

MC QD 1140/1141/1240/1241 2A Driver

Compact Stepper Driver. SCU5 Powered. Zero External Power Supply.

Key Features

- **SCU5-powered operation** – receives both 24 VDC power and RS485 communication through a single pre-wired motor communication cable; no separate power supply needed
- **High-precision 256 microstep driver** – constant current driver with 256 microsteps per full step for smooth, vibration-free actuator motion
- **Automatic parameter initialization** – driver parameters are stored in the SCU5 controller memory and loaded to the driver on every power-up
- **Ramp profile generation** – generates acceleration/deceleration ramp profiles based on speed and acceleration settings for controlled actuator positioning
- **Electronic stroke limits** – configurable step counts for electronic stroke limits to protect the actuator from over-travel
- **Servo center input** – M8 6-pin connector supports a 24V NPN inductive proximity sensor for home/servo center positioning
- **Limit switch inputs** – two normally-closed limit switch inputs to restrict actuator travel in either direction; can be tied together for a single enable/disable switch
- **Bi-polar stepper output** – M12 4-pin female connector drives bi-polar 4-wire stepper motors up to 2.8A per coil
- **Flexible mounting** – compact aluminum enclosure mounts in a machine cabinet or on the machine frame; wall mounting brackets included
- **Quick disconnect connectors** – all connections use industrial M8 and M12 connectors for fast, reliable

Benefits

- **Eliminate external power supplies** – the MC QD 2A driver is powered directly from the SCU5 controller, reducing component count, cabinet space, and installation time
- **Simplify wiring and commissioning** – one pre-wired cable carries both power and communication; plug in and go with no separate DC supply to wire or fuse
- **Stop losing precision at low speeds** – 256 microstep resolution keeps the actuator smooth and vibration-free even at crawl speeds during fine positioning
- **Prevent actuator over-travel damage** – electronic stroke limits and hardware limit switch inputs provide dual-layer protection against mechanical damage
- **Reduce downtime with quick disconnect** – industrial M8/M12 connectors allow fast driver replacement without re-wiring; swap and run in minutes

Specifications

| Specification | MC QD 1140/1141/1240/1241 |
|-----------------------------|---|
| Driver Type | Bipolar stepper motor driver |
| Microstep Resolution | 256 microsteps per full step |
| Maximum Motor Current | 2.8A per coil (RMS) |
| Input Voltage | 24 VDC (from SCU5 controller) |
| Communication | RS485 via M8 4-pin twisted pair |
| Actuator Output | M12 4-pin female (bi-polar 4-wire stepper) |
| Servo Center Input | 24V NPN inductive proximity sensor (NO or NC) |
| Limit Switch Inputs | 2x normally-closed (M8 6-pin connector) |
| Sensor Connector | M8 6-pin male |
| Power Source | SCU5 controller (via motor communication cable) |
| Housing | Aluminum wall-mounting enclosure |
| Reverse Polarity Protection | No — ensure correct SCU5 power polarity |
| Compatible Actuators | LHS-005, LHS-020 (up to 200 lbf) |
| Compatible Controllers | SCU5 MD / SCU5 MCD |

Applications

- Intermediate web guides for converting, coating, printing, and packaging lines
- Low-profile web guide installations where space is constrained
- Web guide upgrade kits replacing pneumatic or hydraulic actuators
- Compact web guiding systems for narrow-web applications
- Any application using LHS-005 or LHS-020 actuators with the SCU5 controller



Scan for datasheets, 3D models & full documentation

<https://r2r.tech/products/motor-drivers/mc-qd-2a>

Ready to Get Started?

Contact our experts to discuss how this product fits your application.

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