

# XY-X Series

Product Lineup

## CARTESIAN ROBOTS

Offering a full lineup of Cartesian robots that come with exact performances and sizes supports a wide variety of applications.



### Fulfilling product lineups

Fulfilling product lineups are provided, such as compact and low price PXYx type, HXYLx allowing long-distance transfer with a maximum payload of 50kg, and NXY with hollow servomotor used for the X-axis applicable to double-arm. Fulfilling arm and performance variations support the customers' various requests.

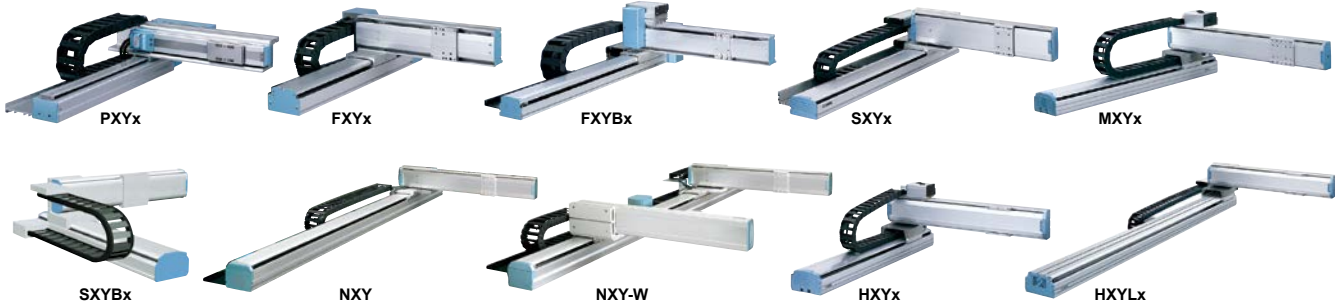
Additionally, various custom-order products other than models stated in the catalog are also supported. For detail, please feel free to consult YAMAHA.

# Fulfilling product lineups support a wide variety of applications.

## Various variations

P.240

Models with 3 or more axes can be selected from: ■ Z-axis clamped base and moving table type  
■ Z-axis clamped table and moving base type



Model	Applicable arm variations					Number of axes	Maximum payload (kg)	Maximum stroke (mm)	
	Arm	Gantry	Moving arm	Pole	XZ			X-axis	Y-axis
PXYx	●	-	-	-	-	2 axes	4.5	150 to 650	50 to 300
FXYx	●	-	-	-	-	2 axes/3 axes	12	150 to 1050	150 to 550
FXYBx	●	-	-	-	-	2 axes	7	150 to 2450	150 to 550
SXYx	●	-	●	●	●	2 axes/3 axes/4 axes	20	150 to 1050	150 to 650
SXYBx	●	-	-	-	●	2 axes/3 axes/4 axes	14	150 to 3050	150 to 550
MXYx	●	●	●	●	●	2 axes/3 axes/4 axes	30	250 to 1250	150 to 650
NXY	●	-	-	-	-	2 axes/3 axes	25	500 to 2000	150 to 650
NXY-W	●	-	-	-	-	4 axes/6 axes	25	250 to 1750	150 to 650
HXYx	●	●	●	●	●	2 axes/3 axes/4 axes	40	250 to 1250	250 to 650
HXYLx	●	●	-	-	-	2 axes	40	1150 to 2050	250 to 650

Note. The maximum payloads and maximum strokes shown above are values when using arm type/cable carrier specifications.

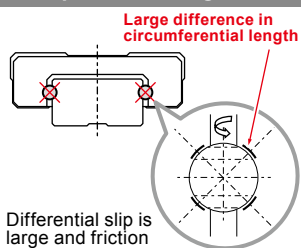
## POINT 1

### Use of 4-row circular arc groove type 2-point contact achieves high durability.



4-row circular arc groove type 2-point contact guide with less differential slip is adopted. When compared to the 2-row Gothic arch type 4-point contact guide, the robot provides features that it does not stop due to catching or overload and is difficult to malfunction even under poor conditions with low installation surface accuracy or large overhang amount. Guide rail type suitable for Cartesian robots, to which moment is always applied.

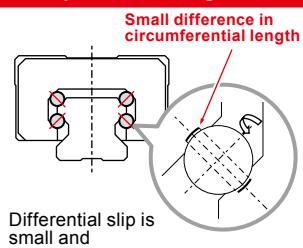
#### 2-row gothic arch groove type 4-point contact guide



Differential slip is large and friction resistance is large.

- Easy to receive effects of poor installation surface accuracy, friction, and elastic deformation.
- Breakage may occur even within the calculated service life.

#### 4-row circular arc groove type 2-point contact guide



Differential slip is small and self-centering function is high.

- Resistant to alignment changes and moment loads.
- Difficult to break.

## POINT 2

### Highly reliable resolver is used.



A resolver is used for the position detector. As the resolver uses a simple and rigid structure without using electronic components and optical elements, it features high environment resistance and low failure ratio. Detection problems due to electronic component breakdown, dew condensation on or oil sticking to the disk that may occur in optical encoders do not occur in the resolver due to its structure. Additionally, as the **absolute specifications and incremental specifications use the same mechanical specifications and common controller**, desired specifications can be selected only by setting parameters. Furthermore, even when the absolute battery is consumed completely, the robot can still operate as the incremental specifications. So, even if a trouble occurs, the line stop is not needed to ensure the safe production line. Furthermore, the backup circuit has been completely renovated and now has a backup period of one year in the non-energizing state.

## POINT 3

### Easy maintenance

Even when the built-in structure is used, the motor or ball screw can be replaced individually to ensure smooth maintenance work.

POINT 4

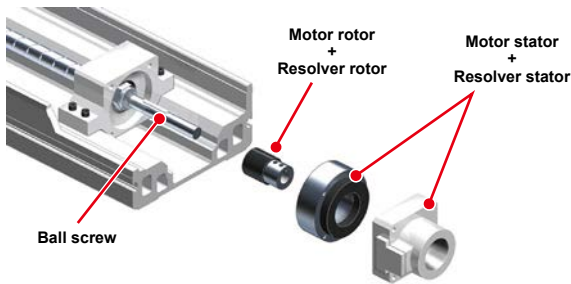
Low price

It was succeeded to reduce the number of parts while improving the basic performance. So, further cost reduction was achieved. Additionally, the resolver was used to eliminate the existing image "absolute specifications are expensive". Additionally, both the absolute specifications and incremental specifications use exactly same mechanical parts.

POINT 5

Lightweight and compact

The ball screw drive motor is renovated to a couplingless built-in structure to make dead spaces small and contribute to space saving.

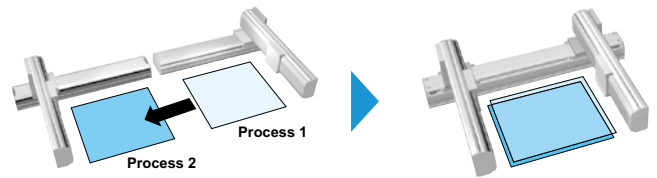


POINT 6

Double Y-axis available as standard

The NXY with nut rotation type structure supports a double Y-axis with two carriers arranged on the same axis. Two Cartesian robots can be made compact to improve the work efficiency at a low cost and ensures the space saving.

- Layout using two conventional Cartesian robots
- Space saving and process integration using NXY-W



Arm & cable variations

Cable variations

Two kinds of cable specifications, cable carrier and whipover (separate cable), are available. (PXYx uses only the cable carrier.)

● Cable carrier (C)

[User cable is provided as standard equipment.]  
When adding cables into a cable carrier, carefully check the space factor (30 % or less), etc.  
Note. User cable: 10-core, 0.3 sq



● Whipover (S)

[User cable and air tubing are provided as standard equipment.]  
Be aware that sagging or faulty wiring may occur if a load is applied to the whipover. Additionally, sagging may also occur when using a long-stroke.  
Note. User cable: 7-core, 0.2 sq  
Note. User tubing: φ 4-air tube, 2 pcs.

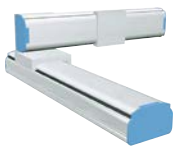


Arm variations

2 axes combination

● Arm type

Type with Y-axis slider movement



● Moving arm type

Type with entire Y-axis arm movement



● Gantry type

Type with support guide attached to the Y-axis tip of the arm type



● Pole type

Type with Y-axis slider vertical movement



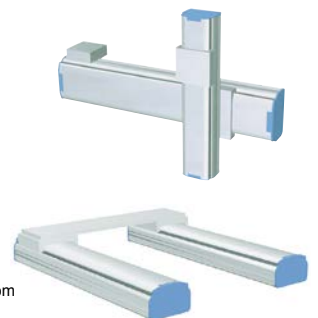
● XZ type

Type with combination of X-axis for horizontal movement and Z-axis for vertical movement

Clamped table/moving base



Clamped base/moving table



● Dual-robot (2 axes)

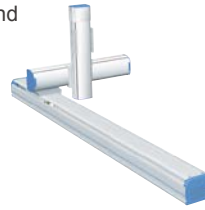
Type with synchronous drive between two axes  
Note. The dual-robot is supported as a custom order.

### 3 axes combinations

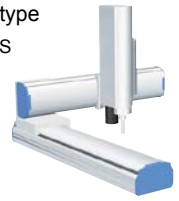
- Z-axis clamped base and moving table type  
ZR-axis model: ZT / ZF / ZFL / ZL



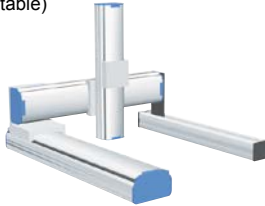
- Z-axis clamped table and moving base type  
ZR-axis model: ZFH / ZH



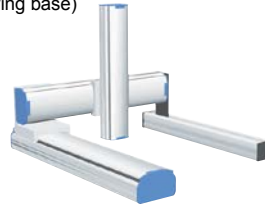
- Shaft up/down type  
ZR-axis model: ZS



- X-Y Gantry + Z-axis  
(Clamped base/moving table)



- X-Y Gantry + Z-axis  
(Clamped table/moving base)

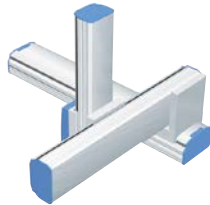


- Dual-robot (3 axes)  
Note. The dual-robot is supported as a custom order.



### 4 axes combinations

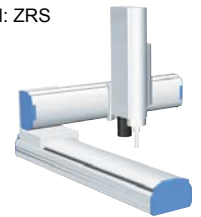
- Z-axis clamped base and moving table type + rotation axis  
ZR-axis model: ZRF / ZRFL / ZRL



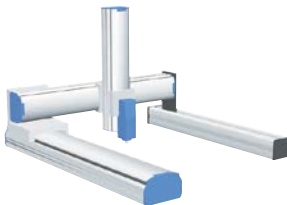
- Z-axis clamped table and moving base type + rotation axis  
ZR-axis model: ZRFH / ZRH



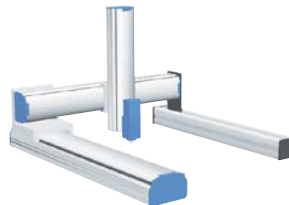
- ZR-axis integrated type  
ZR-axis model: ZRS



- X-Y Gantry + Z-axis  
(Clamped base/moving table) + rotation axis



- X-Y Gantry + Z-axis  
(Clamped table/moving base) + rotation axis



- Dual-robot (4 axes)  
Note. The dual-robot is supported as a custom order.

