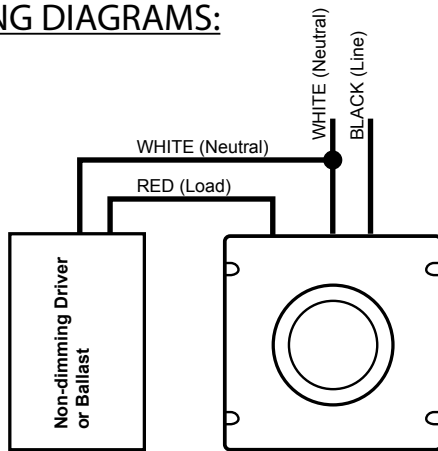
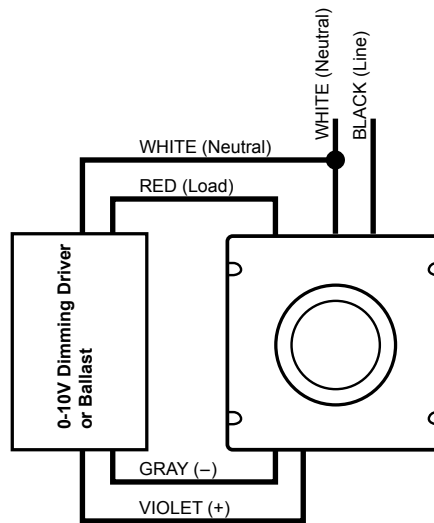


WIRING DIAGRAMS:



TSM-100P-DR Non-dimming



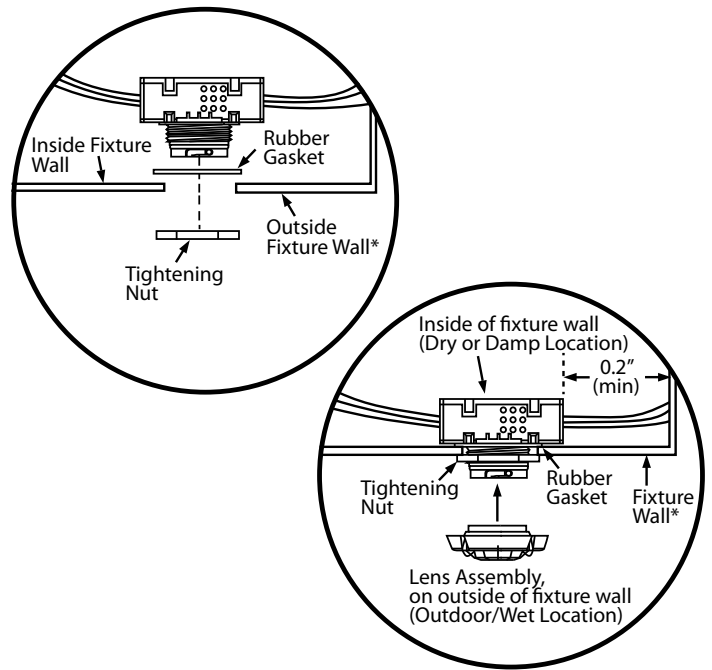
TSM-100P-DR Dimming

OPEN DEVICE For Installation in the Listed Enclosure per Installation Instructions

Outdoor Use at the Sensor Collar part only when installed at the specific location per Installation Instructions with a Listed Outdoor Enclosure

INSTALLATION PROCEDURE:

