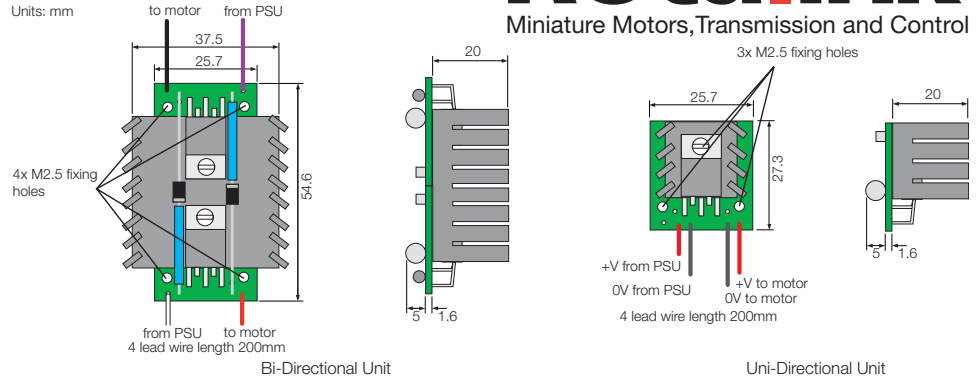


DC Motors

Current Limiting PCB

Issue 04:CN3815



Rotalink

Miniature Motors, Transmission and Control

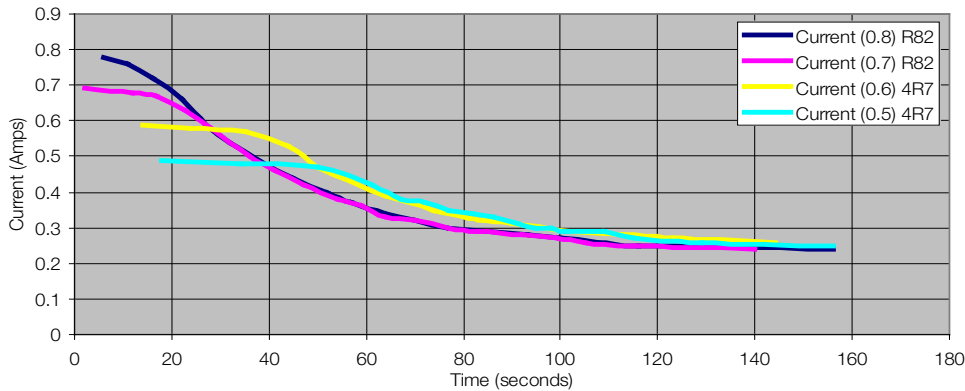
Use of the Current Limiting PCB allows the maximum current available to a DC motor to be fixed. This allows normal operation of the motor up until the set limit, beyond which the motor will quickly stall. This is particularly useful to protect gearboxes where an unlimited motor could apply a torque great enough to cause damage to either the application or gearbox.

Whilst the unit can provide 2000mA at voltages below 12V, the unit is limited to a maximum current of 800mA at 24V. Contact Rotalink for advice on current ratings at other voltages.

The current is fixed at the factory by Rotalink in line with customer requirements.

The current limit pcb is designed to limit the motor current for only short periods of time. If the current required by the motor is above this limit for long, the output current of the unit will reduce. The graphs below indicate this current reduction over time. Care must be taken to ensure that the current does not drop below the minimum required to start the motor.

Characteristics - Current Drop with unit at current limit (24V, 22°C)



General Specification

| | |
|----------------|-----------------------|
| Current limit | 100mA to 2000mA |
| Rotation | Uni or bi-directional |
| Supply voltage | to 30V DC |
| Voltage drop | 1.4V |

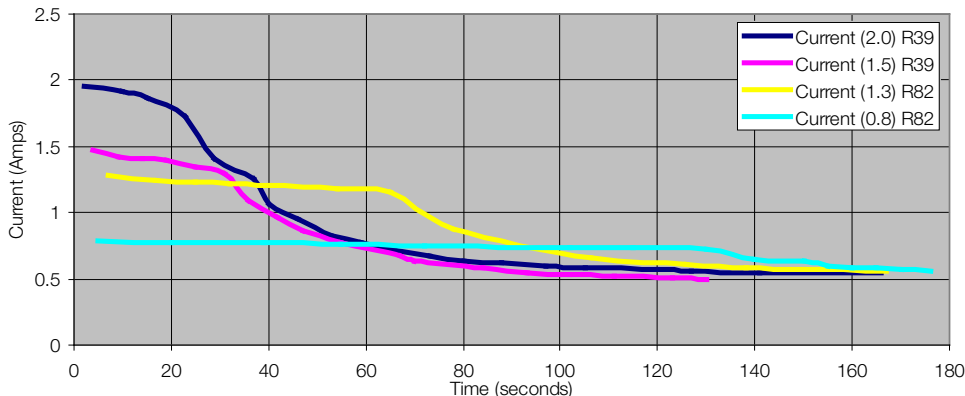
Uni-directional Wiring

| | |
|---------------------------|-------|
| Positive voltage from PSU | Red |
| Ground (0V) | Black |
| Positive voltage to motor | Red |

Bi-directional Wiring

| | |
|----------------------|--------------|
| Connections to PSU | Violet+White |
| Connections to motor | Red+Black |

Characteristics - Current Drop with unit at current limit (12V, 22°C)



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