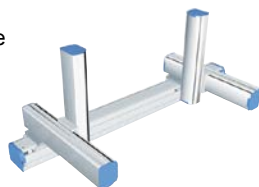


- Double Y-axis specifications  
Robot model: NXY-W

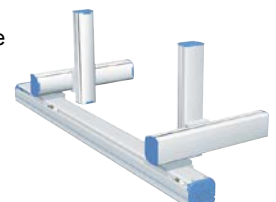


### 6 axes combination

- Double Y-axis specifications/ Z-axis clamped base and moving table type  
Robot model: NXY-W-ZFL



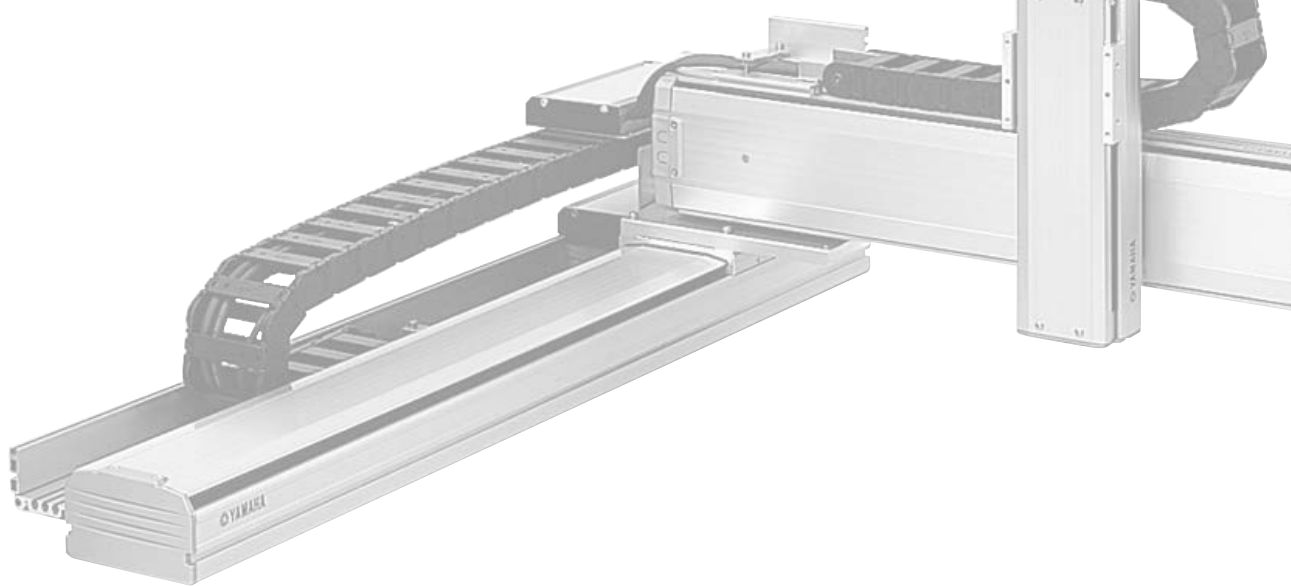
- Double Y-axis specifications/ Z-axis clamped table and moving base type  
Robot model: NXY-W-ZFH



#### Special orders

YAMAHA supports models with strokes and payloads other than the standards as special orders. For detail, please feel free to consult YAMAHA.

Contact Us ☎ 81-53-460-6103 E-mail: robotn@yamaha-motor.co.jp



# CARTESIAN ROBOTS

# XY-X

## SERIES

- Articulated robots  
YA
- Linear conveyor modules  
LCM100
- Compact single-axis robots  
TRANSERVO
- Single-axis robots  
FLIP-X
- Linear motor single-axis robots  
PHASER
- Cartesian robots  
XY-X
- SCARA robots  
YK-X
- Pick & place robots  
YP-X
- CLEAN
- CONTROLLER INFORMATION
- Arm type
- Gantry type
- Moving arm type
- Pole type
- XZ type

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### ARM TYPE

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SXYBx 3 axes / ZFL20 C	285

SXYBx 3 axes / ZFH C	286
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NXY 3 axes / ZFH C	294
NXY-W 4 axes C	296
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MXYx 2 axes C	300
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MXYx 2 axes / IO C	304
MXYx 3 axes / ZFL20/10 C	305
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HXYx 3 axes / ZL C	312
HXYx 3 axes / ZH C	313
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MXYx 2 axes / IO C	320
MXYx 3 axes / ZFL20/10 C	321
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SXYx 2 axes / ZFL20 C	358
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SXYx 2 axes / ZF C	360
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MXYx 2 axes / ZFL10 C	362
MXYx 2 axes / ZFH C	363
HXYx 2 axes / ZL C	364
HXYx 2 axes / ZH C	365

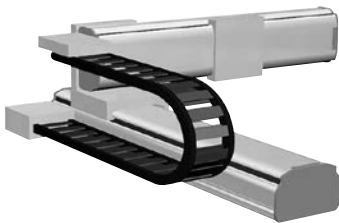
# Arm & cable variations

## Cable variations

Two cable types are available; cable carrier type and whipover type. (except PXYX) The cable carrier type is supplied with a user cable as standard so that cable can be added easily. The whipover type is supplied with a user cable and tube as standard set. A cable duct specially designed for clean rooms is also available. (See P.456 to P.461 for detailed information on Clean Cartesian robots.)

### Cable carrier (C)

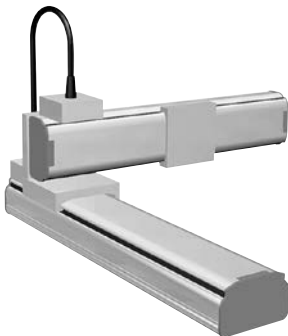
When adding cables to a cable carrier track, keep the cable occupation rate at 30% or less.



Note. User cable 10 cores, 0.2 sq.

### Whipover (S)

Adding a load on whipover will result in sagging and cut. Sagging may also occur when using long strokes.



Note. User cable: 7 cores, 0.2 sq.  
Note. User tube: 2 φ4 air tubes.

## Arm variations

The first step for selection of Cartesian type robot models is to check for applicable models according to specific use and operation area.

### Arm type

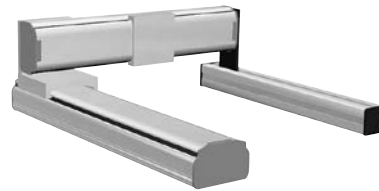
The type with moving Y-axis carriage.



P.250

### Gantry type

The type with a guide railing at the end of Y-axis for support.



P.318

### Moving arm type

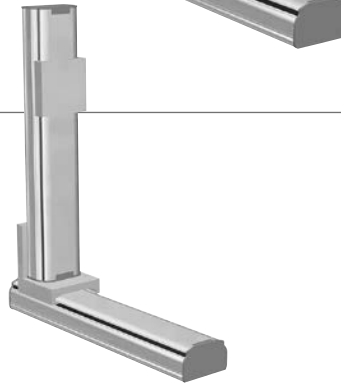
The type with a moving Y-axis arm.



P.334

### Pole type

The type with vertically moving Y-axis carriage.



P.348

### XZ type

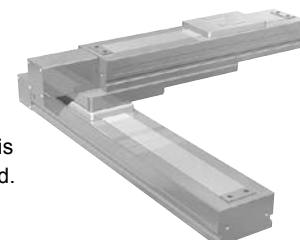
The type with combination of X-axis for horizontal movement and Z-axis for vertical movement.



P.356

### Clean type

Special model for clean rooms with moving Y-axis carriage installed upward.



P.456

Articulated robots  
YA

Linear conveyor models  
LCM100

Compact single-axis robots  
TRANSEVO

Single-axis robots  
FLIP-X

Linear motor single-axis robots  
PHASER

Cartesian robots  
XY-X

SCARA robots  
YK-X

Pick & place robots  
YP-X

CLEAN

CONTROLLER INFORMATION

Arm type

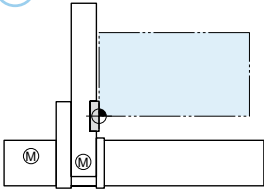
Gantry type

Moving arm type

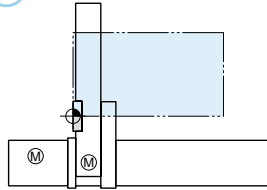
Pole type

XZ type

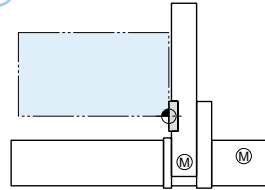
A1



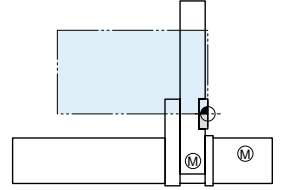
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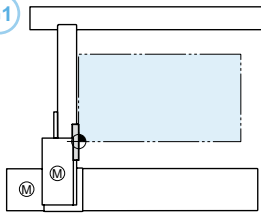
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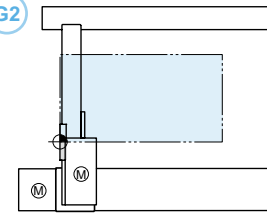
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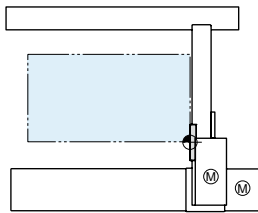
G1



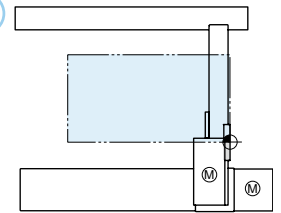
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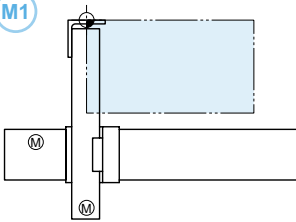
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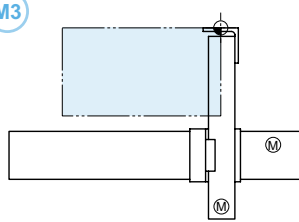
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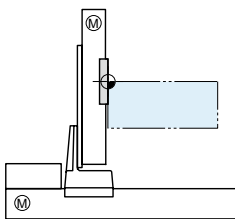
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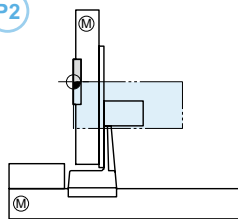
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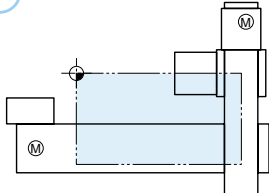
P1



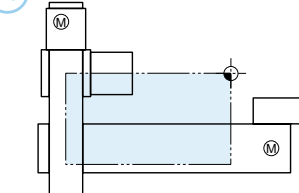
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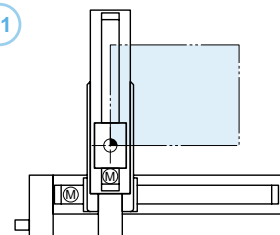
F1



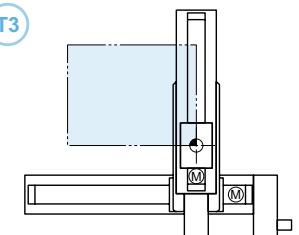
F3



T1



T3



# 2-axis spec selection guide

## Setting method

While checking conditions in order starting from ①, proceed to the right. Select the desired model in ⑥.