1. Turn AC power OFF at the circuit breaker before installing the TMS-100P-DR sensor.
2. Determine an appropriate mounting location inside the light fixture that minimizes the fixture's own light emission toward the sensor's photocell. Allow a minimum distance of 0.2" from the wiring end of the sensor to the inside wall of the fixture. Because of the sensor's responsiveness to fluctuations in temperature, mount the unit at least 6' away from heating or cooling ventilation sources.
3. Drill a 1.30" diameter hole through the sheet metal belonging to the bottom of the fixture. Sensor thread designation (BSW) is G1; nominal size is 1".
4. Add the rubber gasket to the threaded collar and install the sensor face down, parallel to the mounting surface. Ensure the translucent rubber gasket makes complete contact with the inside surface of the fixture.
5. Install the screw-in tightening nut securely against the fixture with a torque of 25–30 in-lbs to ensure the IP66 rating is maintained.
6. Align the locking features between the sensor and lens assembly and push the lens assembly forward until the O-ring seals firmly.
7. Turn the lens assembly clockwise and ensure it locks into place completely.
8. Connect wire leads as shown in wiring diagrams above.
9. Restore AC power at the circuit breaker.



* Recommended <math><0.125\text{ inch}</math> [3.18mm] maximum fixture wall thickness for optimal mounting and performance
(UL Certified Outdoor Enclosure)



WARNING: TO BE INSTALLED AND USED IN ACCORDANCE WITH APPROPRIATE ELECTRICAL CODES AND REGULATIONS.

WARNING: IF YOU ARE UNSURE ABOUT ANY PART OF THESE INSTRUCTIONS, CONSULT A QUALIFIED ELECTRICIAN.

WARNING: CONTROLLING A LOAD IN EXCESS OF SPECIFIED RATINGS WILL DAMAGE SENSOR AND POSE RISK OF FIRE, ELECTRIC SHOCK, PERSONAL INJURY, OR DEATH. CHECK LOAD RATINGS TO DETERMINE SENSOR'S SUITABILITY FOR YOUR APPLICATION.

ATTENTION: DOIT ÊTRE INSTALLÉ ET UTILISÉ CONFORMÉMENT AUX CODES ET AUX RÉGULATIONS ÉLECTRIQUES APPROPRIÉS.

ATTENTION: SI VOUS AVEZ UN DOUTE CONCERNANT UNE DE CES INSTRUCTIONS. CONSULTEZ UN ELECTRICIEN QUALIFIÉ.

ATTENTION: CONSTATER AU CONTRÔLE UN POIDS EXCESSIF PAR RAPPORT À L'ESTIMATION SPÉCIFIÉE, ENDOMMAGERA LE CAPTEUR, ET FERA COURIR LES

RISQUES SUIVANTS: INCENDIE, ÉLECTROCUTION, BLESSURE OU MORT. VÉRIFIEZ LES ESTIMATIONS DE LA CHARGE POUR DÉTERMINER ET ADAPTER LES CAPTEURS À L'USAGE QUE VOUS VOULEZ EN FAIRE.

CAUTION: ALWAYS DISCONNECT POWER WHEN SERVICING LIGHT FIXTURE OR CHANGING BULBS.

CAUTION: USE ONLY COPPER OR COPPER CLAD WIRE CONNECTIONS WITH SENSOR.

CAUTION: DO NOT ATTEMPT TO DISASSEMBLE OR REPAIR SENSOR. CLEAN OUTER SURFACE WITH A DAMP CLOTH ONLY.

INITIAL WARM-UP PERIOD:

When connected to AC power for the first time or after an electrical fault, the TMS-100P-DR sensor undergoes a warm-up period that can last up to 8 seconds. During this time, the connected light fixture is switched ON and the sensor operates normally. (If modifications were previously made to the sensor's settings, they will be recalled from its nonvolatile memory.) Using either the default factory settings or modified settings, the sensor will keep the lights ON until the Standby Time Delay expires and will then dim them according to the Dimming Time Delay and Dimming Level. To adjust, test, and override the sensor's settings, use the compact and convenient IR remote control.

SETTINGS & REMOTE CONTROL OPERATION:

Without requiring a ladder, the included IR remote control allows easy modification of sensor parameters from a distance of up to 30'. It operates on two AAA1.5V alkaline batteries, replaceable via the battery tray. The sensor's LED indicator light blinks when the unit receives IR commands, detects motion, or measures ambient light above the set threshold (if enabled).

