

SGMV series Translation Motorized Stages - AC servo Motor

Stage Size 60 × 60 mm / 80 × 80 mm

SGMV **RoHS**

High precision/high stiffness stages driven by AC servo motor.



- U-shaped rail with integral ball screw offers light weight, and minimized deflection for high stiffness.

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40 × 40 mm

60 × 60 mm

80 × 80 mm

85 × 85 mm

100 × 100 mm

120 × 120 mm

Others

Specifications

Part Number		SGMV20-35(X)-0B	SGMV20-80(X)-0B	SGMV26-100(X)-0B	SGMV26-200(X)-0B	
Mechanical Specifications	Travel [mm]	35	80	100	200	
	Stage Size [mm]	60×60	60×60	80×80	80×80	
	Feed Screw	Ball screw diameter φ6mm, 1mm lead	Ball screw diameter φ6mm, 1mm lead	Ball screw diameter φ8mm, 2mm lead	Ball screw diameter φ8mm, 2mm lead	
	Positioning Slide	Outer rail structure	Outer rail structure	Outer rail structure	Outer rail structure	
	Stage Material	Aluminum	Aluminum	Aluminum	Aluminum	
	Finish	Black anodized	Black anodized	Black anodized	Black anodized	
	Weight [kg]	0.7	1	1.7	2.5	
Accuracy Specifications	Resolution	(Full) [μm/pulse]	—	—	—	
		(Half) [μm/pulse]	—	—	—	
	MAX Speed [mm/sec]	35	80	130	130	
	Positioning Accuracy [μm]	7	10	10	15	
	Positional Repeatability [μm]	4	5	5	6	
	Load Capacity [N]	80 (8.0kgf)	80 (8.0kgf)	130 (13.0kgf)	130 (13.0kgf)	
	Moment Stiffness	Pitch [°/N·cm]	0.4	0.4	0.23	0.23
		Yaw [°/N·cm]	0.25	0.25	0.12	0.12
		Roll [°/N·cm]	0.35	0.35	0.2	0.2
	Lost Motion [μm]	2	2	2	2	
	Backlash [μm]	2	2	2	2	
	Parallelism [μm]	30	30	50	50	
	Running Parallelism [μm]	10	10	10	10	
Pitch [°] / Yaw [°]	30/20	30/20	30/20	30/25		
Sensor	Sensor Part Number	Micro photo sensor: PM-L25 (SUNX Co.,Ltd.)				
	Limit Sensor	Equipped (NORMAL CLOSE)	Equipped (NORMAL CLOSE)	Equipped (NORMAL CLOSE)	Equipped (NORMAL CLOSE)	
	Origin Sensor	None	None	None	None	
	Proximity Origin Sensor	None	None	None	None	

Motor / Sensor Specifications

Motor	Type	AC servo Motor 10W (YASKAWA Electric Corporation)
	Motor Part Number	SGMMV-A1E2A21 (□25mm)
	Rated Torque	0.0318N·m
	Resolution Encoder	17bit (131,072p/r)
Sensor	Power Voltage	DC5 - 24V±10%
	Current Consumption	30mA or lower (15mA or lower per sensor)
	Control Output	NPN open collector output DC30V or lower, 50mA or lower
	Output Logic	When shaded: Output transistor OFF (no conduction)

Compatible Driver / Controller

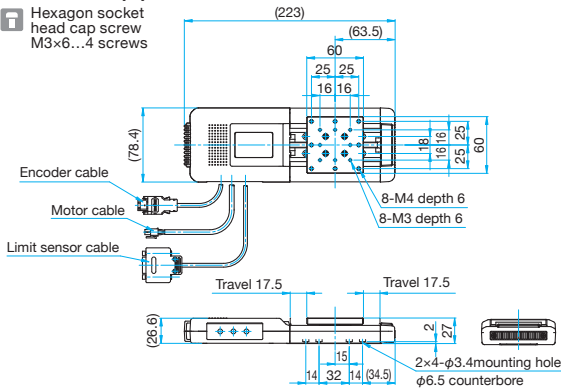
Control System	Compatible Driver	SGDV-2R9EP1A
	Compatible Controller	PGC-04-U



