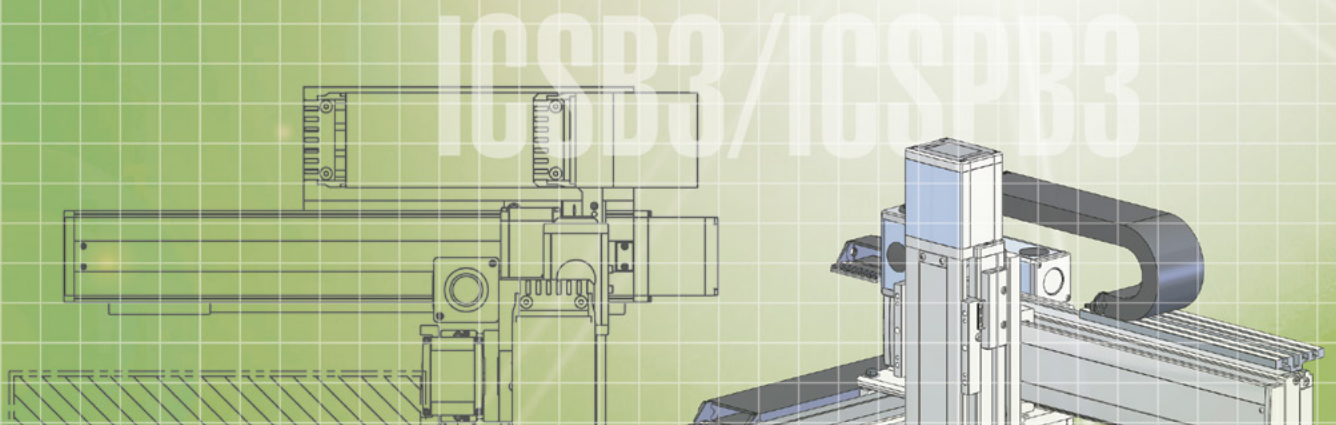
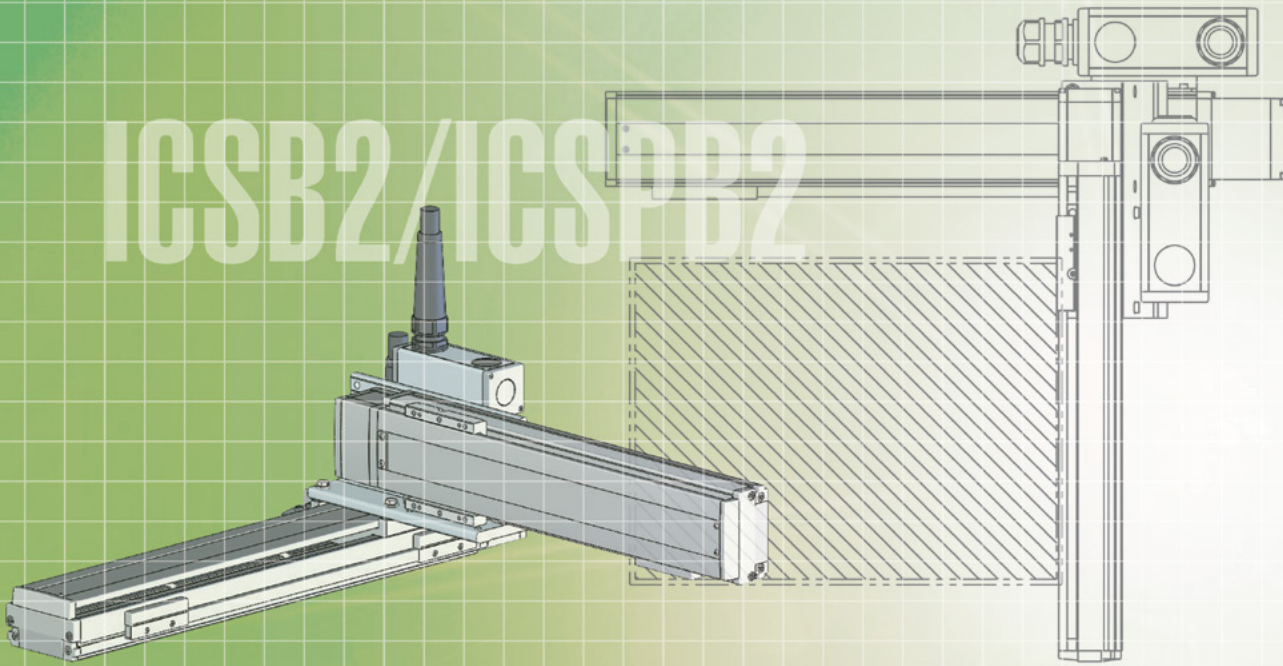
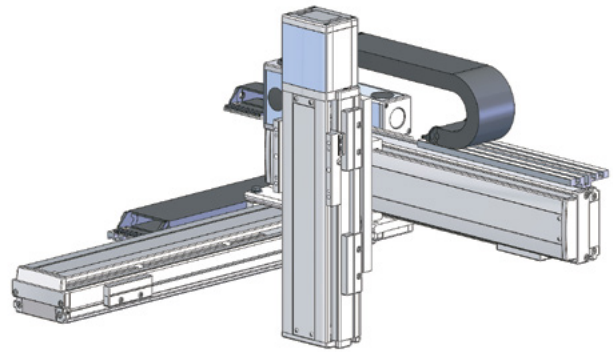


# Cartesian Robot **ICSB/ICSPB**



# The ICSA Series Cartesian Robots Have Been Totally Renewed!



The ICSB/ICSPB Series Cartesian Robots selected the most frequently used seven 2-axis configuration and seven 3-axis configuration patterns which include brackets and cabling ready to be assembled immediately after delivery.

## ICSB Series [Standard Specifications] / ICSPB Series [High-Precision Specifications]

### Features

1

### Great Improvements in Performance

Great improvements in precision, payload, acceleration and deceleration compared to the conventional ICSA series models.

#### Positioning Repeatability

Standard Specifications

**$\pm 0.02\text{mm} \rightarrow \pm 0.01\text{mm}$**

High-Precision Specifications

**$\pm 0.01\text{mm} \rightarrow \pm 0.005\text{mm}$**

#### Payload

Cantilevered  
3-axis Configuration  
Maximum Payload

**19kg  
 $\rightarrow 36.4\text{kg}$**

#### Acceleration and Deceleration

Rated Acceleration/  
Deceleration

**$0.3\text{G} \rightarrow 0.4\text{G}$**

Maximum Acceleration/  
Deceleration

**$1.0\text{G} \rightarrow 1.2\text{G}$**

Note: Positioning repeatability conforms to the specification of each configured axis.

2

### Many Variations Available

The 2-axis and 3-axis units each have seven types of configurations available. With options for axis size and configuration direction, you are able to select from a total of 834 variations.

2-axis  
Configuration  
Types

**226**

3-axis  
Configuration  
Types

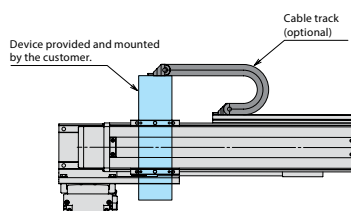
**608**

3

### Cable Track Option for Customer Provided Device

You have the option of connecting a customer provided device to the XYB/XYBG types through the use of a cable track.

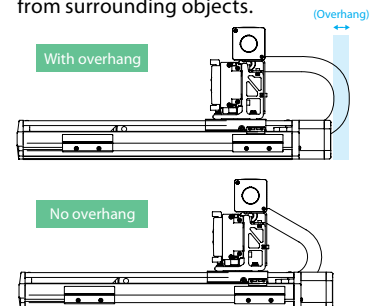
For details, see page 14



4

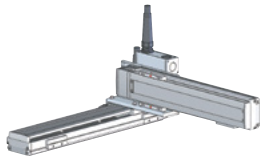
### No Cable Track Overhang

Since the mounting position of the cable track was moved, it no longer sticks out from the main device, meaning you do not have to worry about interference from surrounding objects.



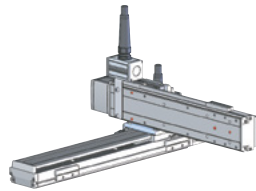
## Variations

### 2-axis Configurations



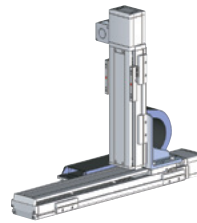
Y-axis Base Mount

**XYB Type**  
(→ P. 17)



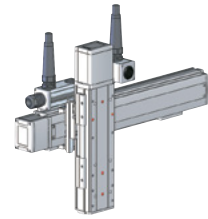
Y-axis Slider Mount

**XYs Type**  
(→ P. 57)



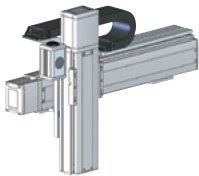
Z-axis Upright Mount

**XZ Type**  
(→ P. 71)



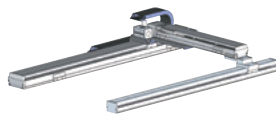
Z-axis Slider Mount

**YZS Type**  
(→ P. 87)



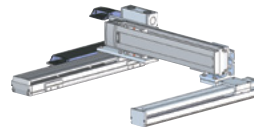
Z-axis Base Mount

**YZB Type**  
(→ P. 97)



Y-axis Flat-mounted Gantry

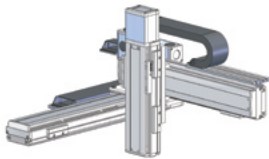
**XYG Type**  
(→ P. 109)



Y-axis Side-mounted Gantry

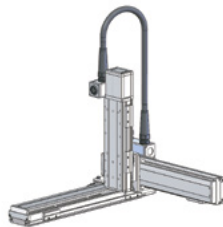
**XYBG Type**  
(→ P. 113)

### 3-axis Configurations



Y-axis Base Mount  
Z-axis Base Mount

**XYB + Z Base Mount Type**  
(→ P. 135)



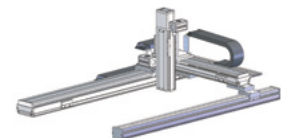
Y-axis Base Mount  
Z-axis Slider Mount

**XYB + Z Slider Mount Type**  
(→ P. 189)



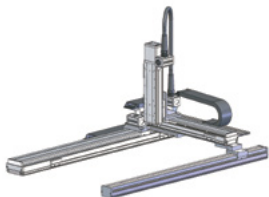
Z-axis Upright Mount  
Y-axis Slider Mount

**XZ + Y Slider Mount Type**  
(→ P. 225)



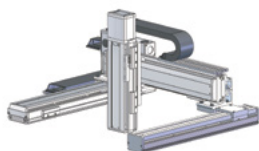
Y-axis Flat-mounted Gantry  
Z-axis Base Mount

**XYG + Z Base Mount Type**  
(→ P. 229)



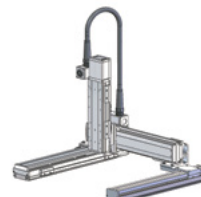
Y-axis Flat-mounted Gantry  
Z-axis Slider Mount

**XYG + Z Slider Mount Type**  
(→ P. 241)



Y-axis Side-mounted Gantry  
Z-axis Base Mount

**XYBG + Z Base Mount Type**  
(→ P. 253)



Y-axis Side-mounted Gantry  
Z-axis Slider Mount

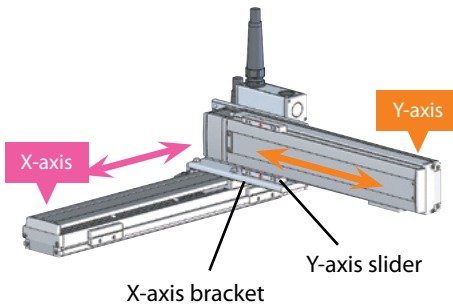
**XYBG + Z Slider Mount Type**  
(→ P. 285)

## 2-axis Configuration Robot Type Descriptions

We selected the seven most frequently used configurations with brackets and cabling ready to be assembled. This wide variety lineup of configurations ranges from lightweight to heavyweight, short stroke to long stroke, and the optimal device can be selected based on your intended use.

