

TR51 Technical Datasheet

Effective August 28, 2016

Starfield lighting Automation

CA Title 24



Made in USA



OVERVIEW

Two channel, current limited triac dimmer for digital control of incandescent and dimmable LED light sources. Both channels have full DALI functionality and can be bridged to create a single zone. Application include track lights, spot lights, wall washers and low cost digital control of whole rooms using conventional light fixtures.



HIGHLIGHTS

Full DALI Functionality for Each Channel Includes addressing, groups, scenes, and query that gives low-cost screw-in lamps full network control

DALI Exponential Dimming Curve Smooth performance and compatibility with other DALI fixtures

Bridging Assign both channels and multiple dimmers to the same DALI group to create extended control zones with seamless dimming response

Soft Start Eliminate initial power surges to reduce EMI, reduce equipment stress, and prevent premature filament failure

Indicator Lights Power and fuse fail for each channel.

Non-latching Test Buttons Max, 50%, Min, and Off

Removable Termination Plugs for quick removal, replacement, and troubleshooting

Current Limited to 5 Amps per channel

SPECIFICATIONS

Physical

Size 7.4" wide, 3.3" high, 2.5" deep

Hosing Black zinc plated 18ga CRS housing may be located in plenum or finish space

Terminals Screw clamp removable terminal plugs for power and DALI wire connections are rated for use with 18 AWG **solid** or 18-14 AWG **stranded** copper wire

Caution - Use of large gauge solid wire may damage terminals, cause unexpected disconnects, and make installation difficult.

Package Contents Dimmer, terminal plugs, one set spare fuses, instructions

Mounting Mounts on NEAM standard 11B deep electrical box in finish or plenum space

Electrical - Power

- **Dimming** Forward phase triac dimming with 22uH per channel
- **Input Power** 120v, 50/60Hz
- **Internal Fuses** 5amp fast blow each channel
- **Maximum Load Per Channel** 600 VA

Not a Disconnect Test buttons are not disconnects. Install in conjunction with external disconnect.

Electrical - DALI

- **Input Voltage** 10-22.5 vdc
- **DALI Load** 1.5 mA
- **Listing** UL listed for Class 1 and Class 2 DALI network wiring
- **Standard** IEC DALI Standard 60929 Annex E.4

Environmental

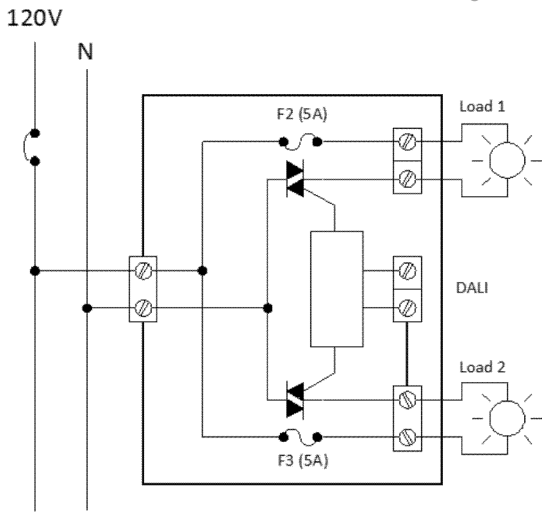
- **Operating Temperature Range** 0 to 40°C
- **Storage Temperature Range** -10 to +50°C
- **Relative Humidity** 20-90% non-condensing

Factory Presets

DALI standard settings including:

- **Power-On Level:** 254 (100%)
- **DALI System Failure** 254 (100%)
- **Scene Settings** Mask (no change)
- **Groups** Unassigned
- **Addresses** Unassigned

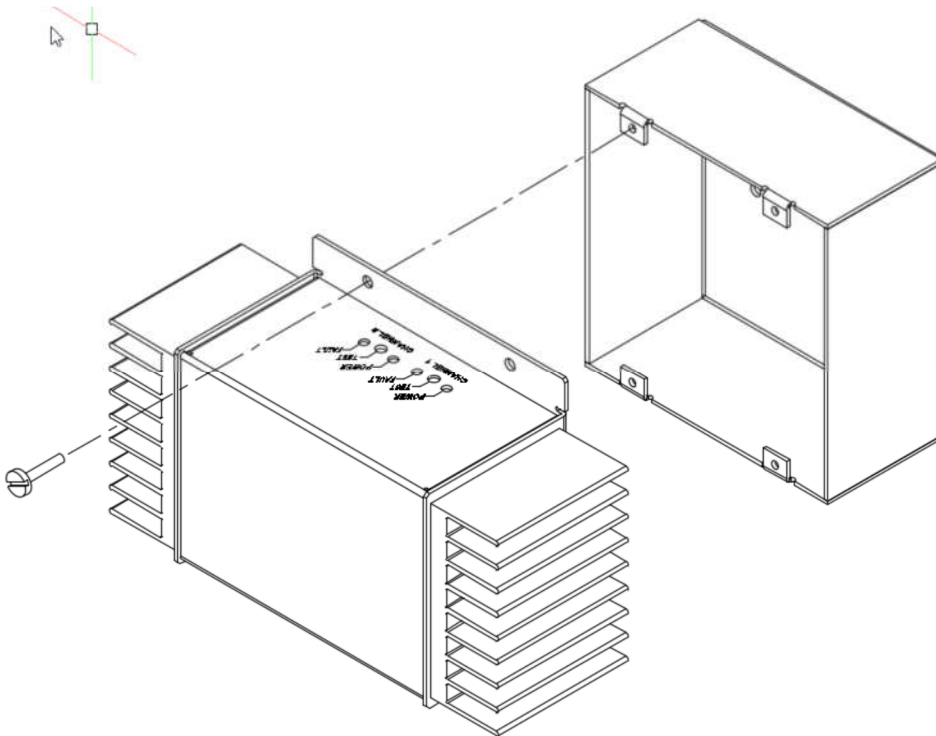
TR51 DALI DIMMER



TR51 Internal Schematic



TR51 Bottom Side Terminal Plugs



TR51 Mounts on NEMA 11B Deep
 Electrical Box
 Finish or Plenum Space

Order Number: TR51
 Electrical mounting box not included