RW301XA5
Passive Infrared Wall Switch Occupancy Sensor

TECHNICAL DATA

Rated voltage: 120/250/277VAC, 50/60Hz

Load:
Tungsten: 1000W @120VAC
E-ballast: 600W @120VAC
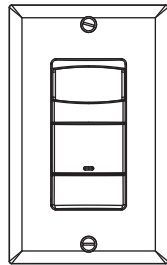800W @277VAC
Motor: 1/2HP @120VAC
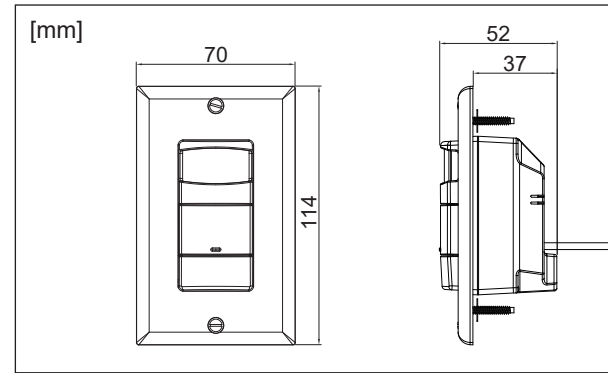1HP @250VAC
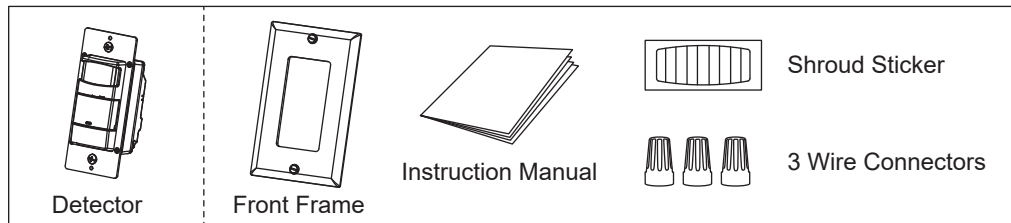
Ingress Protection:
IP20

Operating Temperature:
-20°C ~ 50°C

PACKAGE CONTENTS

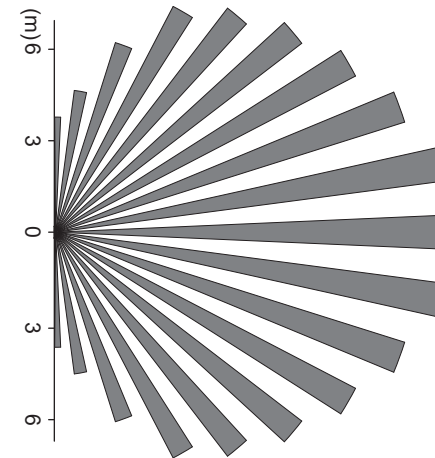| Detector | Front Frame | Instruction Manual | Shroud Sticker |
| | | | 3 Wire Connectors |

PRODUCT DESCRIPTION

Features
- Streamlined flat lens with up to 10 meter detection (180°)
- Zero crossing circuitry
- Lux / Time / Sens setting adjustable
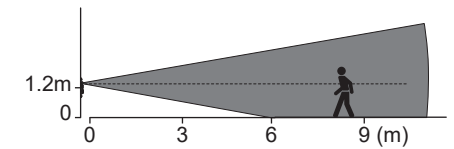- Internal push button for manual ON/OFF

Dimension

[mm]

OPERATION AND FUNCTION

Detection Range:
Forward ≧10m / 180° ; two side 4m at 1.2m height, 25°C.
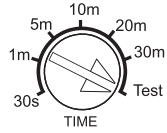

TOP VIEW

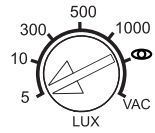SIDE VIEW

TIME Adjustment:

With 7 steps adjustable: 30s-1m-5m-10m-20m-30m-Test

Note: The detector LED indicator will blink 3 times when the potentiometer is adjusted and the desired step is successfully selected.

LUX Adjustment:

With 7 steps adjustable: 5-10-300-500-1000 lux-Teach In(⊚)-VAC

SENS Adjustment:

Adjustable: Min(25%) ~ max(100%)

Test Function (Set TIME VR knob to "Test")

Under Test mode the sensor LED indicator and the load will switch on for 3 sec to each detection, and switch off for 2 sec before next detection. Under Test mode the Lux setting is deactivated.

Teach In Function (Set LUX VR knob to " ⊚ ")

Switch the Lux setting to Teach-in mode at the desired ambient brightness level. The load will turn OFF. The sensor LED indicator will flash for 20 sec while sensor learning the ambient brightness. The sensor LED indicator and the load will stay ON for 3 sec and then go OFF, then the learning process is done. The learned brightness value is accepted as the new brightness switching value.

When the ambient lightness is lower than 5 lux, the sensor will accept 5 lux as the brightness switching value. When the ambient brightness is higher than 1000 lux, the sensor will accept 1000 lux as the brightness switching value.

Occ Mode

The presence detector will turn on the light when it detects movement, provided the daylight level is below the set lux level.

**Vacancy Mode** (Set LUX VR knob to "VAC")

The presence detector will only turn on the light when the internal push button is activated. Within 10 seconds after the delay time was over and load switched off, the sensor can be retriggered and load switched On again.

Beyond 10 seconds after the delay time was over, it requires a manual press to the push button to switch On the load.

Push-button Function

Short press the button once to turn on the load, delay time according to TIME setting; short press button again to turn it off, the sensor will resume detection after about 1 min.

