Echoflex Solutions

Elaho PIR Occupancy Sensors

Responsive Control Series

GENERAL INFORMATION

Buildings waste electricity as a result of lights being left on in an unoccupied room. Occupancy and Vacancy Sensors are a convenient and simple solution for any facility to eliminate wasted energy by automatically turning off lighting loads when a room is empty. The low-profile, sleek sensors can be installed anywhere to provide uninterrupted, 24/7/365 operation, without affecting the look and beauty of their surroundings.

APPLICATIONS

- Houses of worship
- Education
- Hospitality
- Healthcare facilities
- Office buildings
- Conference rooms
- Meeting rooms
- Retail

FEATURES

- Supports for occupancy or vacancy detection as required
- Passive infrared (PIR) sensing technology
- Three versions available:
  - Large room
  - Small room
  - High ceiling
- Walk-thru mode for coverage verification
- Field-installed coverage masks
- Options for manual-on/auto-off (Vacancy Sensor) and auto-on/off (Occupancy Sensor)
- Two-wire, topology-free bus for power and communication
- Multi Space Preset functionality
- Available in white and black

REGULATORY AND COMPLIANCE

- cULus Listed
- CE Compliant

ORDERING INFORMATION

Occupancy and Vacancy Sensors

MODEL	DESCRIPTION
EOCC	Occupancy Sensor with 2000 sq. ft. Coverage
EOCC-SR	Occupancy Sensor with 500 sq. ft. Coverage
EOCC-HC	Occupancy Sensor for High Ceilings
EVAC	Vacancy Sensor with 2000 sq. ft. Coverage
EVAC-SR	Vacancy Sensor with 500 sq. ft. Coverage
EVAC-HC	Vacancy Sensor for High Ceilings

*Measurements based off 3 m (9 ft) ceiling height. For specific coverage patterns, see page 6.

Note: Sensors come standard in pure white (RAL 9010). Add -4 to the end of any model number for black (RAL 9004)

Power Requirements

Bus Power:	One unit of control power
Auxiliary Power:	Not required

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SPECIFICATIONS

FUNCTIONAL

- Occupancy sensors supports configurable auto-on/auto-off functionality (occupancy sensing) functions
- Vacancy sensors supports configurable manual-on/auto-off (vacancy sensing) functions
- 360-degree coverage pattern
  - Includes configurable coverage masks
- Supports walk-thru mode for verifying coverage area
  - Sensor lens illuminates for walk-thru and test mode operation
- Three coverage options available

Model	Coverage m^2	Coverage ft^2
Small Room Sensor	41.8 m^2 at 2.4 m	450 ft^2 at 8 ft
	74.3 m^2 at 6.7 m	800 ft^2 at 12 ft
Large Room Sensor	167 m^2 at 2.4 m	1800 ft^2 at 8 ft
	279 m^2 at 6.7 m	3000 ft^2 at 12 ft
High Ceiling Sensor	28 m^2 at 2.4 m	300 ft^2 at 10 ft
	650 m^2 at 12.2 m	7000 ft^2 at 40 ft

- Sensor coverage tested to NEMA WD 7-2000

MECHANICAL

- Constructed of injection-molded, ABS plastic in Pure White (RAL 9010) or Black (RAL 9004)
- Electronics assembly and mounting plate included
- Two cantilevered configuration buttons
- No visible means of attachment
- Surface- or box-mountable using included mounting plate
  - Supports drywall, plaster, wood and concrete mounting
  - Mounts to any standard electrical box (supplied by others)
  - Mounts to compressed fiber ceilings with included wire form
- Field-installed lens mask allow customized occupancy detection fields

ELECTRICAL

- Two-wire control network utilizing low-voltage Class 2 wiring
  - Topology-free and polarity-independent wiring over Belden 8471 or equivalent and one #14 ESD drain wire
  - Wiring may be bus, loop, home run or any combination of these
- Up to 500 m (1,640 ft) of control wiring per system
- Supports optional Cat5/5e wiring using Belden 1583A or equivalent
  - Requires optional Cat5 termination accessories

ENVIRONMENTAL

- Ambient room temperature: 0°–40° C (32°–104° F)
- Ambient humidity: Maximum 90% non-condensing

