ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

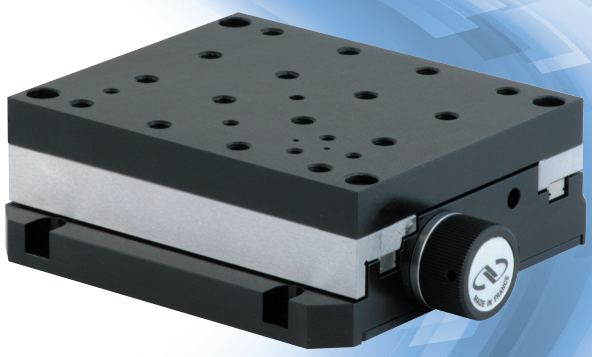
- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Newport VP-25XA* at our website: *Click HERE*

Precision Compact Motorized Linear Stages



VP-25X

Featuring an aluminium body in a compact package, the VP-25X series has 25 mm travel with exceptional MIM and position stability. Similar to other families of linear stages, the VP-25X also features recirculating ball bearings, a backlash-free ball screw, and a linear steel scale. Applications include: fiber alignment, bio-medical, semiconductor and high precision test and measurement.

- Easy XY and XYZ configuration
- Highly sensitive 10 nm Minimum Incremental Motion
- Low-profile, compact, and lightweight
- Convenient manual adjustment knob
- Built-in linear encoder for highly repeatable and precise motion
- Plug and Play - ESP compatible

Backlash-free Ballscrew

The VP includes a preloaded, backlash-free ball screw, which provides smooth motion and outstanding bi-directional repeatability.

XYZ Configuration

The VP stages can be easily stacked into XY configurations or XYZ configurations using the VP-BK bracket. The VP stages conveniently come with either Metric or Standard hole patterns.

Micro-positioning

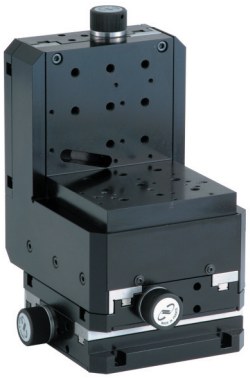
The VP-25XL series features a linear steel scale encoder ensuring positioning with accuracy of ±1 µm is possible when commanded by the XPS advanced motion control system.

End-of-Run Limit Switches

The stage contains end-of-run limit switches on both ends to prevent damage to the stage from over-travel.

Manual Adjustment Knob

The VP-25X is equipped with a manual adjustment knob adding to its utility.



VP-25X stages can easily be assembled into an XYZ configuration with optional VP-BK bracket. Shown here is a left-handed stack, VP-25X-XYZL.

DESIGN DETAILS

Base Material	Aluminum
Bearings	Recirculating ball bearings
Drive Mechanism	Backlash-free ball screw
Drive Screw Pitch	1 mm
Feedback	Linear steel scale, 20 mm signal period. VP-25XA: RS422 output VP-25XL: 1 V_{PP} analog sine-cos output
Limit Switches	Optical
Origin	Optical, at center of travel, including mechanical zero signal
Motor	DC-Servo
Cable Length	VP-25XA: 1.5 m (included) VP-25XL: 3 m (included)

Newport®

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Metrology Report Included at No Additional Cost

Newport guarantees specification values which are measured and recorded following ASME B5.57 and ISO 230-2 standards. The typical performance values are two times better than the guaranteed specifications.

Need Accuracy to 1 µm?

For critical positioning applications, Newport offers micropositioning calibration services. We will create, implement and verify an electronic compensation process to improve the absolute position accuracy of your Newport VP-25XL Series stages when commanded by our XPS advanced motion control system. Compensation is performed at 20.0 °C, ±0.2 °C, for linear and non-linear errors, ensuring accuracy of up to 1 µm/100 mm over center 80% of travel. A certificate of calibration per Newport Metrology Procedure A167 and measured error maps are provided.

