synapse

TL7-HV(G)
HIGH VOLTAGE TWIST LOCK

Specification	Data
Job Name	
Type	
Catalog #	
Comments	

Includes Photocell, Power Monitoring, and External Sensor Input

PRODUCT OVERVIEW

The **TL7-HVG** and **TL7-HV** are intelligent wireless lighting controllers designed for high voltage applications. The TL7-HV(G) allows DLC LLLC compliance by offering persistence with networked occupancy sensor, ambient light sensor, and high-end trim. Each TL7-HVG and TL7-HV provides intelligent On/Off switching, dimming, external sensor input, highly accurate power metering, Tilt (optional) and status monitoring of lighting fixtures.

Product #	Description
TL7-HV	High Voltage Twist-lock with Photocell, Power Monitoring
TL7-HVG	High Voltage Twist-lock with Photocell, Power Monitoring, and GPS

KEY FEATURES:

- Integrated photocell enables dusk-to-dawn operation
- Compatible with ANSI C136.41 7-pin Receptacle
- Self-Healing Mesh Network
- Secure, Over-the-Air Upgrades
- Secure AES128 Encryption
- One Sensor Input
- GPS (TL7-HVG only)
- Tilt (Optional –TL7-HVG only)
- Status LED's are Software-Dimmable
- Power Monitoring
- 24VDC Power for Motion Sensors
- Built in surge protection- ANSI C136.2, 6kV
- Power-on dimming test eases installation
- DLC Certification for Indoor and Outdoor
- Dusk to Dawn persistence via photocell and motion sensing when the Gateway is offline

DLC LISTED

SPECIFICATIONS:

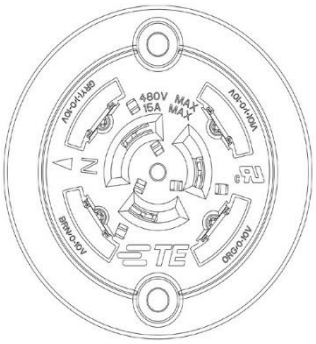
Dimensions	3.3" D x 3.9" H (84 mm D x 98 mm H)
Input Power[1]	110-480VAC +/- 10%, 60Hz
Load Rating	5A @ 110-277VAC (+/- 10%) 3A @ 347VAC (+/- 10%) 2A @ 480VAC (+/- 10%)
Surge Rating	6kV
Operating Environment	-40°C to +70°C; 0% to 90% RH non-condensing
IP Rating	IP66
Photocell	Dusk (10fc) Dawn (40fc)
Dimming Output	0-10V, 20mA
Radio	SNAP 2.4GHz; 802.15.4 +20 dBm Transmit Power -103 dBm Receive Sensitivity
Sensor Input	0-10V Analog/Photocell 0-24V Motion Sensor
Sensor Power Supply	24VDC @ 50 mA peak, 20mA continuous
Power Monitoring	2% accuracy, down to 100W
Power Readings	Voltage, Watts
Certifications	FCC, IC, cULus, DLC, RoHS
Warranty[2]	5 Years

Footnotes:
1. Phase to Phase power is supported, however the controller only switches one phase.

LIGHTING CONTROLLER

TL7-HV(G) WIRING DIAGRAMS

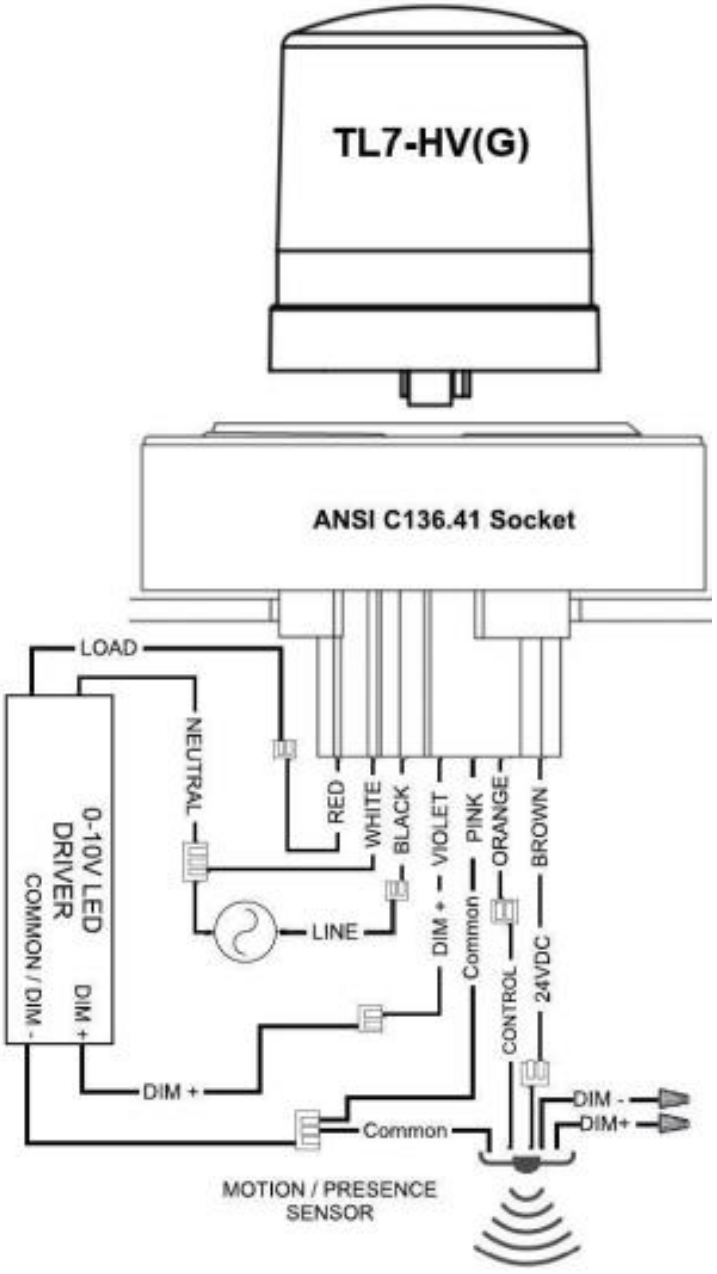
C136.41 SOCKET
TOP VIEW



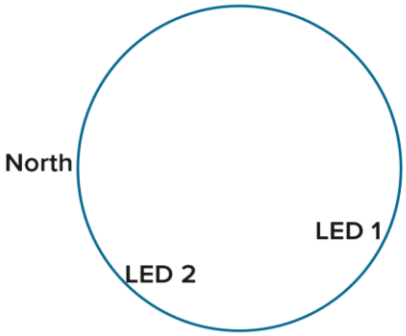
C136.41 SOCKET
BOTTOM VIEW

Function	Wire
L / L1	BLACK
N / L2	WHITE
LOAD / L1	RED
DIM +	VIOLET
DIM - / COMMON	PINK
CONTROL	ORANGE
+VDC	BROWN

Note: Phase to Phase power is supported, however the controller only switches one phase.



STATUS LEDS



Top View of TL7-HVG

LED	Color	Status
LED 1	Blue	Network Found, No Configuration
LED 1	Green	Normal Operation
LED 1	Red	Communication Error
LED 2	Green	Relay Closed
LED 2	Off	Relay Open