

C1115.002.000 - Motion Controller

Overview

The Optec Motion Controller controls two different DC motors at the same time with a maximum output current of 4 A (2 A 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 uses the standard serial protocol RS232 thru USB or Serial DB9 connector.



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Absolute Maximum ratings	
Maximum DC output current	2 A (for each motor)
Maximum peak output current	3 A (for each motor)
Maximum Supply voltage	20 V
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

Specification are subject to change without notice

USB overcurrent protection

The Optec Motion Controller has a resettable polyfuse that protects the computer's USB ports from short-circuits and overcurrents. 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.

Electronic features			
Input voltage supply	12 V (from external power pack)	Output voltage (to potentiometers)	0 to 5 V
Number of independent channels	2	Minimum current consumption	30 mA
Number of analog inputs	2	Maximum current consumption (without motors)	40 mA
Analog input voltage	0 to 5 V	Analog input sampling rate	10.6 Mhz
Output voltage (to motors)	0 to 9.79 V (in both directions)	Clock speed	16 MHz

Serial Interface			
Serial protocol	RS232 (8-N-1)	Data bits	8
Serial port connector	Standard DE-9	Parity	None
Baud rate	9600 bps	Stop bit	1

Connector pin list

- 1 - + 5 V
- 2 - GND
- 3 - Analog input 1
- 4 - Analog input 2
- 5 - Reserved
- 6 - Reserved
- 7 - Motor 1 +
- 8 - Motor 1 -
- 9 - Motor 2 +
- 10 - Motor 2 -

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