Outline Drawing

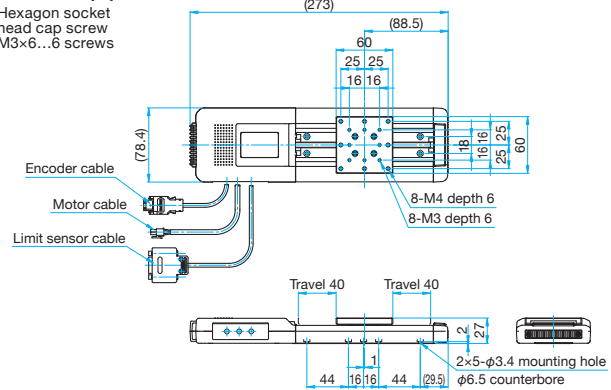
SGMV20-35(X)-0B

Hexagon socket head cap screw M3x6...4 screws



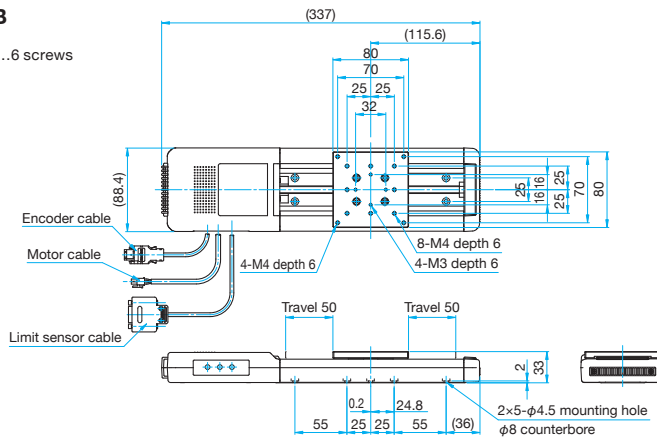
SGMV20-80(X)-0B

Hexagon socket head cap screw M3x6...6 screws



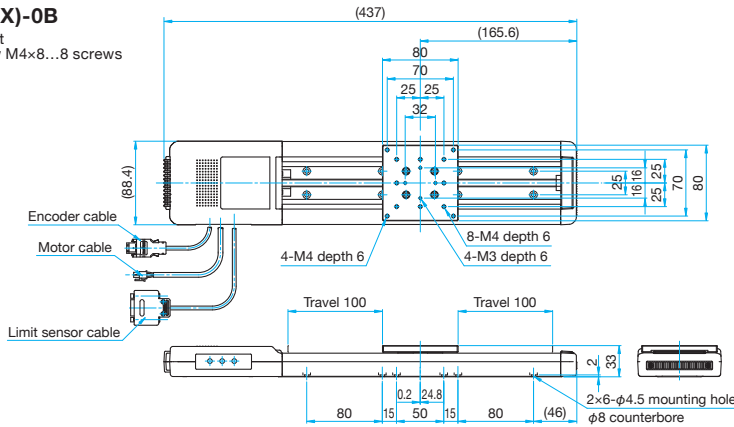
SGMV26-100(X)-0B

Hexagon socket head cap screw M4x8...6 screws



SGMV26-200(X)-0B

Hexagon socket head cap screw M4x8...8 screws



Encoder cable*2
Cable Length ≈280mm
Plug: 55102-0600 (Molex Japan Co., Ltd.)
Motor cable*2
Cable Length ≈280mm
Receptacle: 43025-0400 (Molex Japan Co., Ltd.)
Limit sensor cable
Cable Length ≈280mm
D-sub9Pin (JAE)
Connector DE-9P-NR
Hood DE-C8-J9-F1-1R
*2 Servo Pack SGDV-2R9EP1A

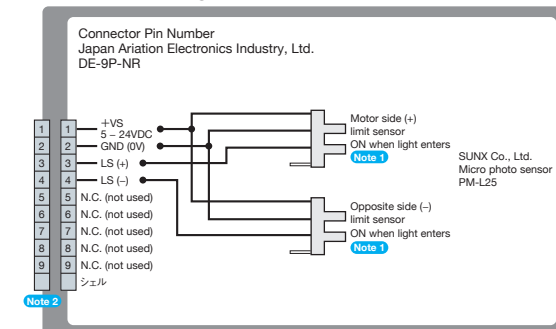
Controller / Servo Pack

Part Number	Products Name
PGC-04-U	Pulus Generating Controller
SGDV-2R9EP1A	Servo Packs for Driving Servo Motor

Cable

Part Number	Products Name	Cable Length [m]
PGC-ACS-1	Servo Pack (For PGC-04-U) (Controller Side: 10126-3000PE Stage Side: DE-957S-NR Servo Pack Side: 10126-3000PE)	1
JZSP-CF1M00-03-E	Cable for SGMV (For AC Servo)	3
JZSP-CMP00-03-E	Cable for SGMV (For Encoder)	3
JZSP-CF1G00-01-E	Cable for SGMV (For Power)	1

Connection Diagram



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