FUNCTIONALITY

BASIC MODE FUNCTIONALITY

- Occupancy Sensors
  - Occupancy Event: Play selected default preset
  - Vacancy Event: Space off
- Vacancy Sensor:
  - Occupancy Event: N/A
  - Vacancy Event: Space off

CUSTOM MODE FUNCTIONALITY

(Requires Programing With ElahoAccess Mobile App and additional connection hardware)

- Occupancy Events Supported
  - Preset Activate*
  - Zone Set to Level
  - Space Set to Level
- Vacancy Events Supported
  - Preset Activate*
  - Zone Set to Level
  - Space Set to Level
  - Space Off*

*Multi-Space capable allowing for presets to be recalled in multiple spaces from a single control.

ELAHO FAMILY PRODUCTS

Bus Power Supplies

MODEL	DESCRIPTION
E-SPS	6 U Room Station Power Supply, Knockout Mount
E-SPS-DIN	16 U DIN rail Station Power Supply with 24V Aux
E-APS	24V Aux Power Supply, Knockout Mount

ElahoTouch

MODEL	DESCRIPTION
ETS	ElahoTouch Controller Mk2

Elaho Stations

MODEL	DESCRIPTION
E1001	Inspire One Button Station
E1002	Inspire Two Button Station
E1004	Inspire Four Button Station
E1006	Inspire Six Button Station
E1008	Inspire Eight Button Station
E1104	Inspire Four Button with Fader Station
EPS05	Preset Station - 5 Button
EPS10	Preset Station - 10 Button
EPSKS	Keyswitch Station
E-ATC	TimeClock

Elaho Responsive Controls

MODEL	DESCRIPTION
ELS	Light Sensor
EOCC	Ceiling-Mount PIR Occupancy Sensor
EVAC	Ceiling-Mount PIR Vacancy Sensor
E-DOC-C	Ceiling-Mount Dual Tech Occupancy Sensor
E-DVAC-C	Ceiling-Mount Dual Tech Vacancy Sensor
E-DOC-W	Wall-Mount Dual Tech Occupancy Sensor
E-DVAC-W	Wall-Mount Dual Tech Vacancy Sensor
E-DOC-SM1	Switch-Mount Dual Tech Sensor - One Button
E-DOC-SM2	Switch-Mount Dual Tech Sensor - Two Button

Elaho Interfaces

MODEL	DESCRIPTION
EACC	ElahoAccess Interface
EEB	Expansion Bridge
EDMXC	DMX Scene Controller
EEI	Elaho-Echoflex Interface
ECII	Contact Input Interface
ECOI	Contact Output Interface
EDRI	Demand Response Interface
EBI	BACnet Interface
EII	Integration Interface

Zone Controllers

MODEL	DESCRIPTION
ERC-G2	One Zone Relay Controller
EDRC-G2	Two Zone Relay Controller
ELD-G2	One Zone 0–10 V Controller
EDLD-G2	Two Zone 0–10 V Controller
ESSC-G2	One Zone SmartSpace Controller
EDSSC-G2	Two Zone SmartSpace Controller
ELVD-G2	600-Watt Phase Adaptive Dimmer (120 V)
ELVD-277-G2	600-Watt Phase Adaptive Dimmer (277 V)
ELVD-G2-MLV	600-Watt Forward Phase Dimmer (120 V)
ELVD-277-G2-MLV	600-Watt Forward Phase Dimmer (277 V)

Room Controllers

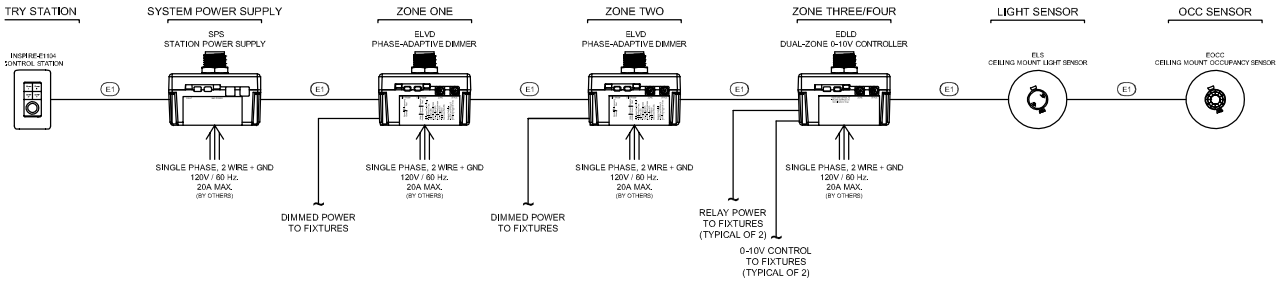
MODEL	DESCRIPTION
ERMC4-G2	Four Zone Room Controller
ERMCT4-G2	Four Zone Room Controller with TimeClock
ERMC8-G2	Eight Zone Room Controller
ERMCT8-G2	Eight Zone Room Controller with TimeClock

