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*

VP-25XA

Precision Compact Linear Stage



Newport®
Experience | Solutions

USER'S MANUAL

For Motion, Think Newport

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

Warranty

Newport Corporation warrants this product to be free from defects in material and workmanship for a period of 1 year from the date of shipment. If found to be defective during the warranty period, the product will either be repaired or replaced at Newport's discretion.

To exercise this warranty, write or call your local Newport representative, or contact Newport headquarters in Irvine, California. You will be given prompt assistance and return instructions. Send the instrument, transportation prepaid, to the indicated service facility. Repairs will be made and the instrument returned, transportation prepaid. Repaired products are warranted for the balance of the original warranty period, or at least 90 days.

Limitation of Warranty

This warranty does not apply to defects resulting from modification or misuse of any product or part.

CAUTION

Warranty does not apply to damages resulting from:

- **Incorrect usage:**
  - **Load on the stage greater than maximum specified load.**
  - **Carriage speed higher than specified speed.**
  - **Improper grounding.**
    - ¬ **Connectors must be properly secured.**
    - ¬ **When the load on the stage represents an electrical risk, it must be connected to ground.**
  - **Excessive or improper cantilever loads.**
- **Modification of the stage or any part thereof.**

CAUTION

Please return equipment in the original (or equivalent) packing.

You will be responsible for damage incurred from inadequate packaging if the original packaging is not used.

This warranty is in lieu of all other warranties, expressed or implied, including any implied warranty of merchantability or fitness for a particular use. Newport Corporation shall not be liable for any indirect, special, or consequential damages.

No part of this manual may be reproduced or copied without the prior written approval of Newport Corporation.

This manual has been provided for information only and product specifications are subject to change without notice. Any changes will be reflected in future printings.

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

Table of Contents

Warranty ii
EC Declaration of Conformity v
Definitions and Symbols vi
Warnings and Cautions vi
Warnings vii
Cautions viii

1.0 — Introduction 1

2.0 — Description 2

3.0 — Characteristics 2
3.1 Definitions 2
3.2 Mechanical Specifications 3
3.3 Load Specification Definitions 3
3.4 Load Characteristics and Stiffness 4
3.5 Stage Weight 4

4.0 — Drive 5

5.0 — Motor 5
5.1 DC Motor Characteristics 5
5.2 Command Signals for UE25CC DC Motor 5
5.3 Sensor Position 6
5.4 Feedback Signal Position 6
5.5 Pinouts 7

6.0 — Connection to Newport Electronics 8
6.1 Warnings on electronic units 8
6.2 Connection 9
6.3 Cables 9

7.0 — Connection to Non-Newport Electronics 10

8.0 — Dimensions 11
8.1 (M-)VP-25XA Precision Compact Linear Stage 11
8.2 (M-)VP-25XA Stage without Top Plate Interface 11

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

9.0 — Assemblies 12
9.1 XY Mounting 12
9.2 XYZ Configuration 13

10.0 — Maintenance 14
10.1 Maintenance 14
10.2 Repairing 14
10.3 Calibration 14

Service Form 15

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

EC Declaration of Conformity

VP-25XA

EC Declaration of Conformity

following Annex II-1A
of Directive 2006/42/EC on machinery

Newport
Experience | Solutions

The manufacturer:

MICRO-CONTROLE Spectra-Physics,
1 rue Jules Guesde ZI. Bois de l'Epine - BP189
F-91006 Evry FRANCE

Hereby declares that the machinery:

Description: "VP-25XA"
Function: Precision Compact Linear Stage
Models: (M-)VP-25XA

– the technical file of which was compiled by:

Mr Dominique DEVIDAL, Quality Director,
MICRO-CONTROLE Spectra-Physics, Zone Industrielle - B.P.29
F-45340 Beaune La Rolande France

– complies with all the relevant provisions of the Directive 2006/42/EC on machinery.
– complies with all the relevant provisions of the Directive 2004/108/EC relating to electro-magnetic compatibility.

– was designed and built in accordance with the following harmonised standards:

NF EN 61326-1:2006 « Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 1: General requirements »
NF EN 55011:2007 Class A

– was designed and built in accordance with the following other standards:

NF EN 61000-4-2
NF EN 61000-4-3
NF EN 61000-4-4
NF EN 61000-4-5
NF EN 61000-4-6

ORIGINAL DECLARATION

Done in Beaune La Rolande on 09 June 2011
Dominique DEVIDAL
Quality Director



DC1-EN rev:A

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

Definitions and Symbols

The following terms and symbols are used in this documentation and also appear on the product where safety-related issues occur.

General Warning or Caution



The exclamation symbol may appear in warning and caution tables in this document. This symbol designates an area where personal injury or damage to the equipment is possible.

European Union CE Mark



The presence of the CE Mark on Newport Corporation equipment means that it has been designed, tested and certified as complying with all applicable European Union (CE) regulations and recommendations.



ATTENTION

This stage is a Class A device. In a residential environment, this device can cause radioelectric interferences. In this case, suitable measurements must be taken by the user of this device.

Warnings and Cautions

The following are definitions of the Warnings, Cautions and Notes that may be used in this manual to call attention to important information regarding personal safety, safety and preservation of the equipment, or important tips.



WARNING

Situation has the potential to cause bodily harm or death.



CAUTION

Situation has the potential to cause damage to property or equipment.

NOTE

Additional information the user or operator should consider.

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

Warnings



WARNING

The motion of objects of all types carries potential risks for operators. Ensure the protection of operators by prohibiting access to the dangerous area and by informing the personnel of the potential risks involved.

