Description

The Crestron® DIN-1DIM4 is a DIN rail mounted lighting control module with four channels of dimming. A single model supports both 120 and 220-277 V electronic and magnetic low-voltage, incandescent, neon/cold cathode, 2-wire dimmable fluorescent, and non-dimmable lighting loads up to 5 A per channel, 10 A total.

Additional Resources

Visit the product page on the Crestron website (www.crestron.com) or scan the QR code to the right for additional information and the latest firmware updates.

Installation

WARNING: To avoid fire, shock, or death, turn off power at circuit breaker or fuse and test that power is off before wiring!

CAUTION: This equipment is for indoor use only. Mount in a well-ventilated area. The ambient temperature must be 0º to 40º C (32º to 104º F). The relative humidity must be 10% to 90% (non-condensing).

NOTE: This product should be installed and used in accordance with appropriate electrical codes and regulations.

NOTE: This product should be installed by a qualified electrician.

NOTE: When installing in an enclosure, high-voltage devices should be grouped separately from low-voltage devices.
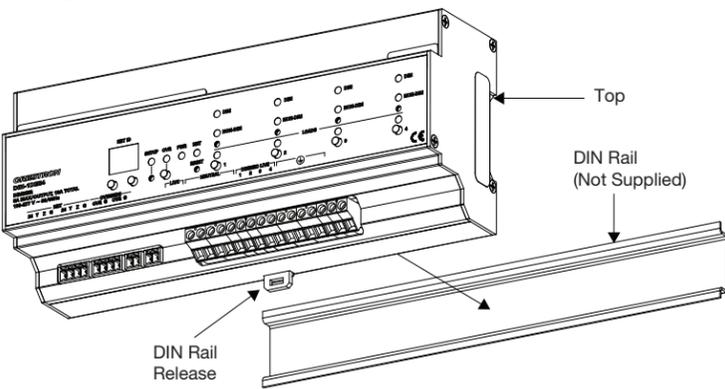
Install the DIN-1DIM4

The DIN-1DIM4 installs on a DIN rail.

1. Use a flat object (e.g., a flat-head screwdriver) to pull the DIN rail release downward.
2. With the top of the unit tilted down, place the DIN-1DIM4 against the bottom of the DIN rail.

   NOTE: When mounting DIN rail products, it may be necessary to use a flat-head screwdriver to pull the DIN rail release tab down while snapping the device onto the DIN rail.

3. Tilt the top of the DIN-1DIM4 toward the DIN rail until it is secure on the top edge of the rail. Push the DIN rail release upward to lock the DIN-1DIM4 into place.

Mount DIN-1DIM4

Remove the DIN-1DIM4

To remove the DIN-1DIM4 from the DIN rail, use a flat object (e.g., a flat-head screwdriver) to pull the DIN rail release and tilt the bottom of the DIN-1DIM4 away from the DIN rail.

NOTE: Certain third party DIN cabinets provide space for an informational label between each DIN rail row. Crestron's Engraver software (version 4.0 or later) can generate appropriate labels for all Crestron DIN rail products.

Hardware Hookup

Make the necessary connections as shown below. Apply power after all connections have been made. When making connections to the DIN-1DIM4, use Crestron power supplies for Crestron equipment.

WARNING: Prior to connecting the device, turn off power at the circuit breaker. Failure to do so may result in serious personal injury or damage to the device. Restore power after all connections have been made.

CAUTION: Connecting this device to the wrong type of load or short circuiting the load can cause severe product damage. Each load should be tested to identify a short circuit condition prior to wiring the load to the module.

NOTE: Strip the ends of the wires approximately 1/4 in (6 mm). Use care to avoid nicking the conductors. Twist together the ends of the wires that share a connection. Apply solder only to the ends of the twisted wires. Avoid tinning too far up the wires or the end becomes brittle.

NOTE: High-voltage connections accept 2.5 mm^2 (12 AWG) wire. Wire should be stripped to 8 mm (1/3 inch). Tighten terminal blocks to 0.5 Nm (5 in-lbs).