### 1 XYB (Y-axis Base Mount) Type

→ P. 17



This is a basic configuration where the Y-axis base is secured onto the X-axis bracket. It is operated by attaching a device or Z-axis to the Y-axis slider.

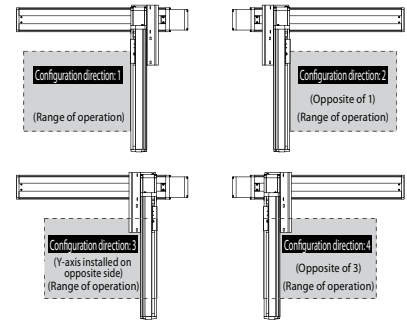
#### ● Highlight 1

You can choose from 4 options for the Y-axis configuration direction (see the diagram on the right).

#### ● Highlight 2

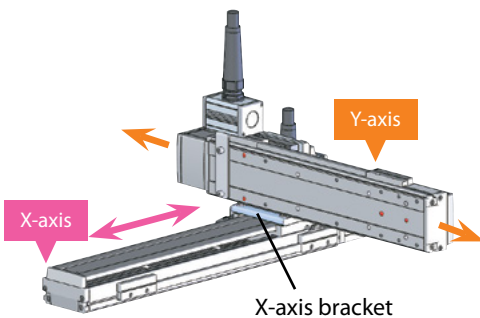
For the Y-axis wiring, you can select either a self-standing cable or a cable track.

#### ● Configuration Direction



### 2 YYS (Y-axis Slider Mount) Type

→ P. 57



This type secures the Y-axis slider on to the X-axis bracket, and the Y-axis itself moves. Please use this option when the Y-axis needs to be moved back and forth in order to avoid obstacles.

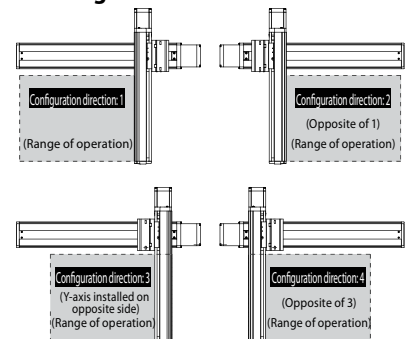
#### ● Highlight 1

You can choose from 4 options for the Y-axis configuration direction (see the diagram on the right).

#### ● Highlight 2

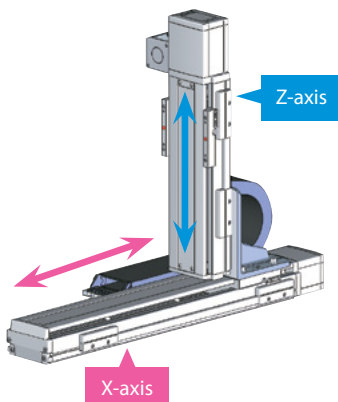
Only the self-standing cable option is available for the Y-axis wiring specification.

#### ● Configuration Direction



### 3 XZ (Z-axis Upright Mount) Type

→ P. 71



This type mounts the Z-axis (vertical axis) in an upright position on top of the X-axis. Please use this type in such applications as inserting loads into a stacker or moving a pallet up and down.

#### ● Highlight 1

You can choose from six options for the Z-axis configuration direction (see the diagram on the right).

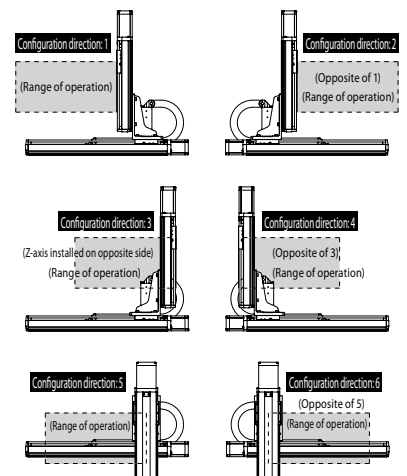
#### ● Highlight 2

Since the Z-axis comes equipped with a brake, the slider will not fall even when the power is shut off.

#### ● Highlight 3

The maximum stroke is 2,500mm for the X-axis and 500mm for the Z-axis. (Please consult IAI if you need a longer stroke.)

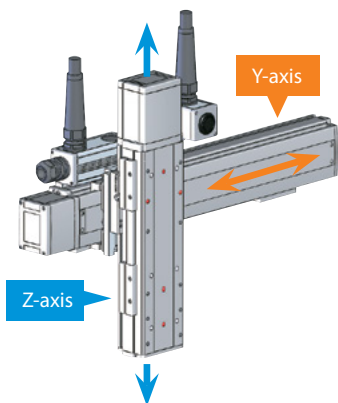
#### ● Configuration Direction





## 4 YZS (Z-axis Slider Mount) Type

→ P. 87

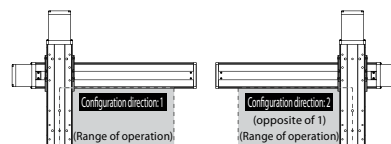


This type orients the Y-axis horizontally and its slider connects with the Z-axis (vertical axis) slider. Since the Z-axis moves up and down, this type can be fitted with another device to transfer loads.

### ● Highlight 1

Since the Z-axis comes equipped with a brake, the slider will not fall even when the power is shut off.

### ● Configuration Direction

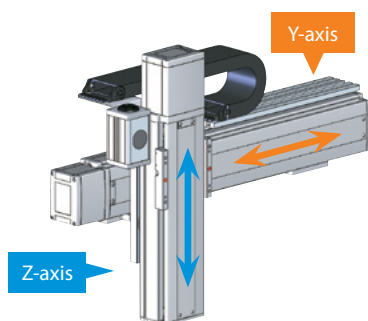


### ● Highlight 2

The Z-axis cable comes equipped with a self-standing cable; however, it is also compatible with a cable track (custom order).

## 5 YZB (Z-axis Base Mount) Type

→ P. 97



This type orients the Y-axis horizontally and mounts the Z-axis (vertical axis) base onto the Y-axis slider. Since the Z-axis moves up and down, this type can be fitted with tooling or another device to transfer loads.

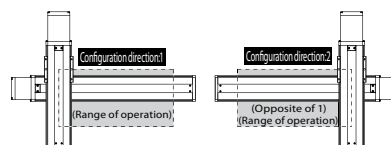
### ● Highlight 1

This type has a higher payload capacity compared to the YZS (Z-axis slider mount) type.

### ● Highlight 2

Since the Z-axis comes standard with a brake, the slider will not drop even when the power is turned off.

### ● Configuration Direction

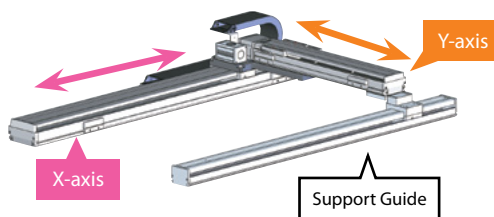


### ● Highlight 3

For Z-axis wiring, you can select from either a self-standing cable or a cable track.

## 6 XYG (Y-axis Flat-mounted Gantry) Type

→ P. 109

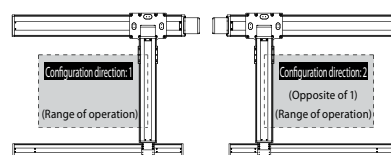


This type lays the Y-axis of the XYB type horizontally, with a support guide attached to the tip of the Y-axis. Please use this type when transferring heavy loads or when the Y-axis stroke is long and there is a risk of sagging.

### ● Highlight 1

A maximum of 45kg can be transferred.

### ● Configuration Direction

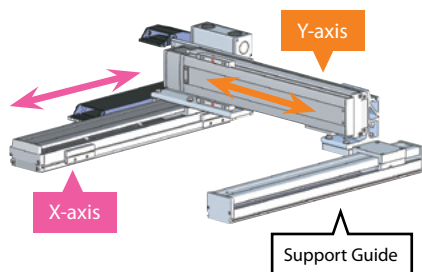


### ● Highlight 2

The maximum stroke is 2,500mm for the X-axis and 1,200mm for the Y-axis. (Please consult IAI if you need a longer stroke.)

## 7 XYBG (Y-axis Side-mounted Gantry) Type

→ P. 113



This type lays the Y-axis of the XYB type on its side, with a support guide attached to the tip of the Y-axis. Please use this type when transferring heavy loads or when the Y-axis tip is at risk of sagging.

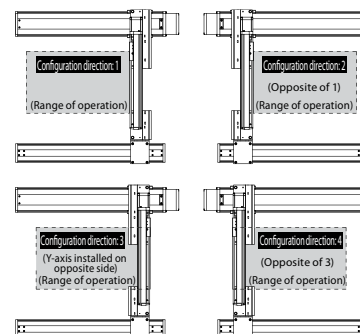
### ● Highlight 1

A maximum of 60 kg can be transferred.

### ● Highlight 2

Compared to the XYG type, both the X-axis and Y-axis are set for a shorter stroke.

### ● Configuration Direction

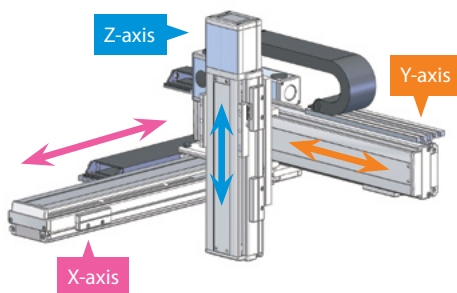


## 3-axis Configuration Robot Type Descriptions

The 3-axis configuration type uses the 2-axis XYB (XY base mount) type and XYG/XYBG (XY gantry) type as a base, with the added vertical Z-axis. Furthermore, the XZY type, which uses the XZ (Z-axis upright mount) type as a base with the added Y-axis, has also been added to the lineup.

### 1 XYB (Y-axis Base Mount) + Z-axis Base Mount Type

→ P. 135

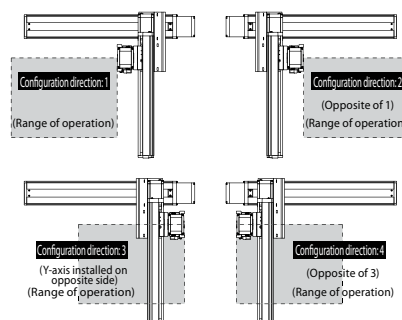


This type mounts a Z-axis base to an XYB type (Y-axis base mounted on an X-axis bracket) Y-axis slider.

