PMD301

150057-02

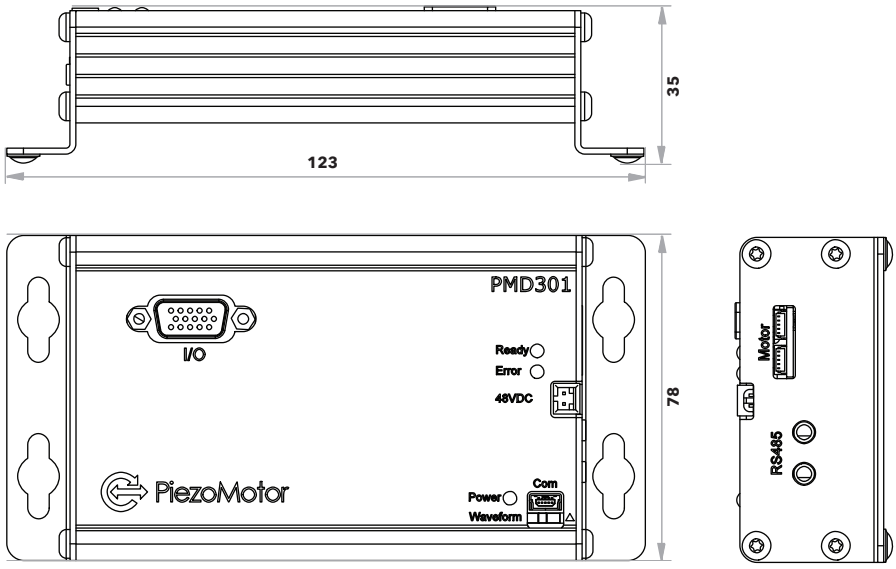
Technical specification PMD301		
Type	**Value**	**Note**
Number of axes	1	
Multi-axis support	Yes	Units can be RS485-chained for multi-axis
True speed control	No	Only stepping rate controlled
Resolution	8192 microsteps	Each full step of about 5 µm is divided into 8192 steps
Maximum stepping rate (Full step frequency - Hz)	2500	Depends on motor
Supported encoders	Quadrature	ABZ differential, 20 MHz counting
	SSI	8–30 bits, 750 or 130 kbps
	BiSS	18/26/32 bits, 750 kbps
	Analog	Analog ±10 V (12 bits)
Host communication	Two-wire RS485	Commands are sent in ASCII format, 115.2 kbps (n81)
	USB (virtual COM port)	
Servo interface	SPI	16 bits (signed), max 20 Mbps
	Analog	Analog interface ±10 V (12 bits, 5 kHz)
General I/O	4 in	Depending on encoder type and use of limit switches
	2 out	
Stacking connector	N/A	
Motor connector	5-pole, JST SM05B-SRSS-TB	Two connectors, parallel connection
Encoder/servo connector	15-pin HD female D-sub	Input for sensors or motion controller
Limit switch	Yes	Input for external limit switches
Communication connector	3.5 mm audio jack x 2	RS485, daisy chain
	USB mini type B	Input for USB virtual COM port
Power connector	2-pole header, 2.54 mm, Molex 70543-0001	Input for 48 V supply
Power supply	48 V DC, 20 W	48 V DC ±5%
Dimensions (mm)	123 x 78 x 35	

Note: All specifications are subject to change without notice. For more information, see www.piezomotor.com.

PiezoMotor Uppsala AB
Stålgatan 14
SE-754 50 Uppsala, Sweden

Telephone: +46 18 489 5000
Fax: +46 18 489 5001
info@piezomotor.com
www.piezomotor.com

Main dimensions



Product description

The PMD301 is a 1-axis controller for use with Piezo LEGS® motors from PiezoMotor. Units can be chained to form multi-axis systems.

It provides sub-nanometer resolution and speed in the mm/s range. PMD301 is the ideal choice for system designs where one or several Piezo LEGS® motors are used.

Host communication is either via a 2-wire RS485 or USB virtual COM port through ASCII commands. A 15-pole D-Sub port can be configured for general I/O, sensor input or as a motion controller interface. An external motion controller may control the speed via SPI or analog voltage interface.

Features

- Sub-nanometer resolution
- Closed loop control
- Open loop mode
- Chained RS485 for multi-axis
- Closed loop controller taking commands from host via RS485 or USB
- Slave amplifier to external motion controller – analog or SPI interface
- Chain units to form multi-axis system
- General-purpose inputs/outputs – maximum 4 in and 2 out