① Select the arm variation

### Arm type

The type with moving Y-axis carriage.

### Gantry type

The type with a guide railing at the end of Y-axis for support.

### Moving arm type

The type with a moving Y-axis arm.

### Pole type

The type with vertically moving Y-axis carriage.

### XZ type

The type with combination of X-axis for horizontal movement and Z-axis for vertical movement.

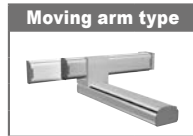
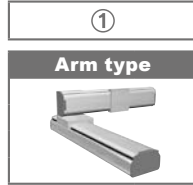
② Select a line satisfying both the Y-axis stroke and payload and move to the right.

③ Check the cable types

④ Check the X axis stroke

⑤ Select the desired speed

⑥ Decide the model



②

Payload (kg)	Y-axis stroke (mm)									
	50	100	150	200	250	300	350	400	450	500
4.5	4.5	3.5	2.5	2	1.5					

Payload (kg)	Y-axis stroke (mm)									
	150	250	350	450	550	650	750	850	950	1050
12	12	11	9	7						
	12	11	9	7						
	7	6	5	3						
	7	6	5	3						
	7	6	5	3						
	20	17	15	13	11	9				
	20	17	15	13	11	9				
	19	16	14	12	10	8				
	14	12	10	8	7					
	25	21	18	16	13	11				
	30		25	20	16					
	30		25	20	16					
	29		24	19	15					
			40	35	30					
		40	35	30						

Payload (kg)	Y-axis stroke (mm)									
	150	250	350	450	550	650	750	850	950	1050
30				30			25	20		
				29			24	19		
						50				
						50				

Payload (kg)	Y-axis stroke (mm)									
	150	250	350	450	550	650	750	850	950	1050
15	15	14	13							
			20							
				30						

Payload (kg)	Y-axis stroke (mm)									
	150	250	350	450	550	650	750	850	950	1050
8			8							
			20							
			20							
						30				
						30				

Payload (kg)	Z-axis stroke (mm)									
	150	250	350	450	550	650	750	850	950	1050
10	10									
	10									
	8									
	3									
	5									
	10									
	8									
	15									
	14	13	12							
			20							
			30							



③
Cable type
Cable carrier

④
X-axis stroke (mm)
150 to 650

⑤
Maximum speed (X-axis / Y-axis) (mm/sec)
720 / 720

⑥ Decide the model	
Model <sup>(Note 1)</sup>	Detailed info page
PXYx-C-A*	<a href="#">P250</a>

Cable type
Cable carrier
Cable carrier
Cable carrier
Whipover
Cable carrier
Cable carrier
Whipover
Cable carrier
Cable carrier
Cable carrier
Cable carrier
Cable carrier
Whipover
Cable carrier
Cable carrier
Cable carrier

X-axis stroke (mm)
150 to 1050
150 to 1050
150 to 2450
150 to 950
150 to 2450
150 to 1050
150 to 850
150 to 1050
150 to 3050
500 to 2000
250 to 1250
250 to 850
250 to 1250
250 to 1250
250 to 1250
1150 to 2050

Maximum speed (X-axis / Y-axis) (mm/sec)
1200 / 800
1200 / 800
1875 / 1875
1875 / 1875
1875 / 1875
1200 / 1200
1200 / 1200
1200 / 1200
1875 / 1875
1200 / 1200
1200 / 1200
1200 / 1200
1200 / 1200
1200 / 1200
1200 / 1200

Model	Detailed info page
FXyX-C-A*	<a href="#">P252</a>
FXyX-C-A* (I/O)	<a href="#">P254</a>
FXyBx-C-A*	<a href="#">P258</a>
FXyBx-S-A*	<a href="#">P260</a>
FXyBx-C-A* (I/O)	<a href="#">P262</a>
SXYx-C-A*	<a href="#">P264</a>
SXYx-S-A*	<a href="#">P266</a>
SXYx-C-A* (I/O)	<a href="#">P268</a>
SXYBx-C-A*	<a href="#">P282</a>
NXY-C-A*	<a href="#">P290</a>
MXyX-C-A*	<a href="#">P300</a>
MXyX-S-A*	<a href="#">P302</a>
MXyX-C-A* (I/O)	<a href="#">P304</a>
HXYx-C-A*	<a href="#">P310</a>
HXYLx-C-A*	<a href="#">P316</a>

Cable type
Cable carrier
Cable carrier
Cable carrier
Cable carrier

X-axis stroke (mm)
250 to 1050
250 to 1050
250 to 1250
1150 to 2050

Maximum speed (X-axis / Y-axis) (mm/sec)
1200 / 1200
1200 / 1200
1200 / 1200
1200 / 1200

Model	Detailed info page
MXyX-C-G*	<a href="#">P318</a>
MXyX-C-G* (I/O)	<a href="#">P320</a>
HXYx-C-G*	<a href="#">P326</a>
HXYLx-C-G*	<a href="#">P332</a>

Cable type
Cable carrier
Cable carrier
Cable carrier

X-axis stroke (mm)
150 to 850
250 to 1250
250 to 1250

Maximum speed (X-axis / Y-axis) (mm/sec)
1200 / 1200
1200 / 1200
1200 / 1200

Model	Detailed info page
SXYx-C-M*	<a href="#">P334</a>
MXyX-C-M*	<a href="#">P340</a>
HXYx-C-M*	<a href="#">P346</a>

Cable type
Whipover
Cable carrier
Whipover
Cable carrier
Whipover

X-axis stroke (mm)
150 to 850
250 to 1250
250 to 950
250 to 1250
250 to 850

Maximum speed (X-axis / Y-axis) (mm/sec)
1200 / 600
1200 / 600
1200 / 600
1200 / 600
1200 / 600

Model	Detailed info page
SXYx-S-P*	<a href="#">P348</a>
MXyX-C-P*	<a href="#">P349</a>
MXyX-S-P*	<a href="#">P350</a>
HXYx-C-P*	<a href="#">P352</a>
HXYx-S-P*	<a href="#">P353</a>

Cable type
Cable carrier
Whipover
Cable carrier
Cable carrier
Cable carrier
Cable carrier
Cable carrier
Cable carrier
Cable carrier
Cable carrier
Cable carrier
Cable carrier

X-axis stroke (mm)
150 to 1050
150 to 850
150 to 1050
150 to 1050
150 to 1050
150 to 3050
150 to 3050
150 to 3050
150 to 1050
150 to 1050
250 to 1250
250 to 1250

Maximum speed (X-axis / Y-axis) (mm/sec)
1200 / 600
1200 / 600
1200 / 1200
1200 / 1000
1200 / 500
1875 / 600
1875 / 1200
1200 / 600
1200 / 600
1200 / 600
1200 / 600
1200 / 300

Model	Detailed info page
SXYx-C-F* (ZF)	<a href="#">P356</a>
SXYx-S-F* (ZF)	<a href="#">P357</a>
SXYx-C-F* (ZFL20)	<a href="#">P358</a>
SXYx-C-F* (ZS12)	<a href="#">P359</a>
SXYx-C-F* (ZS6)	<a href="#">P359</a>
SXYBx-C-F* (ZF)	<a href="#">P360</a>
SXYBx-C-F* (ZFL20)	<a href="#">P361</a>
MXyX-C-F* (ZFL10)	<a href="#">P362</a>
MXyX-C-F* (ZFH)	<a href="#">P363</a>
HXYx-C-F* (ZL)	<a href="#">P364</a>
HXYx-C-F* (ZH)	<a href="#">P365</a>

Note 1. The figure entered at \* inside the form, expresses the arm variation. See P. 240 for more information.

# 3-axis spec selection guide

## Setting method

While checking conditions in order starting from ①, proceed to the right. Select the desired model in ⑥.

① Select the arm variation

### Arm type

The type with moving Y-axis carriage.

### Gantry type

The type with a guide railing at the end of Y-axis for support.

### Moving arm type

The type with a moving Y-axis arm.

### Pole type

The type with vertically moving Y-axis carriage.

①

### Arm type

②

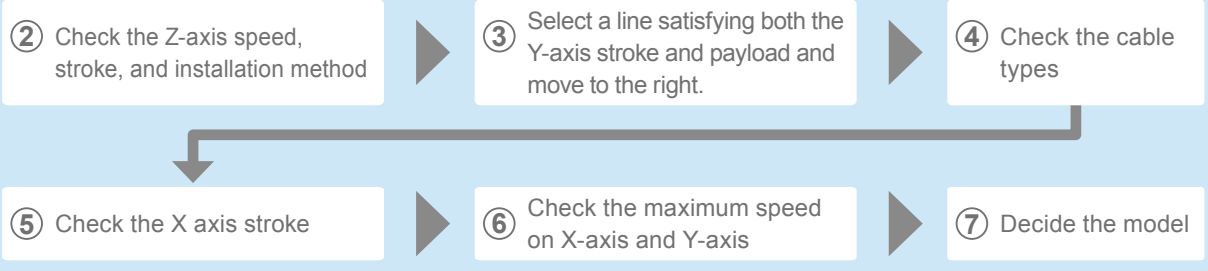
### Z-axis

Speed (mm/sec)	Stroke (mm)	Installation method
1000	150	Shaft vertical type
500	150	
800	50 to 300	Clamped base · moving table type (60W)
600	150	Clamped base · moving table type (100W)
	250	
	350	
	150	Clamped base · moving table type (100W)
1200	250	Clamped base · moving table type (200W)
	350	
	150	
600	150	Clamped table · moving base type (200W)
	250	
	350	
1000	150	Shaft vertical type
500	150	
600	150	Clamped base · moving table type (100W)
	250	
	350	
1200	150	Clamped base · moving table type (200W)
	250	
	350	
600	150	Clamped table · moving base type (200W)
	250	
	350	
1000	150	Shaft vertical type
500	150	
1200	150	Clamped base · moving table type (200W)
	250	
	350	
600	150	Clamped table · moving base type (200W)
	250	
	350	
600	150	Clamped base · moving table type (200W)
	250	
	350	
1200	150	Clamped base · moving table type (200W)
	250	
	350	
600	150	Clamped table · moving base type (200W)
	250	
	450	
	550	
300	250	Clamped table · moving base type (200W)
	350	
	450	
	550	

