M1.0 Multipurpose Room: occupancy sensing • bi-level switching

Control Needs	Solution
Automatically turn lights ON/OFF based on occupancy	Corner-mounted, dual technology occupancy sensor (DT series)
Bi-level switching	Separate circuits for center and outboard ballasts and wall switches
Manual override OFF	Wall switches
Occupancy-based control of HVAC system	Isolated relay on occupancy sensor

Application Description

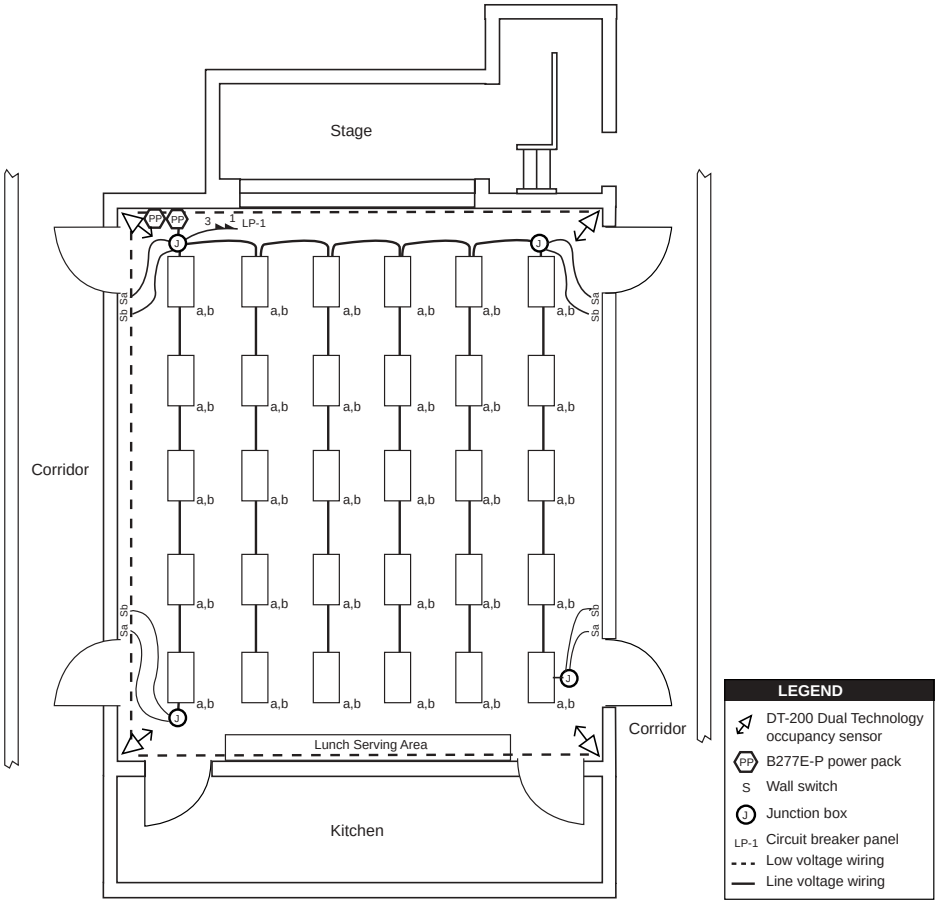
Space use:	Daytime use for physical education classes, general assembly, and cafeteria/lunch room activities. Evening use for plays and school events. Space is locked during unoccupied times.
Dimensions:	60’ x 65’
Ceiling height:	15’
Windows:	None
Window blinds:	None
Skylights:	None

Lighting

Recessed fluorescent lensed luminaires using four F32 T8 lamps and 2-lamp electronic ballasts. Ballasts controlling center lamps are circuited separately from ballasts controlling outboard lamps.