WARNING

Do not use this stage when its motor is emitting smoke or is unusually hot to the touch or is emitting any unusual odor or noise or is in any other abnormal state.

Stop using the stage immediately, switch off the motor power and then disconnect the electronics power supply.

After checking that smoke is no longer being emitted contact your Newport service facility and request repairs. Never attempt to repair the stage yourself as this can be dangerous.

WARNING

Make sure that this stage is not exposed to moisture and that liquid does not get into the stage.

Nevertheless, if any liquid has entered the stage, switch off the motor power and then disconnect the electronics from power supply.

Contact your Newport service facility and request repairs.

WARNING



Do not insert or drop objects into this stage, this may cause an electric shock, or lock the drive.

Do not use this stage if any foreign objects have entered the stage. Switch off the motor power and then disconnect the electronics power supply.

Contact your Newport service facility for repairs.

WARNING

Do not place this stage in unstable locations such as on a wobbly table or sloping surface, where it may fall or tip over and cause injury.

If this stage has been dropped or the case has been damaged, switch off the motor power and then disconnect the electronics power supply.

Contact your Newport service facility and request repairs.

WARNING

Do not attempt to modify this stage; this may cause an electric shock or downgrade its performance.

WARNING

Do not exceed the usable depth indicated on the mounting holes (see section “Dimensions”). Longer screws can damage the mechanics or cause a short-circuit.

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

Cautions

CAUTION

Do not place this stage in a hostile environment such as X-Rays, hard UV,… or in any vacuum environment.

CAUTION

Do not place this stage in a location affected by dust, oil fumes, steam or high humidity. This may cause an electric shock.

CAUTION

Do not leave this stage in places subject to extremely high temperatures or low temperatures. This may cause an electric shock.

- **Operating temperature: +10 to +35 °C.**
- **Storage temperature: -10 to +40 °C (in its original packaging).**

CAUTION



Do not move this stage if its motor power is on.

Make sure that the cable to the electronics is disconnected before moving the stage. Failure to do so may damage the cable and cause an electrical shock.

CAUTION

Be careful that the stage is not bumped when it is being carried. This may cause it to malfunction.

CAUTION

When handling this stage, always unplug the equipment from the power source for safety.

CAUTION

When the carriage is in its end-of-run position, it is strongly recommended not to go beyond this point by using the manual knob as this may damage the stage mechanism.

CAUTION

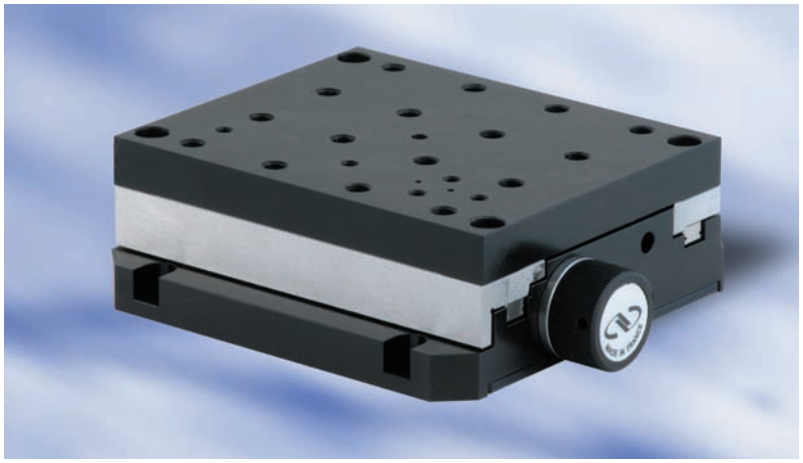
Contact your Newport service facility to request cleaning and specification control every year.

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

Precision Compact Linear Stage
VP-25XA

1.0 Introduction

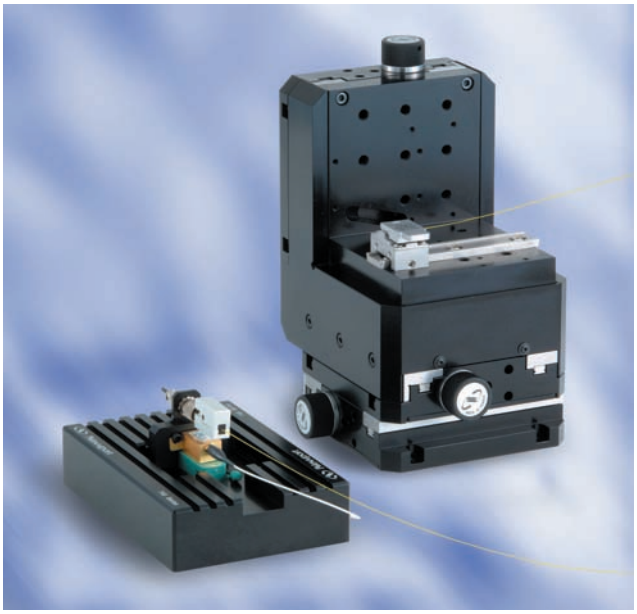
This manual provides operating instructions for the (M-)VP-25XA precision compact linear stage.



VP-25XA translation stage.

RECOMMENDATION

We recommend you read carefully the chapter “Connection to electronics” before using the VP-25XA stage.



3 stages VP-25XA in XYZ configuration.

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

2.0 Description

The VP-25XA translation stage features an all aluminum body and recirculating preloaded ball bearing slides as guide ways to ensure accurate linear travel.

