

# Highbay Sensor

## ON-OFF, Dim & Daylight Harvesting

### PRODUCT DESCRIPTION

- 120–277V AC operating voltage
- Patented antenna, 15m max mounting height
- High/low sensitivity modes for metal ceilings
- Works with 1–10V drivers, 2/3-step dimming
- Patented remote with adjustable angle
- Dim+/Dim- & daylight harvesting
- 2-year warranty (extendable)



Item Number: **QRSR-HF-HM-DH**

### INPUT

Operating Voltage Range	108-305VAC 50/60Hz
DC Input Voltage	N/A
Rated Voltage	120-277VAC 50/60Hz
No-load Power	N/A
Stand-by Power	<1W
Surge Test	L N:1kV

### OUTPUT

Working Mode	ON/OFF, 1-10V Dimming
Type of Load	Inductive or resistive Load
Load Capacity	120VAC: 4A; 220-277VAC: 3A
Current of Load	N/A
Max. Surge Capacity	50A (50% Ipeak, twidth =500uS, 230Vac full load, cold start) 80A (50% Ipeak, twidth =200uS, 230Vac, full load, cold start)

### DIM INTERFACE

1-10V Dimming	< 50mA (Non-constant source) 10%, 20%, 30%, 50%
Synchronous Control	N/A
High Low-level	N/A
PWM Control	N/A

### SENSOR PARAMETERS

Operating Frequency	5.8 GHz ±75 Mhz, ISM band
Transmitting power	0.5mW Max.
Hold time	5s/30s/1min/3min/5min/10min/20min/30min
Stand-by dim Level	10%/20%/30%/50%
Stand-by Period	0s/10s/1min/3min/5min/10min/30min/+∞
Detection Area	25%/50%/75%/100%
Daylight Sensor	Daylight threshold:5lux/15lux/30lux/50lux/100lux/150lux/ Disable (no shadow or ambient light diffuse reflection)
Detecting Range	See detection pattern
Mounting Height	15m Max.
Detection Angle	150° (wall mount), 360° (ceiling mount)

## OPERATING ENVIRONMENT

Operating Temperature	-35°C...+55°C
Storage Temperature	-40°C...+80°C humidity: 10%-95% (non-condensing)
Safety standards	IEC60669-2-1, IEC60669-1AS/NZS 60669.1, AS/NZS 60669.2.1UL60730-1
EMC standards	EN55015, EN61000-3-2, EN61000-3-3, EN61547AS/NZS CISPR 15, AS/NZS 4268 FCCPART 15C, PART 15BEN 60950-1, EN301489-1, EN 201489-3, En300440
Environment Request	Compliant to RoHS
Certificate	cULus, CE, SAA, FCC, RED

