



Piezo LEGS® Z-Axis Precision Stages



Key features

- Vertical and horizontal-lift mechanisms
- 12 mm or 3 mm total travel
- 0.5 kg or 5 kg load capacity
- 40 nm encoder resolution
- 20 N actuator stall force
- Stable fixed-position holding

Product Description

The Piezo LEGS® Z-Axis Precision Stage family provides two compact solutions for controlled vertical positioning. The family includes a direct vertical-travel stage with 12 mm total motion and a wedge-type stage providing 3 mm of vertical adjustment.

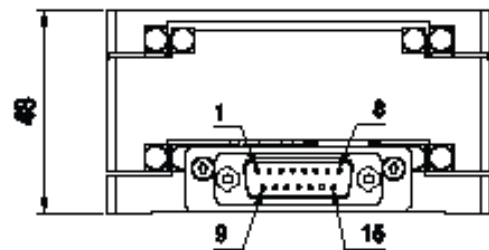
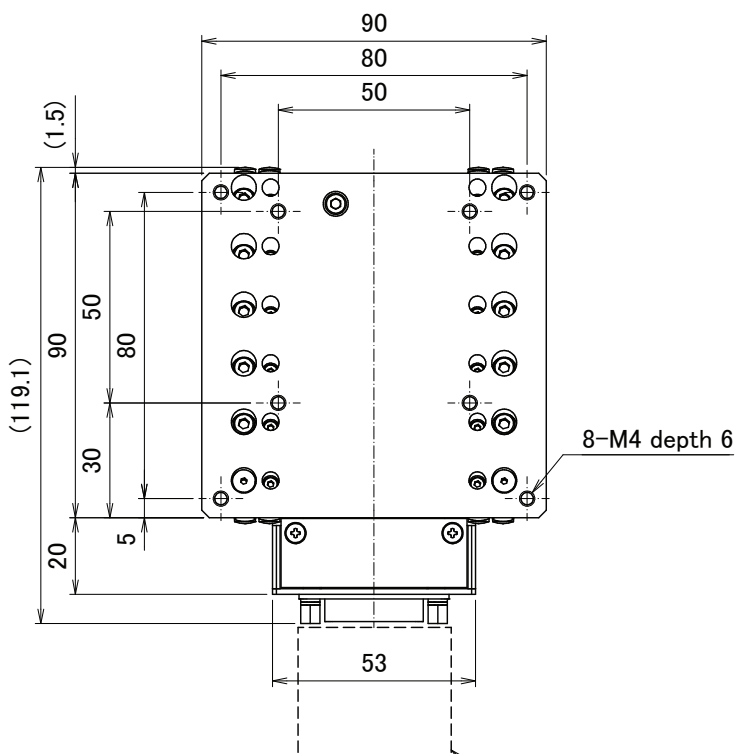
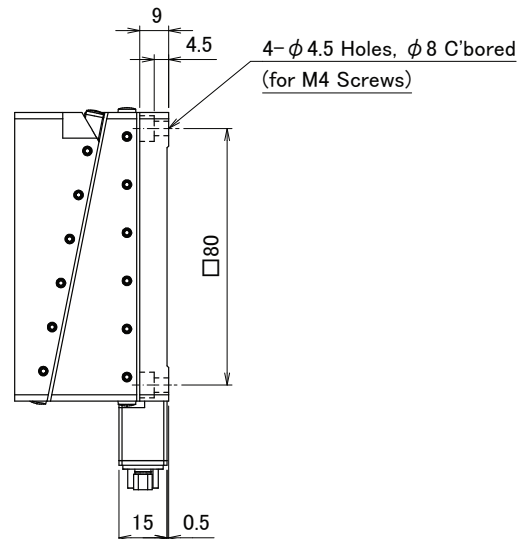
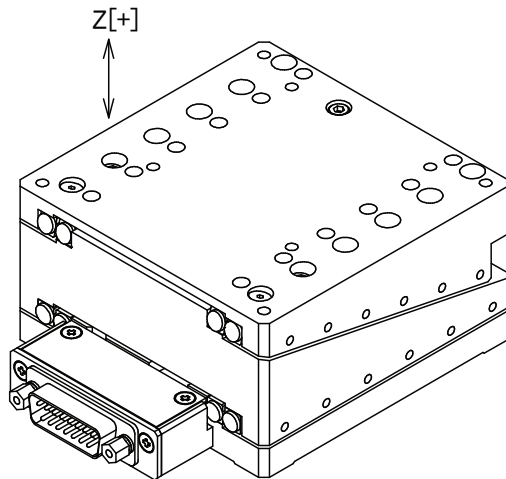
Both models combine 20 N actuator stall force, 40 nm optical encoder resolution and ± 40 nm positioning repeatability. The 12 mm model prioritises vertical travel, while the wedge-type model is designed to position loads of up to 5 kg where fine height adjustment and stable holding are the primary requirements.