The design and interface of VP-25XA fixtures enable XY mounting without using an additional intermediate plate.

A standard top plate interface is supplied with each stage.

A preloaded, backlash-free ballscrew with a 1 mm pitch provides smooth motion. The screw is accurately ground to reduce the heating factor to a minimum and extend the lifetime of the stage.

The position is read on a metal optical scale with pitch of 20 µm and a 200x interpolation of signals to obtain a 0.1 µm resolution.

The VP-25XA stage features end-of-run limit switches at both ends of the stage to prevent bearing damage from over-travel. The origin (Mechanical Zero) is at the center of travel, with a reference on the optical scale.

For optimal performance, we recommend the use of our ESP or MM series motion controllers.

The VP-25XA stage is equipped with a cable of 1.5 m length and a 25-pin sub-D connector for connection to our motion controllers.

3.0 Characteristics

3.1 Definitions

Specifications of our products are established in reference to ISO 230 standard part II “Determination of the position, precision and repeatability of the machine tools with CNC”.

This standard gives the definition of position uncertainty which depends on the 3 following quantities:

(Absolute) Accuracy

Difference between ideal position and real position.

On-Axis Accuracy

Difference between ideal position and real position after the compensation of linear error sources.

Linear errors include: cosine errors, inaccuracy of screw or linear scale pitch, angular deviation at the measuring point (Abbe error) and thermal expansion effect. All Newport motion electronics can compensate for linear accuracy errors by step encoder correction.

The relation between absolute accuracy and on-axis accuracy is as follow:

Absolute Accuracy = On-Axis Accuracy + Slope x Travel

Repeatability

Ability of a system to achieve a commanded position over many attempts.

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

Reversal Value (Hysteresis)

Difference between actual position values obtained for a given target position when approached from opposite directions.

Minimum Incremental Motion (Sensitivity)

Minimum motion that a stage can achieve. Our stages and our kinematic chain are conceived in such a way that sensitivity is better than the resolution of the encoder.

Resolution

The smallest motion an encoder fixed to the stage can measure.

Yaw, Pitch

Rotation of carriage around the Z axis (Yaw) or Y axis (Pitch), when it moves.

The testing of on-axis accuracy, repeatability, and reversal error are made systematically with our test equipment in an air-conditioned room (20 °C ±1 °C).

Each stage is tested with a laser interferometer.

A linear cycle with 21 measures on travel and 4 cycles in each direction gives a total of 164 points.

3.2 Mechanical Specifications

Resolution	(µm)	0.1
On-Axis Accuracy	(µm)	2
Bi-directional Repeatability	(µm)	0.2
Pitch	(µrad)	100
Yaw	(µrad)	100
MTBF (1)	(h)	20,000

1) See chapter: "Maintenance".

The MTBF value indicated above is given to use the stage with the following parameters:

Centered load	(N)	50
Displacements	(mm)	2
Speed	(mm/s)	10
Operating rate on the cycle		50%
Cycle	21 hours/day 330 days/year	

3.3 Load Specification Definitions

Normal Load Capacity (Cz)

Maximum load a stage can move while maintaining specifications.

This value is given with speed and acceleration specified for each stage, and with a load perpendicular to bearings.

Specified Speed	(mm/s)	25
Specified Acceleration	(mm/s^2)	100

Axial Load Capacity (±Cx)

Maximum load along the direction of the drive train.

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

Off-Centered Load (Q)

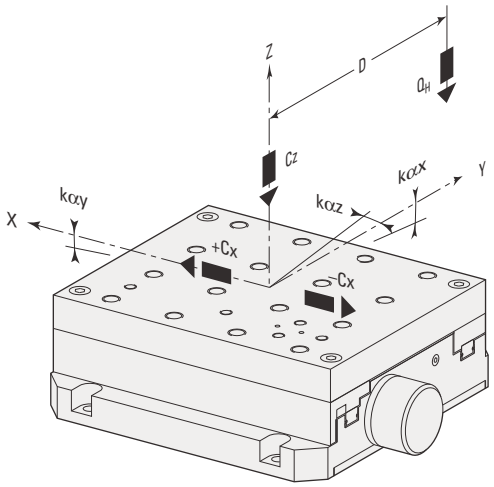
Maximum cantilever-load a stage can move: $Q \leq Cz / (1 + D/30)$

D: Cantilever distance.

3.4 Load Characteristics and Stiffness

Cz	(N)	60
– Cx; + Cx	(N)	40
kαx	(µrad/N.m)	20
kαy	(µrad/N.m)	20
kαz	(µrad/N.m)	30

Normal Load Characteristics



with:

Q_H: Off-center load, $Q_H \leq Cz / (1 + D/30)$

D: Cantilever distance in millimeters

Cz: Normal center load capacity on bearings

–Cx: Inverse load capacity on X axis

+Cx: Direct load capacity on X axis

kαx: Angular stiffness (Roll)

kαy: Angular stiffness (Pitch)

kαz: Angular stiffness (Yaw)

Axial Load Characteristics

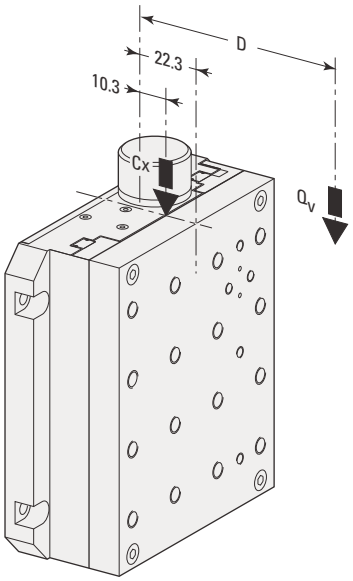
with:

Q_V: Off-center load, $Q_V \leq Cz / (1 + D/30)$ and Q_V must be $\leq Cx$

D: Cantilever distance in millimeters between the center of mass of the load and the bearings center

22.3: Distance between top surface and the bearings center in millimeters

10.3: Distance between under the top plate and the bearings center in millimeters



3.5 Stage Weight

Weight indicated is the value for the stage with the top plate and cable.