SPECIFICATIONS

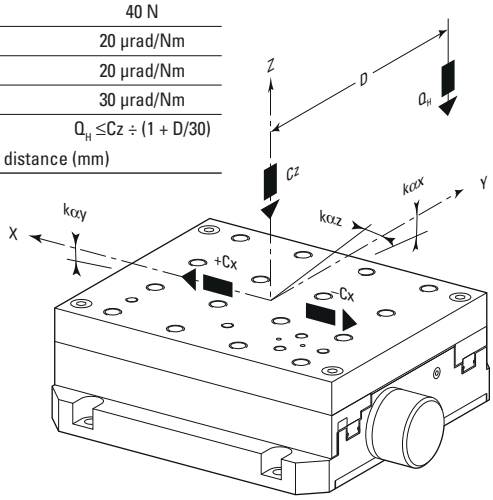
	VP-25XA	VP-25XL
Travel Range (mm)	25	
Minimum Incremental Motion (µm)	0.1	0.01
Bi-directional Repeatability, Typical (Guaranteed)[1] (µm)	±0.06 (±0.10)	±0.05 (±0.07)
Accuracy, Typical (Guaranteed)[1] (µm)	±0.4 (±1.0)	±0.5 (±1.0)
Maximum Speed (mm/s)	25	
Pitch, Typical (Guaranteed)[1][2] (µrad)	±22 (±50)	±20 (±50)
Yaw, Typical (Guaranteed)[1][2] (µrad)	±17 (±50)	±20 (±50)
MTBF (h)	20,000	
Weight [lb. (kg)]	3.3 (1.5)	

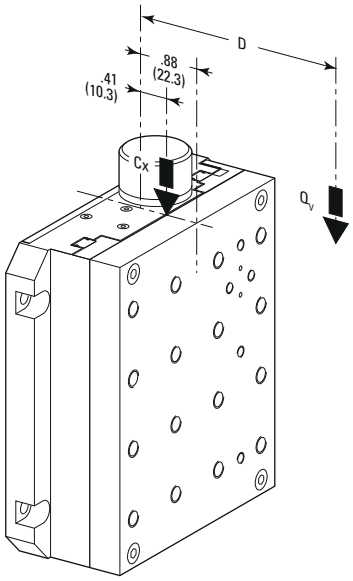
[1] Shown are peak to peak, guaranteed specifications or ±half the value as sometimes shown. For the definition of typical specifications which are about 2X better than the guaranteed values, visit www.newport.com for the Motion Control Metrology Primer.

[2] To obtain arcsec units, divide µrad value by 4.8.

LOAD CHARACTERISTICS AND STIFFNESS

Cz,	Normal centered load capacity	60 N
-Cx, +Cx,	Axial load capacity	40 N
Kαx,	Compliance in roll	20 µrad/Nm
Kαy,	Compliance in pitch	20 µrad/Nm
Kαz,	Compliance in yaw	30 µrad/Nm
Q_H,	Off-center load (N)	$Q_H \leq Cz \div (1 + D/30)$
	Where D = Cantilever distance (mm)	

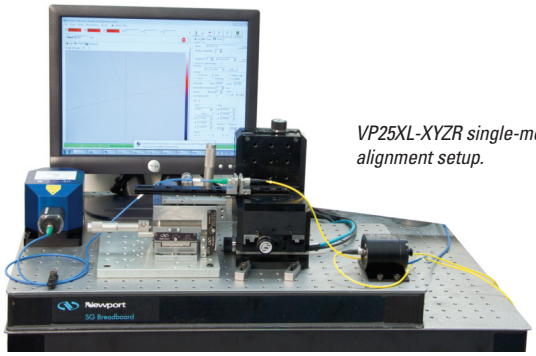




Cx,	Axial load capacity	40 N
Q_V,	Off-center load (N)	$Q_V \leq Cz \div (1 + D/30)$
	Where D = Cantilever distance in mm between the center of mass of the load and the bearings center (mm)	
Distance between top surface and the bearings center		22.3 mm
Distance between under the top plate and the bearings center		10.3 mm

