

GLA-US-QUATTRO-DIM-24

by Steinel

Presence Detector



The US Quattro DIM-24 is a low voltage Ultrasonic Technology Occupancy Sensor (40 kHz) that utilizes STEINEL's state of the art ultrasonic signal processing to provide superior stable volumetric omnidirectional detection and provides a 1-10 volt dimming output to control ballasts or driver lighting loads. Lighting is controlled in relation to the presence of motion, the user selected dim level by remote or momentary switch and ambient light levels. As soon as occupancy is detected, the sensor goes to either the last selected electric light dim level (constant-lighting controller 'OFF') or adjusts to the last selected electric light + daylight brightness level (constant-lighting controller 'ON'). The "force off" light level feature will turn lights off when sufficient daylight is present for additional energy savings. When no movement is detected and the occupancy time setting has elapsed, the sensor dims light levels back to basic brightness, after the Stay 'ON' time DIM before 'OFF' delay has expired the light turns off. The omnidirectional coverage pattern is ideal for those design and retrofit applications where the sensor will not have complete line of sight view of the occupant and space. Operational choices of auto on or manual on with a momentary or maintained switch input. The convenient "COM-Link" feature enables multiple sensors to link together via the communication link for peer to peer grouping achieving expanded detection zones with control set up functions set at only one primary sensor for the entire group. The available service and user wireless remotes provide simplified commissioning and occupant convenience.

The Control PRO group of presence detectors are available in multiple presence detection technologies for the control of heating, ventilation and air-conditioning (HVAC) and lighting loads (as in the COM2-24 versions) and optional 1-10 volt dimming and daylighting options (in the DIM-24 versions).

Applications

The typical application is for offices, schools and other indoor public building spaces.

Item No.	US Quattro DIM-24
Accessories	RC 3 service remote RC 4 user remote WGC wire guard cage
Voltage	18-24 VDC/VAC (46 mA) 50/60Hz
Load Rating	control output (blue) 1 A @ 30 VAC/VDC 1 - 10 volt dimming output (purple & gray) 100 mA, max. 50 (1 - 10 V electronic dimming ballasts)
Sensing Technology	ultrasonic (40 kHz)
Time Delay Setting	30 sec. to 30 min., pulse mode (approx. 2 sec.) IQ mode (automatic adjustment to the usage profile)
Light Level Setting	10 - 1000 lux / 1 - 100 fc
Environment	IP20 rated, 0°C to +40°C, 32°F to +104°F
Ultrasonic Detection Zones: (Coverage at 2.5 m / 9 ft)	presence: max. of 6 x 6 m (36 sq.m.) max. of 20 x 20 ft (400 sq.ft.) min. of 2 x 2 (4 sq.m.) min. of 6.5 x 6.5 ft (42.25 sq.ft.) radial / tangential: max. of up to 10 x 10 m (100 sq.m.) radial / tangential: max. of up to 32 x 32 ft (1000 sq.ft.)
Sensors	4 ultrasonic (40 kHz) transducers
Dimensions	4.72 x 4.72 x 2.68 in, 120 x 120 x 68 mm (LxWxD)
Warranty	5 years
Certifications	C-UL-US Listed, RoHS Compliant UL 2043 Plenum rated, CA Energy Code Compliant

Key Features:

- Low voltage (18-24 VDC/VAC) sensor for use with a power pack or building automation system
- 1-10 volt dimming
- Stay 'ON' time DIM before 'OFF'
- Constant light level DIM control option
- Ultrasonic (40 kHz) Presence Detection
- Service and user wireless remotes available
- Manual ON mode (MAN) / Automatic mode (AUTO)
- Momentary / Maintained switch option
- 'ON' only / 'ON' & 'OFF' manual switching
- IQ Mode dynamically adjusts the 'ON' time delay by learning individual room occupancy