(M-)VP-25XA	(kg)	1.5

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

4.0 Drive

The VP-25XA stage is equipped with DC-motor and a metal optical scale.

Specifications

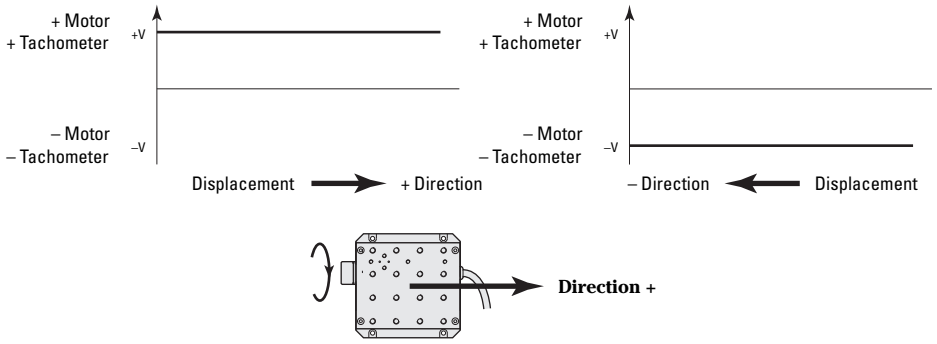
	Resolution (µm)	Maximum Speed (mm/s)	Motor
VP-25XA	0.1	25	UE25CC

5.0 Motor

5.1 DC Motor Characteristics

Motor	Nominal Voltage (V)	Max. Current (A)	Resistance (Ω)	Inductance (mH)
UE25CC	48	0.9	8	0.83

5.2 Command Signals for UE25CC DC Motor

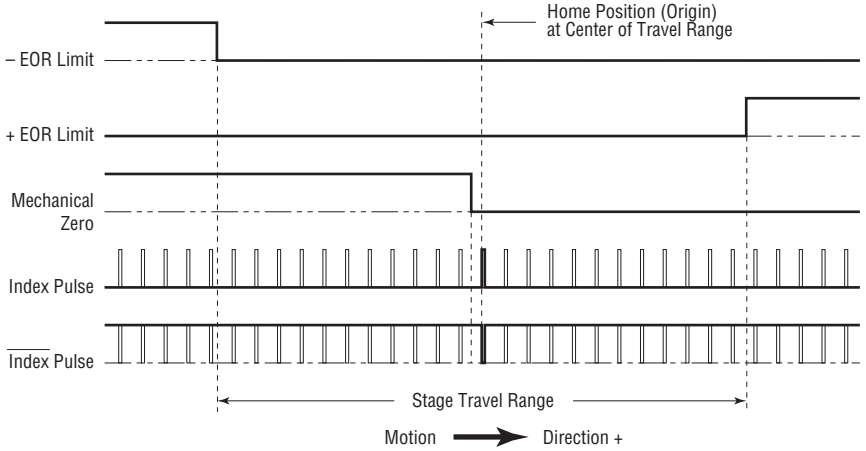


In the above drawings, + Motor signal is referred to – Motor signal, + Tacho Generator signal is referred to – Tacho Generator signal.

1. When the stage moves in + Direction, the + Motor voltage is higher than – Motor voltage, and + Tacho Generator voltage is higher than – Tacho Generator voltage.
2. When the stage moves in – Direction, the + Motor voltage is lower than – Motor voltage, and + Tacho Generator voltage is lower than – Tacho Generator voltage.

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

5.3 Sensor Position



End-of-Run and Mechanical Zero are TTL type: 5 V ±5%, 2 mA max.

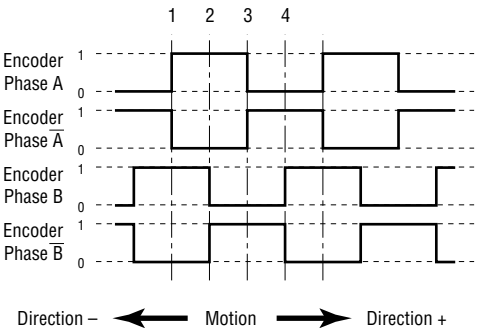
Use of the Index Pulse provides a repeatable Home Position at ±1 step.

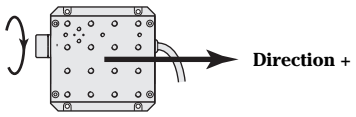
CAUTION

"End-of-Run" and "Mechanical Zero" are active signals and should not be connected to any other source. Use appropriate TTL type receivers.

Index Pulse and $\overline{\text{Index Pulse}}$ are "differential pair" type output signals. Using these signals permits a high immunity to noise. Emission circuits generally used by Newport are 26LS31 or MC3487. Reception circuits to use are 26LS32 or MC3486.