Application:

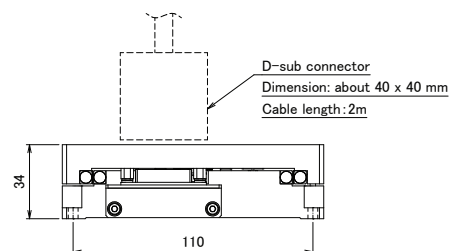
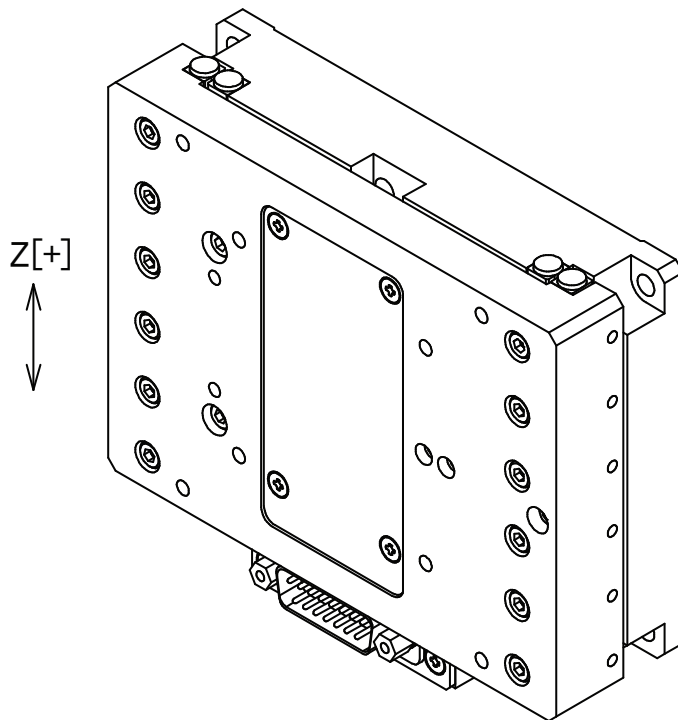
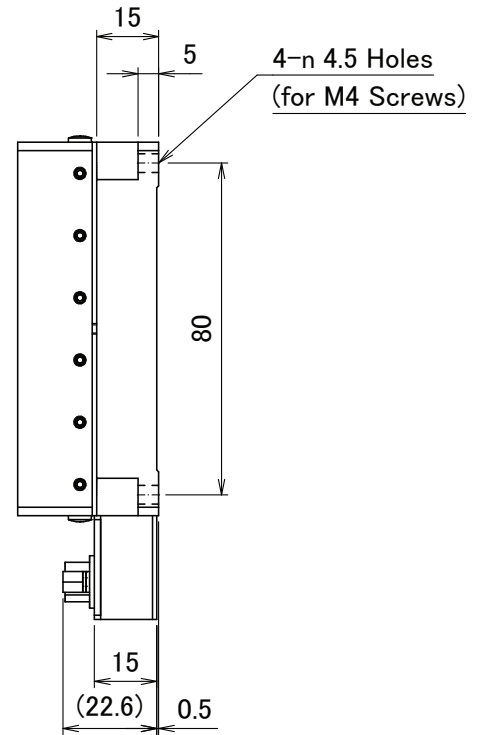
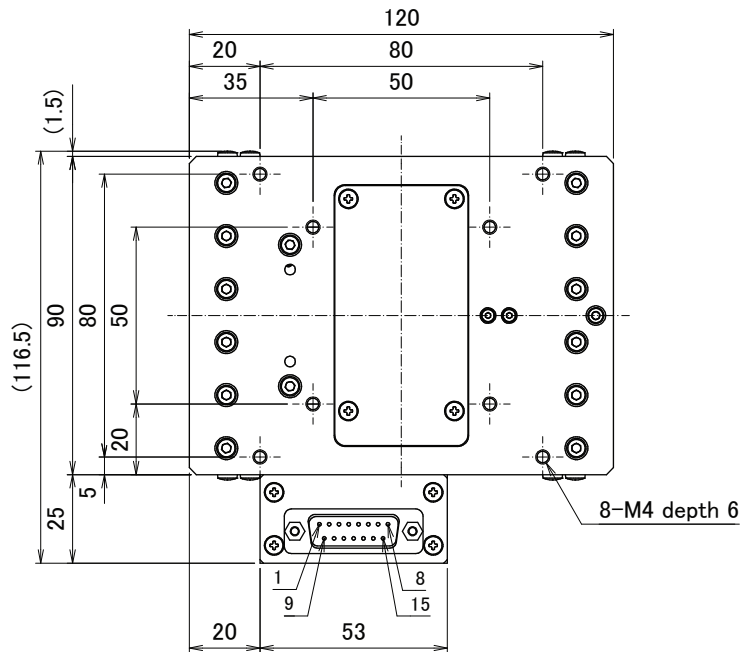
- Objective and camera focusing
- Sensor or sample height adjustment
- Optical bench Z positioning
- Analytical and inspection equipment
- Automated calibration systems
- Compact optical height adjustment
- High-load precision elevation
- Instrument calibration
- Sample and fixture levelling
- Inspection and metrology systems



External Dimensions ZH LLS-ZH-20-3-C-E40 Stages



External Dimensions ZV LLS-ZV-20-12-C-E40



SWEDEN
Stationsgatan 14
SE-753 40 Uppsala

USA
4215 Pleasant Rd
Fort Mill, SC 29708

JAPAN
Acuvi KK, Ark Mori Bldg
West wing 16th floor
1-12-32 Akasaka, Minato-ku Tokyo
107-6016 Japan

piezomotor.com



Technical specification

Model	Motion range	Stall force	Load	Max Speed	Weight
LLS-ZV-20-12-C-E40	±6 mm (12 mm total)	20 N	0.5 kg	5 mm/s	900 g
LLS-ZH-20-3-C-E40	±6 mm (12 mm total)	20 N	5 kg	1 mm/s	1.1 kg

Shared platform specification

Specification	Family specification
Encoder resolution	40 nm
Positioning repeatability	±40 nm
Body material	Aluminium
Recommended controller	PMSD401
Stage cable	CKS-20, 2 m; inclusion quantity to be confirmed

