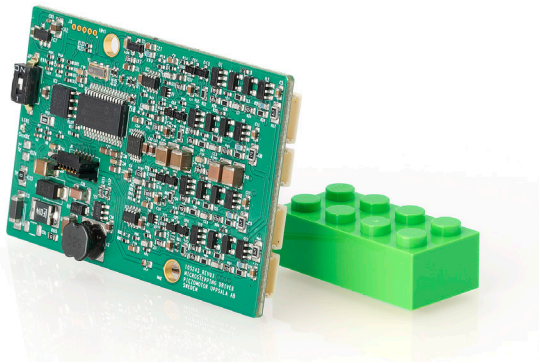
Piezo LEGS® PMD401 miniature controller



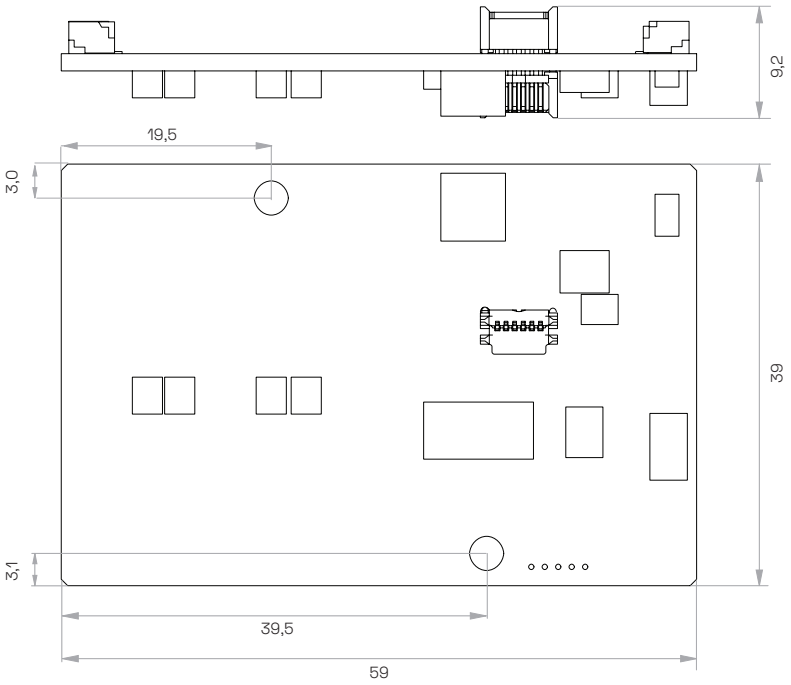
Key features

- Sub-nanometer resolution
- Closed loop control
- Open loop mode
- Stackable boards for multi-axis
- Slave amplifier to external motion controller via SPI interface (servo mode)

Product description

The PMD401 is a fully featured miniature controller for open loop and closed loop operation that can be easily stacked to form a multi-axis controller system.
It can be connected to the customer's mainboard for integration in OEM applications.
Host communication is done via 2-wire RS485 through ASCII commands. The PMD401 can also be used as a servo amplifier where the external controller regulates the speed via an SPI interface.
A breakout board with terminal blocks for easy access to power and communication is offered optionally for customers who want to get application development started straight away. It provides sub-nanometer resolution and speed in the mm/s range.

Product Dimensions



SWEDEN
Stationsgatan 23
SE-753 40 Uppsala

USA
4215 Pleasent Rd
Fort Mill, SC 29708

www.acuvi.com

Piezo LEGS® PMD401 specifications

TYPE	VALUE	COMMENT
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
Maximum stepping rate	1500 Hz	Depends on motor
Supported encoders	Quadrature	ABZ, 20 MHz counting
	SSI	8–30 bits, 330 or 130 kbps
	BiSS	18/26/32 bits, 330 kbps
Host communication	Two-wire RS485	Commands are sent in ASCII format, 115.2 kbps (n81)
Servo interface	SPI	16 bits (signed), max 15 Mbps
General I/O	4 in	Depending on encoder type and use of limit switches
	3 out	
Limit switch	Yes	Input for external limit switches
Power supply	48 V DC, 5 W	48 V DC ±5%
Dimensions (mm)	59 x 39 x 9.2	

a. Power and communication can be provided through either a stacking connector or through power/communication connectors.
All specifications are subject to change without notice. Latest data sheets are available for download at acuvi.com

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