Panel Products

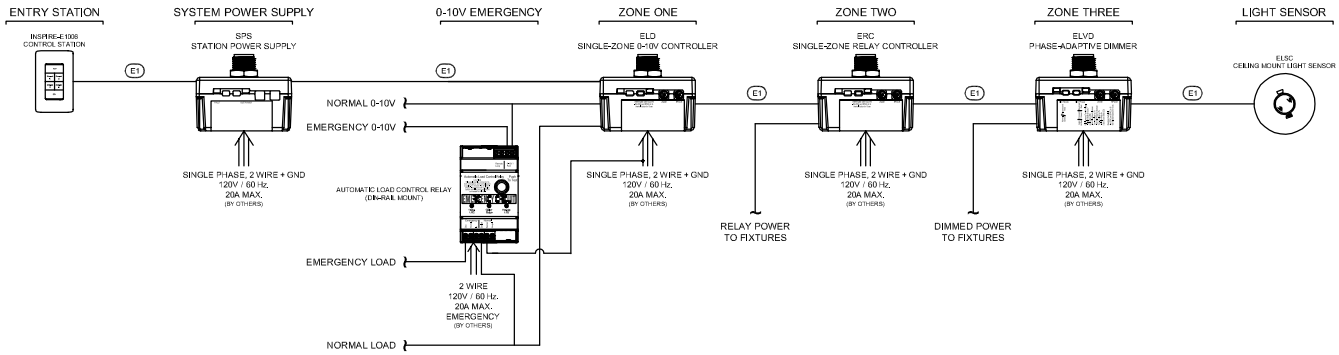
MODEL	DESCRIPTION
ERP	Elaho Relay Panel Mains Feed
ERP-FT	Elaho Relay Panel Feed Through

SAMPLE SYSTEMS

SMALL SYSTEM

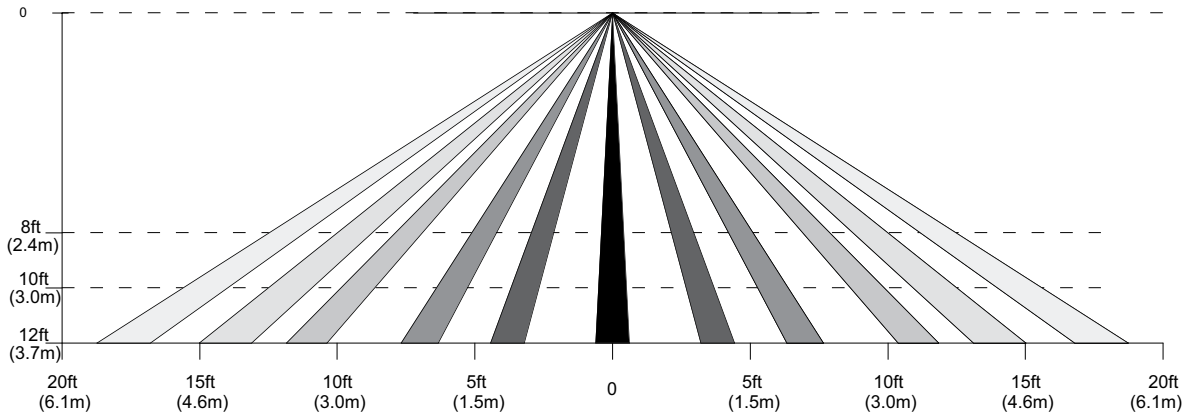


CONFERENCE ROOM

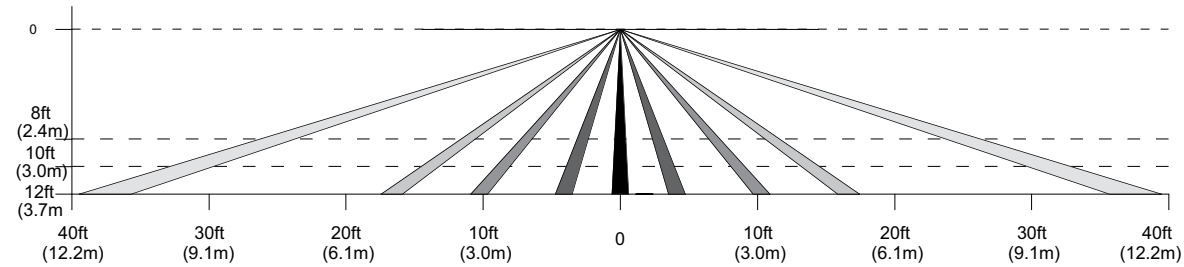


CEILING MOUNT COVERAGE PATTERNS

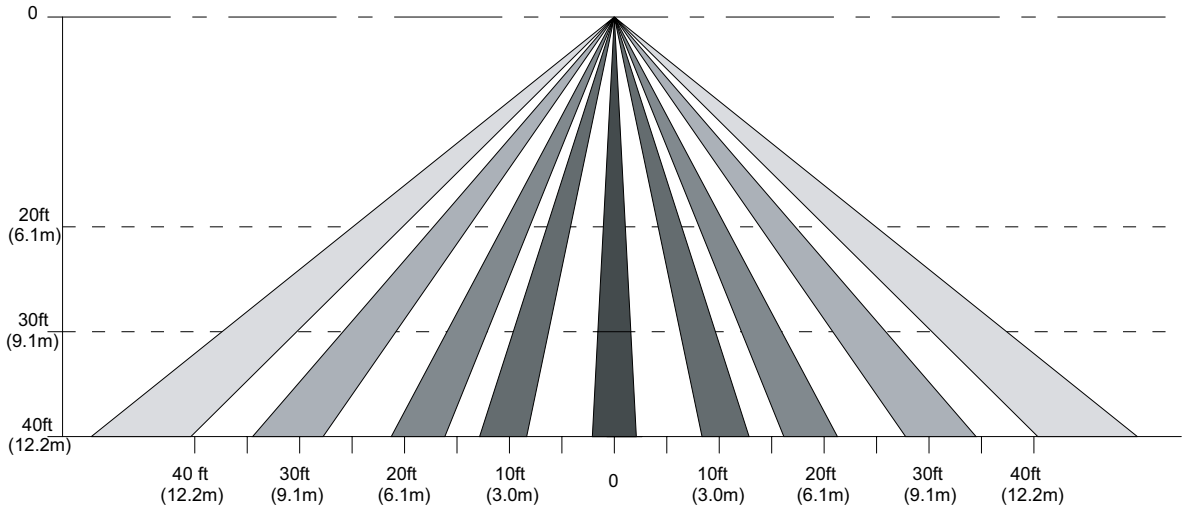
Small Room, side view



Large Room, side view



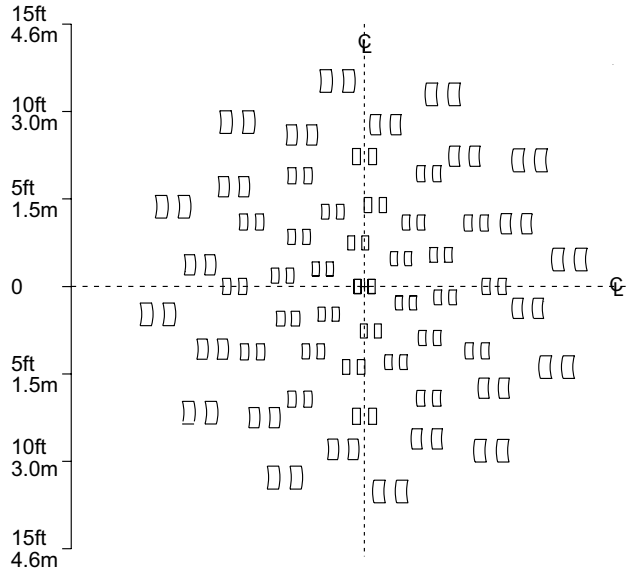
High Ceiling, side view



FLOOR COVERAGE PATTERNS

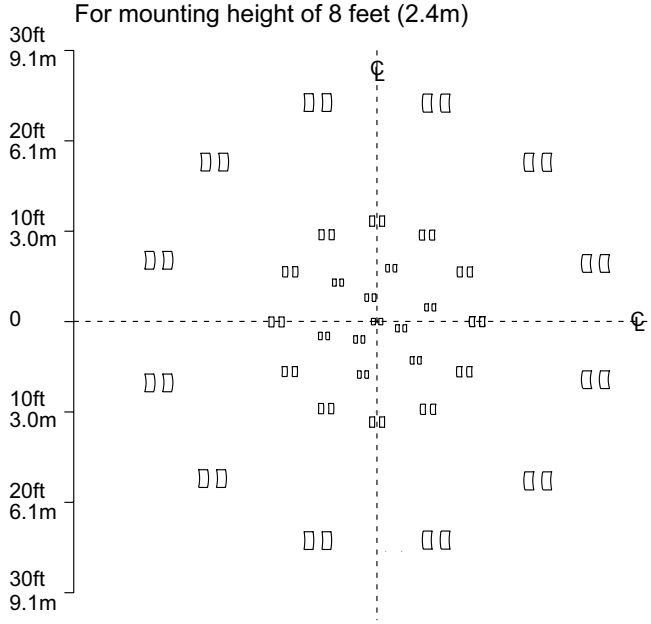
Small Room Floor Coverage

