

# DT Quattro DIM-24

Presence Detector



The DT Quattro DIM-24 Dual Technology Presence Detector utilizes PIR and ultrasonic technologies to detect the presence or signature of a person in a space. The logic options for initial "ON" and "Maintained" state of occupancy gives design engineers and installation contractors the choice for proper control of lighting 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 presence 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. STEINEL's world class PIR optics and ultrasonic signal processing provides unparalleled line of sight and volumetric presence detection. 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 classrooms, conference rooms, computer rooms, workspaces, open office space with cubicles, general open areas, restrooms, stairwells, storage rooms, executive offices and private offices.

Project Name:  
Location:



### DT Quattro DIM-24 Specifications

Item No.	64720 DT Quattro DIM-24
Accessories	65300 RC 3 service remote 65320 RC 4 user remote 65330 WGC wire guard cage
Voltage	18-24 VDC/VAC (46mA) 50/60 Hz
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	passive infrared (PIR), single pyro, 11 detection levels, 520 switching zones, 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.)
PIR Detection Zones:	presence: max. of 3 x 3 m (9 sq.m.) max. of 10 x 10 ft (100 sq.ft.) radially: max. of 4 x 4 m (13 x 13 ft) tangentially: max. of 8 x 8 m (26 x 26 ft)
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
- PIR & 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



Passive Infrared  
Ultrasonic



20 x 20 Ft Presence  
32 x 32 Ft Max



1 - 100 fc



18 - 24 VDC/VAC  
1 - 10 Volt Dimming



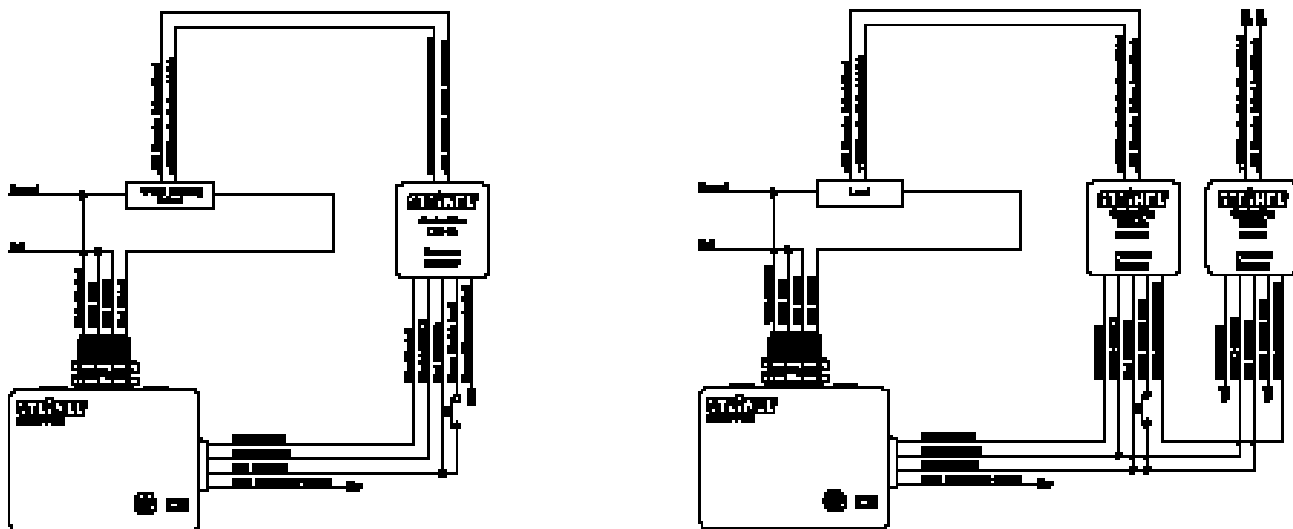
30 Sec - 30 Min

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Presence Detector

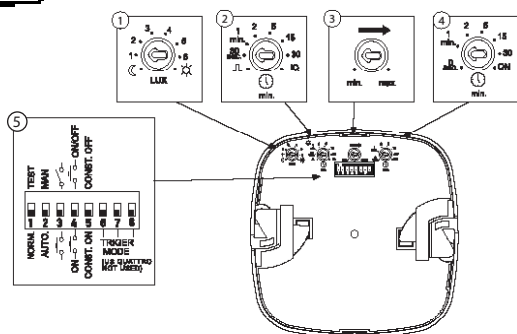


## Wiring



## Settings

- 1 - Light level setting
- 2 - Occupancy time delay setting
- 3 - Reach setting
- 4 - Stay 'ON' time DIM before 'OFF'
- 5 - Sensor DIP switch settings
- 6 - Trigger Mode