RECOMMENDED CONTROLLERS/DRIVERS

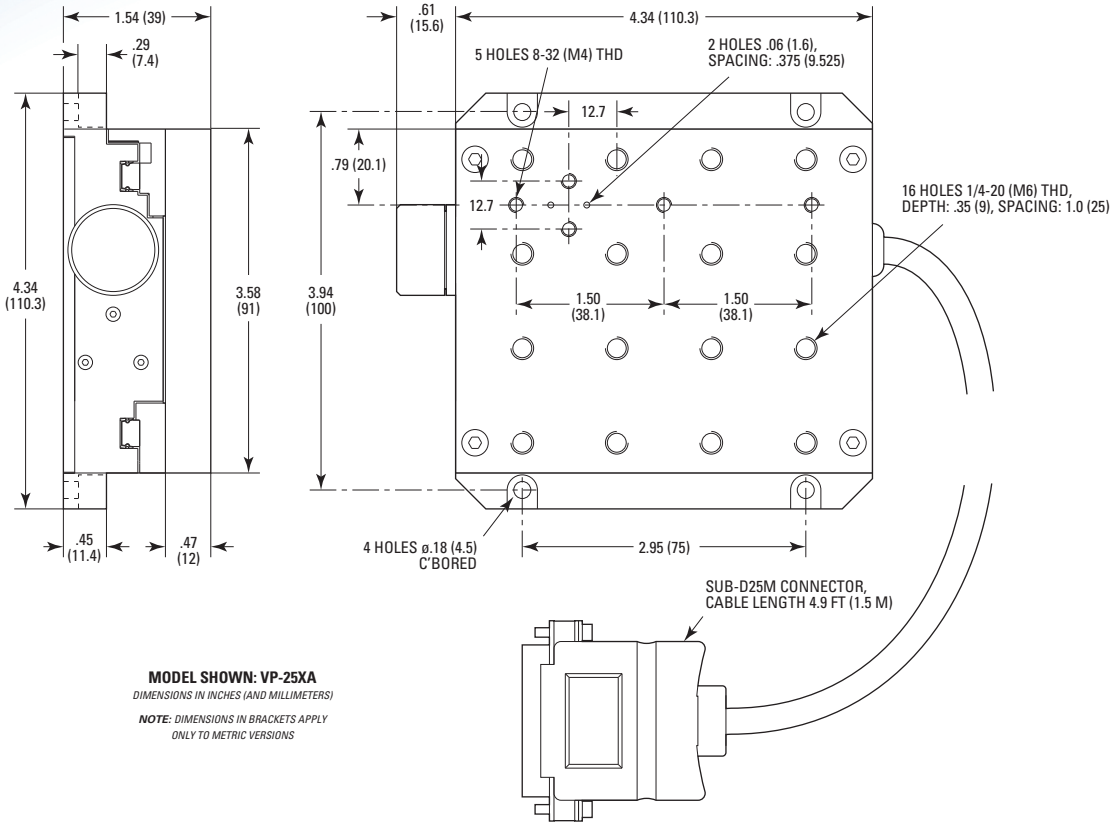
Model	Description
XPS-D	1- to 8-axis universal high-performance motion controller/driver
XPS-DRV11	Universal digital driver card for stepper, DC and direct motors
XPS-RL	1- to 4-axis universal high-performance motion controller/driver
XPS-DRV01	PWM drive module for DC brush and stepper motors, 3 A/43 V max.
XPS-DRV03	High performance PWM drive module for DC motors, 5 A/43 V max.
ESP301	1- to 3-axis motion controller/driver
SMC100CC	Single-axis DC motor controller/driver



VP25XL-XYZR single-mode fiber alignment setup.

DIMENSIONS

VP-25XA Stage



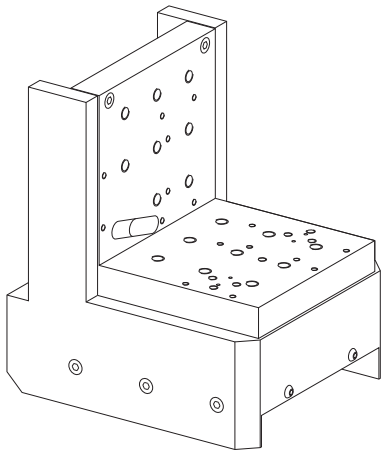
MODEL SHOWN: VP-25XA

DIMENSIONS IN INCHES (AND MILLIMETERS)

