

# High-Grade Z Stage 40 x 40, 50 x 50

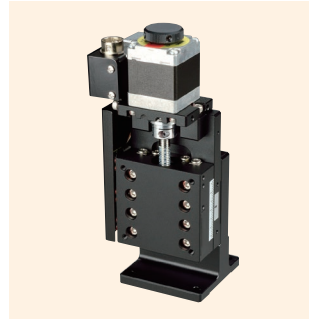
HG-VCR method **0.75 A/phase** 0.75 A/phase motor



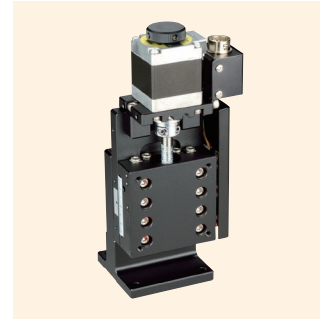
↑ TALZ-4011-G1M



↑ TALZ-4011-G1M-R



↑ TALZ-5012-G1M



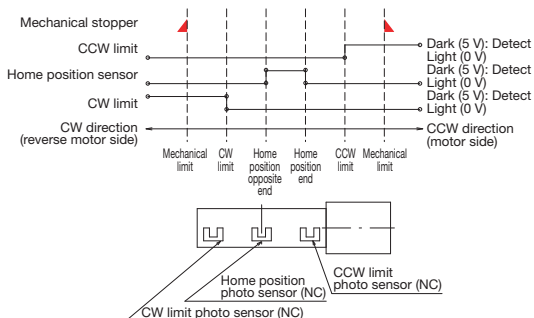
↑ TALZ-5012-G1M-R

## Features

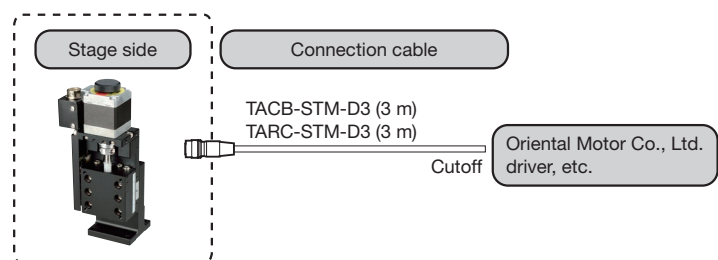
- A high-precision, high-rigidity motorized stage using the HG-VCR method.
- Precision screw and ball screw specifications are available.
- Versatile use for precision positioning of cameras, sensors, workpieces, and more.

Model number (standard)	TALZ-4011-G0M	TALZ-4011-G1M	TALZ-5012-G0M	TALZ-5012-G1M
Model number (symmetrical)	TALZ-4011-G0M-R	TALZ-4011-G1M-R	TALZ-5012-G0M-R	TALZ-5012-G1M-R
Model name	High-Grade Z Stage			
Travel direction	Z-axis single direction			
Travel amount	±7.5 mm		±10 mm	
Stage surface	40 mm x 40 mm		50 mm x 50 mm	
Motor used	PK523HPB equivalent (5-wire type pentagonal wiring, 0.75 A/phase)			
Resolution	0.001 mm	0.002 mm	0.001 mm	0.002 mm
Feed screw specification	Precision screw	Ball screw	Precision screw	Ball screw
Feed screw lead	0.5 mm	1 mm	0.5 mm	1 mm
Travel guide	HG-VCR (V-groove and cross rollers)			
Travel accuracy	Straightness (horizontal/vertical): 0.002 mm			
	Yawing 20 s, pitching 30 s	Yawing 15 s, pitching 25 s	Yawing 20 s, pitching 30 s	Yawing 15 s, pitching 25 s
Positioning accuracy	0.01 mm	0.006 mm	0.012 mm	0.008 mm
Repeatability	±0.0005 mm	±0.0003 mm	±0.0005 mm	±0.0003 mm
Lost motion	0.005 mm	0.001 mm	0.005 mm	0.001 mm
Moment rigidity	Yaw rigidity 0.25 s/N-cm, pitch rigidity 0.3 s/N-cm, roll rigidity 0.3 s/N-cm		Yaw rigidity 0.15 s/N-cm, pitch rigidity 0.2 s/N-cm, roll rigidity 0.2 s/N-cm	
Load capacity	19.6 N (2 kgf)			
Mass	0.42 kg		0.54 kg	
Maximum speed (at 5,000 pps)	5 mm/s	10 mm/s	5 mm/s	10 mm/s
Main materials/surface treatment	Aluminum alloy/black satin anodized finish			
Home position sensor	Normally closed contact point (break contact, B contact) operation, photo sensor			
Limit sensor	Normally closed contact point (break contact, B contact) operation, photo sensor			
Applicable cables	TACB-STM-D3, TARC-STM-D3			

