

XRV Series



Suitable for minute movement and smooth motion



Fast response and quick settling time



Low friction



No commutation needed



High precision

XRV

Specifications

	Unit	XRV		
		XRV76 AVA1-20	XRV97 AVA2-20	XRV115 AVA3-20
Electrical Parameters				
Continuous Force, Coil @100°C	N	2.74	10.08	17.92
Peak Force	N	8.20	30.20	53.80
Motor Constant	N/SqRt (W)	1.16	3.90	5.23
Continuous Power	W	5.6	6.66	11.76
Peak Power	W	50.4	60	105.8
Max Bus Voltage	V	24	24	24
Max Coil Temperature	°C	155	155	155
Continuous current	A	2	1.4	2.8
Peak Current, I _{peak}	A	6	4.2	8.4
Force Constant	N/A	1.16	3.90	5.23
Back EMF Constant, V _{emf}	V/m/s	1.16	3.90	5.23
Inductance	mH	0.26	1.6	0.68
Terminal Resistance @ 25°C	Ohms	1.4	3.4	1.5
Electrical Time Constant	ms	0.2	0.5	0.5
Mechanical Parameters				
Moving Mass	kg	0.167	0.264	0.425
Total Mass	kg	0.476	1.152	2.206
Recommended maximum load	kg	0.1	0.7	1.4
Stroke *	mm	20	20	20

Note: Please contact us for customized stroke.

Performance Parameters		
Straightness	μm	±2.5μm
Flatness	μm	±2.5μm
Bidirectional Repeatability	μm	±0.5μm
Linearity without mapping	μm	±5μm
Linearity with mapping	μm	±1μm

Note: The straightness, bidirectional repeatability and linearity are qualified according to ISO 230-2:1997.

Bearing Parameters				
Maximum static load capacity	N	510.0	510.0	510.0
Recommended maximum load ¹	N	1	7	14
Recommended roll moment	Nm	0.6	0.6	0.6
Recommended pitch moment	Nm	0.5	0.5	0.5
Recommended yaw moment	Nm	0.3	0.3	0.3

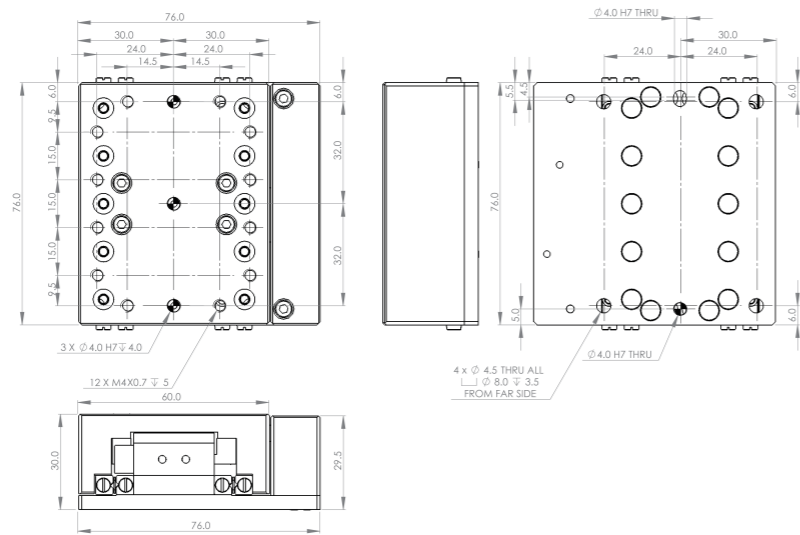
1: The recommended maximum load is based on the load in which the acceleration of the moving mass is at least 1G.

* Stroke refers to hardstop-to-hardstop. The limit sensors are positioned 0.5mm from the hardstops.

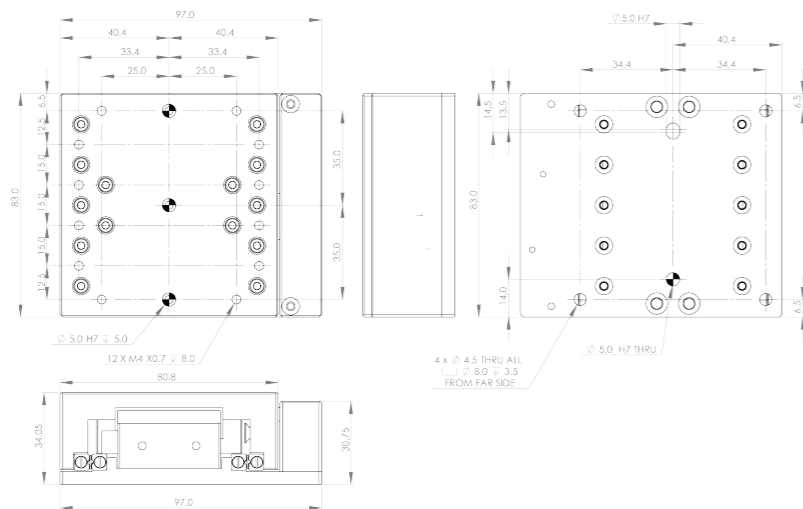
XRV

Dimensions

XRV76-AVA1-20-0.5



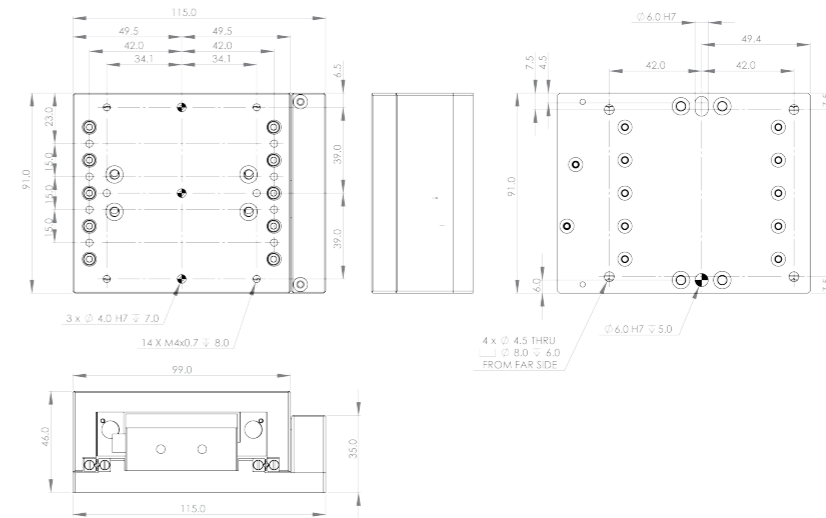
XRV79-AVA2-20-0.5



XRV

Dimensions/Part Numbering

XRV115-AVA3-20-0.5



XRV76-AVA1-20-0.5-AT4-0.1

Model
XRV76/XRV97
XRV115

Coil Type Options
AVA1-20-0.5/ AVA2-20-0.5
AVA3-20-0.5

Resolution (um) Options
AT4-0.1/0.4/1.0
AT2-0.05/0.1/0.2

Encoder Options
AT4, AT2,