#### ● Highlight

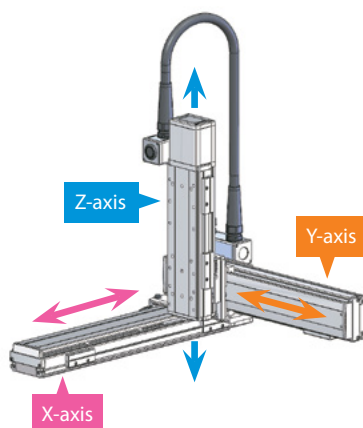
Since the body of the Z-axis is secured on the slider moving up and down, it has a greater vertical load capacity compared to the Z-axis slider mounted type.

#### ● Configuration Direction



### 2 XYB (Y-axis Base Mount) + Z-axis Slider Mount Type

→ P. 189

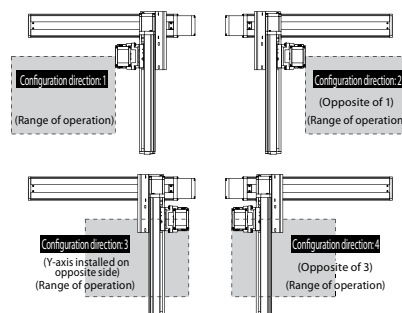


This type mounts a Z-axis slider to an XYB type (Y-axis base mounted on an X-axis bracket) Y-axis slider.

#### ● Highlight

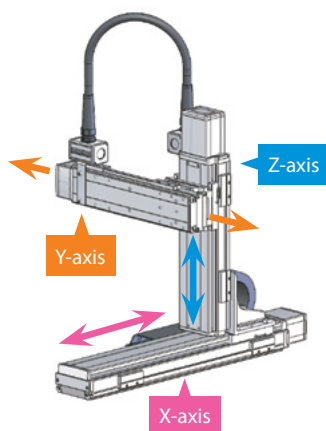
Since the body of the Z-axis moves up and down, it is suitable for when there are obstacles during movement.

#### ● Configuration Direction



### 3 XZ (Z-axis Upright Mount) + Y-axis Slider Mount Type

→ P. 225

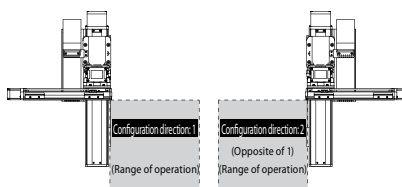


This type mounts a Y-axis slider to an XZ type (Z-axis mounted upright on the X-axis) Z-axis slider.

#### ● Highlight

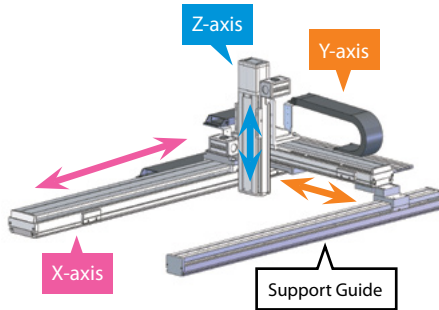
It is suitable for moving and inserting work parks to a stacker as well as transporting objects on a wall.

#### ● Configuration Direction



#### 4 XYG (Y-axis Flat-mounted Gantry) + Z-axis Base Mount Type

→ P. 229

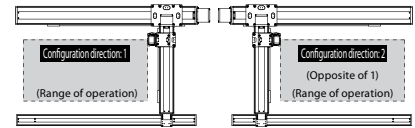


This type mounts the Z-axis base to an XYG type (sets an X-axis and support guide parallel to each other, which supports the Y-axis) Y-axis slider.

##### ● Highlight

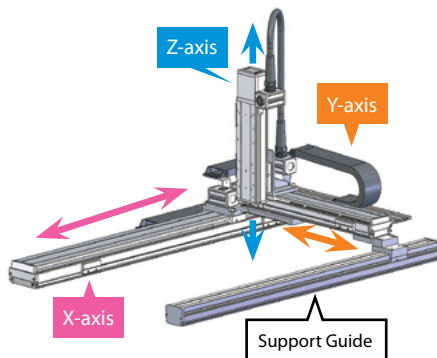
Since the body of the Z-axis is secured on the slider moving up and down, it has a higher vertical load capacity compared to the Z-axis slider mounted type.

##### ● Configuration Direction



#### 5 XYG (Y-axis Flat-mounted Gantry) + Z-axis Slider Mount Type

→ P. 241

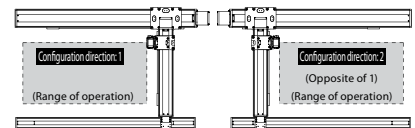


This type mounts a Z-axis slider to the XYG type (sets an X-axis and support guide parallel to each other, which supports the Y-axis) Y-axis slider.

##### ● Highlight

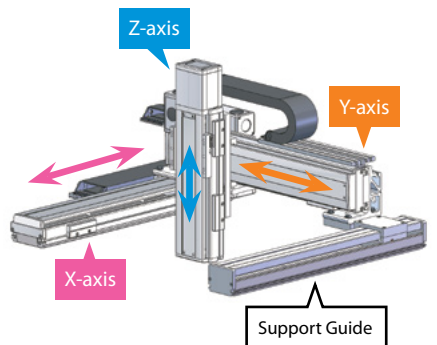
Since the body of the Z-axis moves up and down, it is suitable for when there are obstacles during movement.

##### ● Configuration Direction



#### 6 XYBG (Y-axis Side-mounted Gantry) + Z-axis Base Mount Type

→ P. 253

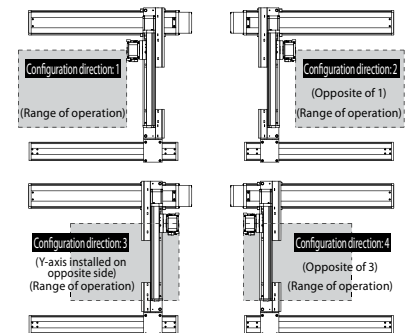


This type mounts a Z-axis base to an XYBG type (a support guide attached to the end of the XYB type Y-axis) Y-axis slider.

##### ● Highlight

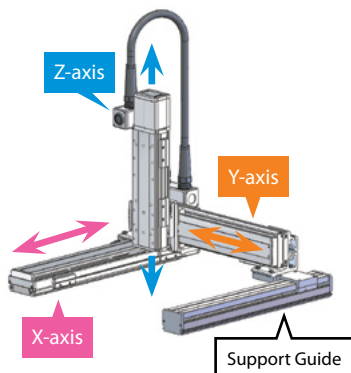
Since the body of the Z-axis is secured on the slider moving up and down, it has a higher vertical load capacity compared to the Z-axis slider mounted type.

##### ● Configuration Direction



#### 7 XYBG (Y-axis Side-mounted Gantry) + Z-axis Slider Mount Type

→ P. 285

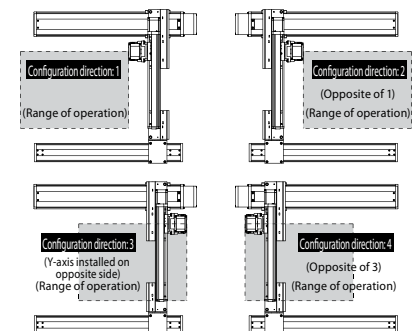


This type mounts a Z-axis slider to the XYBG type (a support guide attached to the end of the XYB type Y-axis) Y-axis slider.

##### ● Highlight

Since the body of the Z-axis moves up and down, it is suitable for when there are obstacles during movement.

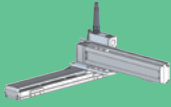
##### ● Configuration Direction



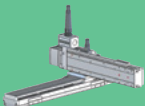
## 2-axis Configuration Model Selection Tables

In the following Model Specification Tables by Type, please select the best suitable model by comparing the stroke, speed, and payload.


### Cartesian Robot XYB (Y-axis Base Mount) Type

Classification	X-axis Stroke (mm)	Payload by Y-axis Stroke (kg)													Max. Speed (mm/s)		Model	Page
		100 (mm)	150 (mm)	200 (mm)	250 (mm)	300 (mm)	350 (mm)	400 (mm)	450 (mm)	500 (mm)	550 (mm)	600 (mm)	650 (mm)	700 (mm)	X-axis	Y-axis		
<div>B□□□</div> <div>[ XY 2-axis Configuration ]</div> <div>Y-axis Base Mount</div> <div></div>	100~900	6.1	5.8	5.5	5.3	5.0	4.7	4.5	—					960	960	BA□H	→ P. 17	
		19.4	19.0	16.4	13.9	12.0	10.3	9.0	—					480	480	BA□M	→ P. 19	
	100~1100	12.0	12.0	12.0	11.8	11.5	11.3	11.0	—					1200	960	BB□H	→ P. 21	
		20.0	20.0	20.0	20.0	20.0	20.0	20.0	18.6	16.6	—			1200	1200	BC□H	→ P. 25	
		25.0	25.0	25.0	25.0	25.0	23.0	22.0	—					600	480	BB□M	→ P. 23	
		30.0	30.0	29.5	29.2	26.7	23.5	20.9	18.6	16.6	—			600	600	BC□M	→ P. 27	
	100~1300	20.9	20.1	19.3	18.5	17.7	16.9	16.2	15.4	14.6	13.8	13.1	12.2	11.5	2400	2400	BG□S	→ P. 41
		23.1	22.3	21.5	20.7	20.0	19.2	18.5	17.6	16.8	16.0	15.3	14.5	13.8	2400	2400	BK□H	→ P. 45
		25.7	25.1	24.6	23.9	23.4	22.9	22.3	21.7	21.2	20.5	20.0	19.4	18.9	2400	1800	BE□S	→ P. 31
		45.0	45.0	45.0	45.0	43.4	38.8	34.9	31.5	28.6	26.0	23.7	21.6	19.7	1200	1200	BE□H	→ P. 33
		60.0	60.0	55.6	48.8	43.4	38.8	34.9	31.5	28.6	26.0	23.7	21.6	19.7	600	600	BE□M	→ P. 35
		64.5	63.7	62.9	62.1	59.9	54.1	49.8	44.8	40.9	37.4	34.3	31.5	28.9	1200	1200	BK□M	→ P. 47
	100~1500	36.4	35.6	34.8	34.0	33.3	32.4	31.7	30.9	30.1	27.4	24.6	22.0	19.6	2500	2400	BM□H	→ P. 53
		78.6	70.9	61.8	54.2	48.0	42.7	38.2	34.1	30.6	27.4	24.6	22.0	19.6	1250	1200	BM□M	→ P. 55
	800~2000	20.0	20.0	20.0	20.0	20.0	20.0	20.0	18.6	18.6	—				1200	1200	BD□H	→ P. 29
		20.9	20.1	19.3	18.5	17.7	16.9	16.2	15.4	14.6	13.8	13.1	12.2	11.5	2400	2400	BH□S	→ P. 43
	1000~2500	25.7	25.1	24.6	23.9	23.4	22.9	22.3	21.7	21.2	20.5	20.0	19.4	18.9	2400	1800	BF□S	→ P. 37
		45.0	45.0	45.0	45.0	43.4	38.8	34.9	31.5	28.6	26.0	23.7	21.6	19.7	1200	1200	BF□H	→ P. 39
	900~2500	36.6	35.8	35.0	34.2	33.5	32.7	32.0	31.1	30.3	29.5	28.8	28.0	27.3	2400	2400	BL□H	→ P. 49
		65.0	65.0	65.0	65.0	62.3	55.9	50.7	46.1	42.0	38.4	35.2	32.2	29.6	1200	1200	BL□M	→ P. 51

### Cartesian Robot XYZ (Y-axis Slider Mount) Type


Classification	X-axis Stroke (mm)	Payload by Y-axis Stroke (kg)												Max. Speed (mm/s)		Model	Page	
		100 (mm)	150 (mm)	200 (mm)	250 (mm)	300 (mm)	350 (mm)	400 (mm)	450 (mm)	500 (mm)	550 (mm)	600 (mm)	650 (mm)	700 (mm)	X-axis			Y-axis
<div>S□□□</div> <div>XY 2-axis Configuration Y-axis Slider Mount</div> <div></div>	100~600	6.6	6.3	6.1	5.8	5.5	4.9	3.9	—						960	960	SA□H	→ P. 57
		19.9	15.1	10.8	8.1	6.3	4.9	3.9	—						480	480	SA□M	→ P. 59
	100~800	10.0	9.4	8.7	8.2	7.7	7.2	6.7	6.2	5.6	—			1200	1200	S1C□H	→ P. 61	
		22.6	21.8	21.0	20.2	19.5	18.7	16.9	13.8	11.3	9.2	7.4	—		2400	2400	SG□S	→ P. 67
		27.5	26.7	26.0	25.2	24.4	20.8	17.1	14.0	11.6	9.4	7.6	—		1200	1200	SG□H	→ P. 69
		30.0	29.0	27.4	21.0	16.6	13.4	10.9	8.9	7.3	—			600	600	S1C□M	→ P. 63	
		31.7	31.1	27.1	20.7	16.4	13.2	10.7	8.7	7.0	—			1200	1200	S2C□H	→ P. 65	

### Cartesian Robot XZ (Z-axis Upright Mount) Type


Classification	X-axis Stroke (mm)	Payload by Z-axis Stroke (kg)														Max. Speed (mm/s)		Model	Page
		100 (mm)	150 (mm)	200 (mm)	250 (mm)	300 (mm)	350 (mm)	400 (mm)	450 (mm)	500 (mm)	550 (mm)	600 (mm)	650 (mm)	700 (mm)	X-axis	Z-axis			
<div>Z□□□</div> <div>[ XZ 2-axis Configuration Z-axis Upright Mount ]</div> <div></div>	100~900	7.0	7.0	6.6	5.6	4.8	—								960	480	ZA□H	→ P. 71	
		9.2	7.8	6.7	5.7	4.8	—								480	240	ZA□M	→ P. 73	
	100~1100	10.0	10.0	10.0	10.0	10.0	9.7	8.4	—					1200	600	Z1C□H	→ P. 75		
		18.3	16.0	14.1	12.3	10.7	9.3	8.0	—					1200	600	Z2C□H	→ P. 79		
		18.9	16.7	14.8	12.9	11.4	9.8	9.0	—					600	300	Z1C□M	→ P. 77		
	100~1300	20.0	19.7	17.4	15.2	13.3	11.4	9.8	8.2	6.7	—				2400	1200	ZG□S	→ P. 83	
	800~2000	18.3	16.0	14.1	12.3	10.7	9.3	8.0	—					1200	600	ZD□H	→ P. 81		
	1000~2500	20.0	19.7	17.4	15.2	13.3	11.4	9.8	8.2	6.7	—				2400	1200	ZH□S	→ P. 85	




## Cartesian Robot YZS (Z-axis Slider Mount) Type

Classification	Y-axis Stroke (mm)	Payload by Z-axis Stroke (kg)												Max. Speed (mm/s)		Model	Page	
		100 (mm)	150 (mm)	200 (mm)	250 (mm)	300 (mm)	350 (mm)	400 (mm)	450 (mm)	500 (mm)	550 (mm)	600 (mm)	650 (mm)	700 (mm)	Y-axis			Z-axis
<div>YS□□□</div> <div>[ YZ 2-axis Configuration Z-axis Slider Mount ]</div> <div></div>	100~500	3.9	3.5	3.2	2.8	2.5	2.2	1.9	—						960	480	YSA□H	→ P. 87
		11.0	10.6	10.3	9.9	9.6	8.9	8.6	—						480	240	YSA□M	→ P. 89
	100~700	13.3	12.8	12.2	11.6	11.1	10.4	9.9	9.4	8.8	—				600	300	YSC□M	→ P. 93
		13.6	12.9	12.4	11.7	11.1	10.5	10.0	9.3	8.7	—				1200	600	YSC□H	→ P. 91
		28.8	28.0	27.2	26.4	25.7	24.8	24.1	23.3	22.5	—				1200	600	YSG□H	→ P. 95


## Cartesian Robot YZB (Z-axis Base Mount) Type

Classification	Y-axis Stroke (mm)	Payload by Z-axis Stroke (kg)												Max. Speed (mm/s)		Model	Page	
		100 (mm)	150 (mm)	200 (mm)	250 (mm)	300 (mm)	350 (mm)	400 (mm)	450 (mm)	500 (mm)	550 (mm)	600 (mm)	650 (mm)	700 (mm)	Y-axis			Z-axis
<b>YB□□□</b> [ YZ 2-axis Configuration Z-axis Base Mount ] 	100~900	7.0	7.0	6.7	6.3	6.1	5.7	5.4	—						960	480	YBA□H	→ P. 97
		14.0	14.0	14.0	14.0	14.0	14.0	14.0	—						480	240	YBA□M	→ P. 99
	100~1100	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	—				1200	600	YBC□H	→ P. 101
		20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	—				600	300	YBC□M	→ P. 103
	100~1300	20.0	20.0	20.0	20.0	20.0	20.0	19.7	18.9	18.0	—				2400	1200	YBG□S	→ P. 105
		40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	—				1200	600	YBG□H	→ P. 107

## Cartesian Robot XYG (Y-axis Flat-mounted Gantry) Type

Classification	X-axis Stroke (mm)	Payload by Y-axis Stroke (kg)										Max. Speed (mm/s)		Model	Page
		500 (mm)	550 (mm)	600 (mm)	650 (mm)	700 (mm)	800 (mm)	900 (mm)	1000 (mm)	1100 (mm)	1200 (mm)	X-axis	Y-axis		
<div>G□□□□</div> <div>XY 2-axis Gantry Configuration Y-axis Flat-mounted Gantry</div> 	1000~2500	45.0					—					1200	1200	G1J□H	→ P. 109
		—					45.0	43.6	38.3	33.7	29.6	1200	1200	G2J□H	→ P. 111

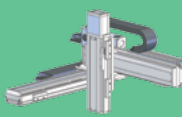
## Cartesian Robot XYBG (Y-axis Side-mounted Gantry) Type

Classification	X-axis Stroke (mm)	Payload by Y-axis Stroke (kg)																Max. Speed (mm/s)		Model	Page		
		300 (mm)	350 (mm)	400 (mm)	450 (mm)	500 (mm)	550 (mm)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)	850 (mm)	900 (mm)	950 (mm)	1000 (mm)	1050 (mm)	1100 (mm)	X-axis			Y-axis	
<div>G□□□□</div> <div>XY 2-axis Configuration Y-axis Side-mounted Gantry</div> <div></div>	100~1100	12.9	12.5	12.3	11.9	11.6	11.2	10.9	—											1200	960	GB□H	→ P. 113
		27.0						26.8	—											600	480	GB□M	→ P. 115
		23.0					21.8	19.5	17.5	15.7	—							1200	1200	GC□H	→ P. 117		
		26.6	26.0	25.4	24.9	24.3	21.8	19.5	17.5	15.7	—							600	600	GC□M	→ P. 119		
	100~1300	45.0				41.5	37.8	34.6	31.7	29.1	26.7	24.5	22.5	20.7	—			1200	1200	GE□H	→ P. 123		
		60.0	55.8	50.3	45.6	41.5	37.8	34.6	31.7	29.1	26.7	24.5	22.5	20.7	—			600	600	GE□M	→ P. 125		
	100~1300	—				34.5	31.1	28.1	25.3	22.8	20.4	18.3	16.3	14.5	12.7	11.1	9.5	8.1	1200	1200	GG□H	→ P. 129	
		—				34.5	31.1	28.1	25.3	22.8	20.4	18.3	16.3	14.5	12.7	11.1	9.5	8.1	600	600	GG□M	→ P. 131	
	800~2000	23.0					21.8	19.5	17.5	15.7	—							1200	1200	GD□H	→ P. 121		
	1000~2500	45.0				41.5	37.8	34.6	31.7	29.1	26.7	24.5	22.5	20.7	—			1200	1200	GF□H	→ P. 127		
		—				34.5	31.1	28.1	25.3	22.8	20.4	18.3	16.3	14.5	12.7	11.1	9.5	8.1	1200	1200	GH□H	→ P. 133	


## 3-axis Configuration Model Selection Tables

In the following Model Specification Tables by Type, please select the best suitable model by comparing the stroke, speed, and payload.


### Cartesian Robot XYB + Z-axis Base Mount Type

Classification	X-axis Stroke (mm)	Y-axis Stroke (mm)	Z-axis Stroke (mm)	Payload (kg)	Maximum Speed (mm/s)			Model	Page			
					X-axis	Y-axis	Z-axis					
<div>B□□□B□□</div> <div>[ XYB + Z-axis 3-axis Configuration Z-axis Base Mount ]</div> <div></div>	100~900	100~400	100~300	3.5	480	480	960	BA□MB1H	→ P. 135			
	7~3.6			480			BA□MB1M					
	8.9~3.6			240			BA□MB1L					
	3.5			1200	960	960	BB□HB1H	→ P. 137				
	7~6.2					480	BB□HB1M					
	7.7~6.2					240	BB□HB1L					
	3.5	600	480	960	BB□MB1H	→ P. 139						
	7.0			480	BB□MB1M							
	14.0			240	BB□MB1L							
	100~1100	100~500	100~400	3.5	1200	1200	960	BC□HB1H	→ P. 141			
				7.0			480	BC□HB1M				
				14~11			240	BC□HB1L				
				5.0	1200	1200	1200	BC□HB2H	→ P. 143			
				10~5.4			600	BC□HB2M				
				13.1~5.4			300	BC□HB2L				
				10~4.9	1200	1200	1200	BC□HB3H	→ P. 145			
				12.6~4.9			600	BC□HB3M				
				5.0	600	600	1200	BC□MB2H	→ P. 147			
				10~5.4			600	BC□MB2M				
				19~5.4			300	BC□MB2L				
				10~4.9	600	600	1200	BC□MB3H	→ P. 149			
				18.5~4.9			600	BC□MB3M				
				800~2000			3.5	1200	1200	960	BD□HB1H	→ P. 151
							7.0			480	BD□HB1M	
							14~11			240	BD□HB1L	
							5.0	1200	1200	1200	BD□HB2H	→ P. 153
	10~5.4	600	BD□HB2M									
	13.1~5.4	300	BD□HB2L									
	10~4.9	1200	1200				1200	BD□HB3H	→ P. 155			
	12.6~4.9						600	BD□HB3M				
	100~1300	100~700	100~500	3.5	1200	1200	960	BE□HB1H	→ P. 157			
				7.0			480	BE□HB1M				
				14.0			240	BE□HB1L				
				5.0	1200	1200	960	BE□HB2H	→ P. 159			
				10~7.2			480	BE□HB2M				
				20~7.2			240	BE□HB2L				
				10~6.6	1200	1200	1200	BE□HB3H	→ P. 161			
				20~6.6			600	BE□HB3M				
	1000~2500					3.5	1200	1200	960	BF□HB1H	→ P. 163	
						7.0			480	BF□HB1M		
						14.0			240	BF□HB1L		
						5	1200	1200	1200	BF□HB2H	→ P. 165	
						10~7.2			600	BF□HB2M		
						20~7.2			300	BF□HB2L		
	10~6.6			1200	1200	1200	BF□HB3H	→ P. 167				
	20~6.6					600	BF□HB3M					
	100~1300					10.0	2400	2400	1200	BK□HB3H	→ P. 169	
						20~13.6			600	BK□HB3M		
						20~8.6	2400	2400	1200	BK□HB4H	→ P. 171	
						20~17.5	1200	1200	600	BK□MB3M	→ P. 173	
						36.4~11.6	1200	1200	600	BK□MB4M	→ P. 175	
	900~2500					10.0	2400	2400	1200	BL□HB3H	→ P. 177	
						20~13.6			600	BL□HB3M		
						20~8.6			1200	2400	1200	BL□HB4H
						20~17.5	1200	1200	600	BL□MB3M	→ P. 181	
						36.4~11.6	1200	1200	600	BL□MB4M	→ P. 183	
	100~1500				20~6.0	2500	2400	1200	BM□HB4H	→ P. 185		
					33.1~6.0	1250	1200	600	BM□MB4M	→ P. 187		

