

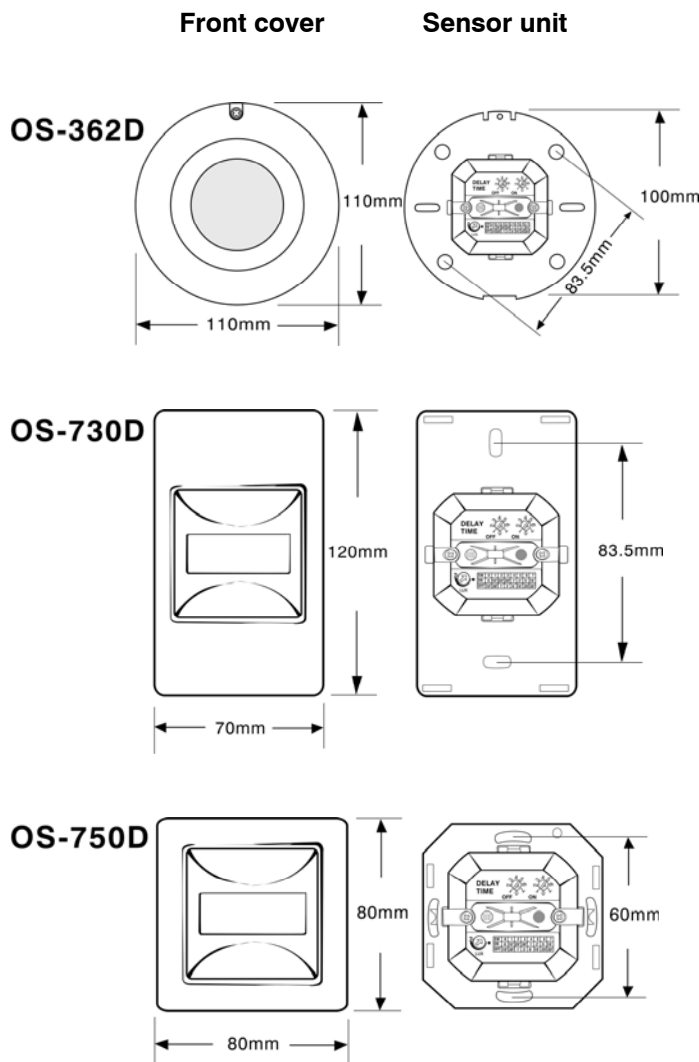
OS-362D/730D/750D

Installation Instructions

GENERAL

IR-TEC OS-730D/750D/362D is a series of duplex occupancy sensor designed for HVAC and Lighting control of today's building energy management system. This occupancy sensor is able to verify the occupancy status of the area and provide signals for HVAC and lighting controls. The OS-730D is for wall-recess mount with standard single gang box with 83.5 mm screw pitch. The OS-750D is for wall-recess mount with EURO standard switch box with 60.0 mm screw pitch. The OS-362D is for ceiling-recess mount with 360° detection coverage.

DESCRIPTION

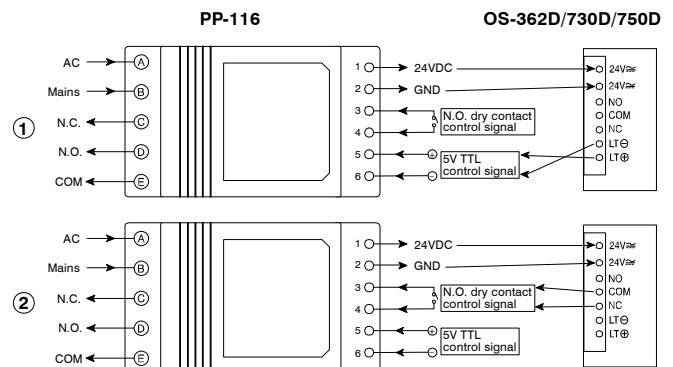


INSTALLATION & WIRING

Wiring Diagram

The sensor provides two different signal outputs for different controls. The NO-COM-NC are form C relay contacts for HVAC control and the LT⁺ and LT⁻ are TTL electronic switching signal (active 5V) for light control.

Following diagram shows typical connection with IR-TEC PP-116 Power Pack and Controller.



Mounting OS-730D/750D

1. Connect the pre-wired cable with controller as above instructed.
2. Carefully mount the sensor unit with the switch box in the wall.
3. Attach the front cover with the sensor unit.
4. Conduct walk test (see "WALK TEST").
5. Carefully remove the front cover to set the desired ON and OFF delays. Adjust LUX setting to the desired position. Replace the front cover.