NOTE: The DIN-1DIM4 power feed must be protected by a 10 A (trip curve C) breaker or equivalent.
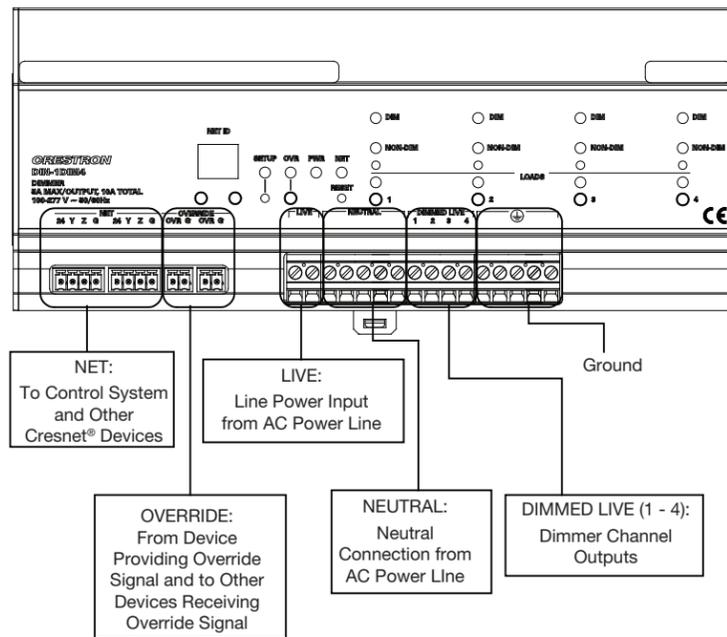
NOTE: The DIN-1DIM4 outputs must be used to control permanently installed lighting loads only.

NOTE: Do not mix magnetic and electronic transformers on the same dimmer output.

NOTE: Use copper wire only. For high-voltage connections, use wire rated for at least 75º C (167º F).
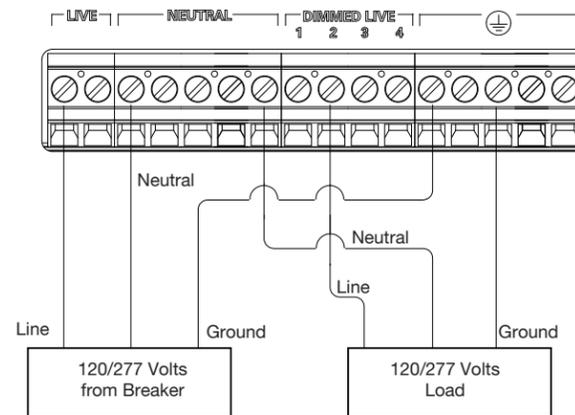
NOTE: Ensure the unit is properly grounded by connecting the chassis ground lug to an earth ground (building steel).

Hardware Connections for the DIN-1DIM4

NET:
To Control System and Other Cresnet® Devices

OVERRIDE:
From Device Providing Override Signal and to Other Devices Receiving Override Signal

LIVE:
Line Power Input from AC Power LIne

NEUTRAL:
Neutral Connection from AC Power LIne

DIMMED LIVE (1 - 4):
Dimmer Channel Outputs

Ground

With the circuit breaker turned off, connect the wires to the terminal blocks per the markings provided on the DIN-1DIM4.

Load Connections Example for the DIN-1DIM4

Set the Net ID

The Net ID of the DIN-1DIM4 has been factory set to 89. The Net IDs of all devices in the same system must be unique. The Net ID can be changed from the front panel of the DIN-1DIM4 or from a personal computer via Crestron Toolbox™.

Set the Net ID using the front panel.

1. Press the **SETUP** button to enter Setup mode. The SETUP LED illuminates.
2. Press the left and right button under the NET ID display to change the Net ID.

   NOTE: The DIN-1DIM4 will leave Setup mode after 10 seconds of inactivity and revert to the previously set Net ID.

3. When the desired Net ID is displayed, press the **SETUP** button to exit Setup mode. The SETUP LED extinguishes.

   NOTE: If an invalid Net ID is set (i.e., 00, 02, FF), "Er" will be displayed on the NET ID display and the DIN-1DIM4 will revert to the previously set Net ID.

A small Net ID label is provided on the DIN-1DIM4 to document the unit's Net ID in the case where power is not available. Apply a mark over the digits that correspond to the assigned Net ID.

NET ID Label ("3C" Shown)

NET ID 0 1 2 3 4 5 6 7 8 9 A B C D E F   0 1 2 3 4 5 6 7 8 9 A B C D E F

Operation

NOTE: Before using the DIN-1DIM4, ensure the device is using the latest firmware. Check for the latest firmware for the DIN-1DIM4 at www.crestron.com/firmware. Firmware is loaded onto the device using Crestron Toolbox.

The DIN-1DIM4 can be controlled via its front panel as well as from a control system. The following local controls are available.

Control the Loads from the Front Panel

The lighting level of each output can be manually controlled from the front panel.

To toggle the light between off and 100% (on), tap the appropriate load button. The corresponding LED illuminates and the output level is shown on the NET ID display ("oF" for off, "On" for on) for two seconds after the button is released.