40
kHz

Ultrasonic



20 x 20 Ft Presence
32 x 32 Ft Max



1 - 100 fc

DIM

18 - 24 VDC/VAC
1 - 10 Volt Dimming



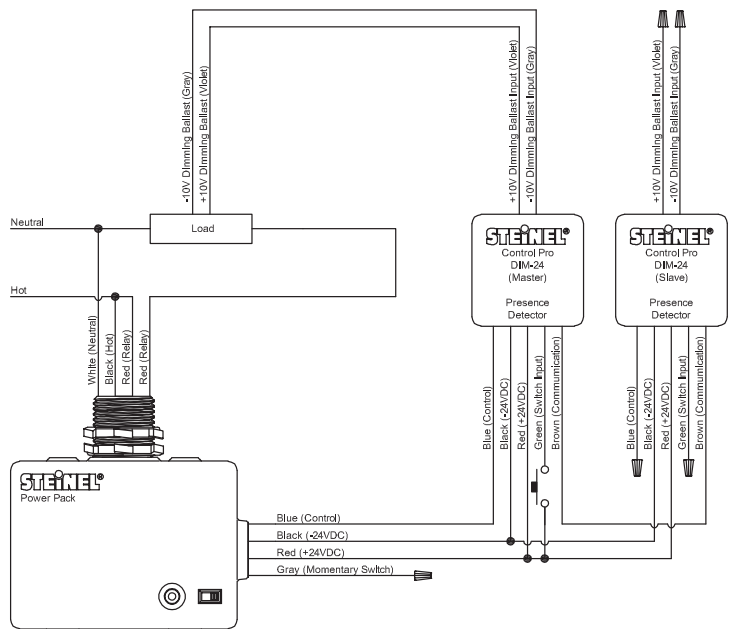
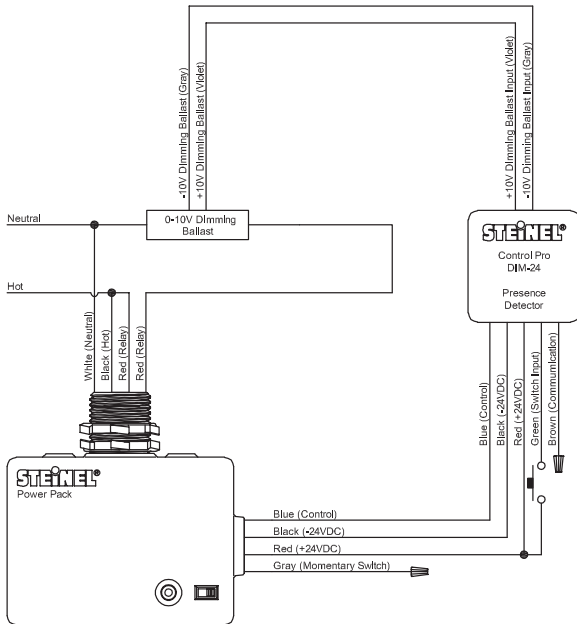
30 Sec - 30 Min

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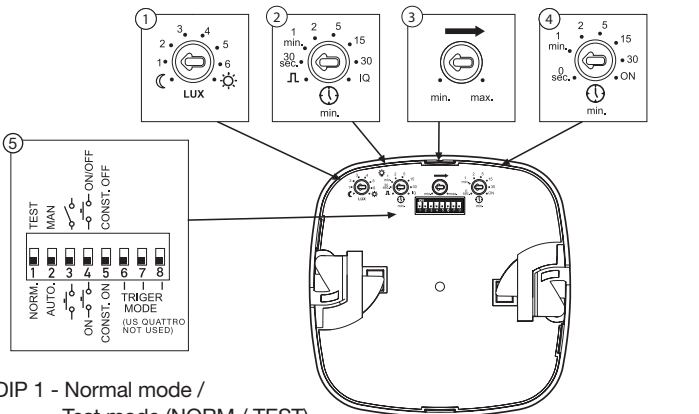