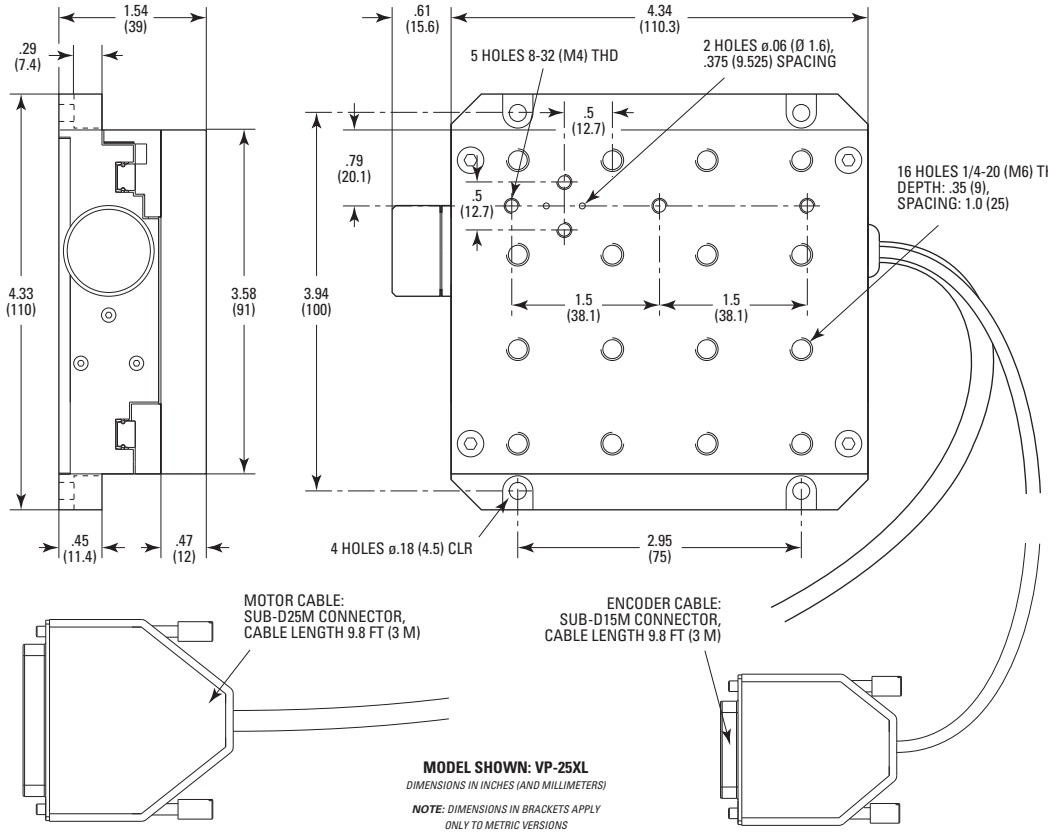
NOTE: *DIMENSIONS IN BRACKETS APPLY ONLY TO METRIC VERSIONS*

VP-BK Bracket

(see dimenions on next page)



VP-25XLA Stage

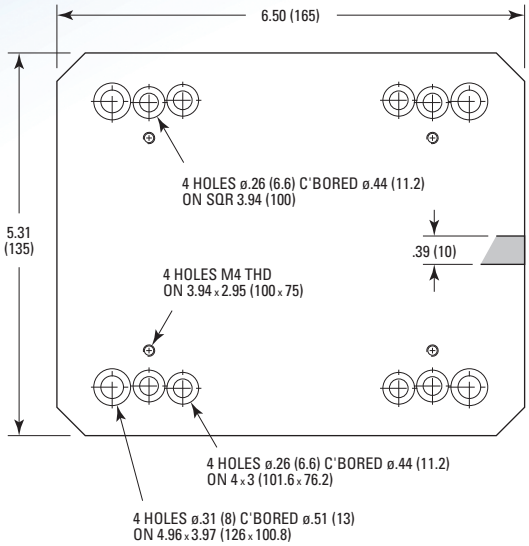


MODEL SHOWN: VP-25XL

DIMENSIONS IN INCHES (AND MILLIMETERS)