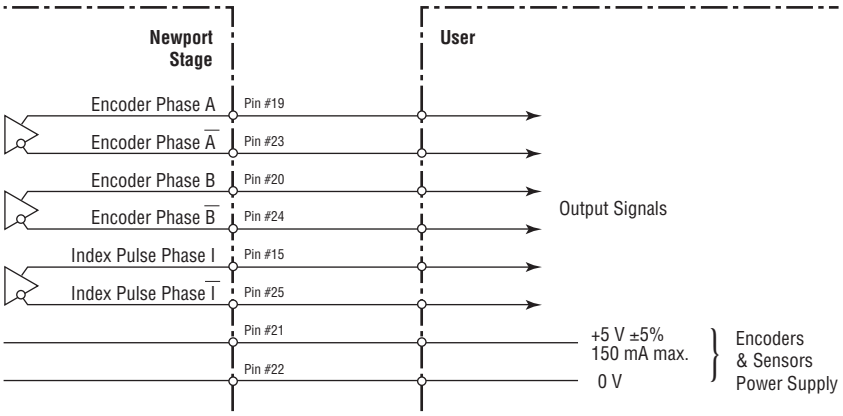
5.4 Feedback Signal Position





The incremental sensor consists of a optical scale and an encoder head. When the carriages of the stage move, the encoder head generates square signals in quadrature, sent to pins #19, #20, #23 and #24 of the 25-pin Sub-D connector.

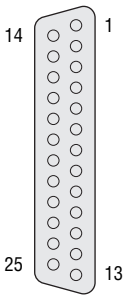
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



Encoders are “differential pair” (type RS422) type output signals. Using these signals permits a high immunity to noise. Emission circuits generally used by Newport are 26LS31 or MC3487. Reception circuits to use are 26LS32 or MC3486 respectively.

5.5 Pinouts

The 25-pin Sub-D connection for the VP-25XA stage is given in the following table:



	UE25CC: **(M-)VP-25XA**
1	+ Tachometer
2	N.C.
3	– Tachometer
4	N.C.
5	+ Motor
6	+ Motor
7	– Motor
8	– Motor
9	N.C.
10	N.C.
11	N.C.
12	N.C.
13	Mechanical Zero
14	Shield Ground
15	Index Pulse I
16	0 V logic
17	+ End-of-Run
18	– End-of-Run
19	Encoder Phase A
20	Encoder Phase B
21	Encoder Power: +5 V
22	0 V Encoder
23	Encoder Phase /A
24	Encoder Phase /B
25	Index Pulse /I

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

6.0 Connection to Newport Electronics

6.1 Warnings on electronic units

Electronic units are intended for use by qualified personnel who recognize shock hazards and are familiar with safety precautions required to avoid possible injury. Read the electronics manual carefully before operating the instrument and pay attention to all written warnings and cautions.

WARNING

Disconnect the power plug under the following circumstances:

- **If the power cord or any attached cables are frayed or damaged in any way.**
- **If the power plug is damaged in any way.**
- **If the unit is exposed to rain, excessive moisture, or liquids are spilled on the unit.**
- **If the unit has been dropped or the case is damaged.**
- **If you suspect service or repair is required.**
- **Whenever you clean the electronics unit.**

CAUTION

To protect the unit from damage, be sure to:

- **Keep all air vents free of dirt and dust.**
- **Keep all liquids away from the unit.**
- **Do not expose the unit to excessive moisture (>85% humidity).**
- **Read this manual before using the unit for the first time.**

WARNING

All attachment plug receptacles in the vicinity of this unit are to be of the grounding type and properly polarized.

Contact your electrician to check your receptacles.

WARNING

This product is equipped with a 3-wire grounding type plug.

Any interruption of the grounding connection can create an electric shock hazard.

If you are unable to insert the plug into your wall plug receptacle, contact your electrician to perform the necessary alterations to ensure that the green (green-yellow) wire is attached to earth ground.

WARNING

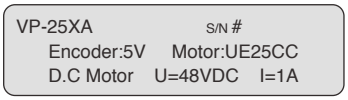
This product operates with voltages that can be lethal.

Pushing objects of any kind into cabinet slots or holes, or spilling any liquid on the product, may touch hazardous voltage points or short out parts.

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

6.2 Connection

On the stage is a label which indicates its name, its serial number and the motor it is equipped with (eg.: UE25CC).



WARNING

Always turn power OFF on electronics units before connecting them to stage.

Stages may be connected to the rear panel motor connectors labeled "Motor…" any time prior to power-up with the supplied cable assemblies.

WARNING

With MM series controllers, damage to stage may occur if the stage is not the same type as shown on driver label located near the stage interface connector.

Check that the option number specified on this label correspond to the number indicated in the driver module options table for your stage.

6.3 Cables

Our VP-25XA stage is delivered equipped with a 1.5-meter cable with 25-pin Sub-D connector. It can be directly connected to our controllers/drivers of MM or ESP series.

WARNING

These cables are shielded correctly. For a correct operation, make sure to lock connectors (ground continuity provided by cables).

WARNING

Keep the motor cables at a safe distance from other electrical cables in your environment to avoid potential cross talk.