### ◆ Sensor operating logic and timing chart



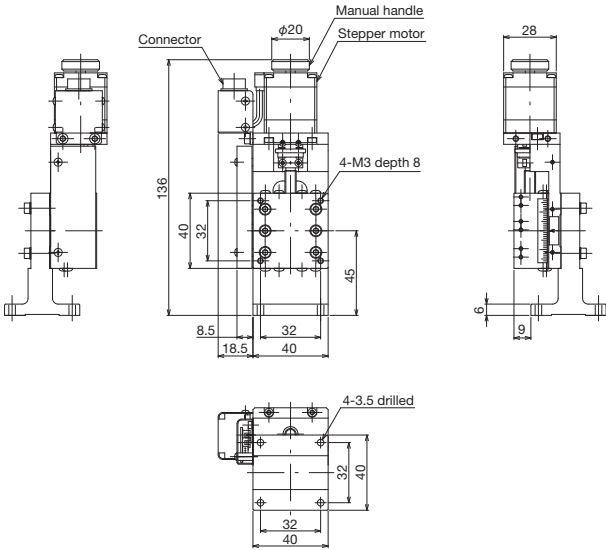
### ◆ Connection method: Connection cable and driver





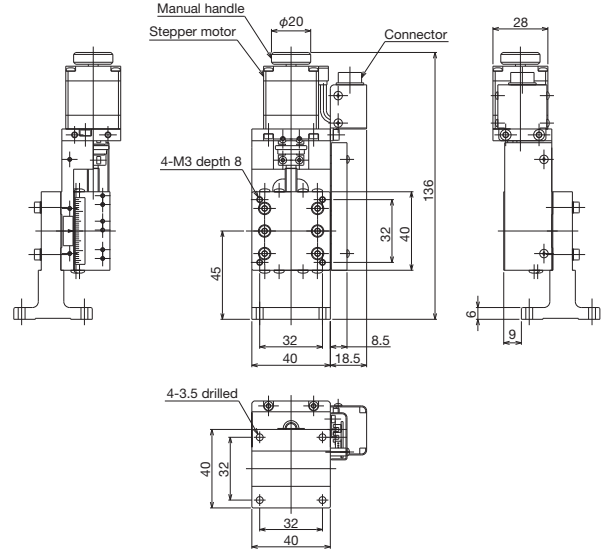
# High-Grade Stages ◀ Motorized Stages ◀

## Product Appearance



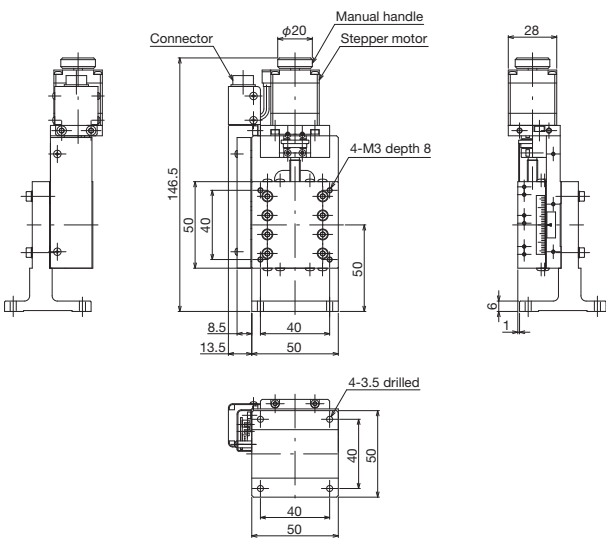
\*TALZ-4011-G0M has the same dimensions as TALZ-4011-G1M.

