

Lexium MDrive Motion Control LMDAM571C — PRERELEASE DOCUMENT

NEMA size 23 (57 mm) Quick Reference

Notes and Warnings

This document is intended to provide an overview of critical specifications, wiring and connections. The product manual must be read and understood prior to using this device. > [Product Manual Downloads](#)

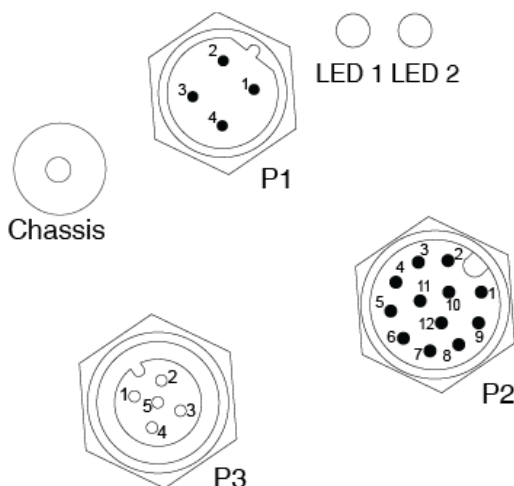
Overview of product

Part number	LMDAM571C
NEMA size	23 (57 mm)
Input Voltage	+12 to +60 VDC
Stack length	Single
Holding torque	103.4 oz-in (73 N-cm)
Feedback loop	Absolute closed loop with HMT
Communication	RS-422/485

Connector overview

Connectors

- P1: DC & Aux Power input
- P2: Multifunction Interface
- P3: RS-422/485 interface



LEDs

- LED 1: DC/Aux Power supply status
- LED 2: User defined

Lexium MDrive circular connectors are pinned as follows:

- P1: 4-pin M12 (Male, B-coded)
- P2: 12-pin M12 (Male, A-coded)
- P3: (Female, A-coded)

Recommended interface cables:

- MD-CS620-000 - M12 Power Cable
- MD-CS610-000 - M12 IO Cable
- MD-CC405-000 - USB to M12 RS485 Comm Converter

Specifications

Input Voltage	[+VDC] nominal	24 / 48
	[+VDC] min/max	12/60
Supply current	[A] max per unit	3.5
Aux supply	[+VDC]	12 / 24
Aux current	[mA] max per unit	200
Temperature	[C°] heat sink	85
	[C°] motor	100
IP rating	motor shaft not sealed	IP65

Connecting the Power Supply

Read the Product Hardware Manual Section 5: Engineering before connecting DC Power.

- Use shielded twisted pairs for cabling with shield earthed at the power supply end.
- Power supply wiring should be shielded twisted pairs. Use 18 AWG wires if load is less than 4 amps, or 16 AWG for more than 4 amps.
- Never use a "daisy-chain" power supply wiring scheme to system components.

Wire colors shown for SEM MD-CS620-000 cable option.

Pin 1	Brown	Power supply output voltage
Pin 2	White	Power supply return (Ground)
Pin 3	Blue	Aux power input
Pin 4	Black	Power supply return (Ground)

Connecting communication

SEM recommends using the MD-CC405-000 USB to RS-422/485 communication converter with first purchase. This Plug and play adapter and cable kit needs only be connected from your PC to the M12(M) connector at P3.

If using a third-part RS-422 / 485 converter or PC card P3 is pinned as follows:

Pin 1	TRANSMIT -	Pin 4	RECEIVE -
Pin 2	TRANSMIT +	Pin 5	COM GND
Pin 3	RECEIVE +		

Connecting I/O (Multifunction interface)

See product hardware manual for detailed description of pin functions and interface methods and requirements.

Connector P2

Wire colors shown for SEM MD-CS610-000 cable option.

Pin 1	Brown	INPUT 4 (+5 to +24 VDC)
Pin 2	Blue	INPUT 2 (+5 to +24 VDC)
Pin 3	White	INPUT_REFERENCE
Pin 4	Green	INPUT 1 / CAPTURE (+5 to +24 VDC)
Pin 5	Pink	INPUT 3 (+5 to +24 VDC)
Pin 6	Yellow	External Battery +
Pin 7	Black	External Battery —
Pin 8	Gray	SIGNAL_OUTPUT_EMITTER (5.5 mA max)
Pin 9	Red	SIGNAL_OUTPUT_COLLECTOR (5.5 mA max)
Pin 10	Violet	OUTPUT 1+ (100 mA max)
Pin 11	Gray/pink	DO NOT CONNECT
Pin 12	Red/blue	OUTPUT 1 — (100 mA max)

LED Indicators

LED 1: Power Indication

Color	Status
Off	No Power
Green	+VDC supply in range
Flashing green	+VDC off, drive on AUX power
Red	+VDC supply out of range
Flashing red	+VDC off, AUX power out of range

LED 2: User defined

Color	Status
Off	Not configured
Green	No attention state exists
Red	Attention state exists

Software - Motion Control Programmer

Motion Control Programmer is an integrated program editor and ASCII/ANSI terminal emulator used to issue commands and program the Lexium MDrive Motion Control products.

Motion Control Programmer is a component of the Lexium MDrive Software Suite, which contains the software for all SEM Lexium MDrive products and may be downloaded at <https://motion.schneider-electric.com/lmd/lexium-mdrive-software.php>

To install:

1. Download and install the Lexium MDrive Software Suite, open the program.
2. Click the button labeled: Install Lexium MDrive Motion Control Interface.
3. Follow the on-screen prompts. Install button will change to Launch.
4. Launch Motion Control Programmer.

The Manual for the Software Suite contains detailed usage instructions for this software and may be accessed via this link https://motion.schneider-electric.com/lmd/downloads/literature/lmd_software_suite.pdf

Establish RS-422/485 communication

1. Install the Motion Control Programmer component of the Lexium MDrive Software Suite.
2. With the RS-422/485 interface connected, apply power to the Lexium MDrive Motion Control
3. Open the Motion Control Programmer
4. Select the tab labeled "Terminal 1" and click into the text area.
5. On the status bar, double-click the COM port indicator (eg 02:9600) to open the Communication Settings dialog. Select the serial converter is connected on.

Port Open 15:9600 LMDxM

6. Click the Port Status button labeled "Closed" on the status bar, the label should change to "Open"
7. Enter "CTRL+C" into the terminal window. The sign-on message should appear.

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8. The device may now be controlled/programmed.