③

### Y-axis stroke (mm)

Payload (kg)	150	250	350	450	550	650	750	850	950	1050
		3								
	5				3					
	3									
	10	9	7	5	3					
	10	8	6	4	2					
	10	9	7	5	3	1				
	10	9	7	5	3					
	10	10	8	6	4	2				
	10	9	7	5	3	1				
	8			6	4	2				
	8		7	5	3	1				
	8		6	4	2	1				
	13	10	8	6	4	2				
	12	9	7	5	3	1				
	11	8	6	4	2	1				
	3									
	3									
	5									
	5									
	8	6	4	2	1					
	7	5	3	1						
	6	4	2							
	7	5	3	1						
	6	4	2							
	5	3	1							
	7	5	3	1						
	6	4	2							
	5	3	1							
	3									
	5			4	3					
	8				5	3				
	8			7	4	2				
	8		6	3	1					
	13	12	10	8	5	3				
	13	11	9	7	4	2				
	12	10	8	6	3	1				
	15			12	12	8				
	15			11	11	7				
	15			10	10	6				
	8									
	8					7				
	8					6				
	14			12		8				
	13			11		7				
	12			10		6				
	20				18					
	20				17					
	20		19	16						
	20		18	15						
	25		20		18					
	25		20		17					
	24		19		16					
	23		18		15					



④	⑤	⑥	⑦ Decide the model	
Cable type	X-axis stroke (mm)	Maximum speed (X-axis / Y-axis) (mm/sec)	Model <sup>(Note 1)</sup>	Detailed info page
Cable carrier	150 to 1050	1200 / 800	FXYx-C-A*-ZS12	<a href="#">P.255</a>
			FXYx-C-A*-ZS6	<a href="#">P.255</a>
			FXYx-C-A*-ZT6	<a href="#">P.256</a>
Cable carrier	150 to 1050	1200 / 1200	SXYx-C-A*-ZF	<a href="#">P.270</a>
Whipover	150 to 850	1200 / 1200	SXYx-S-A*-ZF	<a href="#">P.271</a>
Cable carrier	150 to 1050	1200 / 1200	SXYx-C-A*-ZFL20	<a href="#">P.272</a>
Cable carrier	150 to 1050	1200 / 1200	SXYx-C-A*-ZFH	<a href="#">P.273</a>
Cable carrier	150 to 1050	1200 / 1200	SXYx-C-A*-ZS12	<a href="#">P.274</a>
Whipover	150 to 850		SXYx-S-A*-ZS12	<a href="#">P.274</a>
Cable carrier	150 to 1050		SXYx-C-A*-ZS6	<a href="#">P.275</a>
Whipover	150 to 850		SXYx-S-A*-ZS6	<a href="#">P.275</a>
Cable carrier	150 to 3050	1875 / 1875	SXYBx-C-A*-ZF	<a href="#">P.284</a>
Cable carrier	150 to 3050	1875 / 1875	SXYBx-C-A*-ZFL20	<a href="#">P.285</a>
Cable carrier	150 to 3050	1875 / 1875	SXYBx-C-A*-ZFH	<a href="#">P.286</a>
Cable carrier	150 to 3050	1875 / 1875	SXYBx-C-A*-ZS12	<a href="#">P.287</a>
Cable carrier	150 to 3050	1875 / 1875	SXYBx-C-A*-ZS6	<a href="#">P.287</a>
Cable carrier	500 to 2000	1200 / 1200	NXY-C-A*-ZFL20	<a href="#">P.292</a>
Cable carrier	500 to 2000	1200 / 1200	NXY-C-A*-ZFH	<a href="#">P.294</a>
Cable carrier	250 to 1250	1200 / 1200	MXYx-C-A*-ZFL10	<a href="#">P.305</a>
Cable carrier	250 to 1250	1200 / 1200	MXYx-C-A*-ZFL20	<a href="#">P.305</a>
Cable carrier	250 to 1250	1200 / 1200	MXYx-C-A*-ZFH	<a href="#">P.306</a>
Cable carrier	250 to 1250	1200 / 1200	HXYx-C-A*-ZL	<a href="#">P.312</a>
Cable carrier	250 to 1250	1200 / 1200	HXYx-C-A*-ZH	<a href="#">P.313</a>

Note 1. The figure entered at \* inside the form, expresses the arm variation. See P.240 for more information.

# 3-axis spec selection guide

- Articulated robots  
YA
- Linear conveyor modules  
LCM100
- Compact single-axis robots  
TRANSEVO
- Single-axis robots  
FLIP-X
- Linear motor single-axis robots  
PHASER
- Cartesian robots  
XY-X
- SCARA robots  
YK-X
- Pick & place robots  
YP-X
- CLEAN
- CONTROLLER INFORMATION
- Arm type
- Gantry type
- Moving arm type
- Pole type
- XZ type

## ① Gantry type

Z-axis		
Speed (mm/sec)	Stroke (mm)	Installation method
600	150	Clamped base · moving table type (200W)
	250	
	350	
1200	150	Clamped base · moving table type (200W)
	250	
	350	
600	150	Clamped table · moving base type (200W)
	250	
	350	
600	250	Clamped base · moving table type (200W)
	350	
	450	
	550	
300	250	Clamped table · moving base type (200W)
	350	
	450	
	550	

Payload (kg)	Y-axis stroke (mm)										
	150	250	350	450	550	650	750	850	950	1050	
Payload (kg)	15							12			
	15							11			
	15							10			
	8										
	8										
	8										
	14							12			
	13							11			
	12							10			
	20										
	20										
	20										
20											
30											
30											
30											
30											

## Moving arm type

Z-axis		
Speed (mm/sec)	Stroke (mm)	Installation method
600	150	Clamped base · moving table type (100W)
	250	
	350	
1200	150	Clamped base · moving table type (200W)
	250	
	350	
600	150	Clamped table · moving base type (200W)
	250	
	350	
1000	150	Shaft vertical type
500	150	
600	150	Clamped base · moving table type (200W)
	250	
	350	
1200	150	Clamped base · moving table type (200W)
	250	
	350	
600	150	Clamped table · moving base type (200W)
	250	
	350	
300	250	Clamped table · moving base type (200W)
	350	
	450	
	550	

Payload (kg)	Y-axis stroke (mm)									
	150	250	350	450	550	650	750	850	950	1050
Payload (kg)	9	8	7							
	8	7	6							
	7	6	5							
	8	8	7							
	8	7	6							
	7	6	5							
	9	8	7							
	8	7	6							
	7	6	5							
	3									
	5									
	12									
	11									
	10									
	8									
	12									
	11									
	10									
	18									
	18					17				
	18					16				
	18					15				

## Pole type

Z-axis		
Speed (mm/sec)	Stroke (mm)	Installation method
1200	150	Clamped table · moving base type (200W)
	250	
	350	
1200	250	Clamped table · moving base type (200W)
	350	
	450	
	550	
	650	
1200	250	Clamped table · moving base type (200W)
	350	
	450	
	550	
	650	

Payload (kg)	Y-axis stroke (mm)										
	150	250	350	450	550	650	750	850	950	1050	
Payload (kg)	10										
	9										
	8										
	15										
	15										
	15										
	15										
	15										
	15										
	15										
	15										

④	⑤	⑥	⑦ Decide the model	
Cable type	X-axis stroke (mm)	Maximum speed (X-axis / Y-axis) (mm/sec)	Model <sup>(Note 1)</sup>	Detailed info page
Cable carrier	250 to 1050	1200 / 1200	MXYx-C-G*-ZFL10	<a href="#">P.321</a>
Cable carrier	250 to 1050	1200 / 1200	MXYx-C-G*-ZFL20	<a href="#">P.321</a>
Cable carrier	250 to 1050	1200 / 1200	MXYx-C-G*-ZFH	<a href="#">P.322</a>
Cable carrier	250 to 1250	1200 / 1200	HXYx-C-G*-ZL	<a href="#">P.328</a>
Cable carrier	250 to 1250	1200 / 1200	HXYx-C-G*-ZH	<a href="#">P.329</a>

Cable type	X-axis stroke (mm)	Maximum speed (X-axis / Y-axis) (mm/sec)	Model <sup>(Note 1)</sup>	Detailed info page
Whipover	150 to 850	1200 / 1200	SXYx-S-M*-ZF	<a href="#">P.336</a>
Whipover	150 to 850	1200 / 1200	SXYx-S-M*-ZFL20	<a href="#">P.337</a>
Whipover	150 to 850	1200 / 1200	SXYx-S-M*-ZFH	<a href="#">P.338</a>
Whipover	150 to 850	1200 / 1200	SXYx-S-M*-ZS12	<a href="#">P.339</a>
Whipover	150 to 850	1200 / 1200	SXYx-S-M*-ZS6	<a href="#">P.339</a>
Cable carrier	250 to 1250	1200 / 1200	MXYx-C-M*-ZFL10	<a href="#">P.342</a>
Cable carrier	250 to 1250	1200 / 1200	MXYx-C-M*-ZFL20	<a href="#">P.342</a>
Cable carrier	250 to 1250	1200 / 1200	MXYx-C-M*-ZFH	<a href="#">P.343</a>
Cable carrier	250 to 1250	1200 / 1200	HXYx-C-M*-ZH	<a href="#">P.346</a>

Note 1. The figure entered at \* inside the form, expresses the arm variation. See P.240 for more information.

Cable type	X-axis stroke (mm)	Maximum speed (X-axis / Y-axis) (mm/sec)	Model	Detailed info page
Cable carrier	250 to 1250	1200 / 600	MXYx-C-P2-ZPMH	<a href="#">P.351</a>
Cable carrier	250 to 1250	1200 / 600	HXYx-C-P2-ZPH	<a href="#">P.354</a>
Whipover	250 to 850	1200 / 600	HXYx-S-P1-ZPH	<a href="#">P.355</a>

# Robot ordering method description

In the order format for the YAMAHA cartesian robots XY-X series, the notation (letters/numbers) for the mechanical section is shown linked to the controller section notation.

## [Example]

### 2-axis specifications

#### Mechanical ▶ FXYx (Arm type)

- Cable variations ▷ Cable carrier
- Combination (Arm variations) ▷ A1
- X-axis stroke ▷ 450mm
- Y-axis stroke ▷ 350mm
- Robot cable length ▷ 3.5M

#### Controller ▶ RCX222

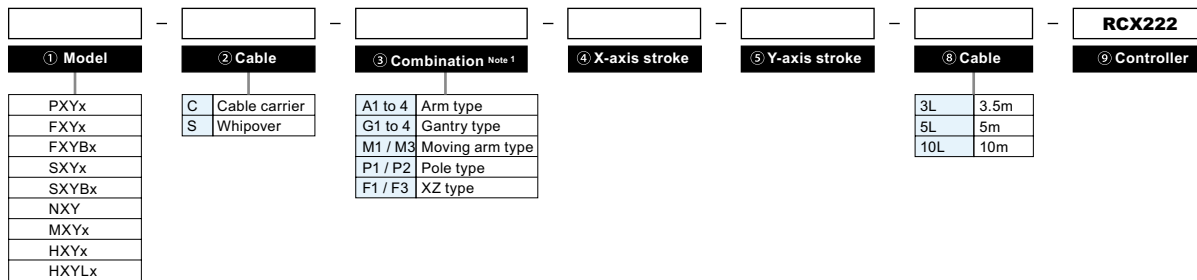
### Ordering method

**FXYx - C - A1 - 45 - 35 - 3L - RCX222**

Mechanical section

Controller section

To find detailed controller information see the controller page. **RCX222 ▶ P.524**



Note 1. To find detailed information on arm variations (combinations) see P.240.

## [Example]

### 3 / 4-axis specifications

#### Mechanical ▶ SXYx (Moving arm type)

- Cable variations ▷ Whipover
- Combination (Arm variations) ▷ M3
- X-axis stroke ▷ 850mm
- Y-axis stroke ▷ 150mm
- Z-axis stroke ▷ 150mm
- Robot cable length ▷ 5M

#### Controller ▶ RCX240S

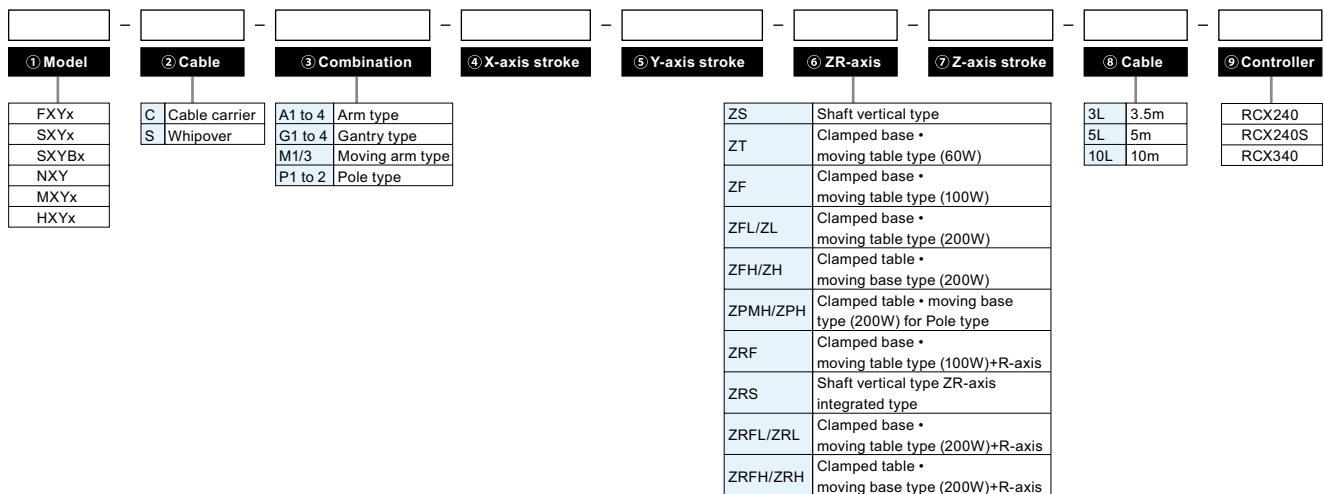
### Ordering method

**SXYx - S - M3 - 85 - 15 - ZFH - 15 - 5L - RCX240S**







Mechanical section

Controller section

To find detailed controller information see the controller page. **RCX240 ▶ P.532, RCX340 ▶ P.542**



# Robot ordering method terminology

① <b>Model</b>	Enter the robot unit model.
② <b>Cable</b>	Cable specs can be selected. To find detailed information see P.240. C: Cable carrier S: Whipover
③ <b>Combination (Arm variations)</b>	<p>Select the arm variation and combination method.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 15%;"> <p>● <b>Arm type</b> The type with moving Y-axis carriage.</p>  </div> <div style="width: 15%;"> <p>● <b>Gantry type</b> The type with a guide railing at the end of Y-axis for support.</p>  </div> <div style="width: 15%;"> <p>● <b>Moving arm type</b> The type with a moving Y-axis arm.</p>  </div> <div style="width: 15%;"> <p>● <b>Pole type</b> The type with vertically moving Y-axis carriage.</p>  </div> <div style="width: 15%;"> <p>● <b>XZ type</b> The type with combination of X-axis for horizontal movement and Z-axis for vertical movement.</p>  </div> <div style="width: 15%;"> <p>● <b>Clean type</b> Special model for clean rooms with moving Y-axis carriage installed upward.</p>  </div> </div> <p>To find information on combinations see P.240.</p>
④ <b>X-axis stroke</b>	Select the X axis stroke. Enter in centimeters (cm). (For example enter 50 for a stroke of 500mm.)
⑤ <b>Y-axis stroke</b>	Select the Y axis stroke. Enter in centimeters (cm). (For example enter 50 for a stroke of 500mm.)
⑥ <b>ZR-axis</b>	<p>Select the Z axis installation direction. The R axis is installed with 4-axis specifications. To find more information see P.37.</p> <p><b>[3-axes]</b></p> <p>ZS : Shaft vertical type          ZT : Clamped base · moving table type (60W)          ZF : Clamped base · moving table type (100W)          ZFL/ZL : Clamped base · moving table type (200W)          ZFH/ZH : Clamped table · moving base type (200W)          ZPMH/ZPH : Clamped table · moving base type (200W) for pole type</p> <p><b>[4-axes]</b></p> <p>ZRF : Clamped base · moving table type (100W)+R axis          ZRS : ZR axis integrated type          ZRL/ZRFL : Clamped base · moving table type (200W)+R axis          ZRH/ZRFH : Clamped table · moving base type (200W)+R axis</p>
⑦ <b>Z-axis stroke</b>	Select the Z axis stroke. Enter in centimeters (cm). (For example enter 15 for a stroke of 150mm.)
⑧ <b>Cable</b>	Select the length of the robot cable connecting the robot and controller. <b>3L</b> : 3.5m <b>5L</b> : 5m <b>10L</b> : 10m
⑨ <b>Controller</b>	<p><b>2-axis specifications:</b>    Select the RCX222.</p> <p><b>3 / 4-axis specifications:</b> Select either the RCX240 (RCX240S) or RCX340.</p>

Articulated robots
YA
Linear conveyor modules
LCM100
Compact single-axis robots
TRANSEVO
Single-axis robots
FLIP-X
Linear motor single-axis robots
PHASER
Cartesian robots
XX-X
SCARA robots
YK-X
Pick & place robots
YP-X
CLEAN
CONTROLLER INFORMATION
Arm type
Gantry type
Moving arm type
Pole type
XZ type

# PXYx 2 axes

● Arm type ● Cable carrier



## Ordering method

<b>PXYx - C</b>					<b>RCX222</b>				
Model	Cable	Combination	X-axis stroke	Y-axis stroke	Cable	Controller	Usable for CE	Input/Output selection 1	Input/Output selection 2
A1			15 to 65cm	5 to 30cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ <sup>Note 1</sup> PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None N1: OP.DIO24/16 (NPN) <sup>Note 1</sup> P1: OP.DIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <sup>Note 1</sup>	—	T4H
<b>AC servo motor output (W)</b>	60	30
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.02	+/-0.02
<b>Drive system</b>	Ball screw (Class C10)	Ball screw (Class C10)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	12	12
<b>Maximum speed</b> <sup>Note 4</sup> (mm/sec)	720	720
<b>Moving range (mm)</b>	150 to 650	50 to 300
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 650mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

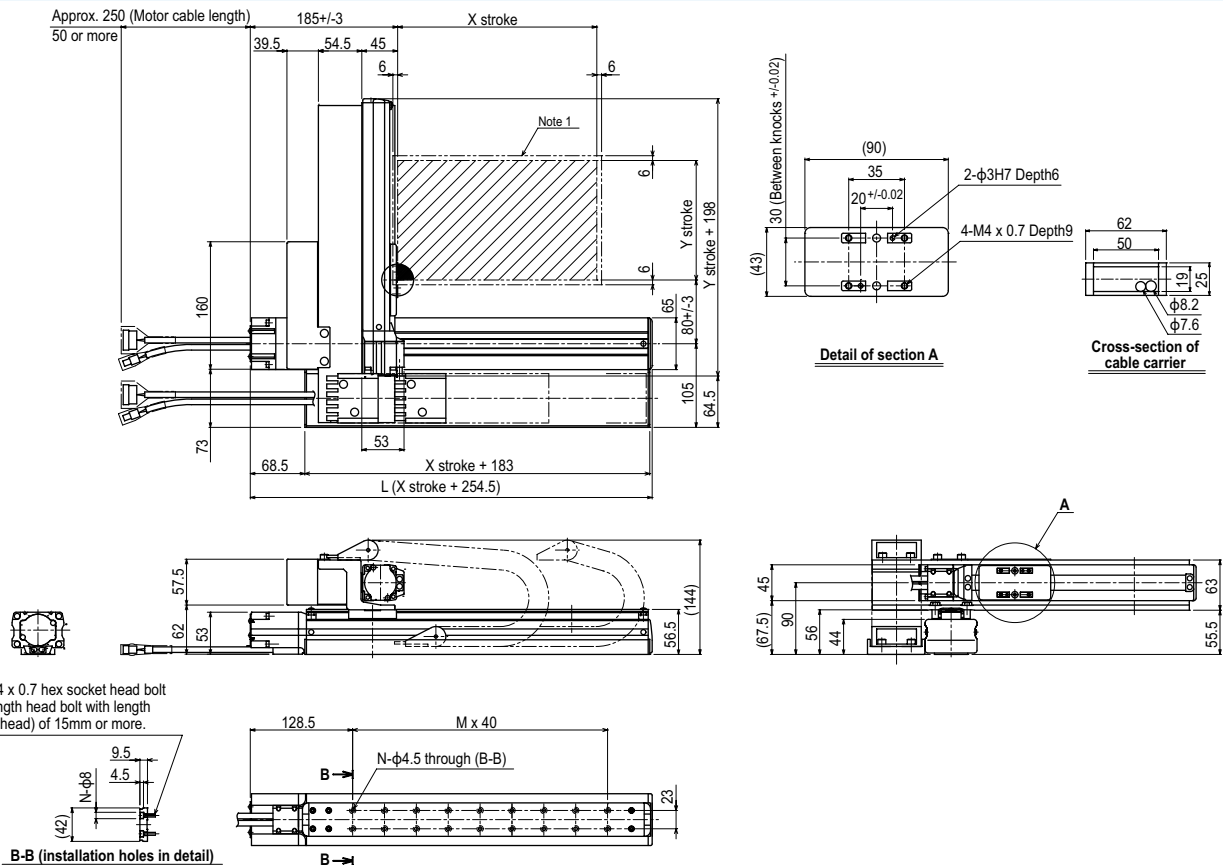
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
50	4.5
100	4.5
150	3.5
200	2.5
250	2
300	1.5

## Controller

Controller	Operation method
RCX222	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## PXYx 2 axes A1



Use M4 x 0.7 hex socket head bolt with length head bolt with length (under head) of 15mm or more.

B-B (installation holes in detail)

X stroke	150	250	350	450	550	650
<b>L</b>	404.5	504.5	604.5	704.5	804.5	904.5
<b>M</b>	5	8	10	13	15	18
<b>N</b>	12	18	22	28	32	38
Y stroke	50	100	150	200	250	300
<b>Maximum speed for each stroke (mm/sec)</b> <sup>Note 2</sup>	X-axis					600
<b>Speed setting</b>	—					83%

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

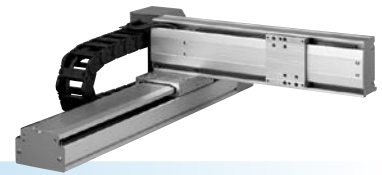
Note 2. When the X-axis stroke is longer than 650mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.





# FXYx 2 axes

● Arm type ● Cable carrier



## Ordering method

<b>FXYx - C</b>					<b>RCX222</b>				
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>Y-axis stroke</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
A1		A1	15 to 105cm	15 to 55cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ <sup>Note 1</sup> PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None N1: OP.DIO24/16 (NPN) <sup>Note 1</sup> P1: OP.DIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>
A2		A2							
A3		A3							
A4		A4							

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b>	—	—
<b>AC servo motor output (W)</b>	100	60
<b>Repeatability</b> <sup>Note 1</sup> (mm)	+/-0.01	+/-0.02
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C10)
<b>Ball screw lead</b> <sup>Note 2</sup> (Deceleration ratio) (mm)	20	12
<b>Maximum speed</b> <sup>Note 3</sup> (mm/sec)	1200	800
<b>Moving range (mm)</b>	150 to 1050	150 to 550
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Positioning repeatability in one direction.  
 Note 2. Leads not listed in the catalog are also available. Contact us for details.  
 Note 3. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

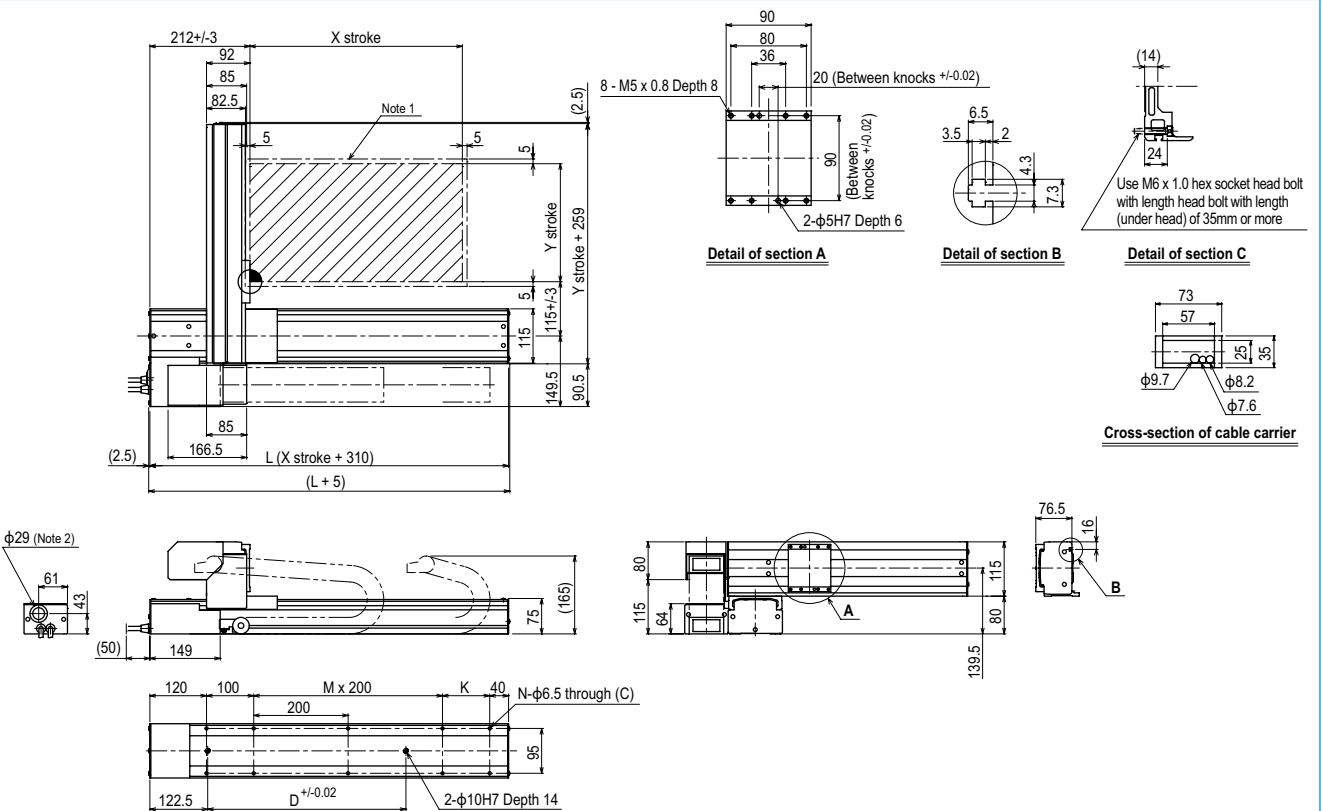
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
150	12
250	12
350	11
450	9
550	7

## Controller

Controller	Operation method
RCX222	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## FXYx 2 axes A1

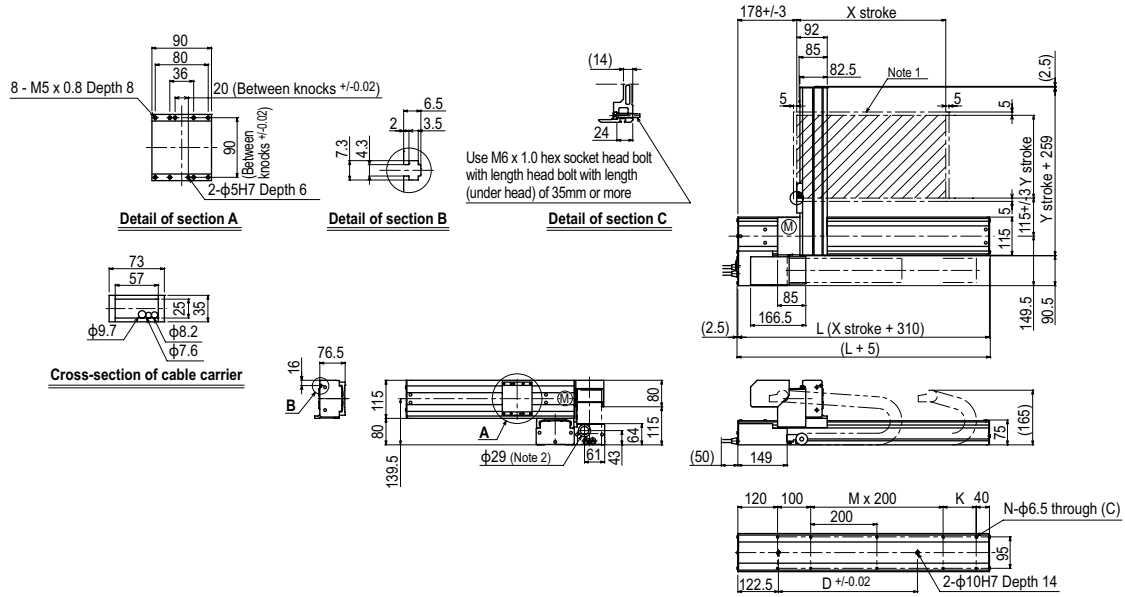


X stroke	150	250	350	450	550	650	750	850	950	1050
	L	460	560	660	760	860	960	1060	1160	1260
K	200	100	200	100	200	100	200	100	200	100
D	240	240	420	420	600	600	780	960	960	1140
M	0	1	1	2	2	3	3	4	4	5
N	6	8	8	10	10	12	12	14	14	16
Y stroke	150	250	350	450	550					
<b>Maximum speed for each stroke (mm/sec)</b>	<b>X-axis</b>		1200			960		780	600	540
<b>Speed setting</b>			—			80%		65%	50%	45%

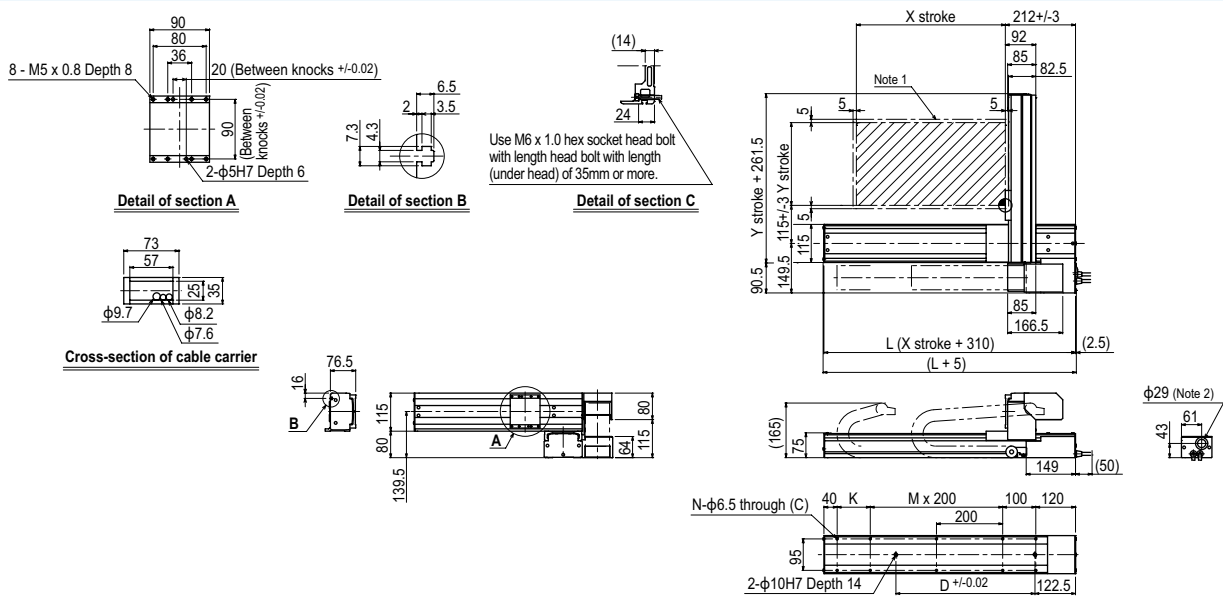
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.

Note 3. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

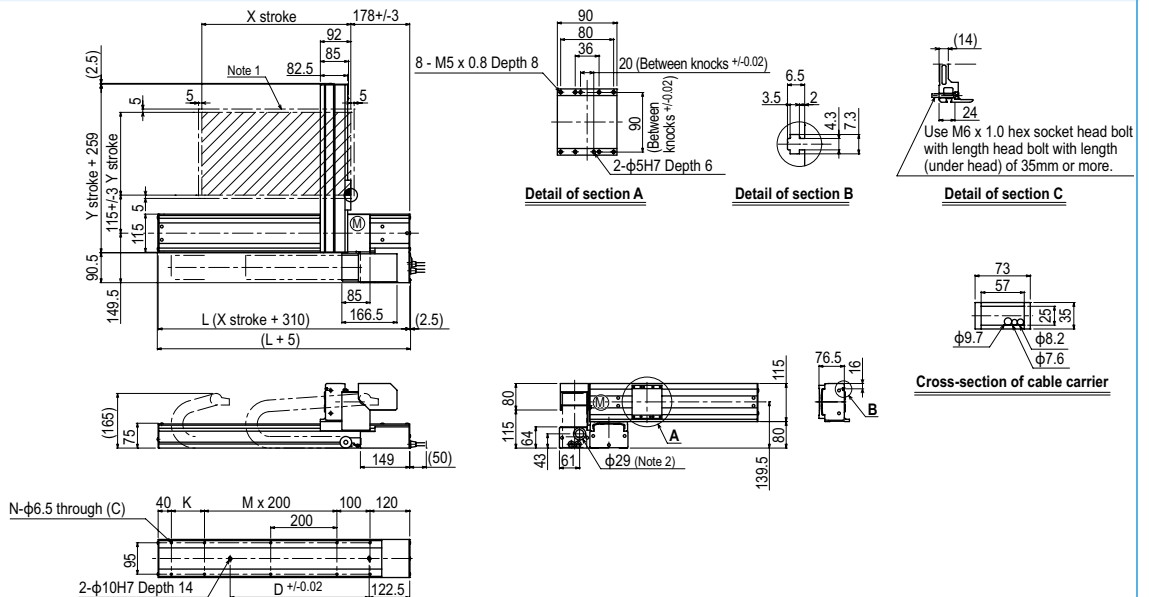
**FXYx 2 axes A2**



**FXYx 2 axes A3**

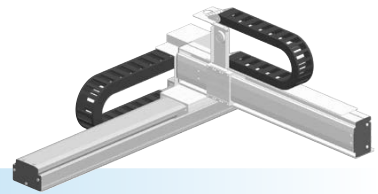


**FXYx 2 axes A4**



Articulated robots  
 YA  
 Linear conveyor modules  
 LCM100  
 Compact single-axis robots  
 TRANSEVO  
 Single-axis robots  
 FLIP-X  
 Linear motor single-axis robots  
 PHASER  
 Cartesian robots  
 XX-X  
 SCARA robots  
 YK-X  
 Pick & place robots  
 YP-X  
 CLEAN  
 CONTROLLER  
 INFORMATION  
 Arm type  
 Gantry type  
 Moving arm type  
 Pole type  
 XZ type

# FXYx 2 axes / IO



- Arm type
- Cable carrier
- Type with Y-axis I/O cable carrier added

## Ordering method

<b>FXYx - C</b>					<b>IO</b>		<b>RCX222</b>			
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>Y-axis stroke</b>	<b>ZR-axis</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
A1			15 to 105cm	15 to 55cm		3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None N1: OPDIO24/16 (NPN) <sup>Note 1</sup> P1: OPDIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>
A2										
A3										
A4										

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b>	-	-
<b>AC servo motor output (W)</b>	100	60
<b>Repeatability<sup>Note 1</sup> (mm)</b>	+/-0.01	+/-0.02
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C10)
<b>Ball screw lead<sup>Note 2</sup> (Deceleration ratio) (mm)</b>	20	12
<b>Maximum speed<sup>Note 3</sup> (mm/sec)</b>	1200	800
<b>Moving range (mm)</b>	150 to 1050	150 to 550
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5, 10	

Note 1. Positioning repeatability in one direction.  
 Note 2. Leads not listed in the catalog are also available. Contact us for details.  
 Note 3. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

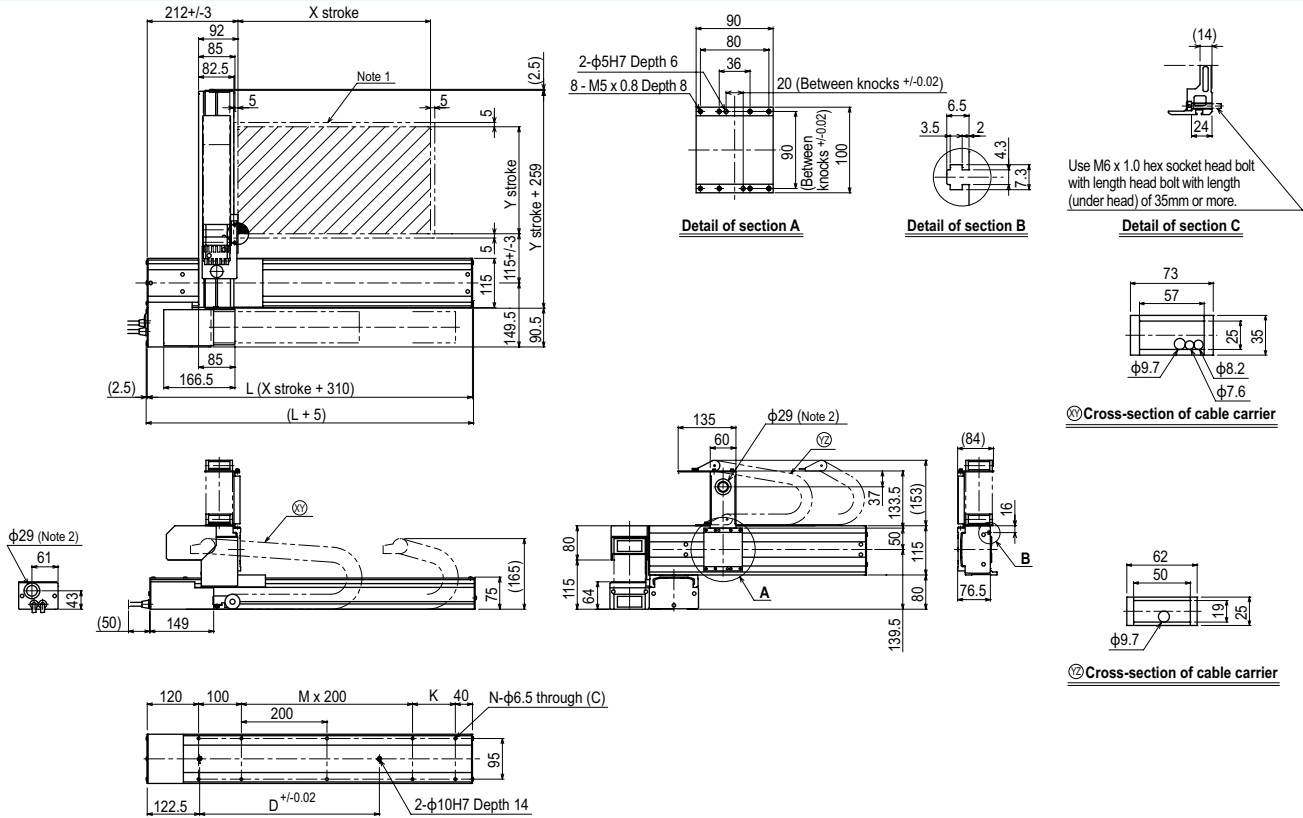
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
150	12
250	12
350	11
450	9
550	7

## Controller

Controller	Operation method
RCX222	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## FXYx 2 axes / IO A1



X stroke	150	250	350	450	550	650	750	850	950	1050
<b>L</b>	460	560	660	760	860	960	1060	1160	1260	1360
<b>K</b>	200	100	200	100	200	100	200	100	200	100
<b>D</b>	240	240	420	420	600	600	780	960	960	1140
<b>M</b>	0	1	1	2	2	3	3	4	4	5
<b>N</b>	6	8	8	10	10	12	12	14	14	16
<b>Y stroke</b>	<b>150</b>	<b>250</b>	<b>350</b>	<b>450</b>	<b>550</b>					
<b>Maximum speed for each stroke (mm/sec)</b>	<b>X-axis</b>		1200			960		780	600	540
<b>Speed setting</b>			-			80%		65%	50%	45%

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.

Note 3. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.





Articulated robots  
YA

Linear conveyor  
modules  
LCMT100

Compact  
single-axis robots  
TRANSERVO

Single-axis robots  
FLIP-X

Linear motor  
single-axis robots  
PHASER

Cartesian  
robots  
XY-X

SCARA  
robots  
YK-X

Pick & place  
robots  
YP-X

CLEAN

CONTROLLER

INFORMATION

Arm type

Gantry type

Moving arm  
type

Pole type

XZ type

# FXyBx 2 axes

● Arm type ● Cable carrier



## Ordering method

<b>FXyBx - C</b>					<b>RCX222</b>				
Model	Cable	Combination	X-axis stroke	Y-axis stroke	Cable	Controller	Usable for CE	Input/Output selection 1	Input/Output selection 2
A1			15 to 245cm	15 to 55cm	3L: 3.5m	RCX222	No entry: Standard E: CE marking	N: NPN <sup>Note 1</sup> P: PNP	No entry: None N1: OP.DIO24/16 (NPN) <sup>Note 1</sup> P1: OP.DIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup> YC: YC-Link <sup>Note 2</sup>
A2					5L: 5m				
A3					10L: 10m				
A4									

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <sup>Note 1</sup>	B10	-
<b>AC servo motor output (W)</b>	100	100
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.04	+/-0.04
<b>Drive system</b>	Timing belt	Timing belt
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	Equivalent to lead 25	Equivalent to lead 25
<b>Maximum speed (mm/sec)</b>	1875	1875
<b>Moving range (mm)</b>	150 to 2450	150 to 550
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flange machining (installation holes, tap holes) differs from single-axis robots'.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.

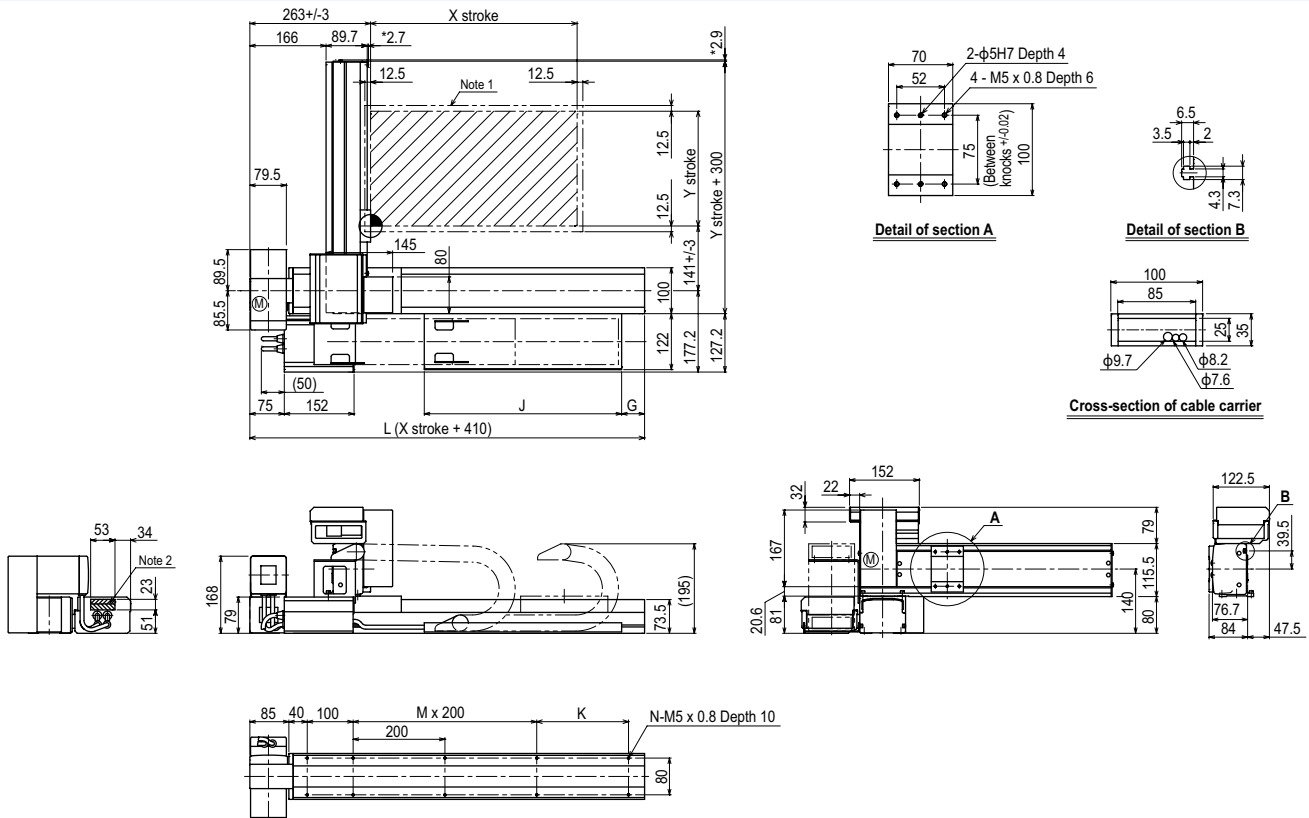
## Maximum payload (kg)

