DIN-2MC2
DIN Rail Motor Control
Installation and Operation Guide

Description

The Crestron® DIN-2MC2 is a 2-channel motor control module designed to provide control of bidirectional motors for drapes, shades, projection screens, lifts, skylights, and gates. Each channel supports up/down or open/close control of a conventional three-wire bidirectional type motor up to1/2 HP at voltages up to 240 Volts. Built-in timing and interlock logic make it easy to program the DIN-2MC2 for failsafe operation.

SPECIFICATION	DETAILS
Load Ratings	
Motor Control Channels	2
Per Channel	0.5 HP @ 240 Vac, 50/60 Hz
Module Total	1 HP @ 240 Vac, 50/60 Hz
Load Types	3-Wire bidirectional motors
Cresnet Power Usage	3 W @ 24 Vdc
Environmental	
Temperature	0° to 40 °C (32° to 104 °F)
Humidity	10% to 90% RH (noncondensing)
Heat Dissipation	10 Btu/h
Weight	210 g (7 oz)

Additional Resources

Visit the product page on the Crestron website (www.crestron.com) for additional information and the latest firmware updates. Use a QR reader application on your mobile device to scan the QR image.

Installation

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

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

NOTE: Install and use this prodct in accordance with appropriate electrical codes and regulations.

NOTE: A licensed electrician should install this product.

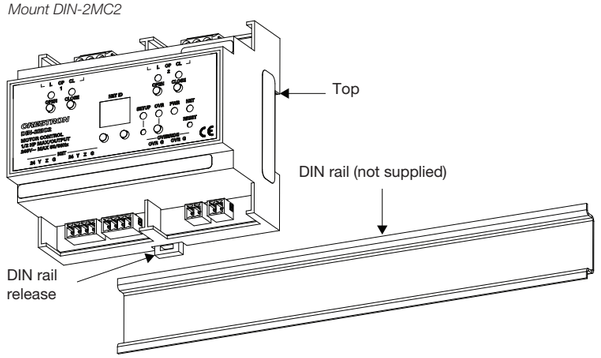
NOTE: When installing in an enclosure, group high-voltage devices separately from low-voltage devices.

Install the DIN-2MC2

The DIN-2MC2 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-2MC2 against the bottom of the DIN rail.
3. Tilt the top of the DIN-2MC2 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-2MC2 into place.

Mount DIN-2MC2



Remove the DIN-2MC2

To remove the DIN-2MC2 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-2MC2 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-2MC2, use Crestron power supplies for Crestron equipment.

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

CAUTION: Connecting this device to the wrong type of load or short-circuiting the load can cause severe product damage. Test each load to identify a short-circuit condition prior to wiring the load to the module.

NOTE: Cresnet® HP wire cannot be used.

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 mm² (12 AWG) wire. Wire should be stripped to 8 mm (1/3 in). Tighten terminal blocks to 0.5 Nm (5 in-lbs).

NOTE: Each channel of the DIN-2MC2 may be fed from a separate circuit breaker or a single, shared breaker.

NOTE: Use copper wire only. For high-voltage connections, use wire rated for at least 75 °C (167 °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-2MC2

Set the Net ID

The Net ID of the DIN-2MC2 has been factory set to 85. 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-2MC2 or from a personal computer via Crestron Toolbox™ software.

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 buttons under the NET ID display to change the Net ID.

   NOTE: The DIN-2MC2 leaves Setup mode after 10 seconds of inactivity and reverts to the previously set Net ID.
3. When the desired Net ID displays, 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" shows on the NET ID display, and the DIN-2MC2 reverts to the previously set Net ID.

A small Net ID label is provided on the DIN-2MC2 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)

Operation

NOTE: Before using the DIN-2MC2, ensure the device is using the latest firmware. Check for the latest firmware for the DIN-2MC2 at www.crestron.com/firmware. Load the firmware onto the device using Crestron Toolbox.

The DIN-2MC2 can be controlled via its front panel as well as from a control system. The following local controls are available.

Manual Control

Each of the DIN-2MC2 outputs can be in one of three states: OPEN, CLOSE, or STOP. When an output is in the OPEN state, the OPEN LED illuminates. When an output is in the CLOSE state, the CLOSE LED illuminates. When an output is in the STOP state, neither of the output LEDs illuminate.

The state of each output can be manually controlled from the buttons on the front panel.

If an output is in the STOP state, press and release the OPEN or CLOSE button to activate the OPEN or CLOSE state. The corresponding LED illuminates to indicate the state of the output. The LED stays lit until the programmable "max time" parameter is reached. Additionally, the NET ID display briefly indicates the state of the output ("OP" for open, "CL" for close).

If an output is in the OPEN or CLOSE state, pressing the OPEN or CLOSE button places the output in the STOP state. Neither of the LEDs illuminate. However, the NET ID display briefly indicates the state of the output ("St" for stop).

An output left in the OPEN or CLOSE state reverts to the STOP state after a programmable timeout.

NOTE: The control system program may change the state of the output if the 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 motor state as an override setting, press the OPEN or CLOSE button to activate the desired function on one or both motor outputs and then press and hold the OVR button for three seconds. The OVR LED blinks to indicate the new override setting has been stored. Motor outputs that were closing are set to go to the full close position and motor outputs that were opening are set to go to the full open position when Override mode is enabled.

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-2MC2

To reboot the DIN-2MC2, 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.

Troubleshooting

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

DIN-2MC2 Troubleshooting

TROUBLE	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
The device does not function.	The device is not communicating with the network.	Use Crestron Toolbox to poll the network. Verify network connection to the device.
	The device is not receiving power from a Crestron power source.	Use the provided Crestron power source. Verify connections.
	The device is not receiving sufficient power.	Use the Crestron Power Calculator to help calculate how much power is needed for the system.
The motor moves in the opposite direction.	Incorrect motor wiring.	Reverse the polarity of the motor wires.
The motor does not respond.	There is a motor fault.	Verify the motor's upper and lower limits. Refer to the motor manufacturer's instruction manual.
The unit ignores control system commands.	The unit is in Override mode.	Take the unit out of Override mode by pressing the OVR button or releasing the override contact closure.

This product is Listed to applicable UL® Standards and requirements by Underwriters Laboratories Inc.

Ce produit est homologué selon les normes et les exigences UL applicables par Underwriters Laboratories Inc.

As of the date of manufacture, the device has been tested and found to comply with specifications for CE marking.

Federal Communications Commission (FCC) Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following conditions:(1) This device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Industry Canada (IC) Compliance Statement

CAN ICES-3(B)/NMB-3(B)

The product warranty can be found at www.crestron.com/warranty.

The specific patents that cover Crestron products are listed at patents.crestron.com.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

This document was written by the Technical Publications department at Crestron.

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