↑ TALZ-4011-G1M



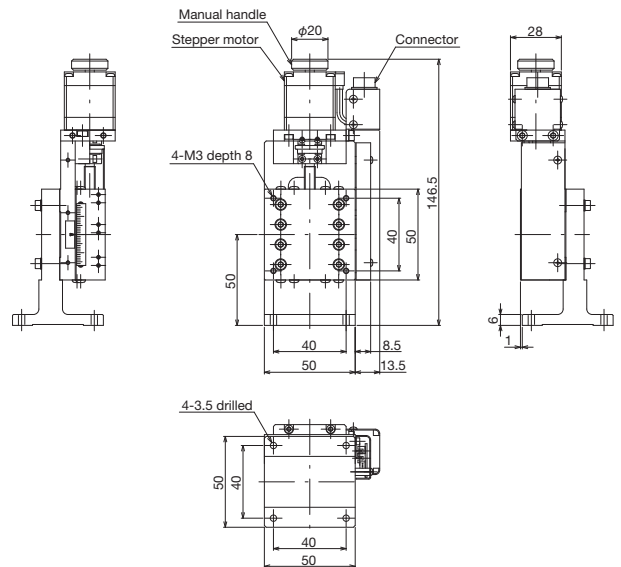
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↑ TALZ-4011-G1M-R



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↑ TALZ-5012-G1M



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↑ TALZ-5012-G1M-R

Motorized Stages	Automated Products for Microscopes	Manual Stages	High-Grade Stages (φ30 mm) Contact Stages	30 mm x 30 mm Contact Stages	Class Roller Stages	Ball Bushing Stages	High-Precision/High-Rigidity Stages	Z-Lift Stages	Tilt Stages	Connection Cases	Actuators
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# High-Grade Z Stage 60 x 60, 70 x 70



HG-VCR method

0.75 A/phase

0.75 A/phase motor



↑ TALZ-6012-G1M



↑ TALZ-6012-G1M-R



↑ TALZ-7013-G1M



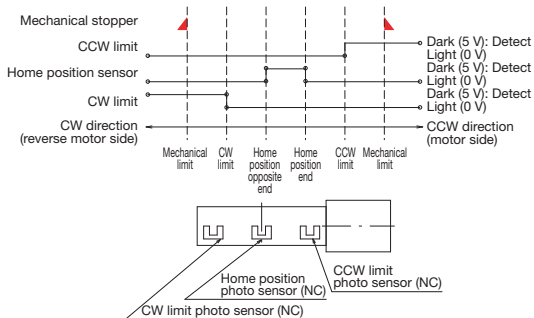
↑ TALZ-7013-G1M-R

## Features

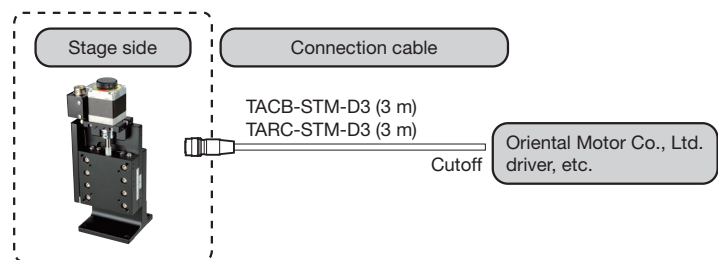
- A high-precision, high-rigidity motorized stage using the HG-VCR method.
- Precision screw and ball screw specifications are available.
- Versatile use for precision positioning of cameras, sensors, workpieces, and more.

