

C1115.001.001 - Motion Controller

Overview

The Optec Motion Controller controls two different DC motors at the same time with a maximum output current of 480 mA (240 mA for each motor). It implements a complete PID position control system with continuous movement on the entire working range and with preset fixed positions.

To communicate with the PC the Optec Motion Controller requires only a USB cable (A-B) from which it receives also the power supply.



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Absolute Maximum ratings	
Maximum output current	480 mA (for both channels)
Supply voltage	5 V (from USB)
Input analog voltage	5 V
Temperature working range	-10 to 70 °C

Size	
Weight	125 g
Length	77 mm
Depth	60 mm
Height	34 mm
Maximum height (with connector)	40 mm

USB overcurrent protection

The Optec Motion Controller has a resettable polyfuse that protects the computer's USB ports from short-circuits and overcurrent. If more than 500 mA is applied to the USB port, the fuse will automatically break the connection until the short or overload is removed.

Specification are subject to change without notice

Electronic features			
Operating voltage	5 V	Minimum current consumption	30 mA
Number of independent channels	2	Maximum current consumption (without motors)	40 mA
Number of analog inputs	2	Flash memory	32 KB
Analog input voltage	0 to 5 V	SRAM	2 KB
Output voltage (to motors)	0 to 4,14 V (direction A LOW), 0 to 4,39 V (dir A HIGH)	EEPROM	1 KB
Output voltage (to potentiometers)	0 to 5 V	Clock speed	16 MHz

Connector pin list

- 1 - Motor A +
- 2 - Motor A -
- 3 - + 5 V
- 4 - Analog input 1
- 5 - Analog input 2
- 6 - GND
- 7 - Motor B -
- 8 - Motor B +
- 9 - N/C
- 10 - N/C