For mounting height of 8 feet (2.4m)



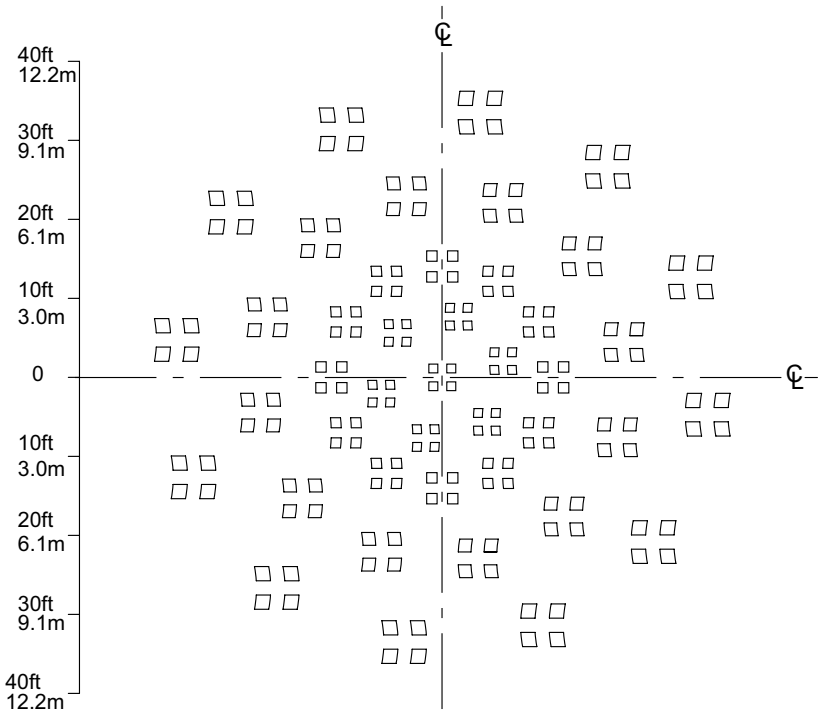
Large Room Floor Coverage

For mounting height of 8 feet (2.4m)



High Ceiling Floor Coverage

For mounting height of 30 feet (12.2m)



PHYSICAL

Sensor Dimensions*

MODEL	DIAMETER		DEPTH	
	in	mm	in	mm
EOCC	4.50	144	1.60	41
EVAC	4.50	144	1.60	41

Sensor Weights*

MODEL	WEIGHT		SHIPPING WEIGHT	
	oz	g	oz	g
EOCC	4	111	8	224
EVAC	4	111	8	224

*Weights and dimensions typical