

X-axis Linear Ball Guide: PG430/PG530/PG650/PG750

Motorized Stage

PG650-L



PG650-R



RoHS

Model Selection code Option code
PG 430-L05AG-C 5

1 2 3 4 5 6 7

☑ Cable P.1-207~
 ☑ Electrical specification P.1-037~

1 Table size

4	40×60mm
5	50×70mm
6	60×100mm
7	70×110mm

2 Travel length

30	30mm
50	50mm

4 Sensor voltage

05	5V
24	24V

* 05 [5V] for standard

5 Sensor logic

A	N.C.
B	N.O.
C	Limit sensor is N.C., ORG1 and ORG2 are N.O.

* The sensor voltage/logic is different, but the external form dimension is the same.

* If you choose 24V, not available our controller DS102/112.

7 Cable option

※ See page P.1-039~ for ORG2 compatible cable.

Code	Specification	Cable type
Blank	2m	D214-2-2E
1	2m One end loose	D214-2-2EK
2	4m	D214-2-4E
3	4m One end loose	D214-2-4EK
4	Only connector (Cable is not included)	—
5	Cable is not included (Standard)	—
6	Robot cable 2m	D214-2-2R
7	Robot cable 4m	D214-2-4R
8	Robot cable 4m one end loose	D214-2-4RK
9	Robot cable 2m one end loose	D214-2-2RK
M	Cable for electromagnetic brake	—
P	Cable for α step	—
U	Cable for servo motor	—

* 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 "blank, 2, 6 and 7" when connect with stepping motor controller(DS102/112).

[Note]
Please check available cable from compatibility list.

Motor/cable products list	Motor code	Cable code
	C, D, E	Blank, 1~9
MA	M	
PA	P	
U	U	

* Cannot choose 450, 550, 630, 730 in combination with 1 and 2.

3 Sensor cover location

L	 L position
R	 Opposite hand

6 Motor option

Code	Specification
C	Standard
D	High-torque
E	High resolution
MA	With electromagnetic brake (Driver set)
PA	α Step (Driver set)
U	Servo motor (Amplifier set)

* Code MA · PA · U is the set of driver and cable.

* See page P.1-037~ for details of motor option.

Linear Ball

CAVE-X
Linear ball

Cross Roller

Slide Guide

φ40

φ50

φ60

φ70

φ80

φ100

φ120

Other

SPEC				
Model	PG430-L05AG-C5	PG530-L05AG-C5	PG650-L05AG-C5	PG750-L05AG-C5
(Opposite hand)	PG430-R05AG-C5	PG530-R05AG-C5	PG650-R05AG-C5	PG750-R05AG-C5
Travel length	30mm		50mm	
Table size	40×60mm	50×70mm	60×100mm	70×110mm
Feed screw (Ball screw)	φ6 lead 1			
Guide	Linear ball guide			
Main materials-Finishing	Stainless—Opposite side of the end face finishing			
Weight	0.6kg	0.78kg	1.08kg	1.16kg
Resolution (Pulse)	2μm (Full)/1μm (Half)			
MAX speed	10mm/sec			
Uni-directional positioning accuracy	Within 12μm			
Repeatability positioning accuracy	Within ±0.5μm			
Load capacity	10kgf [98N]			
Moment stiffness	Pitch 0.24/yaw 0.18/ roll 0.26 ["/N · cm]	Pitch 0.12/yaw 0.13/ roll 0.1 ["/N · cm]	Pitch 0.05/yaw 0.05/ roll 0.05 ["/N · cm]	Pitch 0.03/yaw 0.03/ roll 0.03 ["/N · cm]
Lost motion	Within 1μm			
Backlash	Within 0.5μm			
Straightness	Within 2μm			
Parallelism	Within 15μm			
Motion parallelism	Within 10μm			
Pitching/Yawing	Within 20"/Within 15"			
Limit sensor	Installed			
Origin sensor (ORG1)	Installed			
Slit origin sensor (ORG2)	Installed Refer page P.1-039~			
Provided screw (Hexagon-headed bolt)	4 of M3—8		4 of M4—8	

※ Specification will be changed due to a motor. Refer page P.1-213.

☉ The vertical load guideline 3kgf when use on Z-axis because of difference the load or speed.