

LOW TEMPERATURE PASSIVE INFRARED OCCUPANCY SENSOR

| CB-100

PIR occupancy sensor for areas of extreme low temperature

Watertight enclosure prevents moisture and dust from affecting detection

Isolated relay contact for use with HVAC or other control systems



Choice of three coverage patterns

Convenient DIP switch adjustments of time delay and sensitivity

Ideal for cold storage rooms, freezers and outdoor locations

Description

The CB-100 passive infrared (PIR) occupancy sensor was engineered for installation in cold and damp conditions including the outdoors. It uses electronic components to allow for reliable operation in extreme temperature and environmental conditions.

Operation

The CB-100 operates on 24 VDC and controls lighting through Wattstopper power packs. It is equipped with a swivel mount bracket for convenient installation. The unit detects occupancy and turns lighting on when it senses a change in infrared heat radiated within the controlled area. After the area is vacated and after a user-adjustable time delay, lighting automatically turns off.

Features

- Operates in areas with temperatures as low as -40°F
- Gasketed, watertight enclosure prevents moisture and dust from entering the sensor and affecting occupancy detection
- Choice of three different coverage patterns depending on needs of the application
- Swivel mount bracket for convenient installation
- Convenient DIP switch adjustable digital time delay of 15 seconds, 5 minutes or 10 minutes
- DIP switch adjustable sensitivity has 4 settings ranging from minimum to maximum
- Isolated relay can interface with HVAC, EMS systems, monitoring systems, or with an additional lighting load
- Red LED indicates occupancy detection

Cold Application Engineering

Specifically designed for low temperature applications, the CB-100 features a gasketed, watertight enclosure which prevents moisture and dust from entering the sensor and affecting occupancy detection. By operating in areas as low as -40° F, the CB-100 saves energy in areas that would not typically be suited for occupancy based control.

Applications

The CB-100 has been manufactured for the specification of lighting control in low temperature areas. With this sensor, areas such as cold storage rooms, freezers, and unconditioned spaces subject to extreme low temperatures can receive the same reliable lighting control and energy savings as other building areas. Using the isolated relay contact to interface with HVAC, EMS or other building control systems will also increase savings.

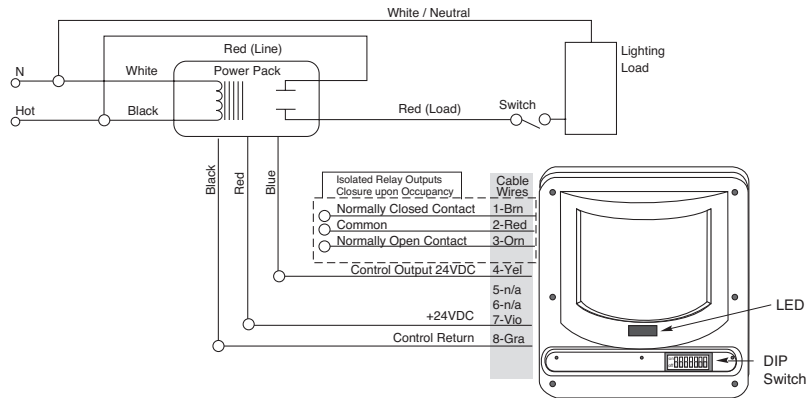
| | | | |
|---------|--|-------------------|--|
| PROJECT | | LOCATION/ TYPE | |
|---------|--|-------------------|--|

Specifications

- Dual-element, temperature compensated pyroelectric sensor
- Temperature range: -40°F (-40°C) to +95°F (+35°C)
(The CB-100 can function at temperatures greater than 95°F but coverage may be reduced)
- Isolated relay with N/O and N/C outputs; rated for 1 Amp at 24 VDC/VAC
- Digital time delay settings of 15 seconds, 5 minutes, or 10 minutes
- Units per power pack: up to 5 (B); up to 7 (BZ)
- Dimensions: 3.94" x 3.74" x 2.36"
(100mm x 95mm x 60mm) L x W x D
- UL and cUL listed
- Five year warranty

Wiring, Mounting & Settings

Wiring Diagram



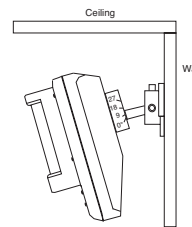
DIP Switch Settings

| Sensitivity | 1 | 2 |
|-------------|---|---|
| Maximum | - | - |
| Med High | - | ● |
| Med Low | ● | - |
| Minimum | ● | ● |

| Time Delay | 3 | 4 |
|------------|---|---|
| 10 minutes | - | - |
| 5 minutes | - | ● |
| 15 seconds | ● | ● |

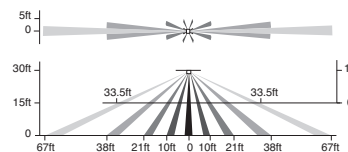
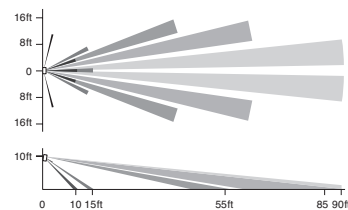
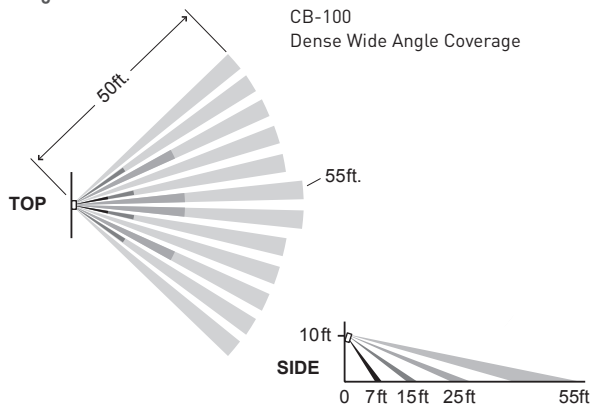
● = ON - = OFF
◀ = factory preset

Wall Mounting



Coverage

Coverage Patterns



Ordering Information

| Catalog # | Voltage | Current | Coverage |
|-----------------------------------|---------|---------|---------------------------------------------------|
| <input type="checkbox"/> CB-100 | 24 VDC | 20 mA | up to 2000 ft ² (185.8m ²) |
| <input type="checkbox"/> CB-100-1 | 24 VDC | 20 mA | up to 90 linear ft (27.4m) |
| <input type="checkbox"/> CB-100-3 | 24 VDC | 20 mA | up to 120 linear ft (36.6m) |

Units are beige and use Wattstopper power packs.