Model number (standard)	TALZ-6012-G0M	TALZ-6012-G1M	TALZ-7013-G0M	TALZ-7013-G1M
Model number (symmetrical)	TALZ-6012-G0M-R	TALZ-6012-G1M-R	TALZ-7013-G0M-R	TALZ-7013-G1M-R
Model name	High-Grade Z Stage			
Travel direction	Z-axis single direction			
Travel amount	±12.5 mm		±15 mm	
Stage surface	60 mm x 60 mm		70 mm x 70 mm	
Motor used	PK523HPB equivalent (5-wire type pentagonal wiring, 0.75 A/phase)			
Resolution	0.001 mm	0.002 mm	0.001 mm	0.002 mm
Feed screw specification	Precision screw	Ball screw	Precision screw	Ball screw
Feed screw lead	0.5 mm	1 mm	0.5 mm	1 mm
Travel guide	HG-VCR (V-groove and cross rollers)			
Travel accuracy	Straightness (horizontal/vertical): 0.002 mm			
Positioning accuracy	Yawing 20 s, pitching 30 s	Yawing 15 s, pitching 25 s	Yawing 20 s, pitching 30 s	Yawing 15 s, pitching 25 s
Repeatability	±0.0005 mm	±0.0003 mm	±0.0005 mm	±0.0003 mm
Lost motion	0.005 mm	0.001 mm	0.005 mm	0.001 mm
Moment rigidity	Yaw rigidity 0.1 s/N-cm, pitch rigidity 0.1 s/N-cm, roll rigidity 0.1 s/N-cm		Yaw rigidity 0.06 s/N-cm, pitch rigidity 0.08 s/N-cm, roll rigidity 0.08 s/N-cm	
Load capacity	19.6 N (2 kgf)			
Mass	0.7 kg		0.9 kg	
Maximum speed (at 5,000 pps)	5 mm/s	10 mm/s	5 mm/s	10 mm/s
Main materials/surface treatment	Aluminum alloy/black satin anodized finish			
Home position sensor	Normally closed contact point (break contact, B contact) operation, photo sensor			
Limit sensor	Normally closed contact point (break contact, B contact) operation, photo sensor			
Applicable cables	TACB-STM-D3, TARC-STM-D3			

