



XCV SERIES

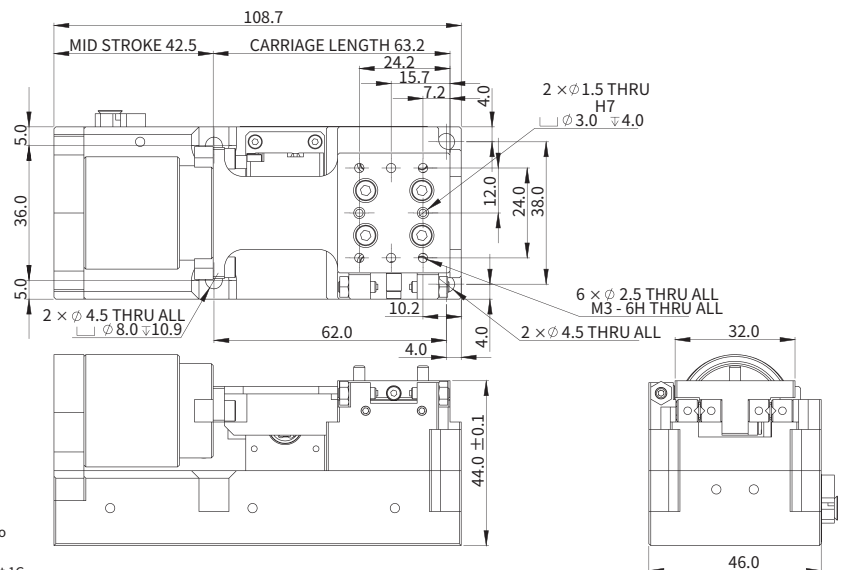
- ▶ Direct drive linear mechanism by voice coil motor
- ▶ Zero cogging effect, zero backlash
- ▶ High repeatability and accuracy
- ▶ Suitable for short stroke, high speed, and high acceleration application
- ▶ Cross roller stage providing high stiffness
- ▶ Maximized dynamic performance

XCV30

Specifications	Unit	Value
Stroke ¹	mm	4
Motor	-	AVM30-HF-4-C116-0.5
Continuous Force	N	7.27
Peak Force	N	46.17
Resolution	μm	ABI21: 1.0/0.5/0.2 AT2: 0.2/0.05
Bidirectional Repeatability	μm	ABI21: 1.0/0.5/0.2: ±1 AT2: 0.2/0.05: ±0.5
Straightness	μm	±3.0
Flatness	μm	±3.0
Rated Payload ²	Kg	1.0
No-load Moving Mass	Kg	0.072
No-load Total Mass	Kg	0.48
Max. Allowable Payload	Kg	4.0
Max. Allowable Roll Moment Load	Nm	5.0
Max. Allowable Pitch Moment Load	Nm	7.3
Max. Allowable Yaw Moment Load	Nm	7.1

- ¹ Stroke refers to hardstop-to-hardstop mechanical stroke. Effective stroke equals to mechanical stroke for this short-stroke stage.
² The rated load is based on the load in which the acceleration of the mass is at least 1G.

Dimension Drawing



Ordering Part Number (OPN)

XCV1 T V18 E0E 1 A 1

Model:

XCV1: XCV30

Cover Type:

T: Standard (Black Anodized)

Coil Type:

V18: AVM30-HF-4-0.5A-C116 (Peak Force: 46.17N)

Termination:
1: Flying Leads

Cable Length:
A: 0.5m

Scale Type:
1: Steel tape, 11ppm/K
2: Glass G8 Soda Lime, 8ppm/K²

Encoder Type:
E0E: ABI-21 (1.0μm)
E0F: ABI-21 (0.5μm)
E0G: ABI-21 (0.2μm)
ECG: ATOM2 (0.2μm)
ECJ: ATOM2 (0.05μm)

Note:

- ¹ ABI-21 uses steel tape scale only.
² ATOM2 uses glass scale only.