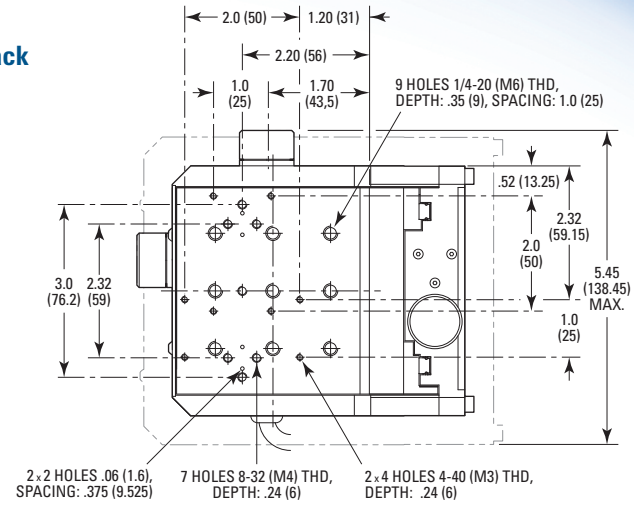
NOTE: *DIMENSIONS IN BRACKETS APPLY ONLY TO METRIC VERSIONS*

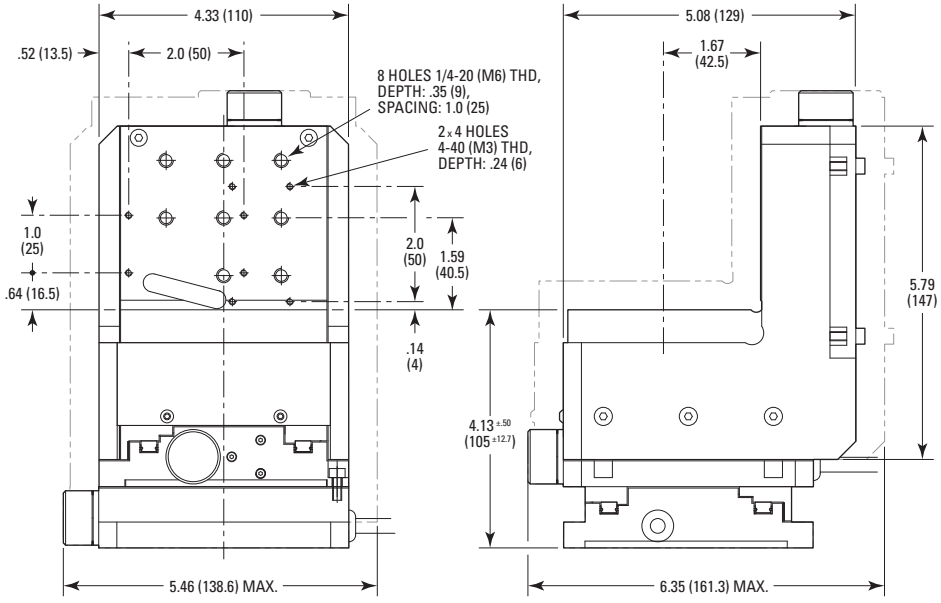
VP-BP Base Plate



XYZ Stage Stack

MODEL SHOWN: (M-)VP-25XA-XYZL
DIMENSIONS IN INCHES (AND MILLIMETERS)
***NOTE:** DIMENSIONS IN BRACKETS APPLY ONLY TO METRIC VERSIONS*





ORDERING INFORMATION

Model (Metric)	Description
VP-25XA (M-VP-25XA)	Precision Compact Linear Stage, 25 mm, 0.1 mm, DC servo motor with Tachometer
VP-25XL (M-VP-25XL)	Precision Compact Linear Stage, 25 mm, 0.005 mm, DC servo motor with Tachometer
VP-25XA-XYZL (M-VP-25XA-XYZL)	Compact XYZ Stage Stack, Left-handed, (M-)VP-25XA Stages with (M-)VP-BK Bracket
VP-25XA-XYZR (M-VP-25XA-XYZR)	Compact XYZ Stage Stack, Right-handed, (M-)VP-25XA Stages with (M-)VP-BK Bracket
VP-25XL-XYZL (M-VP-25XL-XYZL)	Compact XYZ Stage Stack, Left-handed, (M-)VP-25XL Stages with (M-)VP-BK Bracket
VP-25XL-XYZR (M-VP-25XL-XYZR)	Compact XYZ Stage Stack, Right-handed, (M-)VP-25XL Stages with (M-)VP-BK Bracket

ACCESSORIES

Model	Description
562-RAIL-3.7	562 Dovetail Rail, 562F-TILT Stages
561-RAIL-1	Dovetail Rail, ULTRAlign Positioning System, 25.4 mm Length
VP-BC	Base Clamp Set, VP Series Stages, Set of Four
VP-BP	Universal Base Plate, VP Series Stages

Newport®
Newport Corporation, Global Headquarters
1791 Deere Avenue, Irvine, CA 92606, USA
www.newport.com
PHONE: 1-800-222-6440 1-949-863-3144 FAX: 1-949-253-1680 EMAIL: sales@newport.com
Complete listings for all global office locations are available online at www.newport.com/contact

Newport Corporation, Irvine, California and Franklin, Massachusetts; Evry and Beaune-la-Rolande, France and Wuxi, China have all been certified compliant with ISO 9001 by the British Standards Institution. Santa Clara, California is DNV certified.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP