Thomas Research Products

TCM-ZBLV-D Series
Zigbee Wireless Lighting Module
Low Voltage Control Module with 0-10V Dimming

Intelligent Device ECOSYSTEM

c(UL)us LISTED   CE   FC   RoHS COMPLIANT   IP50

488004

ZigBee Certified product   Home   ControlScope CONNECTED

Electrical Specifications

Input Voltage Range:	11-13Vdc
Input Current Module Power:	≤0.09A for Units power use

Environmental Specifications

Maximum Case Temp.	72°C
Operating Temperature:	-20°C to +60°C
Storage Temperature:	-40°C to +80°C
Humidity:	5% to 95%
Cooling:	Convection
Vibration Frequency:	5 to 55 Hz/2g, 30 minutes
Impact Resistance:	1g/s
EMC:	FCC 47CFR Part 15 Class B compliant
Weight:	2.1 oz (59g)

- 2.4GHz, +20dBM ZigBee transmit power
- 0-10V Analog Dimming Control, 50mA Sink
- Compatible with LED Drivers & Electronic Ballasts that comply with IEC60929 Annex E2, 0-10V Dimming
- Dust Proof Design IP50
- Daintree Networks Controlscope Certified
- ZigBee HA Certified
- Gray 5VA PC ABS Plastic Case
- UL Dry & Damp location rated
- Reset Button for use with recommissioning.
- Designed for one module per luminaire
- UL2043 Plenum Rated for use in ceiling spaces
- 5 year warranty

Controllers

Model	Description
TCM-ZBLV-D	Thomas Control Module - ZigBee Wireless Dimming Control
	Class 2: US/Canada

Safety Cert.	Standard
UL/CUL	UL8750 & CAN/CSA C22.2 No. 250.13, UL2043 Plenum Rated
CE	EN 61347-1, EN61347-2-13
EMC Standard	**Notes**
Dimming Circuit	UL & cUL Isolated Class 2, Dim+ Purple/Dim- Gray
FCC Part 15	Class B

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Dimensions

INPUT
Red (12Vdc+)
Black (12Vdc GND)

Dimming
Purple (Dim+)
Gray (Dim-)

RESET BUTTON
LED INDICATOR
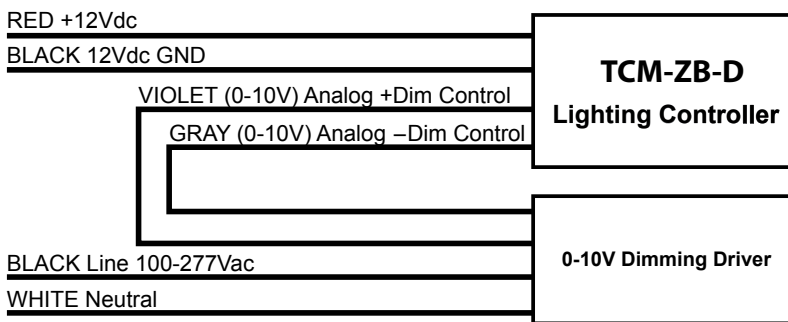
6.0 Min [153]
0.39±0.04 [10±1]
3.71 [94.11]
1.22 [30.9]
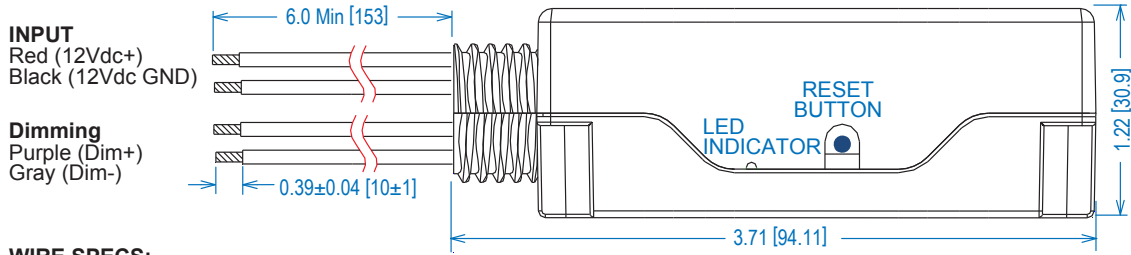
WIRE SPECS:
Input Leads: 22 AWG, rated 300 V, 105C, min.
Output Leads: 22 AWG, rated 300 V, 105C, min.
All wires are stranded with solder dipped ends.

Threaded 1/2NPS (M20)
Tc = 72°C max
3.23 [82.11]
2.88 [73.11]
R0.08 [R2]
0.13 [3.3]
1.42 [36]
0.89 [22.5]
1.77 [45]
0.79 [20]
0.13 [3.3]
0.47 [12]
1.62 [41.06]
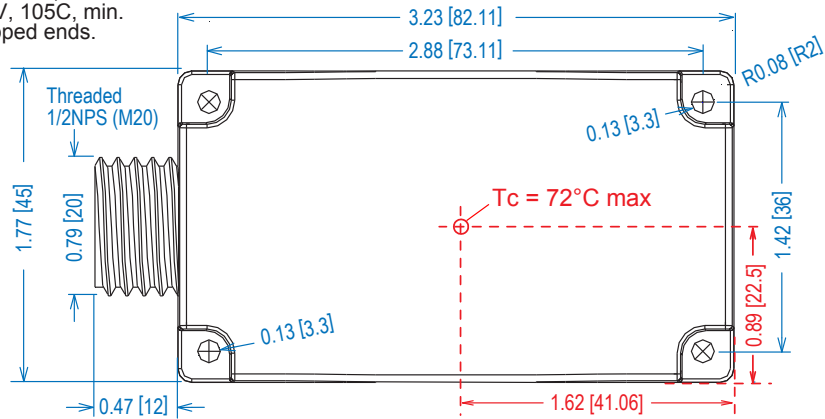
Typical Application Circuit

RED +12Vdc
BLACK 12Vdc GND
VIOLET (0-10V) Analog +Dim Control
GRAY (0-10V) Analog –Dim Control

TCM-ZB-D
Lighting Controller

BLACK Line 100-277Vac
WHITE Neutral

0-10V Dimming Driver

Reset Operation

Reset Button
The reset button is used to un-join a Zigbee network and reset the TCM-ZBLV-D to factory defaults. To reset: Press and hold the reset button for 7 seconds. You will hear an internal relay click once reset occurs. The green LED indicator will flash On/Off when not joined to a Zigbee network.

Joined
The green LED indicator will remain ON when TCM-ZBLV-D has successfully joined a Zigbee network.

UL Conditions of Acceptability

See website for additional information