

VS-25 SERIES

VERTICAL LIFT STAGE

FEATURES

- Resolution: 0.03 μm
- Speed: 10 mm/sec
- Compact Size
- Lightweight



Newmark's VS-25 Series Vertical Lift Stage offers precise vertical translation up to 25 mm travel in a compact envelope. Vertical motion is achieved using vertically mounted precision linear guide bearings. The use of linear guide bearings insures a stiff and stable platform across the entire range of travel.



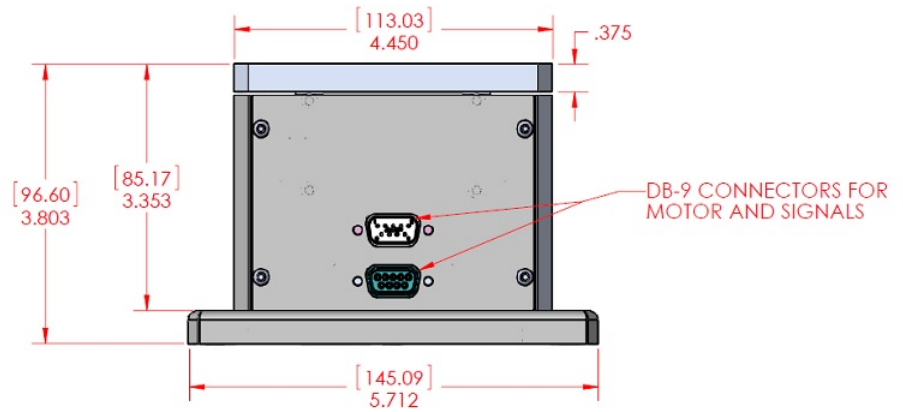
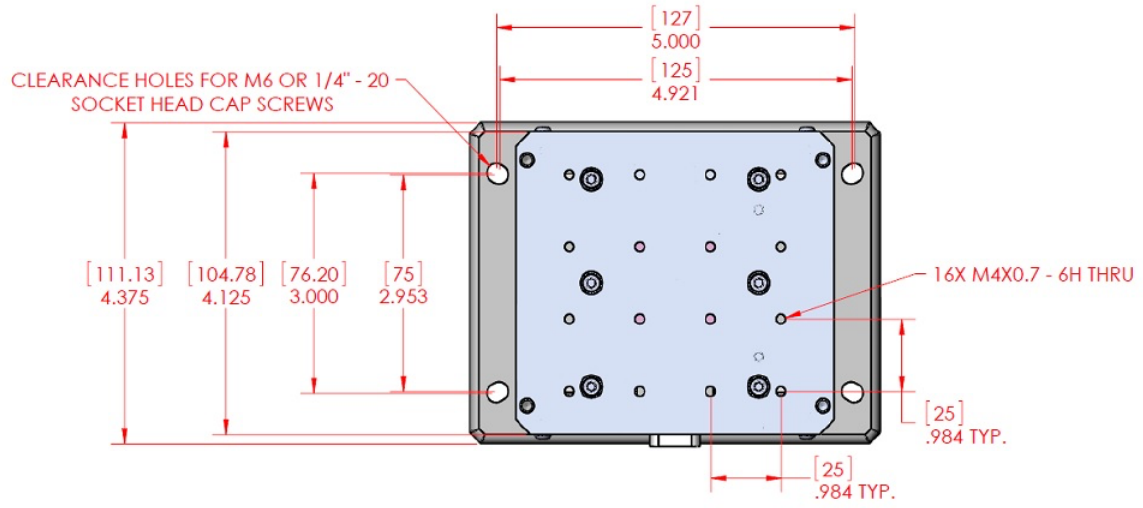
The drive system utilizes a stainless steel precision rolled lead screw with internally lubricated Acetal PTFE drive nut. The drive nut is gravity preloaded. All VS Series stages are machined from 6061 aluminum alloy and black anodized.

The VS-25 Series has 25 mm of travel and comes standard with integrated limit switches and a high torque size 17 stepper motor. An optional 1000 line rotary encoder mounted to the back of the motor provides closed loop feedback.

Specifications

Travel Range	25 mm
Resolution	0.03 μm (1.5875 mm pitch lead screw @ 50000 motor steps/rev)
Accuracy	10 μm
Max. Speed	10 mm/sec
Unidirectional Repeatability	2 μm
Bidirectional Repeatability	10 μm
Max Load	11.3 kg (25 lbs)
Encoder	Optical rotary encoder mounted to read of motor, 4000 CPR with index
Limit Switches	Proximity Switches, Normally closed
Lead Screw Pitch	1.5875 mm
Stage Weight	2.5 kg (5.5 lbs)
Material	Aluminum Construction, 303 Stainless Steel Lead Screw
Finish	Black Anodize

Dimensions



Pin Assignment

Standard Stepper Motor Version

Motor Connector

DB-9 Male	Description
1.	Phase A
2.	Phase A'
3.	Phase B
4.	Phase B'
5.	Phase A Center
6.	Phase B Center

Motor Specifications

Step Size: 1.8°/step

Amps/Phase: 0.95

Resistance: 4.0 Ohm/Phase

Inductance: 3.1 mH/Phase

Signals Connector

DB-9 Female	Description
1.	+ Limit Switch
2.	- Limit Switch (motor side)
3.	Limit Switch Ground
4.	N.C.
5.	+5V Limit Switch Power

Limit switch wired normally closed

Signals Connector (Encoder Option)

HD-15 Female	Description
1.	+ Limit Switch
2.	- Limit Switch
3.	Limit Switch Ground
4.	Encoder Ground
5.	+5V Encoder Power
6.	Ch. A
7.	Ch. A-
8.	Ch. B
9.	Ch. B-
10.	Index +
11.	Index -

Limit switch wired normally closed

Ordering Information

Part Number Configuration

VS-25-X



Motor Option

Motor Options

- 1 Stepper Motor
- 2 Stepper Motor with Encoder

Motion Controllers

The following Newmark Systems, Inc. controllers are compatible with the Microslide Stage.

[NCS-A1 Series](#) | [NSC-A2L Series](#) | [NSC-G Series](#)

