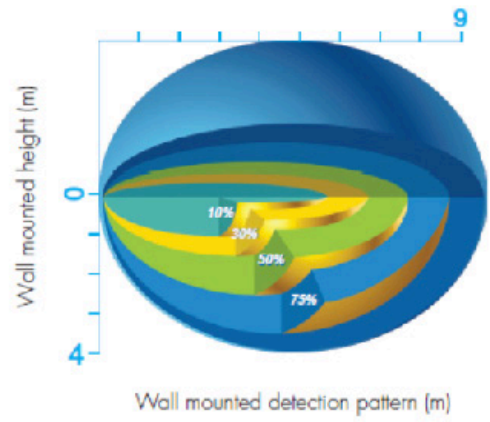
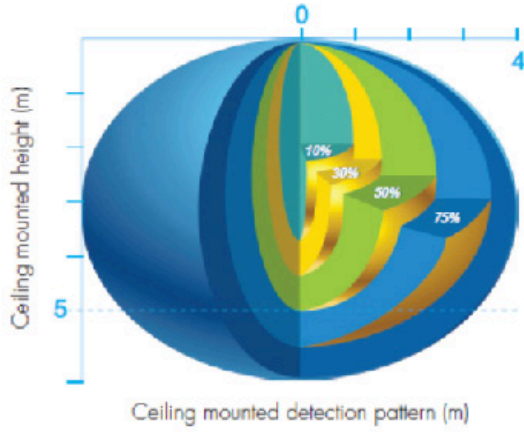
**MSHYTHC403V9RC**

ITEM	SPECIFICATION	DETAILS
<b>ELECTRICAL ASPECTS</b>	Operating Voltage	120V, 277V
	Max Load	400W@120Vac; 1000W@277Vac
	Standby Power	<1W
	Warm Time	20s
	Detection Area	10/50/75/100%, can be customized
	Hold Time	5s/30s/1min/5min/10min/20min/30min (TEST 2s/30s/1min/5min/10min/30min on RC)
	Standby Period	0s/10s/1min/5min/10min/30min/1h/+∞ ( 0s /10s / 1min / 10min/ 30min /+∞ on RC)
	Standby Dimming Level	5%/10%/20%/30% (10%/20%/30% on RC)
	Daylight Threshold	2~50Lux/disable (2Lux /10Lux / 50Lux /Lux disable on RC)
<b>PHYSICAL ASPECTS</b>	Sensor Principle	High Frequency (microwave)
	Microwave Frequency	5.8GHz+/-75MHz
	Microwave Power	<0.2mW
	Detection Range	Max. (0xH): 8m x 5m
	Detection Angle	30o~150o
	Mounting Height	Max.5m
	Operating Temperature	-20oC ~ +60oC
	IP Rating	IP20
	Certificate	Semko, CB, EMC, CE, R&TTE, SAA

**WIRING DIAGRAM:**

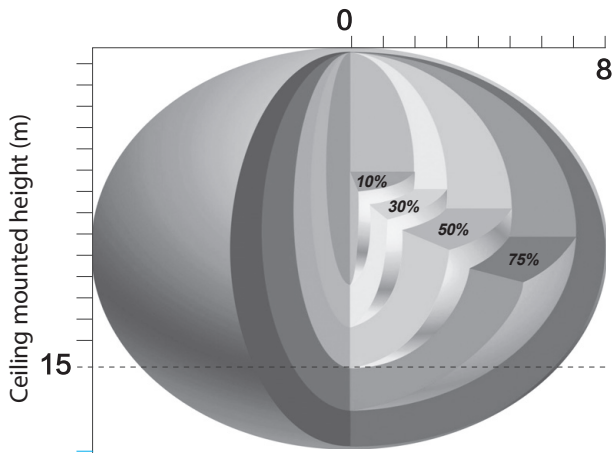


**DETECTION PATTERN: SAM5**



**DETECTION PATTERN: SAM6**

Model SAM6



**BELOW ARE ALL AVAILABLE SETTINGS FOR THIS MOTION SENSOR. FACTORY DEFAULT SETTINGS CAN BE CHANGED USING DIP SWITCHES, OR USING REMOTE CONTROL (RMHYTHRC-05 – PURCHASED SEPARATELY).**

**1 Detection area**

Detection area can be reduced by selecting the combination on the DIP switches to fit precisely for each specific application.

	1	2	
I	●	●	100%
II	●	○	75%
III	○	●	50%
IV	○	○	10%

- I – 100%
- II – 75%
- III – 50%
- IV – 10%

**2 Hold time**

Hold-time means the time period to keep the lamp on 100%, after all motion has ceased (detection area vacated).

	1	2	3	
I	●	●	●	5 s
II	●	●	○	30 s
III	●	○	●	1 min
IV	●	○	○	5 min
V	○	●	●	10 min
VI	○	●	○	20 min
VII	○	○	○	30 min

- I – 5 s
- II – 30 s
- III – 1 min
- IV – 5 min
- V – 10 min
- VI – 20 min
- VII – 30 min

**3 Daylight sensor**

The daylight threshold can be set on DIP switches, to fit particular application.

“Daylight” : The lamp works always, even during daylight.

“Twilight” : The lamp works only in twilight and darkness.

“Darkness” : The lamp works only in darkness.

	1	2	
I	●	●	Disable
II	●	○	50 Lux
III	○	●	10 Lux
IV	○	○	2 Lux

- I – Disable
- II – 50 Lux
- III – 10 Lux
- IV – 2 Lux

**4 Stand-by period (corridor function)**

This is the time period you would like to keep at the low light output level before it is completely switched off in the long absence of people.

Note: “0s” means on/off control

“+ ∞” means bi-level dimming control, fixture never switches off when daylight sensor is disabled.

	1	2	3	
I	●	●	●	0 s
II	●	●	○	10 s
III	●	○	●	1 min
IV	●	○	○	5 min
V	○	●	●	10 min
VI	○	●	○	30 min
VII	○	○	●	1 hr
VIII	○	○	○	+ ∞

- I – 0 s
- II – 10 s
- III – 1 min
- IV – 5 min
- V – 10 min
- VI – 30 min
- VII – 1 hr
- VIII – + ∞

**5 Stand-by dimming level**

Detection area can be reduced by selecting the combination on the DIP switches to fit precisely for each specific application.

	1	2	
I	●	●	5%
II	●	○	10%
III	○	●	20%
IV	○	○	30%

- I – 5%
- II – 10%
- III – 20%
- IV – 30%

## REMOTE CONTROL SETTINGS:

### Permanent ON/OFF [button ① ]

1. Press button ①, to select permanent ON or permanent OFF mode.
2. Press button ②③④ to resume automatic operation (Please refer to example below)

### Auto Mode [button ② ]

Press button ② to initiate automatic mode. The sensor starts working and all settings remain as before the light was switched ON/OFF.

### RESET [button ③ ]

Press button ③, all settings go back to the value of DIP switch settings.

### Test 2s function [button ④ ]

1. Press button ④, the sensor goes into testmode {hold time 2s}. N.B. the stand-by period and daylight sensor settings are disabled in test mode.
2. Press button ③④① to exit from this mode, and the sensor settings are changed accordingly.

### Ambient daylight threshold [button ⑤ ]

Press button ⑤, the latest surrounding lux value overwrites previous lux value learned, and is set as the daylight threshold. This feature enables the fixture to function well in any environment.

### Power output [button ⑥ ]

Press button ⑥, the output shifts between 80% and 100%, for energy saving purposes.

### Dim +/- [button ⑦ ]

Press button ⑦ to adjust the light brightness between 10%~100% during hold-time. "+" increases the level of light, "-" will decrease the light level.

### Lux disable [button ⑧ ]

Press button ⑧, the built-in display sensor is disabled, the light will always operate upon detection, regardless of ambient light level.

### Manual override / Semi-auto [button ⑨ ]

Press button ⑨, the sensor goes to manual override or semi-auto function.

Note: The buzzer beeps twice if it is in manual override mode, and beeps once if it shifts to semi-auto mode.

### Detection range [button ⑩ ]

Press buttons in zone ⑩, in zone ⑩ to set detection range at 100% / 50% / 10%.

### Hold time [button ⑪ ]

Press buttons in zone ⑪, to set the hold time at 30s / 1min / 5min / 10min / 30min.

### Stand-by period [button ⑫ ]

Press buttons in zone ⑫, to set the stand-by period at 0s / 10s / 1min / 10min / 30min / +∞.

Note: "0s" means on/off control; "+∞" means bi-level of dimming control, the light will never switch off. (i.e. the light remains at the stand-by dimming level until motion is detected.)

### Stand-by dimming level [button ⑬ ]

Press buttons in zone ⑬, to set the stand-by dimming level at 10% / 20% / 30%.

### Daylight sensor [button ⑭ ]

Press buttons in zone ⑭, to set daylight sensor at 2lux / 10lux / 50lux.



## TECHNICAL DATA

Operating Voltage	120~277VAC
Switched power (captive load)	400W@120VAC; 800W@230VAC; 1000W@277VAC
Stand-by power	<1W
Detection area	10% / 50% / 75% / 100% (100% / 50% / 10% on RC)
Hold-time	5s/30s/1min/5min/10min/20min/30min (TEST 2s/30s/1min/5min/10min/30min on RC)
Stand-by period	0s/10s/1min/5min/10min/1hr/+∞ (0s /10s/1min/10min/30min/+∞ on RC)
Stand-by dimming level	5%/10%/20%/30% (10%/20%/30% on RC)
Daylight threshold	2~50Lux/disable (2Lux/10Lux/50Lux disable on RC)
Sensor principle	High frequency (microwave)
Microwave frequency	5.8GHz+/-75MHz
Microwave power	<0.2mW
Detection range	Max (OxH): 8m x 5m
Detection angle	30° ~ 150°
Mounting height	Max. 5m
Operating temperature	-20°C ~ +60°C
Certificate	Semko, CB, EMC, CE, R&TTE, SAA