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

7.0 Connection to Non-Newport Electronics

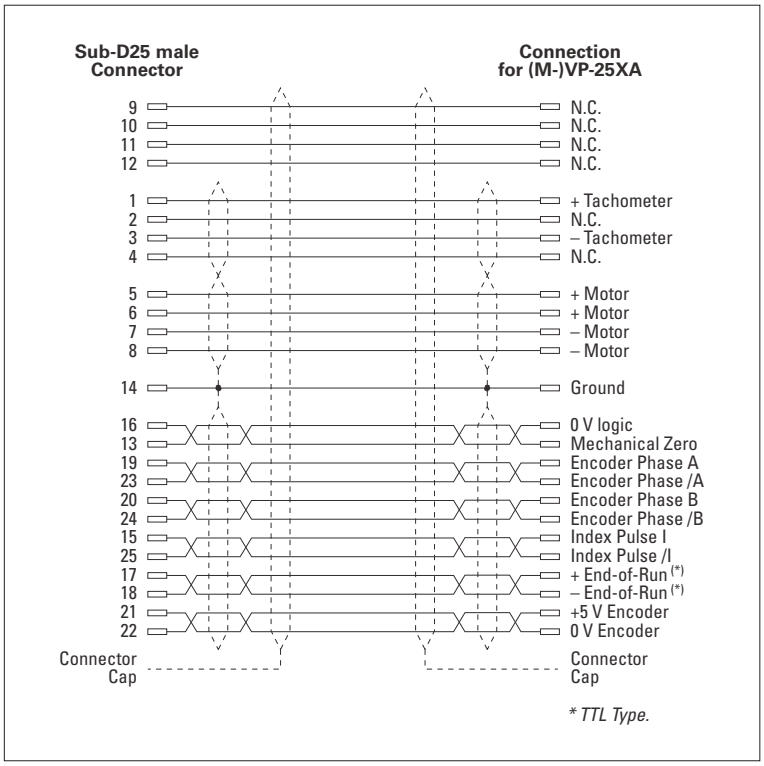
WARNING

Newport takes no responsibility for improper functioning or damage of a stage when it is used with any non- Newport electronics.

WARNING

Newport guarantees the "EC" compliance of the VP-25XA translation stages only if they are used with Newport cables and electronics.

Nevertheless, the figure below indicates the recommended wiring when a VP-25XA stage is used with non-Newport electronics.



WARNING

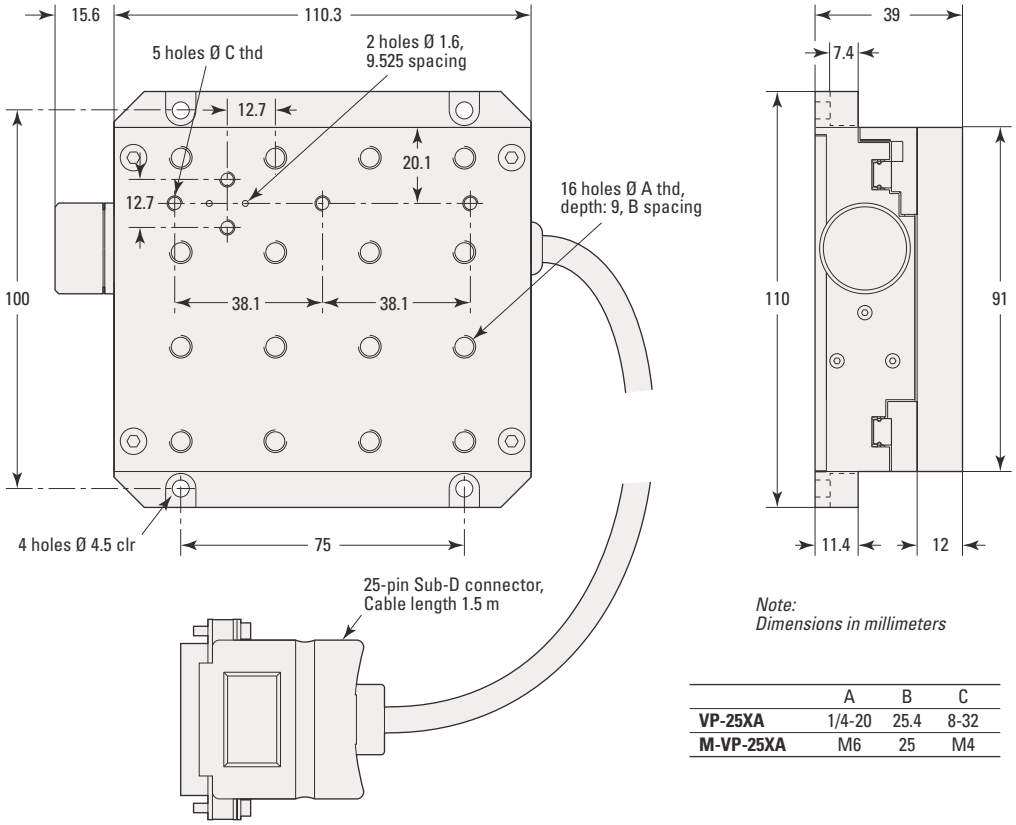
Maximum characteristics used for CE compliance:

- **UE25CC DC-motor: 48 V / 0.9 A peak-to-peak**

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

8.0 Dimensions

8.1 (M-)VP-25XA Precision Compact Linear Stage



Note:
Dimensions in millimeters

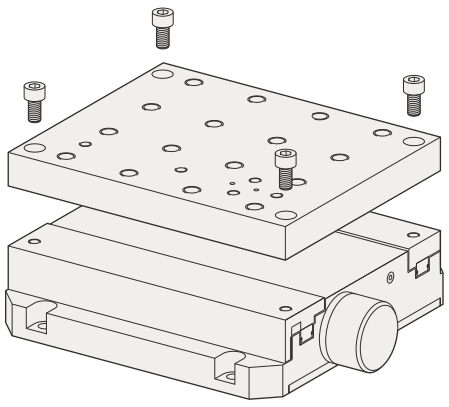
	A	B	C
VP-25XA	1/4-20	25.4	8-32
M-VP-25XA	M6	25	M4

CAUTION

To reach the specifications stated for (M-)VP-25XA, stages must be fixed on a plane surface with a flatness of 5 µm.