Push-button
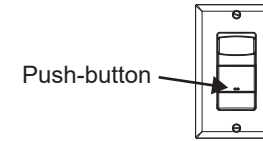
INSTALLATION AND WIRING

> ⚠ ● **Please disconnect power completely and read the entire instruction manual carefully before installation.**
> ● **Installation and assembly of electrical equipment must be carried out by qualified electricians. Contact a qualified electrician in the event of fault or break down.**
> ● **A circuit breaker (250VAC, 16A) type C according to EN60898-1 must be installed in the fixed wiring for protection.**
> ● **If using power tools, ensure that they are set to a low torque setting.**
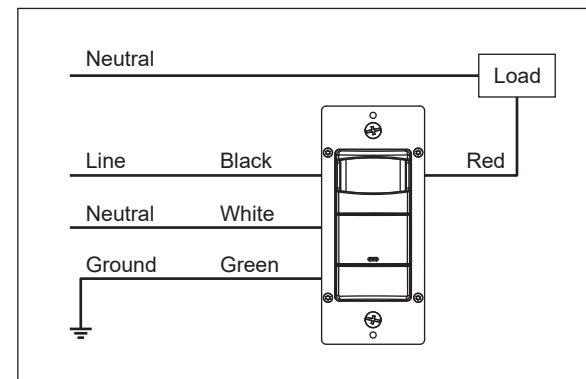
Wiring

FIG.1

Installation Procedure

1. Turn off power to the controlling circuit.
2. Connect wires as shown in wiring diagram. (FIG.1)
3. After wiring, fix the detector to the junction box with 2 screws. (FIG.2)
4. Remove the push-button cover plate. (FIG.3)
5. Locate the adjustment knobs on the control panel to perform test, and adjustments.
6. Replace the push-button cover plate after testing and adjusting.
7. Install front frame.
8. Turn power ON to controlling circuit.
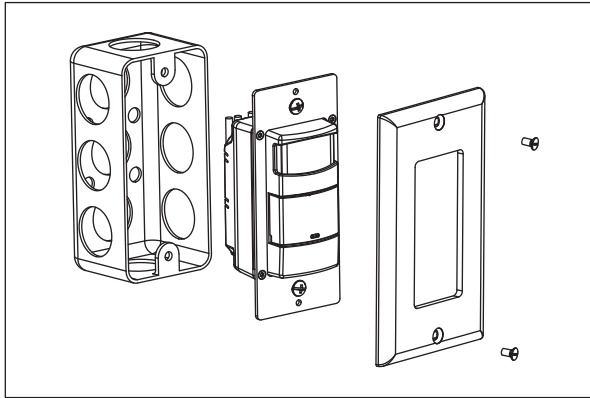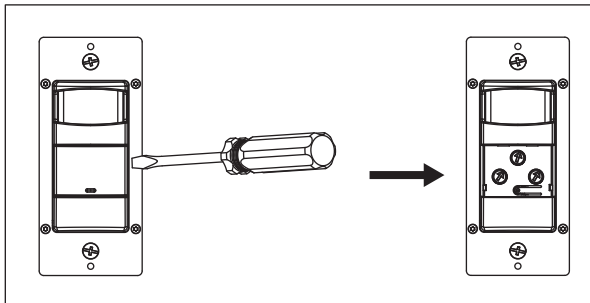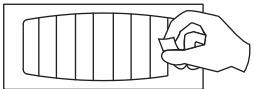9. Once powered, a Red LED indicator light will start flash for 1 minute.

FIG.2

FIG.3

Usage of shroud sticker

Undesired areas and interference sources can be masked by fixing the supplied shroud sticker.
Trim shroud sticker with scissors either horizontally or vertically until the desired result is obtained.

Walk Test

It takes about 60 sec for sensor to warm up after power is supplied. The purpose of walk test is to check and adjust the detection coverage at the installation of sensor. Set Time VR knob to "Test", and then conduct the walk test. Pay attention to the walking direction in the walk test. The sensor is more sensitive to movement across the detection range and less sensitive to movement directly towards it. The sensor LED indicator and the load will switch ON for 3 sec for each movement detected, and switch OFF for 2 sec before next trigger. Set the Time VR knob to the desired setting after walk test.

TROUBLE SHOOTING

1. Unit will not function at all/Lights won't turn on
   - Check wiring to make sure that you have correct AC power at the unit.
   - Check the wiring from the unit to the source of power to make sure you have wired the unit correctly.
   - Check the ambient light control to see if it was set at your desired level.

2. Detector clicks but does not work
   - Check if lamps are broken.
   - Check if lamps are tight in lampholders.

3. Lights go on and off quickly
   - Ensure light and heat are not being reflected onto the detector. Check for white or reflective surfaces that may be causing the problem.
   - Note the detector is more sensitive in cold weather.
   - Make sure the sensor is not installed close to an air conditioner.
   - Make sure the Lux setting is not set to Test Mode position.

4. Lights stay on
   - Light bulb sockets may be wired directly to the power source. Recheck the wiring diagram.
   - Adjust time to minimum, and ensure unit is firmly fixed to a solid object with no moving branches etc. in field of view.
   - Ensure detector is not being activated by stray moving heat sources such as heating outlets.

5. Detector goes on under windy and rainy conditions
   - Adverse weather conditions and temperature changes can result in unwanted activations.
   - This can be minimized by mounting in a protected location.

6. Maintenance and repair
   - Do not attempt to repair as this could invalidate warranty or result in personal injury.
   - Clean detector lens and outside casing with a damp cloth.