Mounting OS-362D

1. Cut a 60 mm diameter hole on the ceiling. Lead the cable out and connect with controller as instructed.
2. Carefully mount the sensor unit on the ceiling with screws or the outward clips.
3. Fix the front cover with the sensor unit.
4. Conduct walk test (see "WALK TEST").
5. Remove the front cover to set the desired ON and OFF delays. Adjust LUX setting to the desired position. Replace the front cover.

WALK TEST

Apply power supply and give about 30 seconds for sensor to warm up. The LED will blink during warm up period. **Ensure the ON & OFF delays switch are pointing at "0" position (factory set) for test convenience.** After the warm up expires, walk across the detection zones (invisible) at normal speed. The LED will lit whenever the sensor detects the motion.

SENSOR OPERATION

The OS-series sensor is able to verify the occupancy status of its coverage. Sensor is operated as follow;

Standby Mode

After the warm up time, the sensor will become stable and enter into standby mode if the area is vacant. No signal output will be generated during standby mode.

ON-delay Mode

Once sensor detects movement of occupant, it will output the light control signal (LT) if ambient light level is lower than set point. In the meantime, the sensor will enter into ON-delay mode of HVAC control. The ON-delay is a user changeable time given to the sensor to verify the occupancy, before it outputs the HVAC operation control signal.

The ON-delay is a fixed timer, any additional detection will not reset the delay time. ON-delay can prevent unnecessary HVAC operations caused by short-time occupancy or passing movements.

To inhibit ON-delay, set ON-delay switch at "0".

1-Minute Waiting Mode

After the ON-delay expires, the sensor will enter into a 1-minute waiting mode. If no movement is detected within this period, the sensor will return to Standby mode. If sensor detects the motion of occupant, then sensor will generate the HVAC control signal and enter into OFF-delay mode.

OFF-Delay Mode

The sensor will enter into OFF-delay mode as soon as the HVAC control signal is generated. Any further movement detected will reset the timer. For convenience of testing, the factory default OFF-delay is set at the shortest time.

ON & OFF-Delay Time

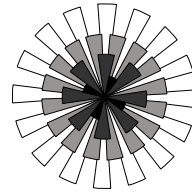
SW	0*	1	2	3	4	5	6	7
ON	No delay	10"	20"	30"	1'	2'	5'	10'
OFF	10"	30"	1'	3'	6'	10'	20'	30'

* denotes factory default settings.

DETECTION PATTERN

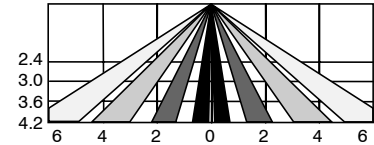
OS-362D

Top view 360°



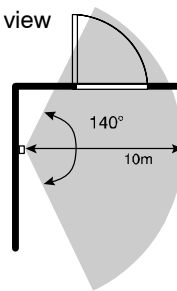
Mount height	2.4m	3.0m	3.6m	4.2m
Coverage(Dia.)	6.0m	7.5m	9.0m	10.5m

Side view

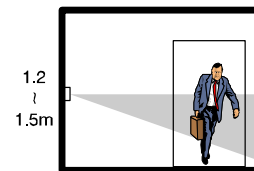


OS-730D/750D

Top view



Side view



SPECIFICATIONS

Motion sensor	Passive infrared
Power supply	24 ± 2 V AC/DC
HVAC control	Form C, 30 VDC, 0.2A max.
Light control	TTL Standby: 0V, active: 5V
LUX sensor	CdS photocell, adjustable
Current drain	8 mA @24 VAC
ON-delay	0-10"-20"-30"-1'-2'-5'-10'
OFF-delay	10"-30"-1'-3'-6'-10'-20'-30'
Detectable speed	0.1~3.0 m/sec.
RFI immunity	Av. 20 V/m (10~1,000 MHz)
Temperature	-10°C~60°C (14°F ~ 140°F)
Humidity	95% RH max.
Mounting height	OS-362D: 2.4~4.2 m OS-730D: 1.2~1.5 m OS-750D: 1.2~1.5 m
Dimensions	OS-362D:110 (dia.)x60 mm OS-730D:120x70x50 mm OS-750D:80x80x50 mm

OS-362D/730D/750D I/M, Eng. 2008-10-09 V3.0

