

Vacuum Compatible Motorized Stages

Stage Size 60 × 60 mm / 80 × 80 mm

VSGSP-(X)

RoHS

Motorized SGSP stages modified for use in high vacuum.

- Linear stages have available travel between 35 – 200mm and has a similar footprint to the SGSP series.



Guide

- Includes 1m teflon coated cables to connect the vacuum motor and vacuum limit switches to the chamber feedthrough connector.

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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		VSGSP20-35(X)	VSGSP20-85(X)	VSGSP26-200(X)
Mechanical Specifications	Travel [mm]	35	85	200
	Stage Size [mm]	60×60	60×60	80×80
	Feed Screw	Ball screw diameter φ6mm, 1mm lead	Ball screw diameter φ6mm, 1mm lead	Ball screw diameter φ8mm, 2mm lead
	Positioning Slide	Outer rail structure	Outer rail structure	Outer rail structure
	Stage Material	Aluminum / Stainless steel	Aluminum / Stainless steel	Aluminum / Stainless steel
	Finish	None	None	None
	Weight [kg]	1.0	1.1	2.5
Accuracy Specifications	Resolution	(Full) [μm]	2	4
		(Half) [μm]	1	2
	MAX Speed [mm/sec]	10	10	20
	Positional Repeatability [μm]	5	5	10
	Load Capacity [N]	39.2(4.0kgf)	39.2(4.0kgf)	58.8(6.0kgf)
	Lost Motion [μm]	3	3	10
Sensor	Sensor Part Number	GN-PT5M3B-1 (Metrol Co., Ltd.)	GN-PT5M3B-1 (Metrol Co., Ltd.)	GN-PT5M3B-1 (Metrol Co., Ltd.)
	Limit Sensor	Vacuum touch sensor (NORMAL CLOSE)	Vacuum touch sensor (NORMAL CLOSE)	Vacuum touch sensor (NORMAL CLOSE)
	Origin Sensor	None	None	None
	Proximity Origin Sensor	None	None	None

Motor / Sensor Specifications

Motor	Type	Vacuum compatible 5-phase stepping motor 0.75A/phase (Oriental Motor Co., Ltd.)		
	Motor Part Number	A7298-90215KV (□28mm)	A7298-90215KV (□28mm)	A7298-90215KV (□28mm)
	Step Angle	0.72°		
	Control Output	Touch sensor		
	Output Logic	NORMAL CLOSE	NORMAL CLOSE	NORMAL CLOSE

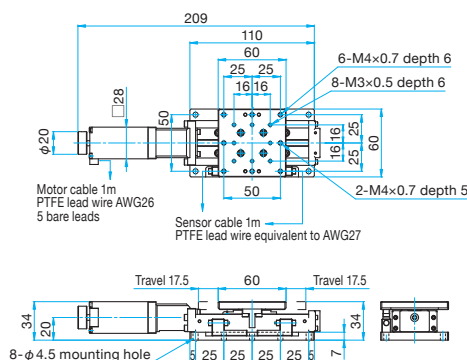
Compatible Driver / Controller

Control System	Compatible Driver	SG-5M, MC-S0514ZU, SG-514MSC, MC-7514PCL		
	Compatible Controller	GSC-01, GSC-02, SHOT-702, GIP-101, HSC-103, SHOT-302GS, SHOT-304GS, HIT-M-HIT-S, PGC-04-U		

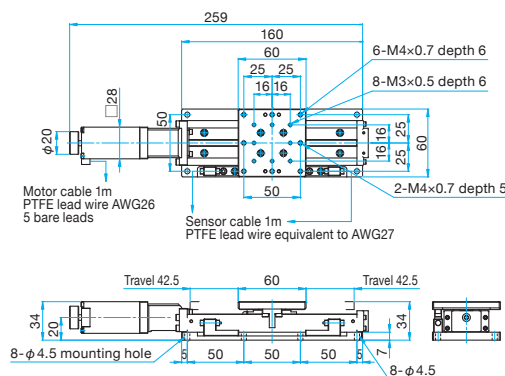


Outline Drawing

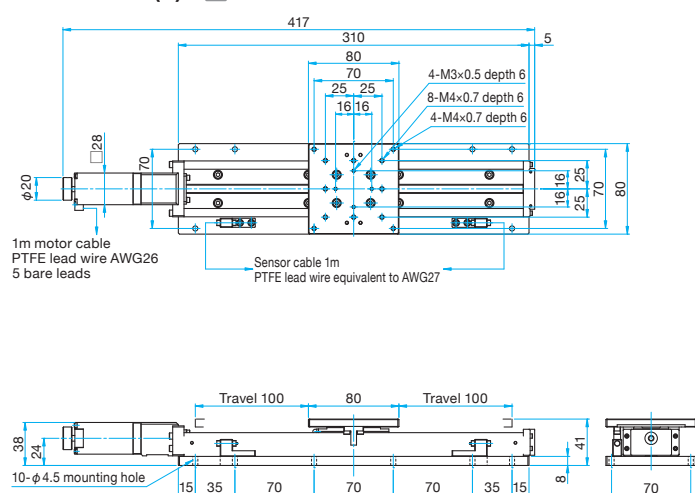
VSGSP20-35(X) Hexagonal socket head cap screw M4×12...4 screws



VSGSP20-85(X) Hexagonal socket head cap screw M4×12...4 screws



VSGSP26-200(X) Hexagonal socket head cap screw M4×12...8 screws



Wiring of Vacuum Stages

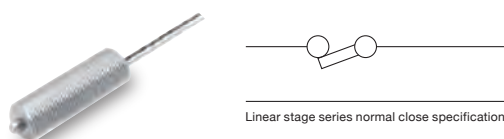
The vacuum compatible stepping motor A7298-90215KV used for vacuum stages has five bare lead wires.

For wiring, they correspond to the motor lead colors shown in the wiring diagrams of driver or cable as follows.

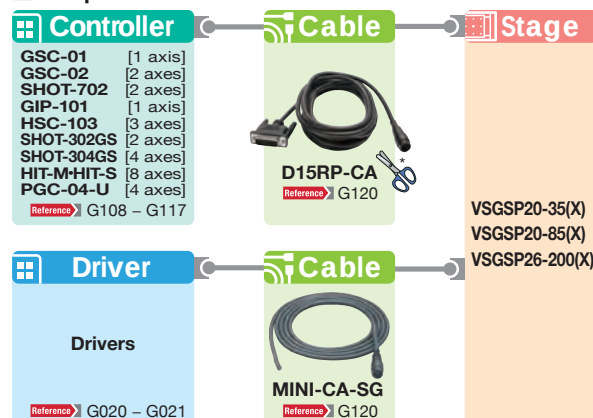
(The motor leads shown in the connection diagrams of driver or cable indicate wiring of stepping motors used for normal stages.)

	Vacuum stage motor lead color	Motor lead color shown in driver or cable connection diagram
Corresponding connection	1 Blue	Blue
	2 Red	Red
	3 Orange	Orange
	4 Green	Green
	5 Black	Black
	Vacuum compatible stage motor connection diagram	5-phase stepping motor connection diagram

Limit Sensor (high vacuum compatible switch)



Compatible Controllers / Drivers and Cables



* Make the cable into bare wire specification after purchase.

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