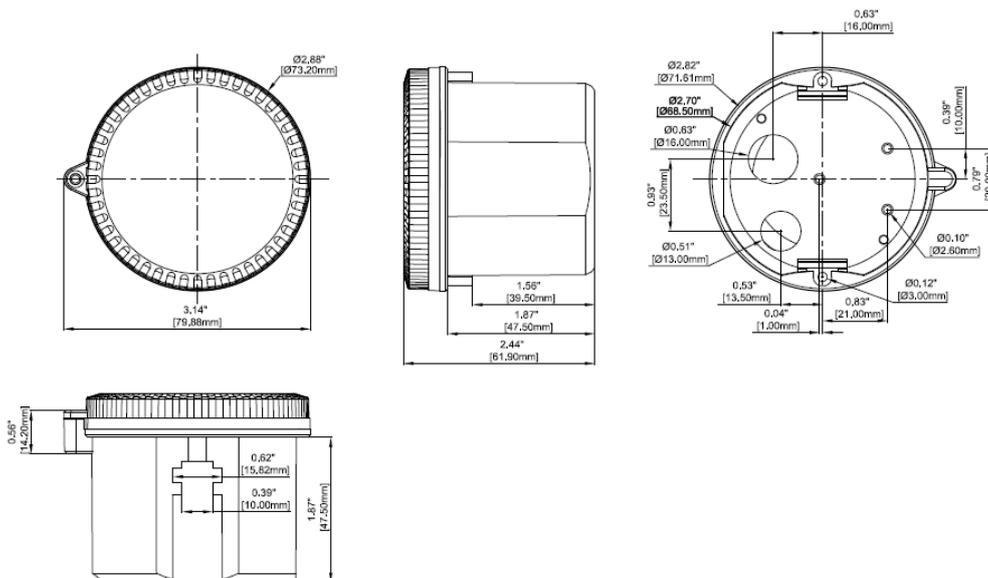
## OTHERS

Wiring	SJTW,5*18AWG (USA); H05RR-F,5*18AWG (Europe, Australia); exposed line length: 810-30mm
Wiring color	Sheath: Black Core: Red, White, Black, Gray, Purple (US); Blue, Brown, Gray, Red, Purple (Europe, Australia)
IP Rating	IP65
Protection Class	Class II
Installation	Independent
Dimension	(ΦxH)72*59mm
Package	Instruction+ White box+ White box tags+ Clapboard+Carton(K=A)
Warranty	2 years warranty.

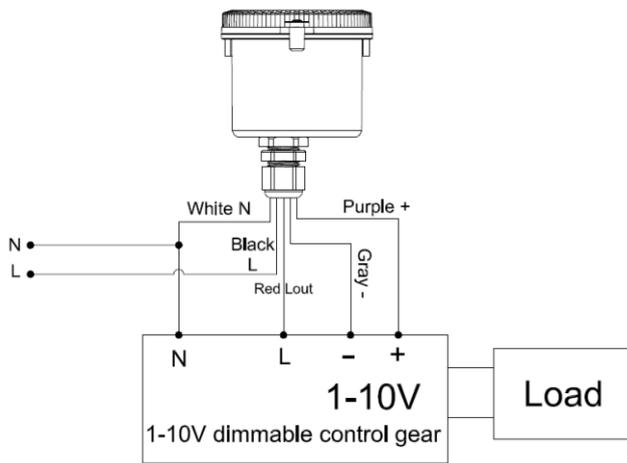
### Note

1. "N/A" means not available.
2. Detection area is effected on volume of motion object and motion speed. The detection area is tested by a 165cm height person and walking speed is 0.5m/s.