8.2 (M-)VP-25XA Stage without Top Plate Interface

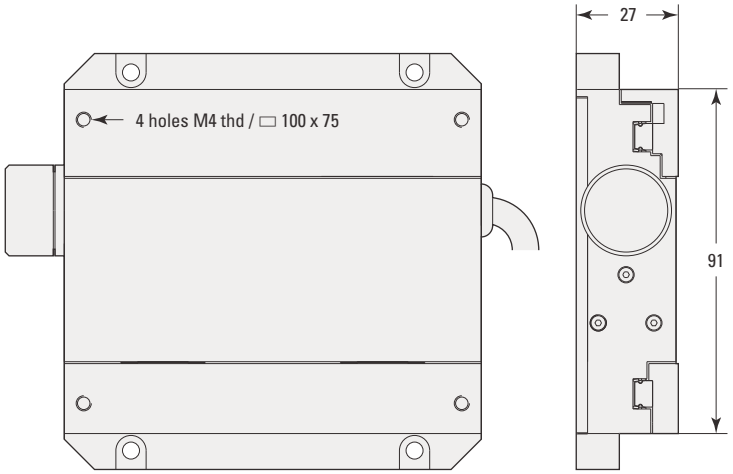
Sometimes, it is necessary to remove the top plate interface of a (M-)VP-25XA stage (to make an XY assembly, for example).



To do so, just unscrew the 4 CHc M4 x 12 / □ 100 x 75 screws of the top plate with the wrench supplied with the stage.

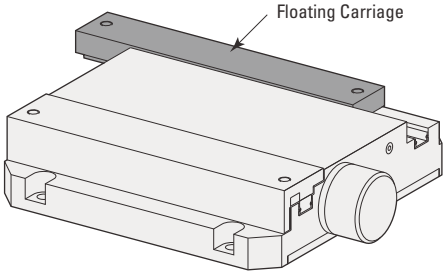
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

VP-25XA stage will then have the following interface:



CAUTION

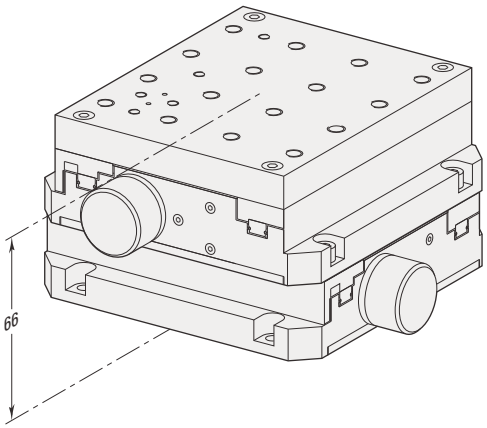
Once the top plate interface removed, one of carriages is floating on its axis.





