

Elliot Gold™ Series: XYZ Flexure Stages

MDE122 High-Precision XYZ Flexure Stage



ELLIOT MARTOCK

- 20 nm resolution
- 2 mm travel per axis
- 4.5 kg load capacity
- Minimal arcuate displacement
- Orthogonal alignment grooves
- Patented† high resolution adjusters
- Ultra-stable patented†† design XYZ flexure stage

The MDE122 flexure stage is fitted with simple manual adjusters and provides 20 nm of adjustment resolution with 2 mm of travel in each of the three axes.

The Elliot Gold™ series XYZ flexure stage is a development of the immensely popular original stage invented and patented† by Martock Design, now a subsidiary of Elliot Scientific. Flexure stages are ideal for high precision device manipulation.

Applications range from fibre launch systems for single-mode, multimode and polarisation maintaining fibres as well as waveguide alignment, through to the manipulation of microstructures in bioscience. The arcuate displacement (vertical displacement due to longitudinal flexure motion) is up to 4 times better than competing products.

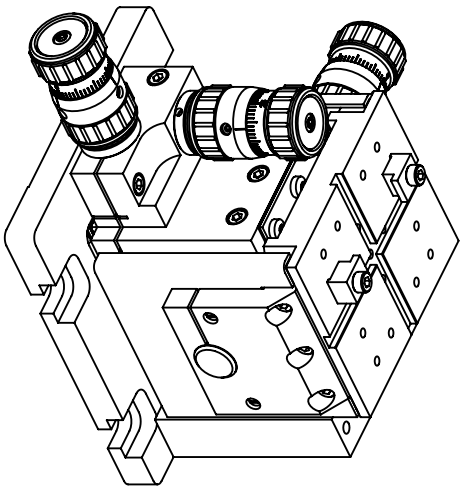
The optical axis height of all accessories is 18 mm above the top plate, placing the optical axis 94 mm above the bottom of the stage.

Specifications

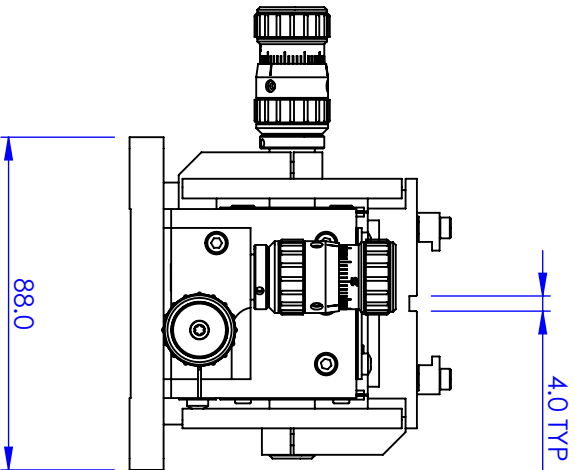
Configuration	Right handed version
Adjuster Type	Three high-precision adjusters (MDE216) with rotary fine and coarse control
Stage travel	2 mm in X, Y and Z axes
Resolution	20 nm
Load capacity	4.5 kg
Arcuate Displacement	X axis: 20 µm, Y & Z axes 14 µm (at maximum range of travel)
Optical axis	94 mm above the bottom of the stage
Includes	MDE154 clamp set
Variants	Left-handed version available

† Patent Nos. GB 2152616B & USA 4617833

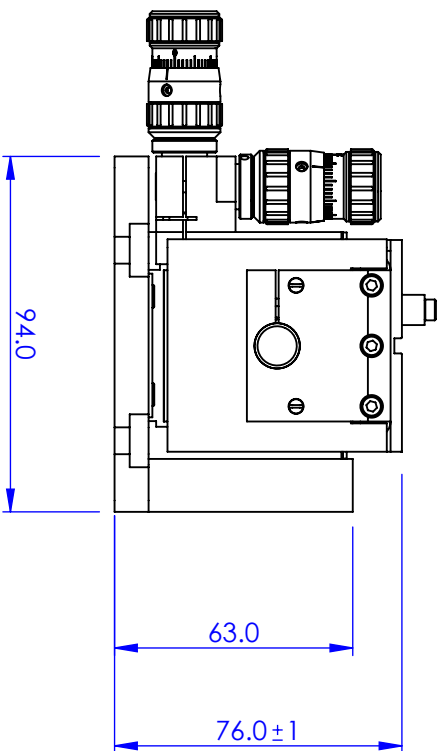
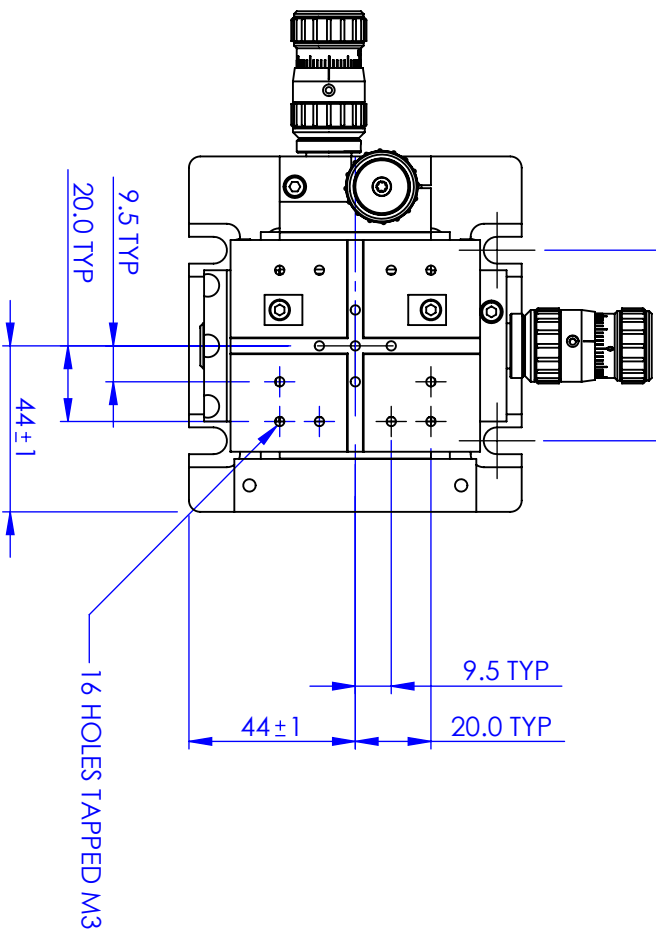
†† Patent Nos. GB 2129955B & USA 4635887



GENERAL VIEW
SCALE: 1:2



50.4mm FOR METRIC
AND IMPERIAL MOUNTING



REV.	DESCRIPTION	DATE	APPROVED

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DIMENSIONS ARE IN mm
 GENERAL TOLERANCES: ± 0.1
 ANGULAR TOLERANCES: ±
 SURFACE FINISH:
 ALL BURRS, SHARP EDGES
 AND CORNERS TO BE
 REMOVED

NAME	DATE
AUTHOR GW	30/06/2010
CHECKED --	--

Eliot Scientific

TITLE
FLEXURE STAGE

SIZE
A4

DWG. NO.
MDE122

SCALE: 1:2

THIRD ANGLE PROJECTION

SHEET 1 OF 1