Design Considerations

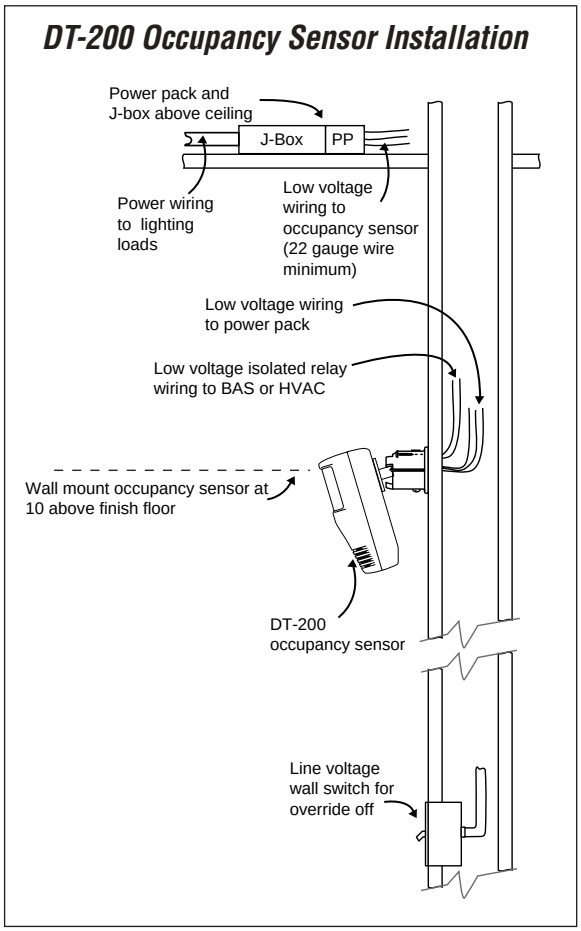
DT-200 dual technology occupancy sensors are used to automatically turn lights off when the multi-purpose room is unoccupied, and turn lights on upon occupancy. Each sensor is corner-mounted to prevent a view out the doorway that might otherwise result in false activations. For manually overriding lights off and for bi-level lighting control, wall switches are placed at each door which independently control the center lamps from the outboard lamps.



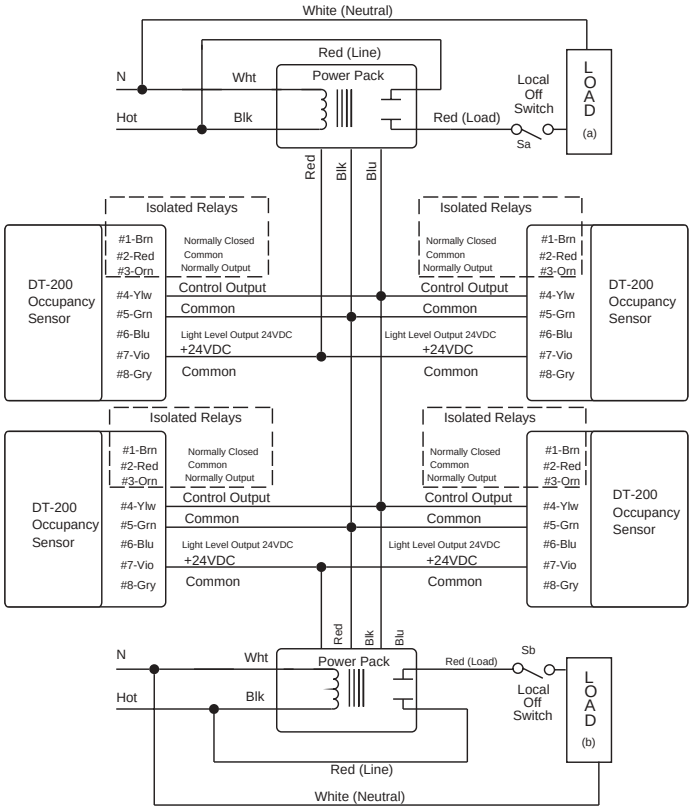
M1.0 Installation Notes

1. Mount DT-200 occupancy sensors 10 feet above finish floor.
2. Mount DT-200s in corners and aim at opposing corner to provide a full view of the room.
3. DT-200 is shipped with a factory preset time delay of 18 minutes, the recommended minimum for multi-purpose rooms, and with sensitivity setting at maximum. Refer to installation instructions if adjustments are necessary.
4. Use a minimum of 22 gauge wire of low voltage wiring. For more information, read our Tech Bulletin TB124 on voltage loss.
5. Use stainless steel switch plates to facilitate cleaning and minimize damage from impact.
6. DT-200 sensor isolated relay can provide status information to the BAS and/or control HVAC loads.

DT-200 Occupancy Sensor Installation



DT-200 Wiring Diagram



Equipment Schedule

Catalog No.	Qty	Description
DT-200	4	Dual technology occupancy sensor, isolated relay, wide angle lens
B277E-P	2	Power pack, 277 VAC, 60 Hz
AC1 Series	8	Wall switch, Pass & Seymour/legrand, AC1 series, single pole
SL2	4	Wall plate, Pass & Seymour/legrand, type 430, stainless steel finish, double-gang