

TR31



APPLICATIONS

The **TR31** is a versatile family of DALI compliant addressable relays that allows designers to create distributed control systems without the cost and space requirements of central panels and home-run wiring.

These systems are low voltage, peer to peer, and have both local and global

control. Mix and match with other Starfield controls to create hybrids with scenes, scheduling, and building sweeps.

May be used in conjunction with TR30 on/off controls for 3-way multi-station control.

FEATURES AND BENEFITS

- 20A electrically-latched lighting relay compatible with standard fluorescent ballasts, HID, and incandescent lamps.
- Eliminates central control panels and associated home-run wiring.
- Decora style mounts in a standard NEMA switch or outlet box and uses standard Decora switch plates.
- DALI network wiring is polarity-independent, free-topology, low-voltage, and low-power, and may be run as NEC Class 1 or 2 inside or outside of the lighting power conduit as allowed by local jurisdictions.
- Assignable to any one of 16 groups from the front-side of the control without special tools or equipment.
- Optional occupancy sensor port with auto-off/manual-on logic for consistent and reliable performance.
- LED indicator.

SPECIFICATIONS

Electrical

- UL Listed Class 2 device for use with Class 1 or Class 2 DALI bus wiring.
- Caution – these controls may not be installed in same electrical box with electrical power wires.
- For use with Starfield **PP120/277** 20A self-powered relays (included).

DALI Electrical

- DALI Input voltage – 12 -22.5 VDC
- DALI Input current – 6mA

Physical

- NEMA Decora form factor
- 5mm screw clamp terminals are rated for use with 18 AWG solid or 18-14 AWG stranded copper wire. Use of larger gauge solid wire may damage terminals and make installation difficult.
- Housing material: 94V5 high impact, flame retardant plastic
- Colors: NEMA WD1

Environmental

- Operating temperature range: 0 to +40°C
- Storage temperature range: -10 to +85°C
- Relative humidity: 20-90% non-condensing

DALI Command Response

- See table.
- For 3-way control, use with **TR30** controls assigned to a common group number.

Warranty: Limited 2-year warranty

FUNCTION TABLE

Model	Description	Relay	Buttons		DAP Commands		Scene Value Commands				
			1	2	0	254	1	2	3	4	10
TR311	Single	R1	(on)	(off)	off	on	off	NA	NA	on	sweep
TR312	Dual	R1	(on)(off)	mask	off	on	off	on	off	on	sweep
		R2	mask	(on)(off)	off	on	off	off	on	on	
TR313	Bi-Level	R1	(on)(off)(on)	off	off	on	off	on	off	on	sweep
		R2	(off)(on)(on)		off	on	off	off	on	on	
TR314	Curtain/ Screen	R1(up)	(up)(stop)	open	open	(up)(stop)	open	up	open	mask	mask
		R2(dw)	open	(dw)(stop)	(dw)(stop)	open	open	open	dw	mask	

OPERATION

Button 1 – The button closest to the green LED indicator light.

Momentary – Indicated by (). Quickly press and release.

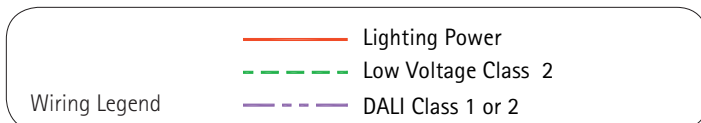
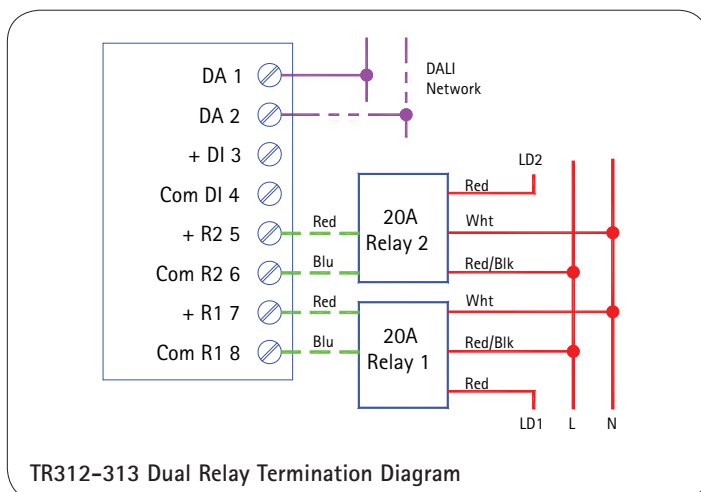
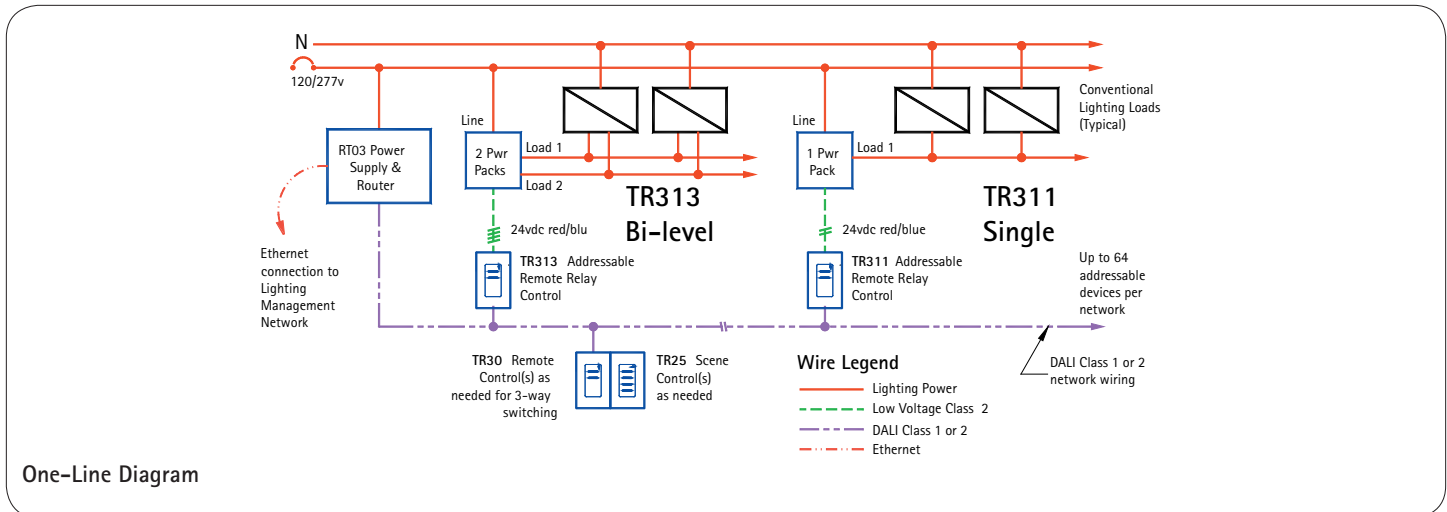
Mask – No action.

Sweep – Lights that are on first blink and then turn off after 5-minute delay – unless overridden by a manual button press, motion sensor, pop-

up control screen command, or another scene command.

DAP Commands – Direct Arc Power command values sent by TR30.

Scene Value Commands – Scene values for use with any of the 16 DALI scenes.



ORDERING

TR311 – M1 – W – 120

Model

311 (single)
312 (dual)
313 (bi-level)
314 (curtain)

Color

White (std)
Ivory
Gray
Black
BW – blk on wht
BLank – no button caps
ceiling mount

Voltage

120
230
277
347
0 – no pwr pack

Options

M1 auto/manual (default)
M3 auto/auto