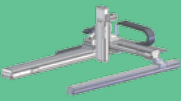
## Cartesian Robot XYB + Z-axis Slider Mount Type

Classification	X-axis Stroke (mm)	Y-axis Stroke (mm)	Z-axis Stroke (mm)	Payload (kg)	Maximum Speed (mm/s)			Model	Page			
					X-axis	Y-axis	Z-axis					
<div>B□□□S□□</div> <div>XYB + Z-axis 3-axis Configuration Z-axis Slider Mount</div> <div></div>	100~900	100~400	100~300	4.3~2.8	480	480	480	BA□MS1M	→ P. 189			
				11.3~4.0			240	BA□MS1L				
	100~1000					4.3~2.8	1200	960	480	BB□HS1M	→ P. 191	
						8.1~6.6			240	BB□HS1L		
						4.3~2.8	600	480	480	BB□MS1M	→ P. 193	
						11.3~9.8			240	BB□MS1L		
		800~2000				100~500	4.3~2.1	1200	1200	480	BC□HS1M	→ P. 195
							11.3~9.1			240	BC□HS1L	
	13.2~5.5			1200	1200		600	BC□HS3M	→ P. 197			
	14.3~5.5						600	BC□MS3M	→ P. 199			
	4.3~2.1			1200	1200		480	BD□HS1M	→ P. 201			
	11.3~9.1						240	BD□HS1L				
	13.2~5.5			1200	1200		600	BD□HS3M	→ P. 203			
	4.3~2.1						1200	1200	480	BE□HS1M	→ P. 205	
	11.3~9.1								240	BE□HS1L		
	100~1000		100~700	14.3~8.5	1200	1200	600	BE□HS3M	→ P. 207			
				4.3~2.1			1200	1200	480	BF□HS1M	→ P. 209	
				11.3~9.1	240	BF□HS1L						
				1000~2500			14.3~8.5	1200	1200	600	BF□HS3M	→ P. 211
	12~5.0	2400	2400				1200			BK□HS4H	→ P. 213	
	25.1~9.0						600	BK□HS4M				
	100~1000						12~5.0	1200	1200	1200	BK□MS4H	→ P. 215
				32~12.1	600	BK□MS4M						
				900~2500			12~5.0	2400	2400	1200	BL□HS4H	→ P. 217
							25.1~9.0			600	BL□HS4M	
	12~5.0	1200	1200				1200	BL□MS4H	→ P. 219			
	32~12.1						600	BL□MS4M				
	100~1000			12~5.0	2500	2400	1200	BM□HS4H	→ P. 221			
				32~6.5			600	BM□MS4M	→ P. 223			

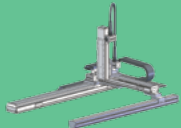
## Cartesian Robot XZ + Y-axis Slider Mount Type

Classification	X-axis Stroke (mm)	Y-axis Stroke (mm)	Z-axis Stroke (mm)	Payload (kg)	Maximum Speed (mm/s)			Model	Page
					X-axis	Y-axis	Z-axis		
<b>Z3□□HS□□</b> [ XZ + Y-axis 3-axis Configuration Y-axis Slider Mount ] 	120~1070	100~400	100~400	13~8.7	1200	600	960	Z3C□HS1H	→ P. 225
	120~1270	100~500	100~500	21.2~7.0	1200	600	1200	Z3G□HS2H	→ P. 227

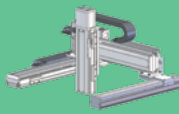
## Cartesian Robot XYG + Z-axis Base Mount Type

Classification	X-axis Stroke (mm)	Y-axis Stroke (mm)	Z-axis Stroke (mm)	Payload (kg)	Maximum Speed (mm/s)			Model	Page
					X-axis	Y-axis	Z-axis		
<b>G□□HB□□</b> [ XYG + Z-axis 3-axis Configuration Z-axis Base Mount ] 	1000~2500	500~700	100~600	3.5	1200	1200	960	G1J□HB1H	→ P. 229
				7.0			480	G1J□HB1M	
				14.0			240	G1J□HB1L	
				5.0	1200	1200	1200	G1J□HB2H	→ P. 231
				10.0			600	G1J□HB2M	
				20~18.0			300	G1J□HB2L	
				10.0	1200	1200	1200	G1J□HB3H	→ P. 233
				20~18.0			600	G1J□HB3M	
		800~1200	100~600	3.5	1200	1200	960	G2J□HB1H	→ P. 235
				7.0			480	G2J□HB1M	
				14.0			240	G2J□HB1L	
				5.0	1200	1200	1200	G2J□HB2H	→ P. 237
				10.0			600	G2J□HB2M	
				20~15.1			300	G2J□HB2L	
				10.0	1200	1200	1200	G2J□HB3H	→ P. 239
				20~14.5			600	G2J□HB3M	


## Cartesian Robot XYG + Z-axis Slider Mount Type

Classification	X-axis Stroke (mm)	Y-axis Stroke (mm)	Z-axis Stroke (mm)	Payload (kg)	Maximum Speed (mm/s)			Model	Page
					X-axis	Y-axis	Z-axis		
<b>G□□HS□□</b> [ XYG + Z-axis 3-axis Configuration Z-axis Slider Mount ] 	1000~2500	500~700	100~400	4.3~2.1	1200	1200	480	G1J□HS1M	→ P. 241
				11.3~9.1			240	G1J□HS1L	
			100~500	14.8~9.8	1200	1200	300	G1J□HS2L	→ P. 243
				14.3~9.2	1200	1200	600	G1J□HS3M	→ P. 245
		800~1200	100~400	4.3~2.1	1200	1200	480	G2J□HS1M	→ P. 247
				11.3~9.1			240	G2J□HS1L	
			100~500	14.8~9.8	1200	1200	300	G2J□HS2L	→ P. 249
				14.3~9.2	1200	1200	600	G2J□HS3M	→ P. 251

## Cartesian Robot XYBG + Z-axis Base Mount Type

Classification	X-axis Stroke (mm)	Y-axis Stroke (mm)	Z-axis Stroke (mm)	Payload (kg)	Maximum Speed (mm/s)			Model	Page		
					X-axis	Y-axis	Z-axis				
<div>G□□□B□□</div> <div>[ XYBG + Z-axis 3-axis Configuration Z-axis Base Mount ]</div> <div></div>	100~1100	300~600	100~300	7~3.6	1200	960	480	GB□HB1M	→ P. 253		
				7.6~4.5			240	GB□HB1L			
				7.0	600	480	480	GB□MB1M	→ P. 255		
				14.0			240	GB□MB1L			
		300~700	100~400	7.0	1200	1200	480	GC□HB1M	→ P. 257		
				14~13.6			240	GC□HB1L			
				10~8.0	1200	1200	600	GC□HB2M	→ P. 259		
				13~8.0			300	GC□HB2L			
				10~7.5	1200	1200	1200	GC□HB3H	→ P. 261		
				17.6~8	600	600	300	GC□MB2L	→ P. 263		
				17.1~7.5	600	600	600	GC□MB3M	→ P. 265		
				800~2000		7.0	1200	1200	480	GD□HB1M	→ P. 267
	14~13.6					240			GD□HB1L		
	10~8.0					1200	1200	600	GD□HB2M	→ P. 269	
	13~8.0							300	GD□HB2L		
	10~7.5					1200	1200	1200	GD□HB3H	→ P. 271	
	100~1300	300~900	100~500	14.0	1200	1200	240	GE□HB1L	→ P. 273		
				10.0	1200	1200	600	GE□HB2M	→ P. 275		
				20~11.8			300	GE□HB2L			
				10.0	1200	1200	1200	GE□HB3H	→ P. 277		
				20~11.2			600	GE□HB3M			
				31.8~11.2			300	GE□HB3L			
				1000~2500		14.0	1200	1200	240	GF□HB1L	→ P. 279
						10	1200	1200	600	GF□HB2M	→ P. 281
						20~11.8			300	GF□HB2L	
						10.0	1200	1200	1200	GF□HB3H	→ P. 283
						20~11.2			600	GF□HB3M	
						31.8~11.2			300	GF□HB3L	

## Cartesian Robot XYBG + Z-axis Slider Mount Type

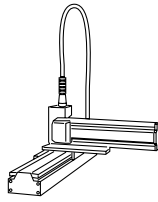
Classification	X-axis Stroke (mm)	Y-axis Stroke (mm)	Z-axis Stroke (mm)	Payload (kg)	Maximum Speed (mm/s)			Model	Page
					X-axis	Y-axis	Z-axis		
<div>G□□□S□□</div> <div>[ XYBG + Z-axis 3-axis Configuration Z-axis Slider Mount ]</div> <div></div>	100~1000	300~600	100~300	4.3~2.8	1200	960	480	GB□HS1M	→ P. 285
				8~4.8			240	GB□HS1L	
				4.3~2.8	600	480	480	GB□MS1M	→ P. 287
				11.3~9.8			240	GB□MS1L	
		300~700	100~400	4.3~2.1	1200	1200	480	GC□HS1M	→ P. 289
				11.3~9.1			240	GC□HS1L	
				13.1~8.1	1200	1200	600	GC□HS3M	→ P. 291
				4.3~2.1	600	600	480	GC□MS1M	→ P. 293
	11.3~9.1			240			GC□MS1L		
	14.3~8.1			600	600	600	GC□MS3M	→ P. 295	
	800~2000			4.3~2.1	1200	1200	480	GD□HS1M	→ P. 297
				11.3~9.1			240	GD□HS1L	
		13.1~8.1		1200	1200	600	GD□HS3M	→ P. 299	
		100~1000		4.3~2.1	1200	1200	480	GE□HS1M	→ P. 301
	11.3~9.1			240			GE□HS1L		
	14.3~10.5			1200	1200	600	GE□HS3M	→ P. 303	
	32.9~13.1					300	GE□HS3L		
	1000~2500			4.3~2.1	600	600	480	GE□MS1M	→ P. 305
				11.3~9.1			240	GE□MS1L	
				34.3~13.1	600	600	300	GE□MS3L	→ P. 307
				4.3~2.1	1200	1200	480	GF□HS1M	→ P. 309
		11.3~9.1		240			GF□HS1L		
		14.3~10.5		1200	1200	600	GF□HS3M	→ P. 311	
		32.9~13.1				300	GF□HS3L		



# Cartesian Robot Cable Wiring

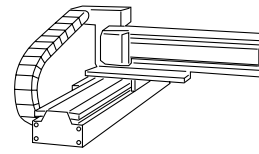
## Methods of Wiring and Characteristics

There are two methods of cable wiring options available to connect the second and third axes of the Cartesian Robot using motor/encoder cables. Please select the type which is suitable for the particular use.



