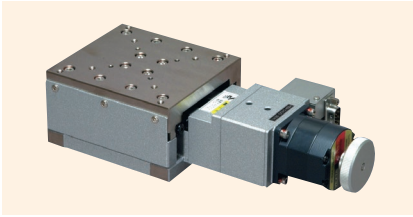


## X Stages - High-Precision/High-Rigidity Type

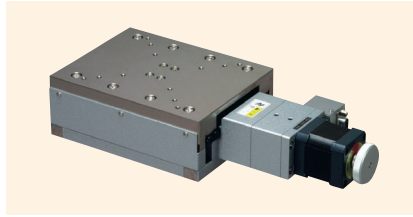


0.75 A/phase

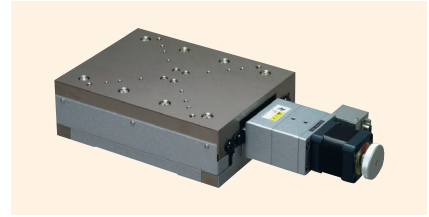
0.75 A/phase motor



↑ TALS-903-H1S



↑ TALS-105-H1S



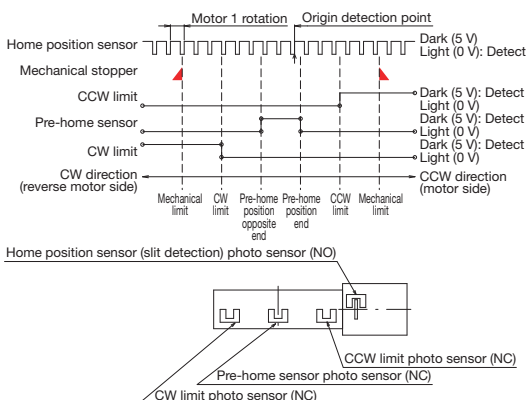
↑ TALS-510-H1S

### Features

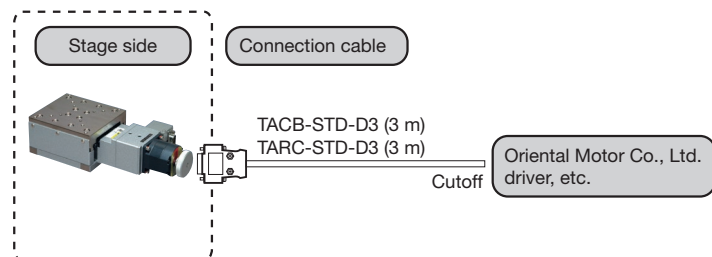
- An ultra-high accuracy motorized X stage for increased machine accuracy.
- Can be used for applications for automatic positioning of various sensors and workpieces.
- Pre-home sensor and limit sensor positions can be adjusted.

Model number	TALS-903-H1S	TALS-105-H1S	TALS-510-H1S
Model name	X Stage - High-Precision/High-Rigidity Type		
Travel direction	X-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	PK543NBW equivalent (5-wire type pentagonal wiring, 0.75 A/phase)		
Resolution	0.002 mm		
Feed screw specification	Ball screw		
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 0.1 s/N-cm, roll rigidity 0.05 s/N-cm	Yaw rigidity 0.05 s/N-cm, pitch rigidity 0.05 s/N-cm, roll rigidity 0.03 s/N-cm	Yaw rigidity 0.01 s/N-cm, pitch rigidity 0.01 s/N-cm, roll rigidity 0.01 s/N-cm
Load capacity	196 N (20 kgf)	392 N (40 kgf)	490 N (50 kgf)
Mass	3.5 kg	8.2 kg	12.8 kg
Maximum speed (at 8,000 pps)	16 mm/s		
Main materials/surface treatment	Steel: Electroless nickel plating (table), coating (base)		
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



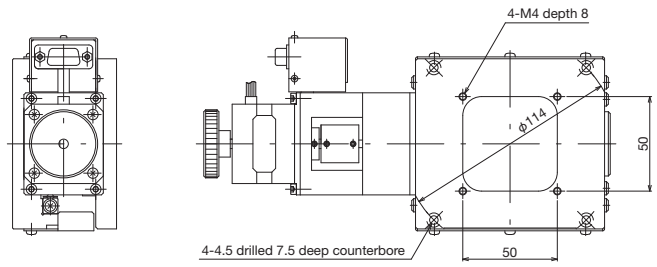
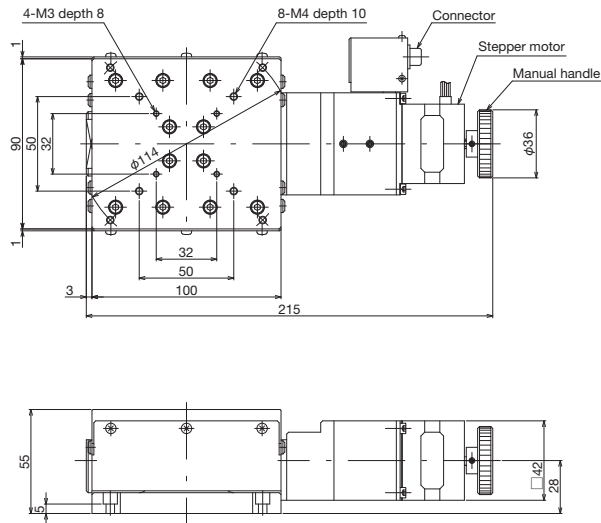
### ◆ Connection method: Connection cable and driver



