

## Z Stages - High-Precision/High-Rigidity Type

◆ V-CR method **0.75 A/phase** 0.75 A/phase motor



↑ TALZ-903-H1S



↑ TALZ-105-H1S



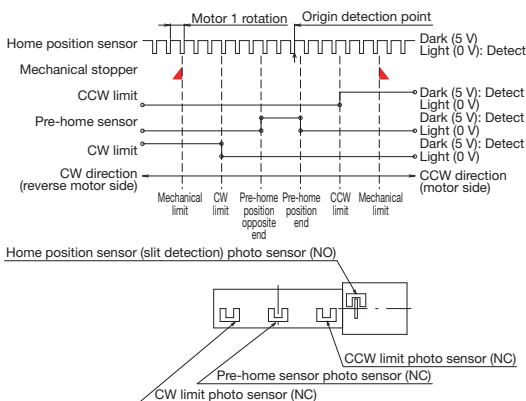
↑ TALZ-510-H1S

### Features

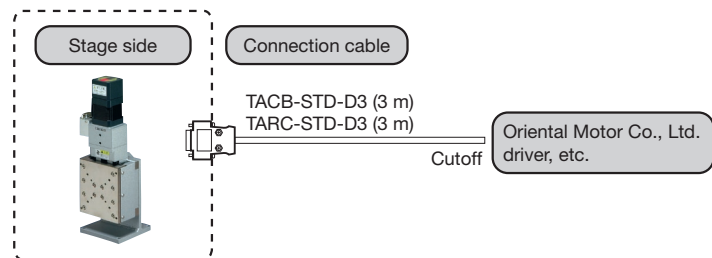
- An ultra-high accuracy motorized Z stage for increased machine accuracy.
- Can be used for applications for automatic positioning of various sensors and workpieces.
- Pre-home sensor and limit sensor positions can be adjusted.

Model number	TALZ-903-H1S	TALZ-105-H1S	TALZ-510-H1S
Model name	Z Stage - High-Precision/High-Rigidity Type		
Travel direction	Z-axis single direction		
Travel amount	±15 mm	±25 mm	±50 mm
Stage surface	90 mm x 100 mm	125 mm x 160 mm	150 mm x 200 mm
Motor used	PK545NAW equivalent with electromagnetic brake (5-wire type pentagonal wiring, 0.75 A/phase)		
Resolution	0.002 mm		
Feed screw lead	1 mm		
Travel guide	V-groove and cross rollers		
Travel accuracy	Straightness (horizontal/vertical): 0.0007 mm Yaw/pitch 4 s	Straightness (horizontal/vertical): 0.0008 mm Yaw/pitch 6 s	Straightness (horizontal/vertical): 0.001 mm Yaw/pitch 6 s
Positioning accuracy	0.002 mm	0.003 mm	0.005 mm
Repeatability	±0.0005 mm		
Lost motion	0.0005 mm		
Moment rigidity	Yaw rigidity 0.1 s/N-cm, pitch rigidity 0.15 s/N-cm, roll rigidity 0.1 s/N-cm	Yaw rigidity 0.05 s/N-cm, pitch rigidity 0.1 s/N-cm, roll rigidity 0.05 s/N-cm	Yaw rigidity 0.03 s/N-cm, pitch rigidity 0.05 s/N-cm, roll rigidity 0.03 s/N-cm
Load capacity	98 N (10 kgf)		
Mass	5.5 kg	12.5 kg	20.7 kg
Maximum speed (at 5,000 pps)	10 mm/s		
Main materials/surface treatment	Steel: Electroless nickel plating (table), coating (base, brackets)		
Home position sensor	Normally open contact (make contact, A contact) operation, photo sensor		
Pre-home 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-STD-D3, TARC-STD-D3		

### ◆ Sensor operating logic and timing chart



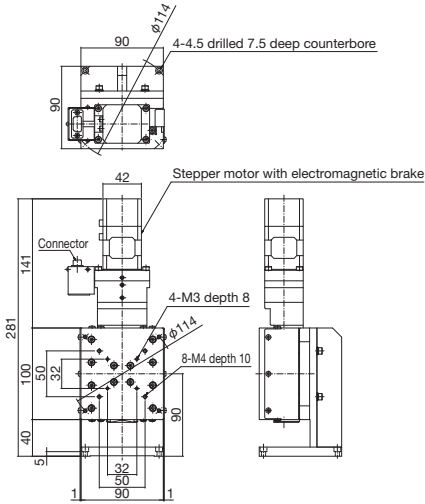
### ◆ Connection method: Connection cable and driver



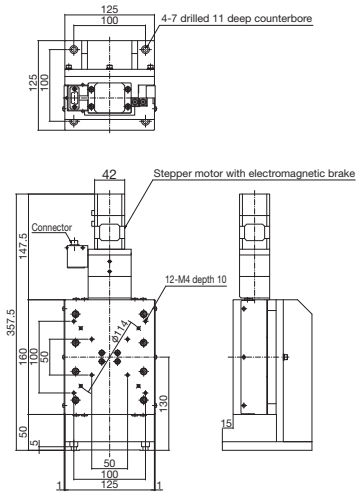


# High-Precision/High-Rigidity Stages ◀ Motorized Stages ◀

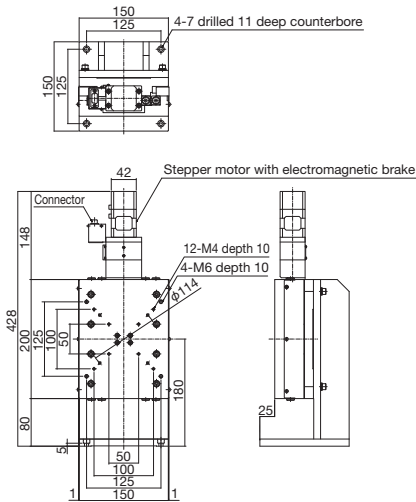
## Product Appearance



TALZ-903-H1S



TALZ-105-H1S



TALZ-510-H1S

Motorized Stages	Automated Products for Microscopes	Manual Stages	High-Grade Stages	30 mm x 30 mm (ø30 mm) Compact Stages	Class Roller Stages	Ball Bushing Stages	High-Precision/High-Rigidity Stages	Z-Like Stages	Tilt Stages	Connection Cables	Actuators
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