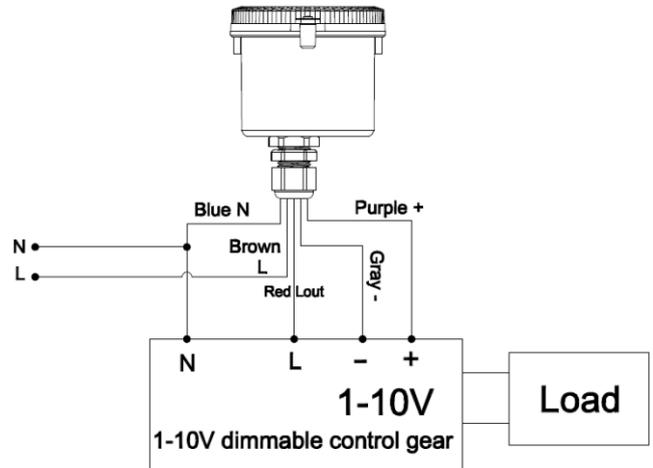
## DIMENSION DRAWING



**WIRING**

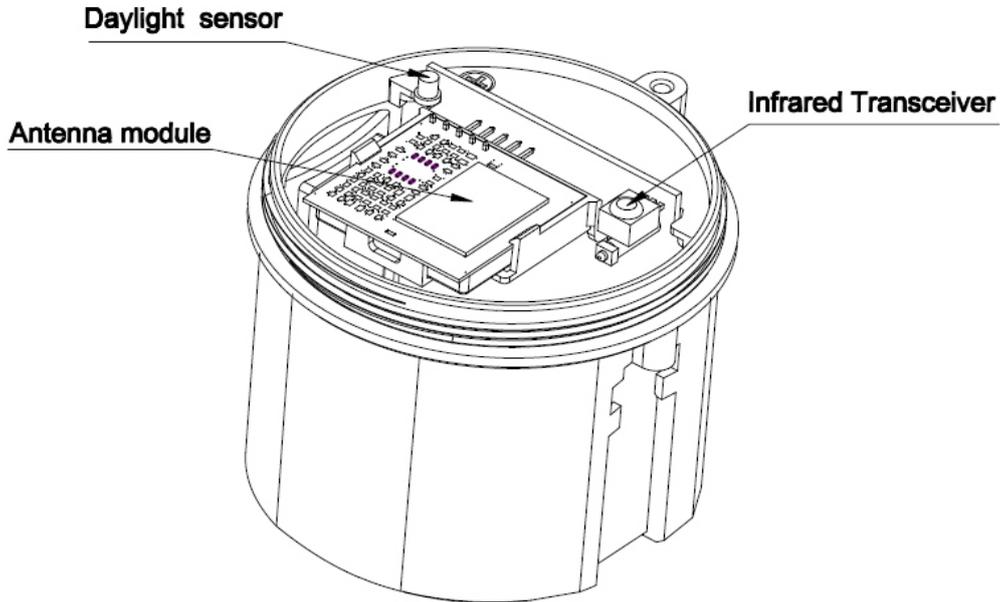


USA Version



Asia / Euro / Australia version

**FUNCTION DIAGRAM**



**RADIATION PATTERN (CEILING MOUNTING)**

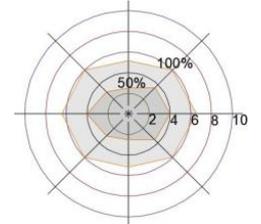
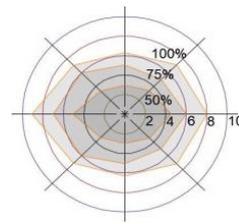
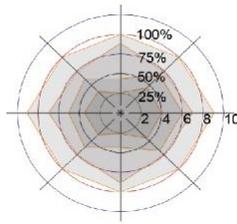
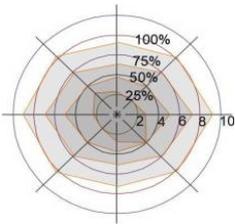
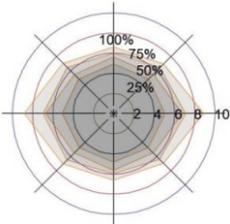
Ceiling mounted height:  
3mSensitivity:100%  
75%/50%/25%  
Normal moving  
(Speed:1m/s)

Ceiling mounted height:  
6mSensitivity:  
100%/75%/50%/25%  
Normal moving  
(Speed:1m/s)

Ceiling mounted height:  
9mSensitivity:  
100%/75%/50%/25%  
Normal moving  
(Speed:1m/s)

Ceiling mounted height:  
12mSensitivity:  
100%/75%/50%  
Normal moving  
(Speed:1m/s)

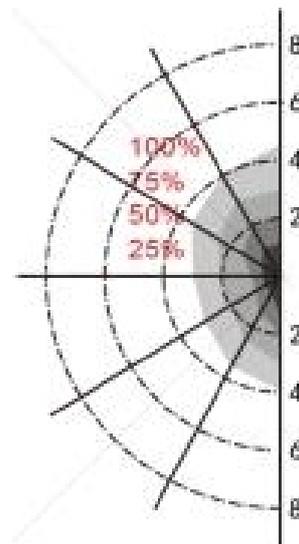
Ceiling mounted height:  
15mSensitivity:  
100%/75%  
Normal moving  
(Speed:1m/s)



\*Only 100%/75%/50% detection sensitivity is workable when installed at 10m & 15m mounting height. 25% sensitivity is not able to detect motion signal.

**RADIATION PATTERN (WALL MOUNTING)**

Horizon mounted height: 2mSensitivity:  
100%/75%/50%/25%



Normal moving (Speed: 1m/s)