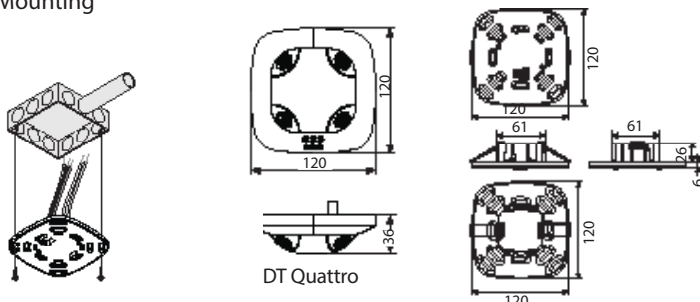


- DIP 1 - Normal mode / Test mode (NORM / TEST)
- DIP 2 - Manual ON mode (MAN) / Automatic mode (AUTO)
- DIP 3 - Momentary / Maintained switch option
- DIP 4 - 'ON' only / 'ON' & 'OFF' manual switching
- DIP 5 - Constant light level DIM control option
- DIP 6/7/8 - Trigger mode

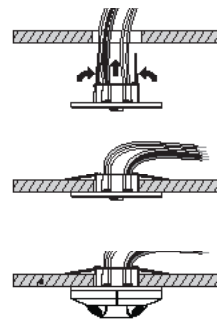
Trigger Mode Options	Initial Occupancy	Maintain Occupancy	DIP 6	DIP 7	DIP 8
Option 1	Both	Either	↓ OFF	↓ OFF	↓ OFF
Option 2	Both	Both	↓ OFF	↓ OFF	↑ ON
Option 3	PIR	Either	↓ OFF	↑ ON	↓ OFF
Option 4	US	Either	↓ OFF	↑ ON	↑ ON
Option 5 Factory Setting	Either	Either	↑ ON	↓ OFF	↓ OFF
Option 6	US	US	↑ ON	↓ OFF	↑ ON
Option 7	PIR	PIR	↑ ON	↑ ON	↓ OFF
Option 8	Either	Both	↑ ON	↑ ON	↑ ON

The trigger mode enables the user to choose which sensing technologies should be used to initially turn the load on and which technologies are required to keep it on.

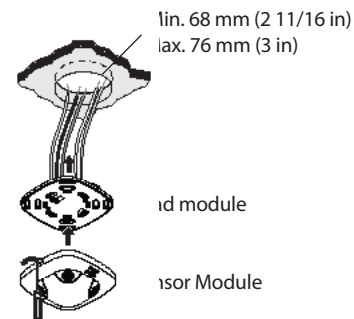
## Mounting



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



Mounts to a 4" square box with quick mount spring tabs

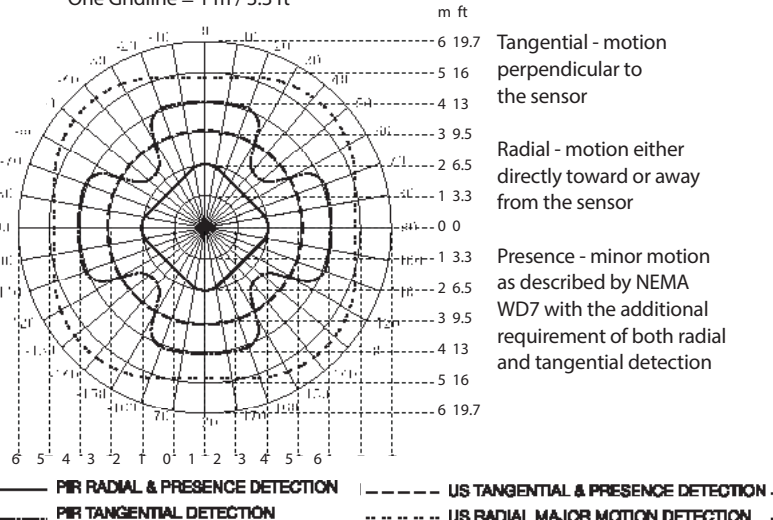


1.68 in (42.7 mm) dia module  
3.11 in (79.1 mm) sensor module

## Coverage

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

One Gridline = 1 m / 3.3 ft



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