

LonWorks Occupancy Sensor

LX-250

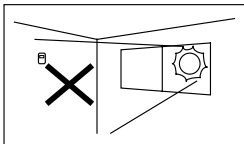
GENERAL

The LX-250 is an occupancy sensor designed for building control open network based on LonWorks technology. The sensor offers occupancy and intrusion detection algorithms for HVAC, lighting and security control of intelligent building management systems.

The sensor provides excellent occupancy detection capability with its specially designed multi-segment optical lens and high sensitivity infrared sensor. It contains a 3120 Neuron Chip and FTT-10A free topology transceiver for building control network connection. The LX-250 supports LonMark #1060 Occupancy Sensor object, #3071 Occupancy Controller object and privately developed Intrusion Sensor object.

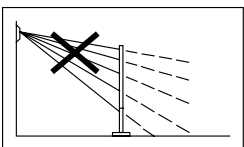
INSTALLATION HINTS

The LX-250 may be either wall or corner mounted by different knockouts. Corner mount is recommended for superior detection. The MB-99 mounting bracket can be used for ceiling or wall mount for horizontal/vertical detection adjustment.

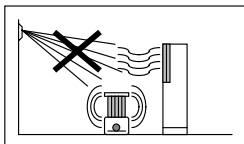


Do not install where the detector is in or facing direct/reflected sunlight, window onto main road to avoid

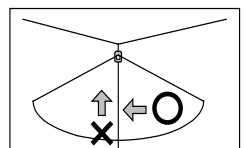
car head light.



Ensure that there are not any obstructions (plants, screens, furniture etc.) in the field of view which may block the detection.



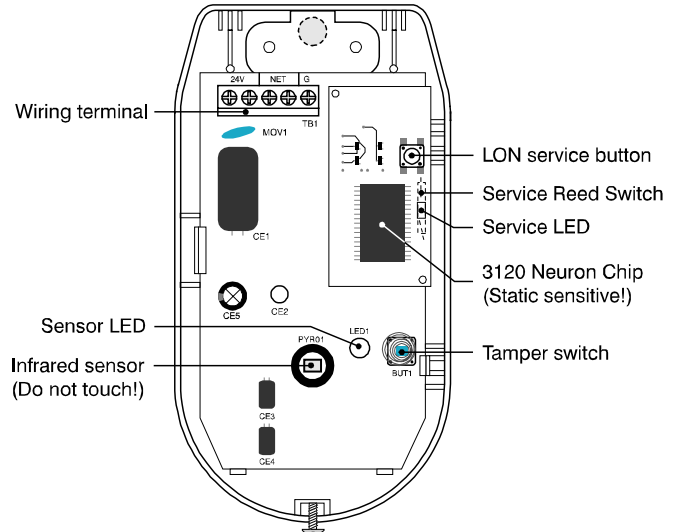
The sensor should not face to the HVAC ventilator or any equipment that may produce severe temperature change.



The sensor is more sensitive to the movements "across" the detection zones than "toward".

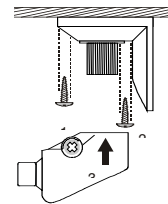
Installation Instructions

DESCRIPTION

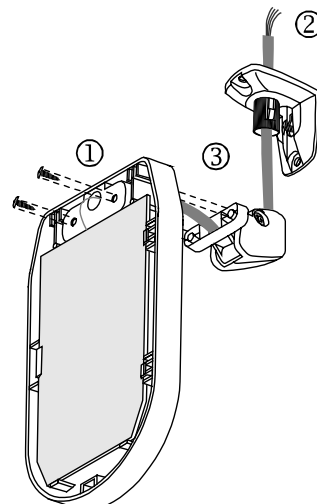
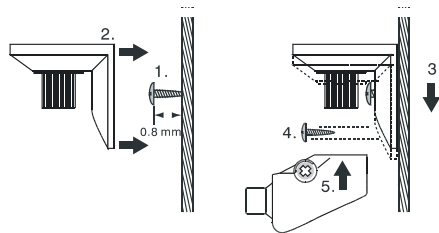


MOUNTING OPTIONS

■ Ceiling Mount



■ Wall Mount



MOUNTING & WIRING

Without mounting bracket

1. Open the front cover and carefully remove the PCB from the bottom case. Select the adequate knockouts and mount the case on the selected location.

Recommended installation height: 2.1 ~ 2.4 m.

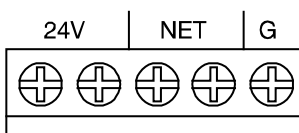
2. Connect the cable to the corresponding terminals according to the network wiring instructions. Replace the PCB on the bottom case. Replace the front cover and then walk test can be conducted.

With mounting bracket

1. Mount the base of mounting bracket (height: 1.8 ~3.6m) on the selected position. Lead the network cable through the cable access tunnel of mounting bracket.
2. Open the front cover and carefully remove the PCB from the bottom case. Lead the cable into the case and assemble the mounting bracket with it (as shown on reverse side).
3. Connect the wires to the corresponding terminals according to the following instructions. Replace the PCB on the bottom case and fix it. Replace the front cover and then walk test can be conducted.

CAUTION: Ensure that all cable entries and holes are sealed to prevent insects accessing which may cause false alarm.

Wiring diagram



- ◆ **24V:** Power input (non-polarity)
- ◆ **NET:** Network connection
- ◆ **G:** Ground connection (optional)

Service pin & LED

The node service pin and LED can be found on the 3120 LON module. You can also activate the service pin without opening the front cover, just place the magnet to the right side wall (center) of the sensor.

The service LED will lit when service pin is activated.

NETWORK COMMUNICATION

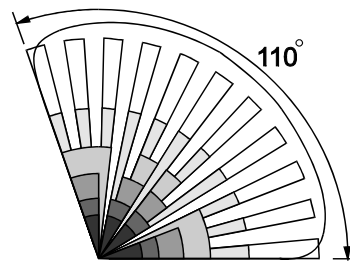
Once the installation and connection completed, the sensor housing need not to be opened again, except for maintenance purpose. The network configuration, function change, operation mode selection and sensitivity adjustment can be done via network communication. For example, the walk test LED is "disabled" by factory setting. You can enable the LED indication via changing the node configuration.

DETECTION PATTERN

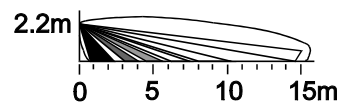
High Sensitivity: 110°, 15 x 15m at 25°C

Low Sensitivity: 100°, 8 x 8 m at 25°C

Top View



Side View



SPECIFICATIONS

Power supply	10 ~ 36VDC, 9 ~ 26 VAC.
Current drain.....	40 mA @ 24 VDC
Operation network	FTT-10A, 78 Kbps
Neuron chip	3120, 10 MHz
Infrared sensor.....	Dual element, pyroelectric
Mounting height.....	1.8 ~3.6 m
Detection range	High: 15m, low: 8m @25°C,
Pulse count.....	1/2/3 network controllable
Detectable speed.....	0.1~3.0 m/sec.
RFI immunity.....	Av. 20 V/m (10~1,000 MHz)
Tamper protection	Cover opened activated
Temperature	-20°C~50°C (-4°F ~ 122°F)
Humidity.....	95% RH max.
Dimensions	132 x 72 x 57 mm

058-25017-000 01/17/05'

