

ALC3-2800-750 Active Link Power Interface

DILOR



ALC3-2800-750 Active Link Power Interface

DESCRIPTION

- In an Ald Dimmer Panel, the ALC3-2800-750 Active Link Power Interface provides a conditioned power/data signal to the electronic control modules.
- In the ALD Dimmer Panel, the ALC3-2800-750 is powered by either 24VDC from the ALD-PSR Power Supply or 24VAC from the 24V Transformer.
- The output power signal is isolated from the communication signals and provides proper termination impedance for the balanced data signals.
- The ALD-2800-750 'centers' the output voltage (data signal) with respect to ground, resulting in +21V and -21V outputs as "Net+" and "Net-" respectively.
- The outputs are protected against shorts, faults to ground, current overdraw and undervoltage.

SPECIFICATION

Power

- 24VDC or 24VAC, 50ma. In an ALD Dimmer Panel, the power source is the ALD-PSR for VDC or the 24V Transformer for VAC.

Outputs

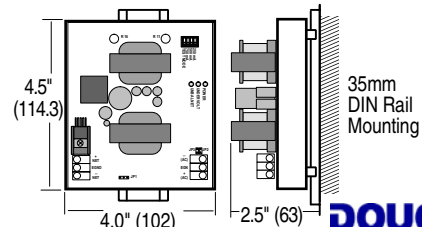
- Data signal carrier.
- Up to 8 ALC3 control stations can connect to power/data signal if ALC3-2800-750 is receiving input power from the panel transformer. Up to 5 ALC3 Control Stations can connect to power/data signal if ALC3-2800-750 is receiving input power from a ALC-PSR Power Supply Module.
- +Net is +21VDC and -Net is -21VDC with respect to the earth ground. The 42VDC operating differential is the optimal operating condition of the ALC-2800-750. Depending on loading, the operating range of the unit can vary from 34VDC to 42VDC.
- The output current can be adjusted to protect connected devices from drawing too much current. Settings are 250ma, 500ma and 750ma. Should the devices draw too much power, the unit will shut down within 20 msec.
- Safety features to protect output devices:

- UNDERVOLTAGE PROTECTION: Output switches off and unit re-tries startup routine.
- OVERCURRENT PROTECTION: Output shuts off within 20 msec, then unit re-tries startup routine.
- SHORT CIRCUIT PROTECTION: Both outputs switch off, then unit re-tries startup routine.

Environment

- Indoors, stationary, non-vibrating, non-corrosive atmosphere and non-condensing humidity.
- Ambient operating temperature: 0°F to +120°F (-15°C to +50°C).

DIMENSIONS & MOUNTING



DOUGLAS
lighting controls

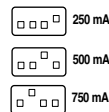
Balancing Potentiometers

Balancing pots. (R16 & R11) are factory set and should not be adjusted.

Current Limiting Dip Switches

Current limiting switches are usually factory set and should not be adjusted.

Switches should be in following positions for the 3 current settings. If a setting is made that differs from options shown, red status LEDs will



Status LEDs

When input power is first applied to module, the green **POWER** led will flash 12 times. If any fault is detected, the LEDs will display as shown in **Table 1** below.

Jumpers JP3 and JP2

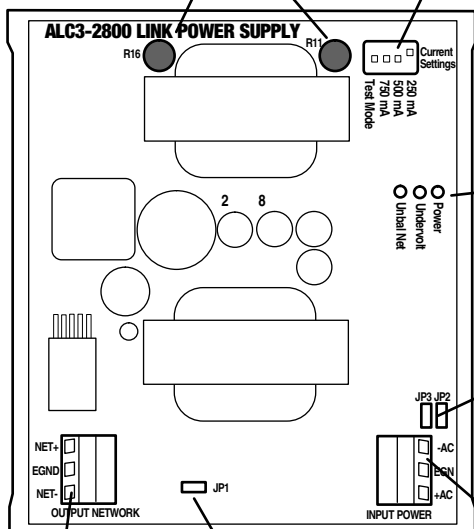
For 24VDC input power applications, jumpers JP3 and JP2 must be installed.

Input Power Terminals

For 24VDC supplied from the ALC-PSR Power Supply Module or 24VAC from the panel transformer.

Center terminal is ground.

For 24VDC applications, jumpers JP2 and JP3 must be correctly installed.



Data Signal

Net connections are standard twisted pair, unshielded, 16AWG Belden #85102 or equivalent.

Link power signal generated by the ALC3-2800-750 provides a +21VDC and -21VDC signal 'centered' above the earth ground.

Jumper JP1

For free topology control wiring applications, jumper JP1 must be installed.

For bus topology control wiring applications, JP1 must not be installed.

Accumulated wiring limit for free topology network is 500m/1600' and for bus topology network is 2200m/7000'.

Fault	Unbal Net (Red)	UnderVolt (Red)	Power (Green)	Data Signal
Undervoltage Fault	Off	On	Off & Restart	Off
Net- & Net+ Shorted	Off	Off	Flash & Restart	Off
Net+ Shorted to Ground	Off	Flashing	On	On
Net- Shorted to Ground	Flashing	Off	On	On
Overcurrent Condition	Flashing	Flashing	Flash & Restart	Off
No Fault	Off	Off	On	On

Table 1: Fault Indicators