

# Motorized Stage

CAVE-X POSITIONER

## XY-axis Linear Ball Guide: KYL06030/KYL06050/KYL06075

RoHS



Model Selection code Option code

**KYL06030-N1-C**

1 2 3 4 5 6

Cable P.1-207~  
Electrical specification P.1-077~

### 1 Travel length

030	30mm
050	50mm
075	75mm

### 2 Cover type

N	Uncovered	
C	Covered	

### 3 Ball screw lead selection

1	Lead 1mm
2	Lead 2mm

### 4 Motor option

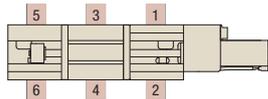
Code	Specification
C	Standard
F	High-torque
G	High resolution
MA	With electromagnetic brake (Driver set)
PA	$\alpha$ Step (Driver set)
U	Servo motor (Amplifier set)

\* Code MA · PA · U is the set of driver and cable.  
\* See page P.1-077~ for details of motor option.

### 5 Origin sensor option

Code	Specification
Blank	None
1	CCW right side
2	CCW left side
3	Center right side
4	Center left side
5	CW right side
6	CW left side

\* See page P.1-079~ for details of origin sensor option.  
■ Position of origin sensor option (Please choose one position.)



### 6 Cable option

Code	Specification	Cable type
A	2m	D214-2-2E
B	2m One end loose	D214-2-2EK
C	4m	D214-2-4E
D	4m One end loose	D214-2-4EK
E	Only connector (Cable is not included)	—
F	Robot cable 2m	D214-2-2R
G	Robot cable 2m one end loose	D214-2-2RK
H	Robot cable 4m	D214-2-4R
J	Robot cable 4m one end loose	D214-2-4RK
M	Cable for electromagnetic brake	—
P	Cable for $\alpha$ step	—
U	Cable for servo motor	—
Blank	Cable is not included (Standard)	—

\* One end loose position to only stage opposite side.  
\* The price includes M, P and U.  
Not available non-cable.  
\* See page P.1-207,209~ for details of cable.  
\* Please select "Code A, C, F or H" when connect with stepping motor controller(DS102/112).

[Note]  
Please check available cable from compatibility list.  
Not included cable for a main body. Please choose the code as below.

Motor / cable products list	Motor code	Cable code
	C,F,G	Blank, A~H,J
MA	M	
PA	P	
U	U	

### SPEC

Model	Uncovered	KYL06030-N1-C	KYL06030-N2-C	KYL06050-N1-C	KYL06050-N2-C	KYL06075-N1-C	KYL06075-N2-C
	Covered	KYL06030-C1-C	KYL06030-C2-C	KYL06050-C1-C	KYL06050-C2-C	KYL06075-C1-C	KYL06075-C2-C
Travel length		30mm		50mm		75mm	
Table size		60×60mm					
Feed screw (Ball screw)		$\varnothing 8$ lead 1	$\varnothing 8$ lead 2	$\varnothing 8$ lead 1	$\varnothing 8$ lead 2	$\varnothing 8$ lead 1	$\varnothing 8$ lead 2
Guide		Linear ball guide					
Main materials-Finishing		Stainless—Opposite side of the end face finishing					
Weight	Uncovered	2.56kg		2.8kg		3.08kg	
	Covered	2.68kg		2.88kg		3.32kg	
Resolution (Pulse)	Full / Half	2 $\mu$ m / 1 $\mu$ m	4 $\mu$ m / 2 $\mu$ m	2 $\mu$ m / 1 $\mu$ m	4 $\mu$ m / 2 $\mu$ m	2 $\mu$ m / 1 $\mu$ m	4 $\mu$ m / 2 $\mu$ m
	Microstep	0.1 $\mu$ m (1/20 on resolution)	0.2 $\mu$ m (1/20 on resolution)	0.1 $\mu$ m (1/20 on resolution)	0.2 $\mu$ m (1/20 on resolution)	0.1 $\mu$ m (1/20 on resolution)	0.2 $\mu$ m (1/20 on resolution)
MAX speed		30mm/sec	35mm/sec	30mm/sec	35mm/sec	30mm/sec	35mm/sec
Load capacity		10kgf [98N]					
Perpendicularity		Within 15 $\mu$ m/Full stroke		Within 25 $\mu$ m/Full stroke		Within 37.5 $\mu$ m/Full stroke	
Limit sensor		Installed					
Origin sensor		— ※Attachable in origin sensor option					
Slit origin sensor		—					
Provided screw (Hexagon-headed bolt)		8 of M4—14					
Stage accuracy specification	Uni-directional positioning accuracy	Within 5 $\mu$ m				Within 7 $\mu$ m	
	Repeatability positioning accuracy	Within $\pm 0.5\mu$ m					
	Lost motion	Within 1 $\mu$ m					
	Backlash	Within 1 $\mu$ m					
	Straightness	Within 3 $\mu$ m					
	Pitching/Yawing	Within 20" / Within 15"					

※ Might be changed specification due to motors. See page P.1-213~ for details.

Motorized Stage

X

XY

Z

Horizontal Z

XYZ

Goniometer

Rotary

Unit

Controller

Linear Ball

CAVE-X Linear ball

Cross Roller

Slide Guide

$\varnothing 40$

$\varnothing 50$

$\varnothing 60$

$\varnothing 70$

$\varnothing 80$

$\varnothing 100$

$\varnothing 120$

Other