### Self-standing Cable Model: SC

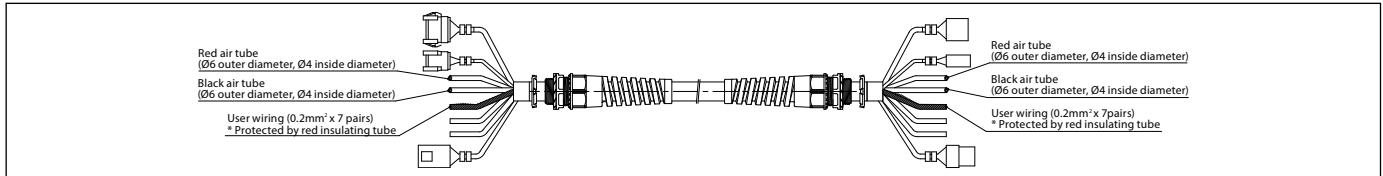
- The flex radius is large so that it does not easily disconnect.
- High space is required.
- Provides user wiring and tubing inside the composite cable.



### Cable Track Model: CT

- Height is kept low and does not require space.
- Wiring for devices mounted on the Y-axis and Z-axis can be contained inside the cable track.

## Diagram of the Self-standing Cable Wiring



## Wiring Details by Type of Configuration

Cartesian robot configured axis cable exit direction and installation direction of sensor differs depending on the type of configuration and the configuration direction. Please see the following tables for details.

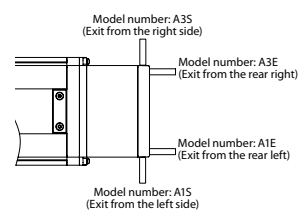
Cable exit direction of the first axis can be changed as an option. (YZS/YZB are excluded)

### Explanation of Symbols in the Tables

- A1E Actuator cable exit direction from the rear left  
A3E Actuator cable exit direction from the rear right  
A1S Actuator cable exit direction from the left side  
A3S Actuator cable exit direction from the right side

- C/L Creep sensor/limit switch mounting direction on the right side of the main body (standard)  
CL/LL Creep sensor/limit switch mounting direction on the left side of the main body (symmetrically opposite)  
SC Self-standing cable  
CT Cable track

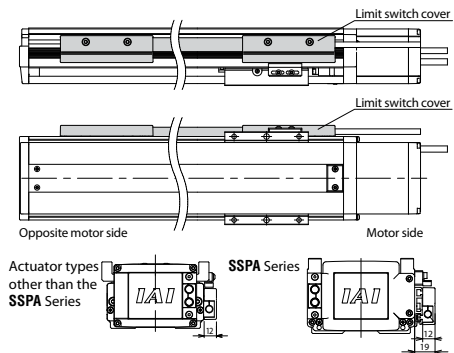
### Cable Exit Direction



## 2-axis Configurations

Type	Configuration Direction	First Axis		Second Axis		Wiring on Second Axis
		Cable Exit Direction	Limit Switch	Cable Exit Direction	Limit Switch	
XYB XYBG	1	A3S	CL/LL	A1S	C/L	SC CT
	2	A1S	C/L	A3S	CL/LL	
	3	A3S	CL/LL	A3S	CL/LL	
	4	A1S	C/L	A1S	C/L	
XYS	1	A3S	CL/LL	A3S	C/L	SC
	2	A1S	C/L	A1S	CL/LL	
	3	A3S	CL/LL	A1S	CL/LL	
	4	A1S	C/L	A3S	C/L	
XZ	1	A3S	CL/LL	A3S	CL/LL	CT
	2	A1S	C/L	A1S	C/L	
	3	A3S	CL/LL	A1S	C/L	
	4	A1S	C/L	A3S	CL/LL	
	5	A3S	CL/LL	A1S	C/L	
	6	A1S	C/L	A3S	CL/LL	
YZS	1	A1E	C/L	A3E	CL/LL	SC
	2	A3E	CL/LL	A1E	C/L	
YZB	1	A1E	C/L	A3S	CL/LL	CT
	2	A3E	CL/LL	A1E	C/L	
	3	A1S	C/L	A3E	CL/LL	
XYG	1	A3S	CL/LL	A3E	C/L	CT
	2	A1S	C/L	A1E	CL/LL	

### Limit Switch Position



## 3-axis Configurations

Type	Configuration Direction	First Axis		Second Axis		Third Axis		Wiring on Second Axis
		Cable Exit Direction	Limit Switch	Cable Exit Direction	Limit Switch	Cable Exit Direction	Limit Switch	
XYB + Z-axis Base Mount	1	A3S	CL/LL	A1S	C/L	A3S	CL/LL	CT SC CT SC
	2	A1S	C/L	A3S	CL/LL	A1E	C/L	
	3	A3S	CL/LL	A3S	CL/LL	A1S	C/L	
	4	A1S	C/L	A1S	C/L	A3S	CL/LL	
XYB + Z-axis Slider Mount	1	A3S	CL/LL	A1S	C/L	A1E	C/L	SC
	2	A1S	C/L	A3S	CL/LL	A3E	CL/LL	
	3	A3S	CL/LL	A3S	CL/LL	A3E	CL/LL	
	4	A1S	C/L	A1S	C/L	A1E	C/L	
XZ + Y-axis Slider Mount	1	A3S	CL/LL	A3E	CL/LL	A3S	C/L	SC
	2	A1S	C/L	A1E	C/L	A1S	CL/LL	
XYG + Z-axis Base Mount	1	A3S	CL/LL	A3E	C/L	A1S	C/L	CT
	2	A1S	C/L	A1E	CL/LL	A3S	CL/LL	
XYG + Z-axis Slider Mount	1	A3S	CL/LL	A3E	C/L	A3E	CL/LL	SC
	2	A1S	C/L	A1E	CL/LL	A1E	C/L	
XYBG + Z-axis Base Mount	1	A3S	CL/LL	A1S	C/L	A3S	CL/LL	CT SC CT SC
	2	A1S	C/L	A3S	CL/LL	A1E	C/L	
	3	A3S	CL/LL	A3S	CL/LL	A1S	C/L	
	4	A1S	C/L	A1S	C/L	A3E	CL/LL	
XYBG + Z-axis Slider Mount	1	A3S	CL/LL	A1S	C/L	A1E	C/L	SC
	2	A1S	C/L	A3S	CL/LL	A3E	CL/LL	
	3	A3S	CL/LL	A3S	CL/LL	A3E	CL/LL	
	4	A1S	C/L	A1S	C/L	A1E	C/L	

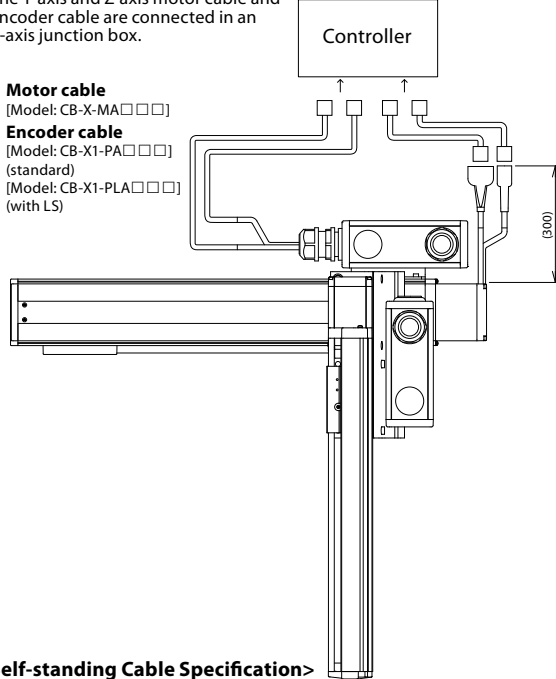
# Cartesian Robot Cable Wiring

## Cables Between the Cartesian Robot and the Controller

Each axis of the Cartesian Robot can be connected using motor and encoder single axis robot cables to the controller.

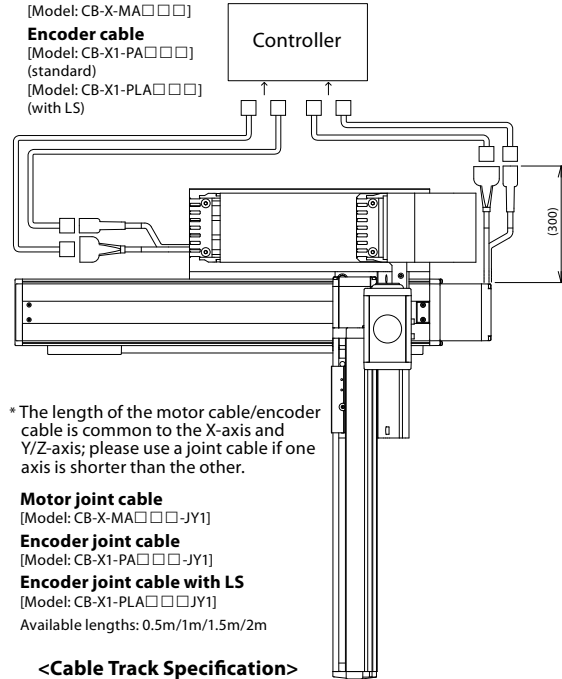
The Y-axis and Z-axis motor cable and encoder cable are connected in an X-axis junction box.

**Motor cable**  
[Model: CB-X-MA□□□]  
**Encoder cable**  
[Model: CB-X1-PA□□□]  
(standard)  
[Model: CB-X1-PLA□□□]  
(with LS)



<Self-standing Cable Specification>

**Motor cable**  
[Model: CB-X-MA□□□]  
**Encoder cable**  
[Model: CB-X1-PA□□□]  
(standard)  
[Model: CB-X1-PLA□□□]  
(with LS)



\* The length of the motor cable/encoder cable is common to the X-axis and Y/Z-axis; please use a joint cable if one axis is shorter than the other.

**Motor joint cable**  
[Model: CB-X-MA□□□-JY1]  
**Encoder joint cable**  
[Model: CB-X1-PA□□□-JY1]  
**Encoder joint cable with LS**  
[Model: CB-X1-PLA□□□-JY1]  
Available lengths: 0.5m/1m/1.5m/2m

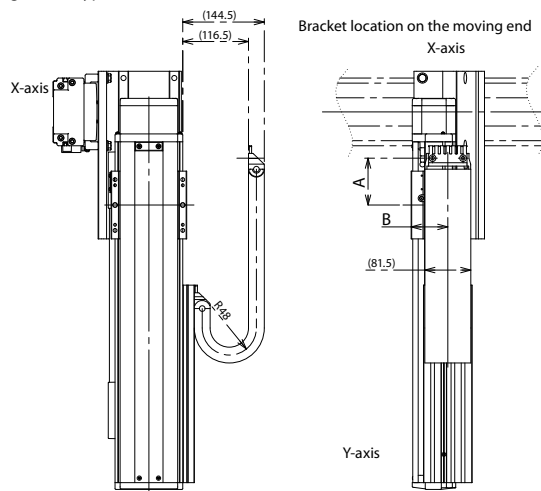
<Cable Track Specification>

## Details of Wiring by Type of Configuration

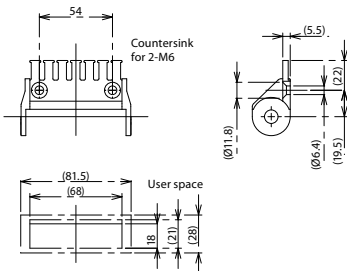
Cable track option for wiring of the customer provided device is available for the Y-axis slider of the XYB, XYBG, and XYG types.