### ◆ Sensor operating logic and timing chart



### ◆ Connection method: Connection cable and driver

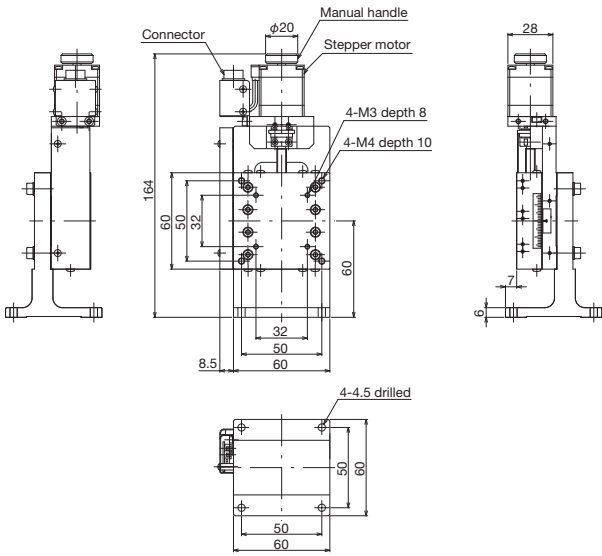




# High-Grade Stages ◀ Motorized Stages ◀

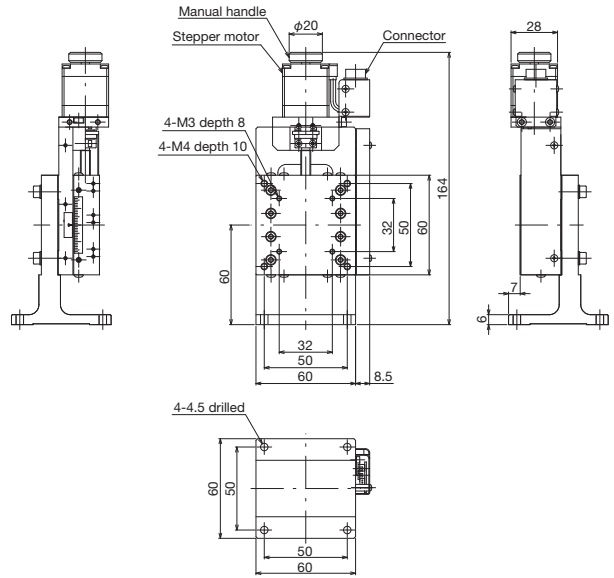
## Product Appearance

Motorized Stages	Automated Products for Microscopes	Manual Stages	High-Grade Stages (φ30 mm) Contact Stages	Class Roller Stages	Ball Bushing Stages	High-Precision/High-Rigidity Stages	Z-Lift Stages	Tilt Stages	Connection Cases	Actuators
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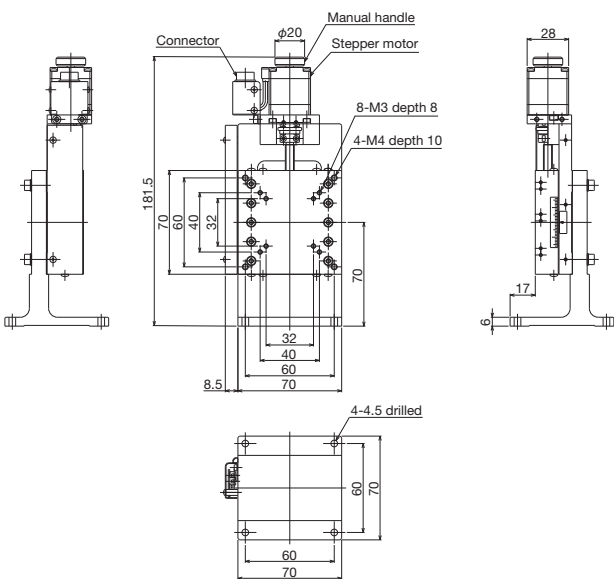
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↑ TALZ-6012-G1M



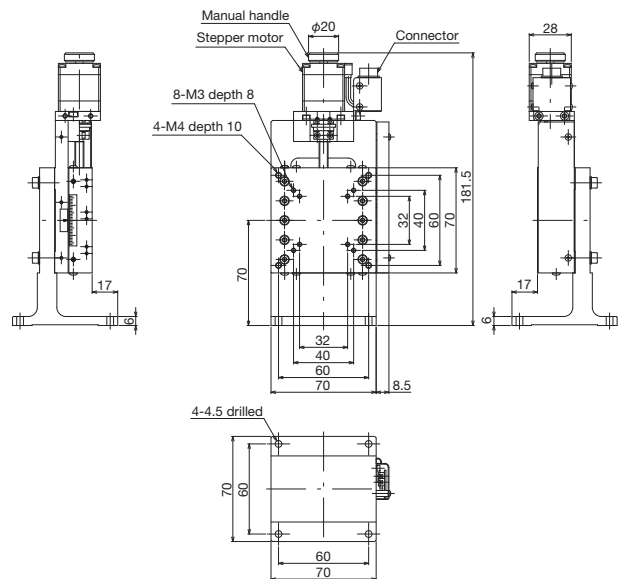
\*TALZ-6012-G0M-R has the same dimensions as TALZ-6012-G1M-R.

↑ TALZ-6012-G1M-R



\*TALZ-7013-G0M has the same dimensions as TALZ-7013-G1M.

↑ TALZ-7013-G1M



\*TALZ-7013-G0M-R has the same dimensions as TALZ-7013-G1M-R.

↑ TALZ-7013-G1M-R