

Vacuum Applications Miniature Motorized Stages

VAMMS

Application Systems

Machine Vision

Manual Positions

Motion Control Products

Optical & Mirror Holder

F A Parts

Measurement & Control

FA Electrical Parts

Tool & Measure

Cleanroom & AntiStatic

Index

Piezo Stage

Precision Linear MS

High Speed MS

Motorized Goniometer

Motorized Rotation

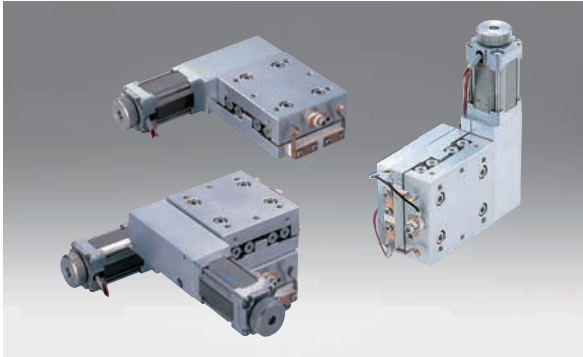
Multiaxis Motorized

Industrial Robot

Controller & Driver & Cable

Custom-Built MS

Compact motorized stages used for experiments and inside a chamber of measuring instrument. Compact slim body is effective for space-saving.



Guide

► Fitted with 1m teflon coated cables to directly connect the vacuum motor or vacuum limit switch to the connector of chamber.

Specifications			VAMMS-60(X)	VAMMS-60(XY)	VAMMS-60(Z)
Part Number					
Mechanical Specifications	Travel or Rotation Range		20mm	20mm	20mm
	Table Size [mm]		55×60	55×60	55×60
	Feed Screw [mm]		Precision ground screw φ4mm, 0.5mm lead	Precision ground screw φ4mm, 0.5mm lead	Precision ground screw φ4mm, 0.5mm lead
	Positioning Slide		Crossed roller	Crossed roller	Crossed roller
	Stage Material		Aluminum	Aluminum	Aluminum
	Finish		None	None	None
	Weight [kg]		0.55	1.1	0.6
Accuracy Specifications	Resolution	(Full)	1μm	1μm	1μm
		(Half)	0.5μm	0.5μm	0.5μm
	MAX Speed		5mm/sec	5mm/sec	—
	Positional Repeatability		6μm	6μm	6μm
	Load Capacity [N]		29.4 (3.0kgf)	19.6 (2.0kgf)	14.7 (1.5kgf)
Lost Motion		5μm	5μm	5μm	
Sensor	Type		Vacuum limit switch	Vacuum limit switch	Vacuum limit switch
	Limit Sensor		Contact type	Contact type	Contact type
	Origin Sensor		None	None	None
	Proximity Origin Sensor		None	None	None

Motor / Sensor Specifications			
Motor	Type	Vacuum compatible 5-phase stepping motor 0.66A/phase (Tamagawa Seiki Co., Ltd.)	
	Motor Part Number	TS3664N5 (□24mm)	
	Step Angle	0.72°	
Sensor	Control Output	Contact type	Contact type
	Output Logic	NORMAL OPEN	NORMAL OPEN

Compatible Driver / Controller		
Control System	Compatible Driver	SD-5M, SD-55M, SD-514MSC, SD-5151, SD-525M
	Compatible Controller	ASC-PS, ASC-01, ASC-102, ASC-02, ASC-702, ASCG-101, ASC-302GS, ASC-304GS, ESC-M/ESC-S

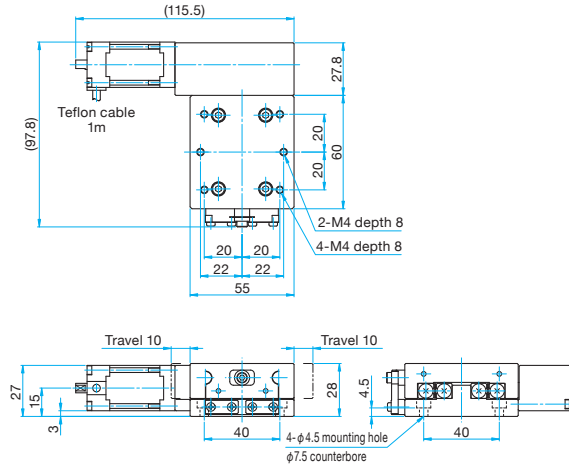
Vacuum Applications Miniature Motorized Stages