Presence Detector

Wiring



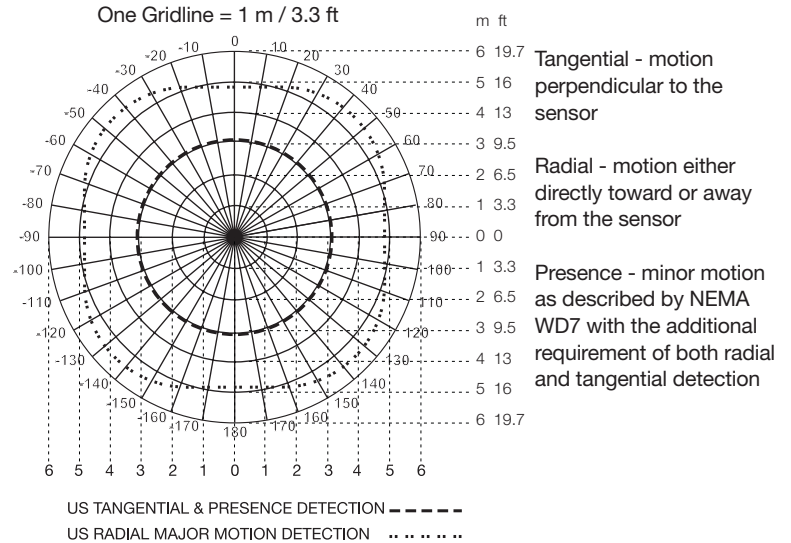
Settings



- DIP 1 - Normal mode / Test mode (NORM / TEST)
 - DIP 2 - Manual ON mode (MAN) / Automatic mode (AUTO)
 - DIP 3 - Momentary / Maintained switch option
 - DIP 4 - 'ON' only / 'ON' & 'OFF' manual switching
 - DIP 5 - Constant light level DIM control option
 - DIP 6 / 7 / 8 - Not used
- 1 - Light level setting
 - 2 - Occupancy time delay setting
 - 3 - Reach setting
 - 4 - Stay 'ON' time DIM before 'OFF'
 - 5 - Sensor DIP switch settings

Coverage

Shown coverage diagram at 9 ft mounting height. Ultrasonic signal can be increased by hard surfaces and decreased by soft surfaces.

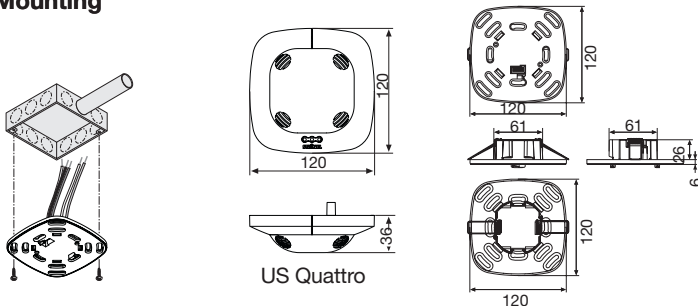


Tangential - motion perpendicular to the sensor

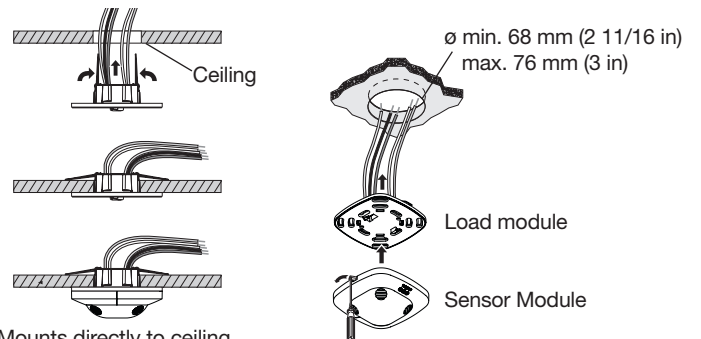
Radial - motion either directly toward or away from the sensor

Presence - minor motion as described by NEMA WD7 with the additional requirement of both radial and tangential detection

Mounting



Mounts to a 4" Square box, 4" Octagon box or Round 3.0 Mud-Ring



Mounts directly to ceiling with quick mount spring tabs