### Y-axis Base Side Mounted

Configuration Type: XYB, XYBG



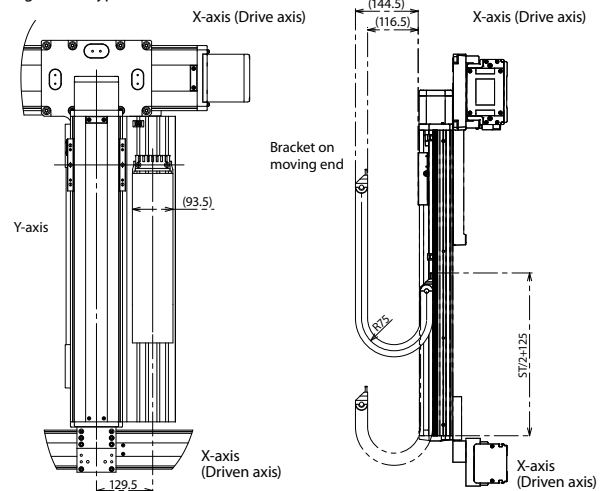
Detailed diagram of bracket on moving end, and sectional view of cable track



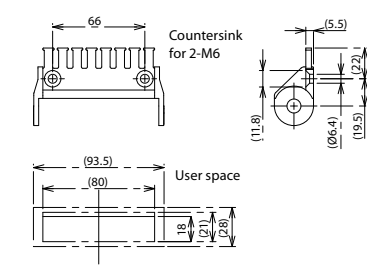
Configuration Type	A Dimensions	B Dimensions
BA□□/BB□□	73	54
BC□□/BD□□/ BE□□/BF□□	83	65
BG□□/BH□□/ BK□□/BL□□/BM□□	83	80
GB□□	73	54
GC□□/GD□□/ GE□□/GF□□	83	65
GG□□/GH□□	83	80

### Y-axis Flat Base Mounted

Configuration Type: XYG-G1J/G2J



Detailed diagram of the bracket on moving end, and sectional view of cable track



# Model Specification Items

The ICSB2, ICSPB2, ICSB3 and ICSPB3 models are made up of the following items.  
The selected range for each item (stroke, cable wiring, and the like) differs depending on each model.  
For details, please refer to each model specification page starting from page 017.

## [ICSB2/ICSPB2 Series]

①Series	②Type	③Encoder type	④First axis details	⑤Second axis details	⑧Applicable controller	⑨Cable length	⑩Cable wiring between first and second axes	⑪Cable wiring between second and third axes
ICSB2 Standard type		A Absolute I Incremental	Stroke 10 100mm ~ ~ 250 2,500mm Set for every 50mm	Stroke 10 100mm ~ ~ 120 1,200mm Set for every 50mm	AQ AQ seal B Brake C/CL Creep sensor L/LL Limit switch NM Non-motor end specification RT Guide with ball retention mechanism	T1 XSEL-J/K T2 SSEL XSEL-P/Q/R/S	3L 3m 5L 5m □ Specified length	Blank No cable track CT Cable track
ICSPB2 High-precision type								

\*Option code dedicated for the B□□□, G□□□ types. This option is available when CT is selected in ⑪

\*When operating with SCON controllers, as the same number of single axis controllers is required. Also, a control device such as PLC is required on the top position.

<B□□□>															
BA□□H	XYB (S + S) High-speed	BE□□H	XYB (L + M) Super-high-speed	BK□□H	XYB (SL + L) High-speed	SA□□H	XYB (S + S) High-speed	ZA□□H	XZ (S + S) High-speed	YSA□□H	YZS (S + S) High-speed	G1□□H	XYG (L + M) High-speed Y-axis flat-mounted	GE□□H	XYBG (L + M) High-speed Y-axis side-mounted
BA□□M	XYB (S + S) Medium-speed	BE□□M	XYB (L + M) Medium-speed	BK□□M	XYB (SL + L) Medium-speed	SA□□M	XYB (S + S) Medium-speed	ZA□□M	XZ (S + S) Medium-speed	YSA□□M	YZS (S + S) Medium-speed	G2□□H	XYG (L + M) High-speed long Y-axis flat-mounted	GE□□M	XYBG (L + M) Medium-speed Y-axis side-mounted
BB□□H	XYB (M + S) High-speed	BE□□M	XYB (L + M) Medium-speed	BL□□H	XYB (SL + L) High-speed long	S1□□H	XYB (M + M) High-speed	Z1□□H	XZ (M + M) High-speed	YSC□□H	YZS (M + M) High-speed	GB□□H	XYBG (M + S) High-speed Y-axis side-mounted	GF□□H	XYBG (L + M) High-speed long Y-axis side-mounted
BB□□M	XYB (M + S) Medium-speed	BF□□H	XYB (L + M) Super-high-speed long	BL□□M	XYB (SL + L) Medium-speed long	S1□□M	XYB (M + M) Medium-speed	Z1□□M	XZ (M + M) Medium-speed	YSC□□M	YZS (M + M) Medium-speed	GB□□M	XYBG (M + S) Medium-speed Y-axis side-mounted	GG□□H	XYBG (L + L) High-speed Y-axis side-mounted
BC□□H	XYB (M + M) High-speed	BF□□H	XYB (L + M) High-speed long	BM□□H	XYB (HRL + L) High-speed	S2□□H	XYB (M + M) High-speed	Z2□□H	XZ (M + M) High-speed	YSG□□H	YZS (L + L) High-speed	GC□□H	XYBG (M + M) High-speed Y-axis side-mounted	GG□□M	XYBG (L + L) Medium-speed Y-axis side-mounted
BC□□M	XYB (M + M) Medium-speed	BG□□H	XYB (L + L) Super-high-speed	BM□□M	XYB (HRL + L) Medium-speed	SG□□S	XYB (L + L) Super-high-speed	ZD□□H	XZ (M + M) High-speed long	YBA□□H	YZB (S + S) High-speed	GC□□M	XYBG (M + M) Medium-speed Y-axis side-mounted	GH□□H	XYBG (L + L) High-speed long Y-axis side-mounted
BD□□H	XYB (M + M) High-speed long	BH□□H	XYB (L + L) Super-high-speed long			SG□□H	XYB (L + L) High-speed	ZG□□S	XZ (L + L) Super-high-speed	YBA□□M	YZB (S + S) Medium-speed	GD□□H	XYBG (M + M) High-speed long Y-axis side-mounted		
								ZH□□S	XZ (L + L) Super-high-speed long	YBC□□H	YZB (M + M) High-speed				
										YBC□□M	YZB (M + M) Medium-speed				
										YBG□□S	YZB (L + L) Super-high-speed				
										YBG□□H	YZB (L + L) High-speed				
<S□□□>															
SA□□H	XYB (S + S) High-speed														
SA□□M	XYB (S + S) Medium-speed														
S1□□H	XYB (M + M) High-speed														
S1□□M	XYB (M + M) Medium-speed														
S2□□H	XYB (M + M) High-speed														
S2□□M	XYB (M + M) Medium-speed														
SG□□S	XYB (L + L) Super-high-speed														
SG□□H	XYB (L + L) High-speed														
<Z□□□>															
ZA□□H	XZ (S + S) High-speed														
ZA□□M	XZ (S + S) Medium-speed														
Z1□□H	XZ (M + M) High-speed														
Z1□□M	XZ (M + M) Medium-speed														
Z2□□H	XZ (M + M) High-speed														
Z2□□M	XZ (M + M) Medium-speed														
ZD□□H	XZ (M + M) High-speed long														
ZD□□M	XZ (M + M) Medium-speed long														
ZG□□S	XZ (L + L) Super-high-speed														
ZG□□H	XZ (L + L) High-speed														
<Y□□□□>															
YSA□□H	YZS (S + S) High-speed														
YSA□□M	YZS (S + S) Medium-speed														
YSC□□H	YZS (M + M) High-speed														
YSC□□M	YZS (M + M) Medium-speed														
YSG□□H	YZS (L + L) High-speed														
YSG□□M	YZS (L + L) Medium-speed														
YBA□□H	YZB (S + S) High-speed														
YBA□□M	YZB (S + S) Medium-speed														
YBC□□H	YZB (M + M) High-speed														
YBC□□M	YZB (M + M) Medium-speed														
YBG□□S	YZB (L + L) Super-high-speed														
YBG□□H	YZB (L + L) High-speed														
<G□□□□>															
G1□□H	XYG (L + M) High-speed Y-axis flat-mounted														
G2□□H	XYG (L + M) High-speed long Y-axis flat-mounted														
GB□□H	XYBG (M + S) High-speed Y-axis side-mounted														
GB□□M	XYBG (M + S) Medium-speed Y-axis side-mounted														
GC□□H	XYBG (M + M) High-speed Y-axis side-mounted														
GC□□M	XYBG (M + M) Medium-speed Y-axis side-mounted														
GH□□H	XYBG (L + L) High-speed long Y-axis side-mounted														
GH□□M	XYBG (L + L) Medium-speed long Y-axis side-mounted														

S = Small model  
M = Medium model  
L = Large model  
SL = Super-large model  
HRL = High-rigidity large model