VAMMS

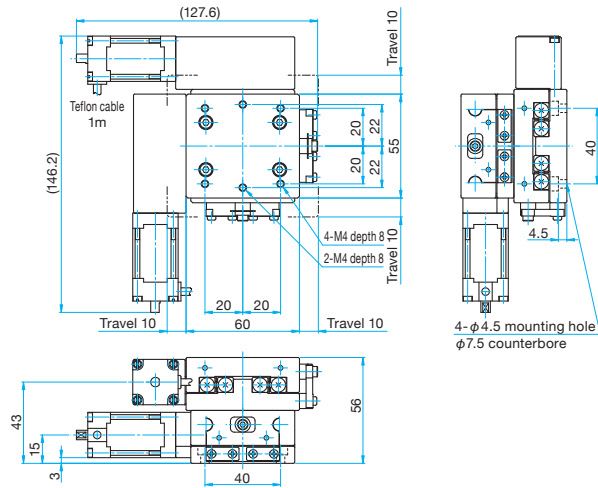


Outline Drawing

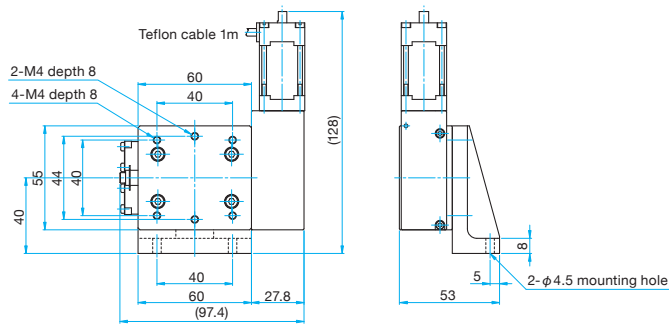
VAMMS-60(X) Hexagonal socket head cap screw M4×10...4 screws



VAMMS-60(XY) Hexagonal socket head cap screw M4×10...4 screws



VAMMS-60(Z) Hexagonal socket head cap screw M4×15...2 screws



Vacuum Limit Switch

GND (0V) black lead

Motor side (+) limit switch
 LS (+) white lead

Opposite side (-) limit switch
 LS (-) red lead

* Use the motor side and opposite side limit switches as normal open.

Wiring of Vacuum Stages

The vacuum compatible stepping motor TS3664N5 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
1	Blue	Blue
2	Red	Red
3	Red White	Orange
4	Yellow	Green
5	Black	Black

	Vacuum compatible stage motor connection diagram	5-phase stepping motor connection diagram (SGSP series)

Compatible Controllers / Drivers and Cables

Controller	Cable	Stage
ASC-PS* [1 axis] ASC-102 [2 axes] Reference I091	MSCA-1212 Reference I100	VAMMS-60(X) VAMMS-60(XY) VAMMS-60(Z)
ASC-01 [1 axis] ASC-02 [2 axes] ASC-702 [2 axes] ASCG-101 [1 axis] ASC-302GS [2 axes] ASC-304GS [4 axes] ESC-M/ESC-S [8 axes] Reference I088 - I096	MSCA-1215 Reference I101	
Driver SD-5M, SD-5MA SD-55M, SD-55MA SD-514MSC SD-5151 SD-525M Reference I098 - I099	MSCA-1200 Reference I100	

* PASC-PS will be discontinued in September 2012, and will be replaced by ASC-01.
 *2 Make the cable into bare wire specification after purchase.

- Application Systems
- Machine Vision
- Manual Positions
- Motion Control Products
- Optical & Mirror Holder
- F A Parts
- Measurement & Control
- FA Electrical Parts
- Tool & Measure
- Cleanroom & AntiStatic
- Index

Piezo Stage

Precision Linear MS

High Speed MS

Motorized Goniometer

Motorized Rotation

Multiaxis Motorized

Industrial Robot

Controller & Driver & Cable

Custom-Built MS