

MMP Series

Features

- ▶ *Modular linear micropositioners*
- ▶ *Range of motion: 25mm & 50mm*
- ▶ *Optional encoders: 50 nm resolution*
- ▶ *Proprietary intelligent control for stability*
- ▶ *High native precision & accuracy*
- ▶ *Nanopositioner compatible*
- ▶ *Mix & match different travel ranges*

Typical Applications

- ▶ *Complex, programmed motion control*
- ▶ *High precision positioning*
- ▶ *Automation*



The MMP Series L-R: MMP50, MMP25, two axis system using MMP25 with encoders, three axis system using MMP25 with AC-V25 adapter set.

Product Description

The MMP Series are precision, stepper motor driven, micropositioning systems for high precision motion control for a variety of applications. The MMP Series are designed for modularity, and with travel ranges of 25mm or 50mm and can be configured into versatile multi-axis positioning systems. The MMP series employ our proprietary intelligent control scheme resulting in long range motion with exceptional stability and high native precision. This makes the MMP series suitable for use with high resolution nanopositioning systems (see table for compatible models). Optional high resolution (50nm) linear encoders provide real-time feedback of the actual stage position.

MMP stages can be mounted directly to each other with vertical axes supported via adapter sets. The adapter sets support two different profiles for the vertical axis (-H and -V style). The adapter sets AC-H25 and AC-H50 are lower profile and have the vertical axis mounted outside the adjacent axes. The AC-V25 and AC-V50 adapter sets allow for both inside and outside mount of the vertical axis. Adapter sets are specific to the travel range of the vertical axis. The included Micro-Drive® controller connects to a PC via a standard USB port and can be controlled via the supplied LabVIEW based software, user written software via the supplied DLL file (e.g. C++, Python), or selected third party software. Complex motion profiles can be programmed and sophisticated control parameters such as automatic acceleration and deceleration is employed to achieve high stability and native accuracy. Optional wireless gamepad control is also available.

Technical Specifications

Range of motion (MMP25)	25 mm
Range of motion (MMP50)	50mm
Cable exit choices	Back or Side
Encoder Resolution (optional).....	50 nm
Step Size	95 nm
Maximum Speed	4 mm/sec
Native Accuracy	< 4 μ m
Native Repeatability	< 100 nm
Recommended max. load (horizontal)*	10 kg
Recommended max. load (vertical)*	2 kg
Body Material	Aluminum
Controller	Micro-Drive®

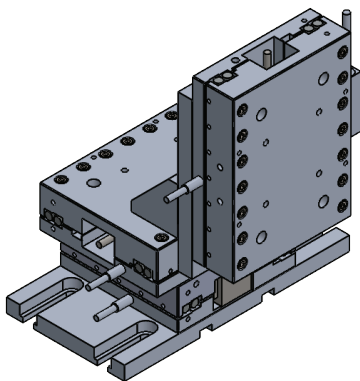
* Larger load requirements should be discussed with our engineering staff.



Three axis Micro-Drive® 3 controller includes a USB port for direct connection of the Micro-Drive® controller to a PC. LabVIEW® and 3rd party software compatible.

How to order

	MMP25	MMP50
Travel	25mm	50mm
Cable exit (back or side)	-B or -S	-B or -S
Add Encoders	-50E	-50E
Vertical axis is...	Use adapter AC-H25 or AC-V25	Use adapter AC-H50 or AC-V50
Adapter to optical tables	AC-APMMP	AC-APMMP
Compatible Nanopositioners	Nano-3D200, Nano-HS Series, Nano-HS3M, Nano-MET10, Nano-MET20, Nano-OP Series, Nano-SPM200	

