

NEW

Vacuum Compatible Miniature Motorized Stages

VTAMM

RoHS

CE

Catalog Code

W9101



CE-compliant compact motorized stages for use in high vacuum.

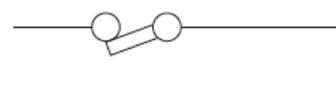
It is a motorized stage suitable for experiments in a vacuum environment and for use in a vacuum chamber. Compact, slim body for minimal footprint.

VTAMM can also be installed in small vacuum equipment.

Guide

- ▶ Includes 1m teflon coated cables to connect the vacuum motor and vacuum limit switches to the chamber feedthrough connector.
- ▶ Various types of bases and holders which can be used in vacuum environments are also available.

■ Limit Sensor (high vacuum compatible switch)



Linear stage series normal close specification

Specifications			VTAMM60S-20X	VTAMM60S-20XY	VTAMM60S-20Z
Part Number			VTAMM60S-20X	VTAMM60S-20XY	VTAMM60S-20Z
Mechanical Specifications	Travel[mm]		20	20	20
	Stage Size[mm]		60 × 60	60 × 60	60 × 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]			0.6	1.2	0.65
Accuracy Specifications	Resolution	(Full)[μm/pulse]	1	1	1
		(Half)[μm/pulse]	0.5	0.5	0.5
	MAX Speed[mm/sec]		5	5	-
	Positional Repeatability[μm]		6	6	6
	Load Capacity[N]		29.4 (3.0kgf)	19.6(2.0kgf)	14.7(1.5kgf)
Lost Motion[μ]			5	5	5
Sensor	Sensor Part Number		GN-PT5M3B-1((Metrol Co., Ltd.)		
	Limit Sensor		Vacuum touch sensor(NORMAL CLOSE)		
	Origin Sensor		None		
	Proximity Origin Sensor		None		

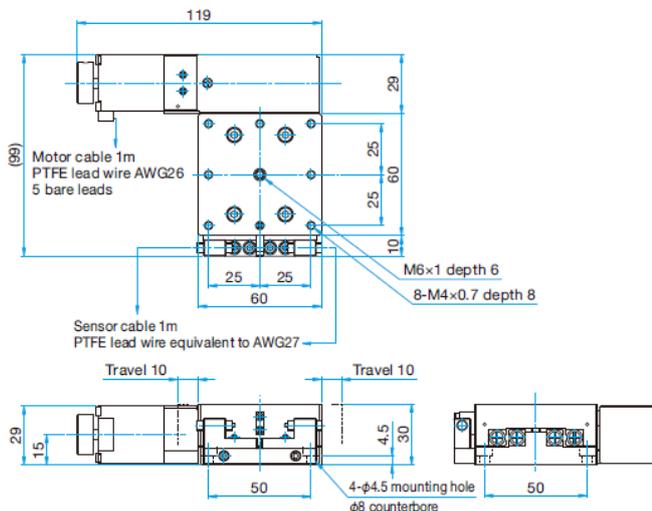
Motor / Sensor Specifications		
Motor	Type	Vacuum compatible 5-phase stepping motor 0.75A/phase (Oriental Motor Co., Ltd.)
	Motor Part Number	A7715-90215KV (□28mm)
	Motor Step Angle	0.72°
Sensor	Control Output	Touch sensor
	Output Logic	NORMAL CLOSE

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

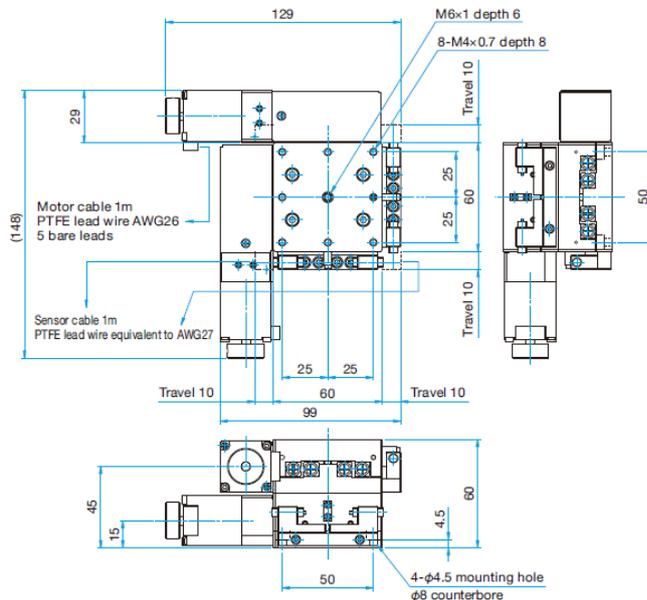
VTAMM60S-20X

Hexagonal socket head cap screw M4x10...4 screws



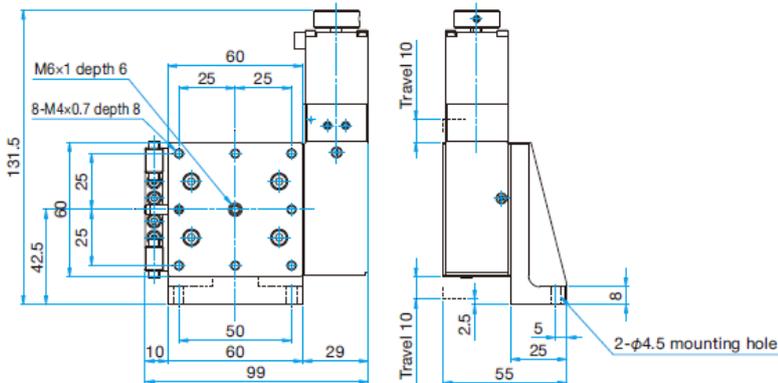
VTAMM60S-20XY

Hexagonal socket head cap screw M4x10...4 screws



VTAMM60S-20Z

Hexagonal socket head cap screw M4x15...2 screws



Wiring of Vacuum Stages

The vacuum compatible stepping motor A7715-90215KV 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
Correspondence 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

Compatible Controllers / Drivers and Cables

<p>Controller</p> <p>GSC-01 [1 axis] GSC-02 [2 axes] SHOT-702 [2 axes] GIP-101 [1 axis] HSC-103 [3 axes] SHOT-302GS [2 axes] SHOT-304GS [4 axes] HIT-M-HIT-S [8 axes] PGC-04-U [4 axes] Reference G108 - G117</p>	<p>Cable</p> <p></p> <p>D15RP-CA Reference G120</p>	<p>Stage</p> <p>VTAMM60S-20X VTAMM60S-20XY VTAMM60S-20Z</p>
<p>Driver</p> <p>Drivers Reference G020 - G021</p>	<p>Cable</p> <p></p> <p>MINI-CA-SG Reference G120</p>	

* Make the cable into bare wire specification after purchase.