## [ICSB3/ICSPB3 Series]

① Series	② Type	③ Encoder type	④ Details of first axis	⑤ Details of second axis	⑥ Details of third axis	⑧ Applicable controller	⑨ Cable length	⑩ Cable wiring between first and second axes	⑪ Cable wiring between second and third axes
ICSB3 Standard type ICSPB3 High-precision type		A Absolute I Incremental				T1 XSEL-J/K T2 SCON XSEL-P/Q/R/S	3L 3m 5L 5m □ Specified length		SC Self-standing cable CT Cable track CTSC Cable track + self-standing cable
						*When operating with SCON controllers, as the same number of axis controllers is required. Also, a control device such as PLC is required on the top position.			
Stroke		Option	Stroke	Option	Stroke	Option			
10 100mm ~ ~ 250 2,500mm Set for every 50mm	A□□ Cable exit direction change for the first axis AQ AQ seal B Brake C/CL Creep sensor L/LL Limit switch NM Non-motor end specification RT Guide with ball retention mechanism	10 100mm ~ ~ 120 1,200mm Set for every 50mm	AQ AQ seal B Brake C/CL Creep sensor L/LL Limit switch NM Non-motor end specification RT Guide with ball retention mechanism	10 100mm ~ ~ 60 600mm Set for every 50mm	AQ AQ seal B Brake C/CL Creep sensor L/LL Limit switch NM Non-motor end specification RT Guide with ball retention mechanism				
<B□□□B□□>									
BA□□MB1□	XYB (Small model + Small model) Medium-speed type + Z-axis (Small model) base mount			BF□□HB1□	XYB (Large model + Medium model) High-speed long type + Z-axis (Small model) base mount				
BB□□HB1□	XYB (Medium model + Small model) High-speed type + Z-axis (Small model) base mount			BF□□HB2□	XYB (Large model + Medium model) High-speed long type + Z-axis (Medium model 100W) base mount				
BB□□MB1□	XYB (Medium model + Small model) Medium-speed type + Z-axis (Small model) base mount			BF□□HB3□	XYB (Large model + Medium model) High-speed long type + Z-axis (Medium model 200W) base mount				
BC□□HB1□	XYB (Medium model + Medium model) High-speed type + Z-axis (Small model) base mount			BK□□HB3□	XYB (Super-large model + Large model) High-speed type + Z-axis (medium model 200W) base mount				
BC□□HB2□	XYB (Medium model + Medium model) High-speed type + Z-axis (Medium model 100W) base mount			BK□□HB4□	XYB (Super-large model + Large model) High-speed type + Z-axis (Large model 400W) base mount				
BC□□HB3□	XYB (Medium model + Medium model) High-speed type + Z-axis (Medium model 200W) base mount			BK□□MB3□	XYB (Super-large model + Large model) Medium-speed type + Z-axis (Medium model 200W) base mount				
BC□□MB2□	XYB (Medium model + Medium model) Medium-speed type + Z-axis (Medium model 100W) base mount			BK□□MB4□	XYB (Super-large model + Large model) Medium-speed type + Z-axis (Large model 400W) base mount				
BC□□MB3□	XYB (Medium model + Medium model) Medium-speed type + Z-axis (Medium model 200W) base mount			BL□□HB3□	XYB (Super-large model + Large model) High-speed long type + Z-axis (Medium model 200W) base mount				
BD□□HB1□	XYB (Medium model + Medium model) High-speed long type + Z-axis (Small model) base mount			BL□□HB4□	XYB (Super-large model + Large model) High-speed long type + Z-axis (Large model 400W) base mount				
BD□□HB2□	XYB (Medium model + Medium model) High-speed long type + Z-axis (Medium model 100W) base mount			BL□□MB3□	XYB (Super-large model + Large model) Medium-speed long type + Z-axis (Medium model 200W) base mount				
BD□□HB3□	XYB (Medium model + Medium model) High-speed long type + Z-axis (Medium model 200W) base mount			BL□□MB4□	XYB (Super-large model + Large model) Medium-speed long type + Z-axis (Large model 400W) base mount				
BE□□HB1□	XYB (Large model + Medium model) High-speed type + Z-axis (Small model) base mount			BM□□HB4H	XYB (High-rigidity large model + Large model) High-speed type + Z-axis (Large model 400W) base mount				
BE□□HB2□	XYB (Large model + Medium model) High-speed type + Z-axis (Medium model 100W) base mount			BM□□MB4M	XYB (High-rigidity large model + Large model) Medium-speed type + Z-axis (Large model 400W) base mount				
BE□□HB3□	XYB (Large model + Medium model) High-speed type + Z-axis (Medium model 200W) base mount								
<B□□□S□□>									

## ① Series

Series names are as follows.

ICSB2 : ISB 2-axis configuration  
 ICSPB2 : ISPB 2-axis configuration  
 ICSB3 : ISB 3-axis configuration  
 ICSPB3 : ISPB 3-axis configuration

## ② Type

Indicates the configuration patterns, configuration directions, types of model configurations, and types of speeds.

2-axis configuration	B (1)	B (2)	1 (3)	H (4)	3-axis configuration	B (1)	B (2)	1 (3)	H (4)	B (5)	1 (6)	M (7)
(1) 1 - 2-axis configuration type (*1)	B: XYB type / S: XYS type / Z: XZ type / YS: YZS type / YB: YZB type / G: XYG type											
(2) 1 - 2-axis configuration type	A / B / C / 1C / 2C / D / E / F / G / H / K / L / M / 1J / 2J											
(3) 1 - 2-axis configuration direction	1 / 2 / 3 / 4											
(4) 1 - 2-axis speed type	S: Super-high speed type / H: High-speed type / M: Medium speed type											
(5) Z-axis mount type	B: Base mount / S: Slider mount											
(6) Z-axis motor output	1: 60W / 2: 100W / 3: 200W / 4: 400W											
(7) Z-axis speed type	H: High-speed type / M: Medium-speed type / L: Low-speed type											

(\*1) For 3 axes, B (XYB type), G (XYG type), and Z (XZ type) only

## ③ Encoder Type

Indicates whether the encoder installed in the actuator is an "absolute type" or "incremental type."

A : Absolute type Since the current slider position will be retained after the power is turned off, homing is not required when the actuator is powered up.  
 I : Incremental type Since the slider position data are cleared when the power is turned off, homing must be performed every time the actuator is powered up.

## ④ First Axis Details

Indicate the stroke and options of the first axis in the 2-axis and 3-axis configurations. The stroke should be entered in cm units (example: 500 mm stroke → 50). When multiple options are set, entry should be made in alphabetical order with no hyphens in between.  
 (Example : AQ seal + creep sensor + limit switch + non-motor end specification → AQLCLNM)

## ⑤ Second Axis Details

Indicate the stroke and options of the second axis in the 2-axis and 3-axis configurations.  
 The same holds for others.

## ⑧ Applicable Controller

Indicates the type of controller which is connected.

T1: XSEL-J/K  
 T2: XSEL-P/Q/R/S, SSEL, SCON

## ⑩ Cable Wiring Between Axes 1-2

Indicates the method of cable wiring from the first axis to the second axis.

SC: Self-standing cable specification  
 CT: Cable track specification

\* Depending on the model, sometimes only either SC or CT can be specified.  
 Please refer to each model specification page for details.

## ⑥ Third Axis Details

Indicate the stroke and options of the third axis in the 3-axis configuration.  
 The same holds for others.

## ⑨ Cable Length

Indicates the length of the motor/encoder cable connecting the actuator and the controller.  
 As standard lengths, 3L (3m) or 5L (5m) can be selected.  
 Or custom length can be specified up to 20m.

## ⑪ Cable Wiring Between Axes 2-3

Indicates the method of cable wiring from the second axis to the third axis.

SC: Self-standing cable specification  
 CT: Cable track specification  
 CTC: Cable track + self-standing cable

\* As a general rule, the cable wiring between axes 2-3 is carried out using the same method as for wiring between axes 1-2.  
 \* CTC is restricted to G1J □ HS □ □, G2J □ HS □ □.  
 \* Depending on the model, sometimes only either SC or CT can be specified.  
 Please refer to each model specification page for details.

<Z3□□HS□H/G□□□B□□/□□□□□□>

Z3C□HS1H	XY (Medium model + Medium model) High-speed type + Z-axis (Small model) slider mount	GB□HB1□	XYBG (Medium model + Small model) High-speed type + Z-axis (Small model) base mount	GB□HS1□	XYBG (Medium model + Small model) High-speed type + Z-axis (Small model) slider mount
Z3G□HS2H	XY (Large model + Large model) High-speed type + Z-axis (Medium model) slider mount	GB□MB1□	XYBG (Medium model + Small model) Medium-speed type + Z-axis (Small model) base mount	GB□MS1□	XYBG (Medium model + Small model) Medium-speed type + Z-axis (Small model) slider mount
G1J□HB1□	XYG (Large model + Medium model) High-speed long type + Z-axis (Small model) base mount	GC□HB1□	XYBG (Medium model + Medium model) High-speed type + Z-axis (Small model) base mount	GC□HS1□	XYBG (Medium model + Medium model) High-speed type + Z-axis (Small model) slider mount
G1J□HB2□	XYG (Large model + Medium model) High-speed long type + Z-axis (Medium model 100W) base mount	GC□HB2□	XYBG (Medium model + Medium model) High-speed type + Z-axis (Medium model 100W) base mount	GC□HS3□	XYBG (Medium model + Medium model) High-speed type + Z-axis (Medium model 200W) slider mount
G1J□HB3□	XYG (Large model + Medium model) High-speed long type + Z-axis (Medium model 200W) base mount	GC□HB3□	XYBG (Medium model + Medium model) High-speed type + Z-axis (Medium model 200W) base mount	GC□MS1□	XYBG (Medium model + Medium model) Medium-speed type + Z-axis (Small model) slider mount
G2J□HB1□	XYG (Large model + Medium model) High-speed long type + Z-axis (Small model) base mount	GC□MB2□	XYBG (Medium model + Medium model) Medium-speed type + Z-axis (Medium model 100W) base mount	GC□MS3□	XYBG (Medium model + Medium model) Medium-speed type + Z-axis (Medium model 200W) slider mount
G2J□HB2□	XYG (Large model + Medium model) High-speed long type + Z-axis (Medium model 100W) base mount	GC□MB3□	XYBG (Medium model + Medium model) Medium-speed type + Z-axis (Medium model 200W) base mount	GD□HS1□	XYBG (Medium model + Medium model) High-speed long type + Z-axis (Small model) slider mount
G2J□HB3□	XYG (Large model + Medium model) High-speed long type + Z-axis (Medium model 200W) base mount	GD□HB1□	XYBG (Medium model + Medium model) High-speed long type + Z-axis (Medium model 200W) base mount	GD□HS3□	XYBG (Medium model + Medium model) High-speed long type + Z-axis (Medium model 200W) slider mount
G1J□HS1□	XYG (Large model + Medium model) High-speed long type + Z-axis (Small model) base mount	GD□HB2□	XYBG (Medium model + Medium model) High-speed long type + Z-axis (Medium model 100W) base mount	GE□HS1□	XYBG (Large model + Medium model) High-speed type + Z-axis (Small model) slider mount
G1J□HS2□	XYG (Large model + Medium model) High-speed long type + Z-axis (Medium model 100W) base mount	GD□HB3□	XYBG (Medium model + Medium model) High-speed long type + Z-axis (Medium model 200W) base mount	GE□HS3□	XYBG (Large model + Medium model) High-speed type + Z-axis (Medium model 200W) slider mount
G1J□HS3□	XYG (Large model + Medium model) High-speed long type + Z-axis (Medium model 200W) base mount	GE□HB1□	XYBG (Large model + Medium model) High-speed type + Z-axis (Small model) base mount	GE□MS1□	XYBG (Large model + Medium model) Medium-speed type + Z-axis (Small model) slider mount
G2J□HS1□	XYG (Large model + Medium model) High-speed long type + Z-axis (Small model) slider mount	GE□HB2□	XYBG (Large model + Medium model) High-speed type + Z-axis (Medium model 100W) base mount	GE□MS3□	XYBG (Large model + Medium model) High-speed type + Z-axis (Medium model 200W) slider mount
G2J□HS2□	XYG (Large model + Medium model) High-speed long type + Z-axis (Medium model 100W) base mount	GF□HB1□	XYBG (Large model + Medium model) High-speed long type + Z-axis (Medium model 200W) base mount	GF□HS1□	XYBG (Large model + Medium model) High-speed long type + Z-axis (Small model) slider mount
G2J□HS3□	XYG (Large model + Medium model) High-speed long type + Z-axis (Medium model 200W) base mount	GF□HB2□	XYBG (Large model + Medium model) High-speed long type + Z-axis (Medium model 100W) base mount	GF□HS3□	XYBG (Large model + Medium model) High-speed long type + Z-axis (Medium model 200W) slider mount
		GF□HB3□	XYBG (Large model + Medium model) High-speed long type + Z-axis (Medium model 200W) base mount		