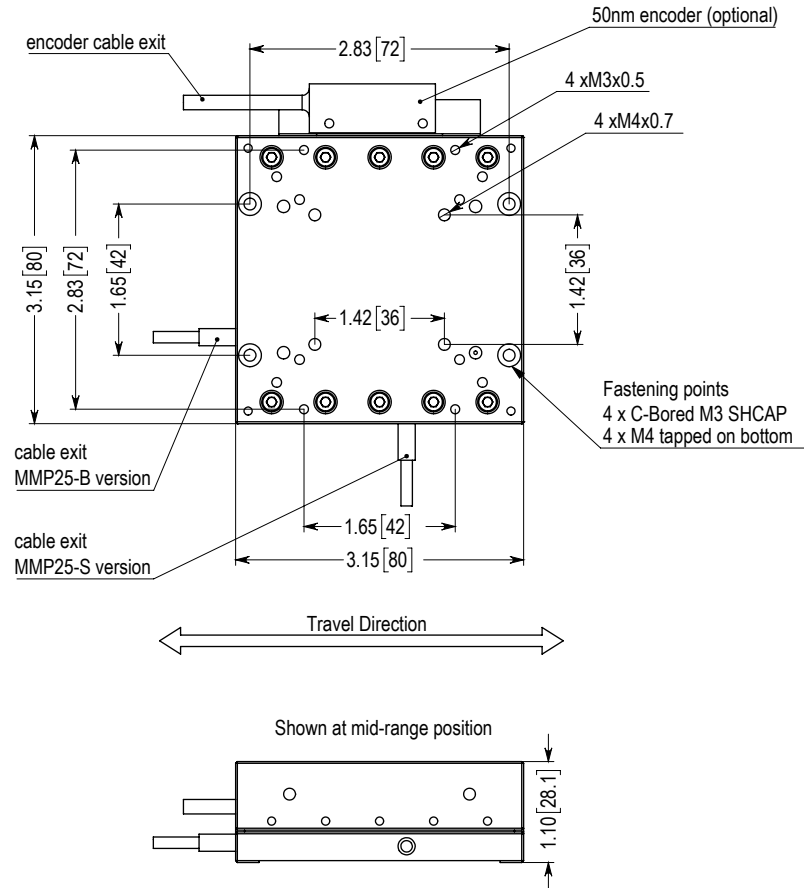


Example: Three axis micropositioner with 25mm × 50mm × 50mm travel with encoder on the vertical axis.

- 1 x MMP25-S
- 1 x MMP50-B
- 1 x MMP50-S-50E(vertical axis)
- 1 x AC-H50 adapter set†
- 1 x AC-APMMP

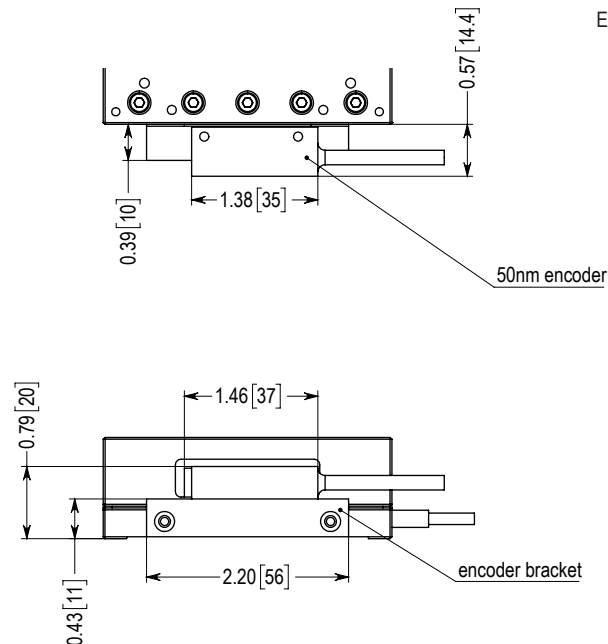
† Adapter set information on our website or email us!

MMP25

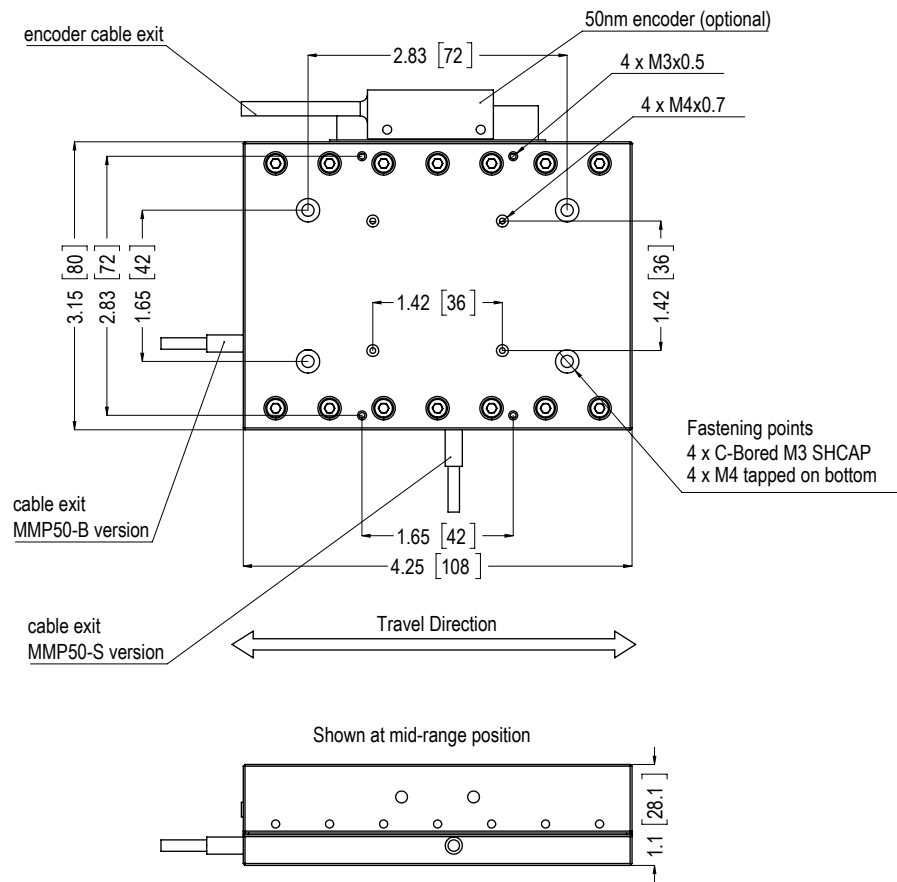


Note: All Dimensions in Inches [mm]

Encoder Detail (shown on MMP25 for context)



Note: All Dimensions in Inches [mm]



Note: All Dimensions in Inches [mm]