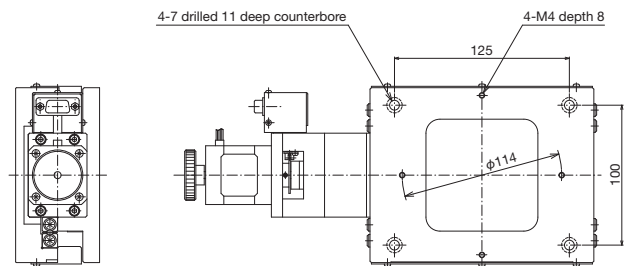
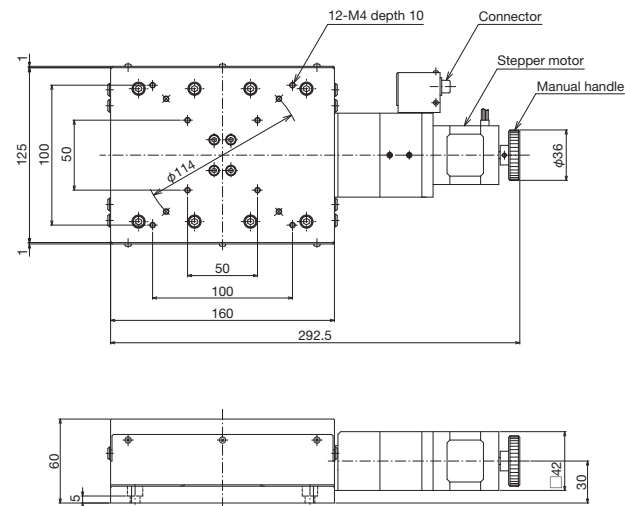


# High-Precision/High-Rigidity Stages ◀ Motorized Stages ◀

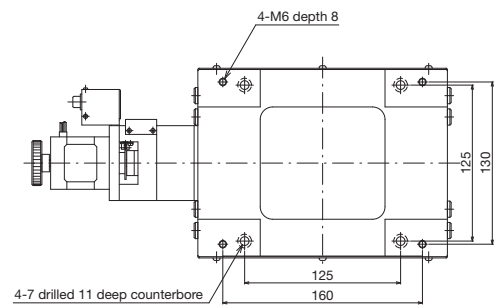
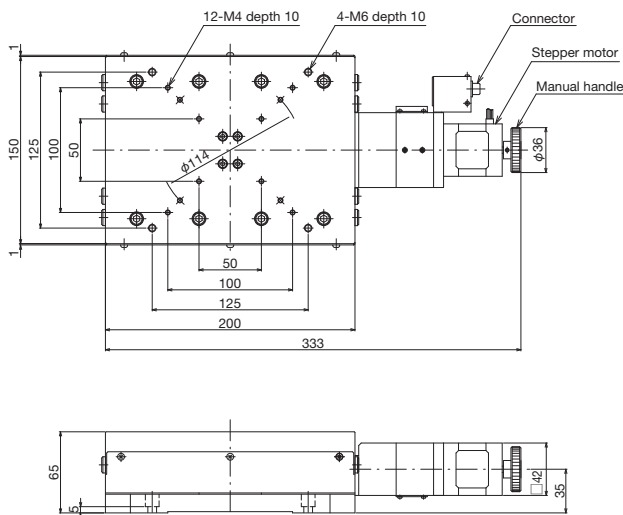
## Product Appearance



↑ TALS-903-H1S



↑ TALS-105-H1S



↑ TALS-510-H1S

Motorized Stages	Automated Products for Microscopes	Manual Stages	High-Grade Stages	30 mm x 30 mm Corner Stages	Coax Roller Stages	Ball Bushing Stages	High-Precision/High-Rigidity Stages	Z-Lift Stages	Tilt Stages	Connection Cases	Actuators
------------------	------------------------------------	---------------	-------------------	-----------------------------	--------------------	---------------------	-------------------------------------	---------------	-------------	------------------	-----------