S P E C I F I C A T I O N S

DT-300 360° Dual Technology Sensor

DT-300
DT-305
DT-355

1. The Dual Technology sensor shall be capable of detecting presence in the control area by detecting doppler shifts in transmitted ultrasound and passive infrared heat changes.
2. Sensors shall use patent pending ultrasonic diffusion technology that spreads coverage to a wider area.
3. Sensor shall utilize Dual Sensing Verification Principle for coordination between ultrasonic and PIR technologies. Detection verification of both technologies must occur in order to activate lighting systems. Upon verification, detection by either shall hold lighting on.
4. Sensor shall have a retrigger feature in which detection by either technology shall retrigger the lighting system on within 5 seconds of being switched off.
5. Sensors shall be ceiling mounted with a flat, unobtrusive appearance and provide 360° coverage.
6. Ultrasonic sensing shall be volumetric in coverage with a frequency of 40 KHz. It shall utilize Advanced Signal Processing that automatically adjusts the detection threshold dynamically to compensate for changing levels of activity and airflow throughout controlled space.
7. To avoid false ON activations and to provide immunity to RFI and EMI, Detection Signature Analysis shall be used to examine the frequency, duration, and amplitude of a signal, to respond only to those signals caused by human motion.
8. The PIR technology shall utilize a temperature compensated, dual element sensor and a multi-element Fresnel lens. The lens shall be Poly IR4 material to offer superior performance in the infrared wavelengths and filter short wavelength IR, such as those emitted by the sun and other visible light sources. The lens shall have grooves facing in to avoid dust and residue build up which affects IR reception.
9. DT-300 and DT-305 sensors shall operate at 24 VDC/VAC and halfwave rectified and utilize a Watt Stopper power pack.
10. DT-355 shall incorporate a switching power supply for reduced power consumption; shall operate at 120/230/277/347 VAC, 50/60 Hz and shall not require a power pack.
11. Sensors shall utilize SmartSet™ technology to optimize time delay and sensitivity settings to fit occupant usage patterns. The use of SmartSet shall be selectable with a DIP switch.
12. Sensors shall have a time delay that is adjusted automatically (with the SmartSet setting) or shall have a fixed time delay of 5 to 30 minutes, set by DIP switch.
13. Sensors shall feature a walk-through mode, where lights turn off 3 minutes after the area is initially occupied if no motion is detected after the first 30 seconds.
14. The DT-300 and DT-355 sensors shall have a built-in light level sensor that works from 10 to 300 footcandles.
15. The DT-300 and DT-305 sensors shall have a manual on function that is facilitated by installing a momentary switch.
16. Sensors shall have eight occupancy logic options that give the ability to customize control to meet application needs.
17. The sensors shall feature terminal style wiring, which makes installation easier.
18. DT-300 sensor shall have an additional single-pole, double throw isolated relay with normally open, normally closed and common outputs. The isolated relay is for use with HVAC control, data logging, and other control options.
19. Each sensing technology shall have an LED indicator that remains active at all times in order to verify detection within the area to be controlled. The LED can be disabled for applications that require less sensor visibility.
20. To ensure quality and reliability, sensor shall be manufactured by an ISO 9002 certified manufacturing facility and shall have a defect rate of less than 1/3 of 1%.
21. Sensors shall have standard 5 year warranty and shall be UL and CUL listed.