To ramp the lighting level up or down (until it reaches a limit), press and hold the appropriate load button. To change the ramp direction, release the load button, and then press and hold it again. The corresponding LED illuminates and the output level is shown on the NET ID display as a percentage (01% to 99%) for two seconds after the button is released.

NOTE: The control system program may change the settings if Override mode is not enabled.

Establish Override Mode Levels

Override mode disables the control system program and sets all of the output states to the stored override values. The state of each output can be saved as an override setting, which can be automatically recalled when Override mode is enabled.

NOTE: The control system program has a setting that can prevent locally saving the override state. If this setting is enabled, the display shows "Er" when trying to save override states. For more information, refer to the SIMPL Windows help file.

To save the load level as an override setting, set all of the loads to their desired levels and then press and hold the **OVR** button for three seconds. The OVR LED blinks to indicate the new override setting has been stored.

Toggle Override Mode

To enable Override mode, press the **OVR** button. The OVR LED flashes slowly. Override mode can also be toggled via a remote contact closure attached to the OVERRIDE port.

NOTE: If Override mode was enabled from an external device (i.e., a contact closure connected to the OVERRIDE port), the OVR LED will flash quickly when the local **OVR** button is pressed. Pressing the local **OVR** button has no effect when Override mode was toggled via the remote connection.

To disable Override mode, press the **OVR** button again. The OVR LED extinguishes and the outputs return to the states set by the control system program.

NOTE: If override levels have not been saved, the factory default override level is 100%.

Reboot the DIN-1DIM4

To reboot the DIN-1DIM4, press the **RESET** button. The outputs will be set to the states currently specified by the control system program. If the control system does not provide any values, the outputs will be set to the previously set values.

Select the Operating Mode

CAUTION: Selecting an incompatible lighting load may cause damage to the DIN-1DIM4 or the lighting load.

In the event that the DIN-1DIM4 is to be operated without a connection to a control system, the operating mode must be set locally.

NOTE: Once a program has been downloaded to the DIN-1DIM4, the manual selection of load types will be restricted. For example, if the program defines a channel as NON-DIM, it cannot be set to DIM locally. Similarly, if the program defines a channel as DIM, it cannot be set to NON-DIM locally.

Once a connection to a control system has been established, the SIMPL windows symbol should define the unit as DIM or NON-DIM. The operating mode must still be selected locally on the dimmer.

The operating mode is selected locally for each channel using the recessed channel mode select buttons. Press the recessed button for the appropriate channel until the proper operating mode is selected. Repeat this process for each channel on the dimmer. Refer to the table that follows for information about each operating mode and the corresponding unit display.

OPERATING MODE	UNIT DISPLAY
DIM: Channel operates as a dimmer with no switching capabilities. The DIM LED will illuminate when operating as a dimmer. Operating mode should be set to DIM when controlling dimmable fixtures.	DIM NON-DIM
NON-DIM: Channel operates only as a switch with no dimming capabilities. The NON-DIM LED will illuminate when operating as a switch. Operating mode should be set to NON-DIM when controlling non-dimmable fixtures.	DIM NON-DIM

TROUBLESHOOTING

The following table provides corrective action for possible trouble situations. If further assistance is required, please contact a Crestron customer service representative.

DIN-1DIM4 Troubleshooting

TROUBLE	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
The device does not function.	The DIN-1DIM4 is not receiving power from the ac line or the Crestron power supply.	Ensure that the circuit breaker was not tripped.
	The device is not receiving power from a Crestron power supply.	Use a Crestron power supply. Verify the connections.
	The device is not receiving sufficient power.	Use the Crestron Power Calculator to help calculate how much power is needed for the system.
	An electrostatic discharge occurred due to improper grounding.	Check that all of the ground connections have been made properly.
The PWR LED blinks.	The DIN-1DIM4 is not receiving power from the ac line.	Ensure that the circuit breaker was not tripped.
The unit ignores Cresnet commands.	The unit is in Override mode.	Take the DIN-1DIM4 out of Override mode by pressing the **OVR** button or releasing the override contact closure.
The LOAD LED blinks 3 times, pauses for 1 second, and then repeats.	An overload or over temperature situation exists.	Reduce the load on the channel.
The Channel 1 LED blinks and all of the channels turn off.	The firmware upgrade has failed.	Cycle power on the DIN-1DIM4.
The load flickers, flashes, or slowly varies in light level when running on generator or UPS power.	There is unstable frequency due to generator or UPS power.	Using Crestron Toolbox, disable the Wilson filter. **NOTE**: Disabling the Wilson filter may leave the dimmer susceptible to other forms of line noise creating flicker.