



## TCM-ZB-D Series

Zigbee Wireless Lighting Module  
Line Voltage Control Module with On/Off & 0-10V Dimming

Intelligent Device  
**ECOSYSTEM**

### Electrical Specifications

Input Voltage Range:	100-277Vac
Frequency:	50/60 Hz Nom. (47-63 Hz Min/Max)
AC Relay Inrush Current:	≤60A
Input Current Module Power:	≤0.05A power for control only
AC Relay Load (W) @120VAC	800W Max
AC Relay Load (W) @208-240VAC	1,000W Max
AC Relay Load (W) @277Vac (W)	1,200W Max
AC Relay Load Resistive (A)	0 to 9A Resistive Loads

### Environmental Specifications

Maximum Case Temp.	72°C
Operating Temperature:	-5°C to +50°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:	3.7oz. (105g)
MTBF:	418,000 Hours at full load and 40°C ambient conditions per MIL-217F Notice 2

- 2.4GHz, +20dBm ZigBee transmit power
- ON/OFF and 0-10V Analog Dimming Control, 100mA Sink
- Compatible with LED Drivers & Electronic Ballasts that comply with IEC60929 Annex E2, 0-10V Dimming
- Stores last dim setting even when driver is powered off by the module
- Dust Proof Design IP50
- ZigBee HA Certified
- Daintree ControlScope 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

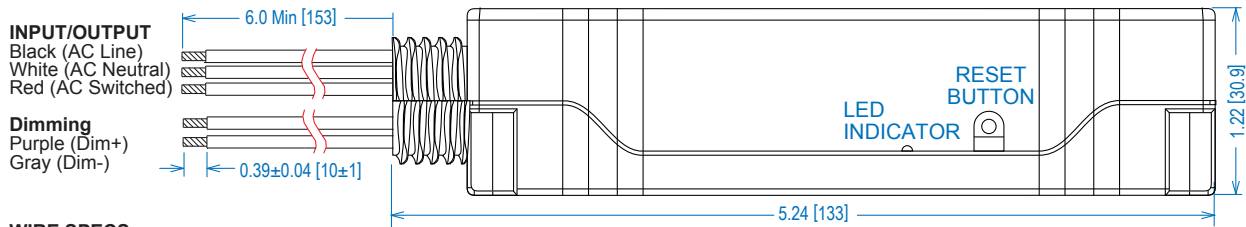
Model	Description
TCM-ZB-D	Thomas Control Module - ZigBee Wireless Dimming Control
Class 2: <span style="border: 1px solid black; padding: 2px;">US/Canada</span>	

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
Withstand Voltage Relay	Input to Output Across Relay Contacts: 700 Vac
Withstand Voltage AC In to Dim Out	Input to DIM: >1750 Vac
Dimming Circuit	UL & cUL Isolated Class 2, Dim+ Purple/Dim- Gray
FCC Part 15	Class B
EN61000-4-5	2kV L-N, 8/20 µsec surge protection

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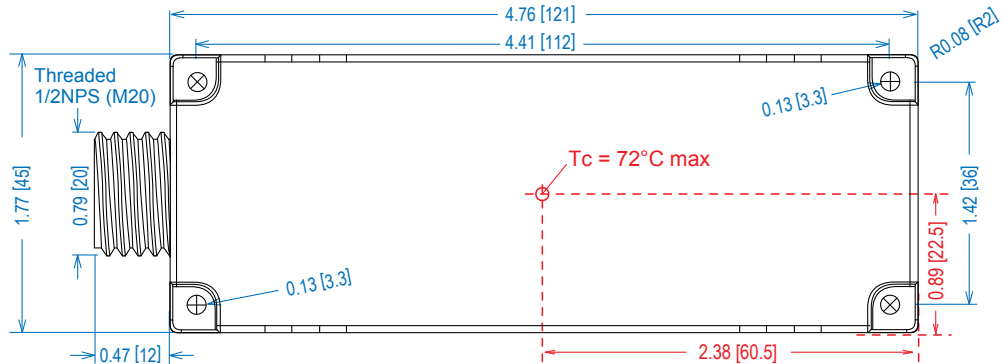


## Dimensions

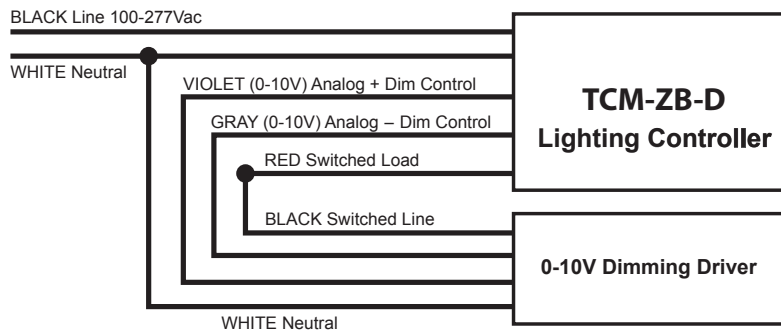


**WIRE SPECS:**

**Input Leads:** 18 AWG, rated 600 V, 105C, min.  
**Output Leads:** 18 AWG, rated 600 V, 105C, min.  
**Dimming Leads:** 22 AWG, rated 300 V, 105C, min.  
 All wires are stranded with solder dipped ends.



## Typical Application Circuit



**UL Conditions of Acceptability**

See website for additional information

## Reset Operation

**Reset Button**

The reset button is used to un-join a Zigbee network and reset the TCM-ZB-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-ZB-D has successfully joined a Zigbee network.