9.0 Assemblies

9.1 XY Mounting



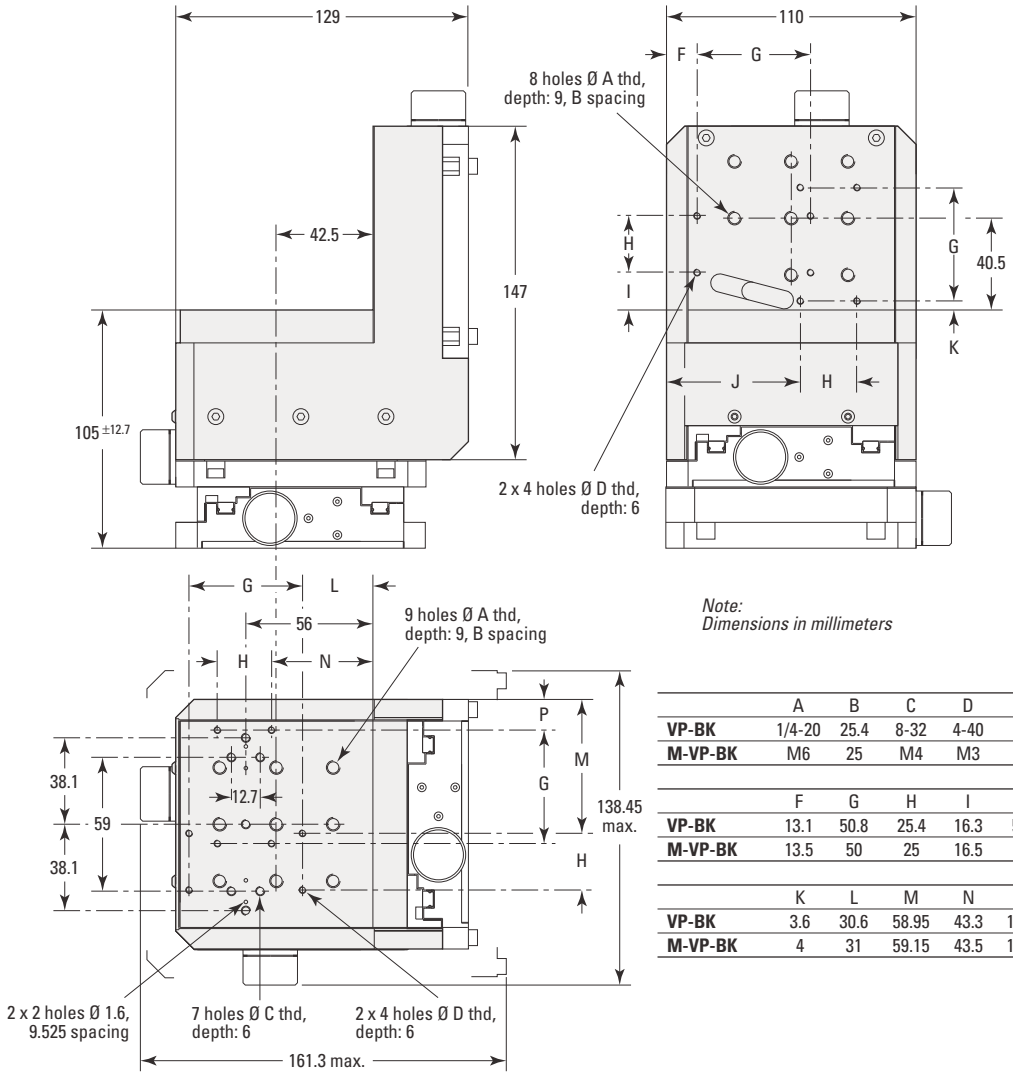
CAUTION

- **To make an XY stage assembly, it is necessary to tighten screws firstly on the driving carriage of the lower stage, then the ones on the floating carriage.**
- **The lower stage must be fixed on a plane surface with a flatness of 5 µm.**

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

9.2 XYZ Configuration

(M-)VP-25XA stages can easily be assembled into XYZ configuration with optional (M-)VP-BK bracket.



Note:
Dimensions in millimeters

	A	B	C	D
VP-BK	1/4-20	25.4	8-32	4-40
M-VP-BK	M6	25	M4	M3

	F	G	H	I	J
VP-BK	13.1	50.8	25.4	16.3	58.8
M-VP-BK	13.5	50	25	16.5	59

	K	L	M	N	P
VP-BK	3.6	30.6	58.95	43.3	13.25
M-VP-BK	4	31	59.15	43.5	13.65



CAUTION

- **To fix stages together or with the bracket for an XYZ assembly, it is necessary to tighten screws firstly on the driving carriage, then the ones on the floating carriage.**
- **The lower stage must be fixed on a plane surface with a flatness of 5 µm.**

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

10.0 Maintenance

RECOMMENDATION

It is recommended to contact our After Sales Service which will know to define the appropriate maintenance for your application.

10.1 Maintenance

The VP-25XA stage requires no particular maintenance. Nevertheless, this is a precision mechanical device that must be kept and manipulated with precaution.

PRECAUTIONS

The VP-25XA stage must operate, and be stocked in a clean environment, without dust, humidity, solvents or other substances.

RECOMMENDATION

It is recommended to return your stage to our After Sales Service after every 2000 hours of use for lubrication.

If your VP-25XA stage is mounted on a workstation and cannot be easily dismantled, please contact our After Sales Service for further instructions.

10.2 Repairing

CAUTION

Never attempt to disassemble an element of the stage that has not been specified in this manual.
To disassemble a non specified element can cause a malfunction of the stage.

If you observe a malfunction in your stage, please immediately contact us to make arrangements for a repair.

CAUTION

All disassembly attempts or repair of stage without authorization will void your warranty.

10.3 Calibration

CAUTION

It is recommended to return your stage to Newport once a year for a recalibration to its original specifications.

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

Service Form

Your Local Representative
Tel.: _____
Fax: _____

Name: _____ Return authorization #: _____
(Please obtain prior to return of item)

Company: _____

Address: _____ Date: _____

Country: _____ Phone Number: _____

P.O. Number: _____ Fax Number: _____

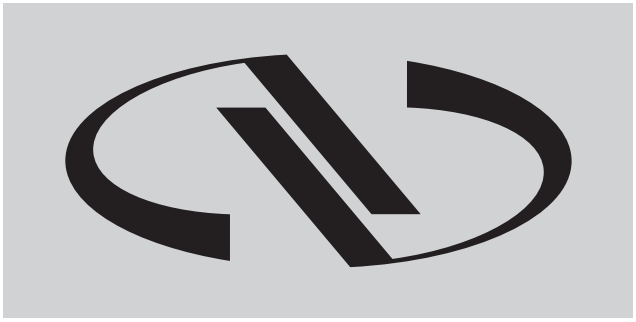
Item(s) Being Returned:

Model #: _____ Serial #: _____

Description: _____

Reasons of return of goods (please list any specific problems): _____

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



Newport®

Experience | Solutions

Visit Newport Online at:
www.newport.com

North America & Asia

Newport Corporation

1791 Deere Ave.
Irvine, CA 92606, USA

Sales

Tel.: (800) 222-6440

e-mail: sales@newport.com

Technical Support

Tel.: (800) 222-6440

e-mail: tech@newport.com

Service, RMAs & Returns

Tel.: (800) 222-6440

e-mail: rma.service@newport.com

Europe

MICRO-CONTROLE Spectra-Physics S.A.S

1, rue Jules Guesde – Bât. B
ZI Bois de l'Épine – BP189
91006 Evry Cedex
France

Sales & Technical Support

Tel.: +33 (0)1.60.91.68.68

e-mail: france@newport-fr.com

Service & Returns

Tel.: +33 (0)2.38.40.51.55

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