The following sequence of operation and remote control diagram outline the TMS-100P-DR's operational procedure and defines the available adjustable settings:

1. The sensor keeps the light fixture OFF until motion is detected, depending on the Sensitivity Level (default = 100%).
2. Once motion is detected, the sensor turns ON the lights. This will be prevented if the current detected light level equals or exceeds the set Ambient Light Threshold (default = disabled).
3. The lights continue to stay ON during the Standby Time Delay (default = 5 minutes). Any instance of additional motion will reset the Standby Time Delay and keep the lights ON.
4. Once the Standby Time Delay has expired uninterrupted by motion, the sensor will dim the lights according to the Dimming Level (default = 20%) for the duration of the Dimming Time Delay (default = 60 minutes).
5. Once the Dimming Time Delay has expired uninterrupted by motion, the sensor will turn OFF the lights.
6. The sensor continues to keep lights OFF until motion is detected again.

NOTE: The ON and OFF remote control buttons engage temporary light ON and OFF overrides, useful in situations when lights need to be kept ON or OFF during, for example, building maintenance or a slide presentation. Continued motion or presence will prolong an override; after 20 minutes of inactivity, the sensor—and associated light—will return to its pre-override state.

TROUBLESHOOTING:

- If the remote control does not function properly...
 - Verify that sensor's built-in red LED blinks through lens assembly each time it receives a command from the remote control. Stand directly under sensor and ensure no obstructions are present.
 - Check that remote control's batteries have been installed correctly in its tray. Replace with fresh batteries if necessary.
 - Press RESET button and perform AC power cycle on the sensor.
- If lights do not turn ON when motion is present...
 - Ensure that all input/output wire connections were made correctly and verify that Load and Neutral wires are tightly secured.
 - Make sure that sensor's coverage area is not obstructed.
 - Confirm that sensor's red LED blinks when motion is present. If LED blinks with long pulses—as opposed to short pulses—sensor's Ambient Light Threshold has been exceeded and may need to be decreased.
 - Check Ambient Light Threshold. Cover lens assembly completely to simulate darkness. If lights come ON, then threshold needs to be adjusted or disabled. For example, if threshold is set at 3 foot candles, more than 3 foot candles of ambient light will cause sensor to keep lights OFF.
 - Test sensor's operation by pressing TEST button and moving out of sensor's coverage area. After sensing motion again, lights should turn ON, dim after about 5 seconds, and then turn OFF after about 10 seconds.
- If lights do not dim after Standby Time Delay ends...
 - Confirm that connected driver or ballast is compatible with 0–10V dimming signals and that positive and negative dimming wires are tightly secured.
 - Ensure that Standby Time Delay is set to desired time period and that there is no movement within the sensor's coverage area during period.
 - Increase Dimming Level if set to 0%. Otherwise, lights may appear OFF, but power is still supplied to driver or ballast.
 - Check that sensor is not being falsely triggered by nearby heating or cooling ventilation sources, which should be located at least 6' away from sensor. If Sensitivity Level is set to 100%, reduce setting and recheck sensor operation.
 - Test sensor's operation by pressing TEST button and moving out of sensor's coverage area. After sensing motion again, lights should turn ON, dim after about 5 seconds, and then turn OFF after about 10 seconds.
- If lights do not turn OFF after Dimming Time Delay ends...
 - Ensure that Dimming Time Delay is set to desired time period and that there is no movement within the sensor's coverage area during period.
- If lights suddenly turn OFF and do not come back ON...
 - Check sensor's red LED. If LED blinks with long pulses—as opposed to short pulses—sensor's Ambient Light Threshold has been exceeded and may need to be decreased.
- If the recommendations above cannot resolve the issue...
 - Please call Thomas Research Products toll-free technical support at (847) 515-3057 during business hours of Monday-Friday 9am–5pm CST.