Y stroke (mm)	XY axes
150	7
250	6
350	5
450	5
550	3

## Controller

Controller	Operation method
RCX222	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## FXyBx 2 axes A1

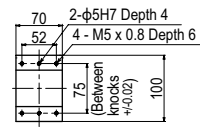


Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper. Note 2. The shaded position indicates an user cable extraction port. Note 3. The dimension marked with an asterisk (\*) indicates the height of the screw.

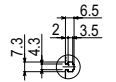
X stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450
<b>L</b>	560	660	760	860	960	1060	1160	1260	1360	1460	1560	1660	1760	1860	1960	2060	2160	2260	2360	2460	2560	2660	2760	2860
<b>K</b>	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200
<b>M</b>	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12
<b>N</b>	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30
<b>G</b>	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50
<b>J</b>	330	330	430	430	530	530	630	630	730	730	830	830	930	930	1030	1030	1130	1130	1230	1230	1330	1330	1430	1430
<b>Y stroke</b>	150	250	350	450	550																			



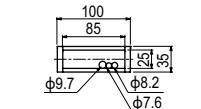
FXYBx 2 axes **A2**



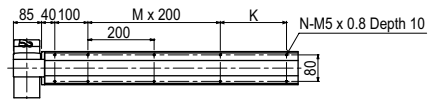
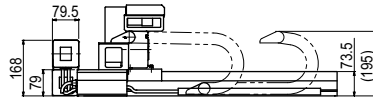
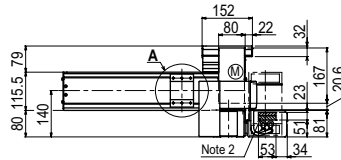
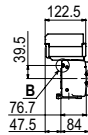
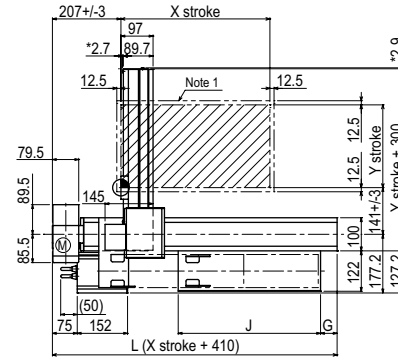
Detail of section A



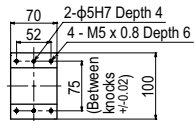
Detail of section B



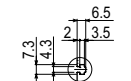
Cross-section of cable carrier



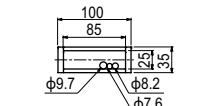
FXYBx 2 axes **A3**



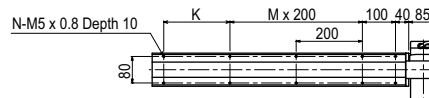
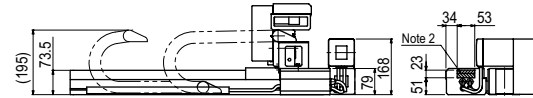
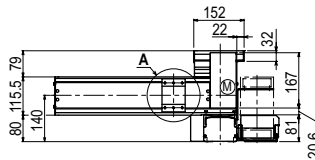
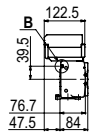
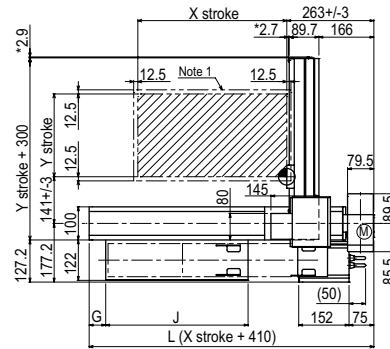
Detail of section A



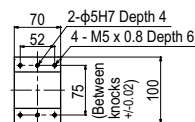
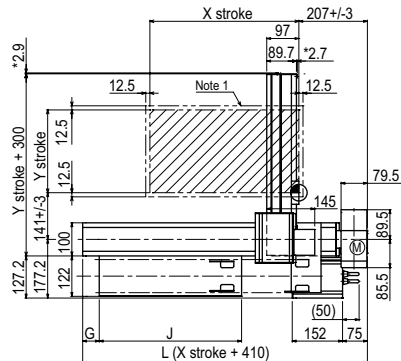
Detail of section B



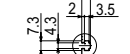
Cross-section of cable carrier



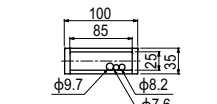
FXYBx 2 axes **A4**



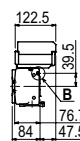
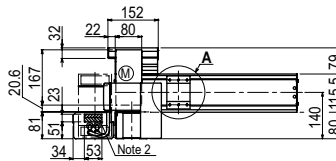
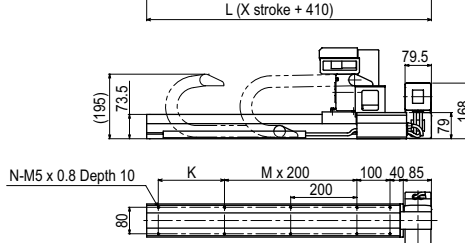
Detail of section A



Detail of section B



Cross-section of cable carrier



# FXyBx 2 axes

● Arm type ● Whipover

## Ordering method

<b>FXyBx - S</b>					<b>RCX222</b>				
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>Y-axis stroke</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
A1			15 to 95cm	15 to 55cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None N1: OP.DIO24/16 (NPN) <sup>Note 1</sup> P1: OP.DIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <sup>Note 1</sup>	B10	-
<b>AC servo motor output (W)</b>	100	100
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.04	+/-0.04
<b>Drive system</b>	Timing belt	Timing belt
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	Equivalent to lead 25	Equivalent to lead 25
<b>Maximum speed (mm/sec)</b>	1875	1875
<b>Moving range (mm)</b>	150 to 950	150 to 550
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.

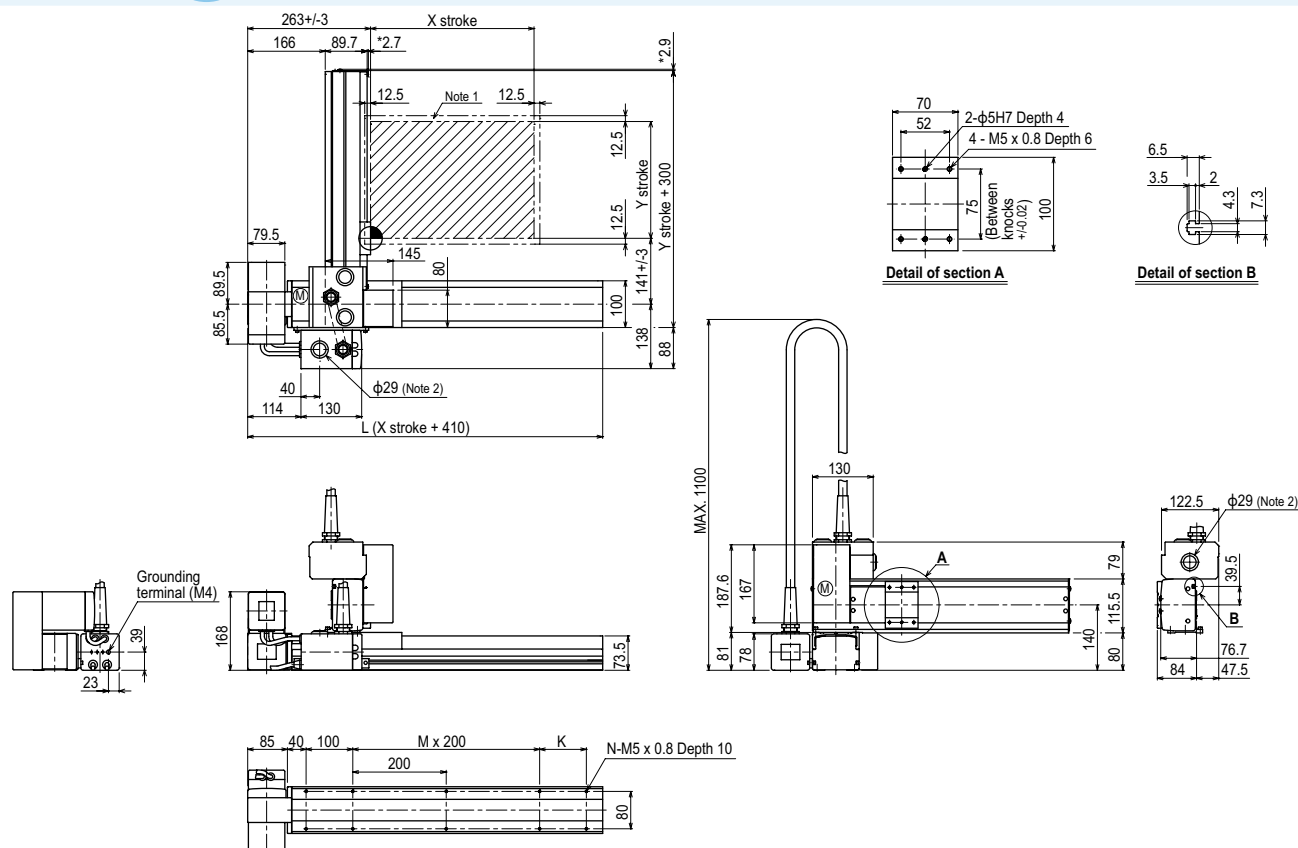
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
150	7
250	6
350	5
450	5
550	3

## Controller

Controller	Operation method
RCX222	Programming / I/O point trace / Remote command / Operation using RS-232C communication

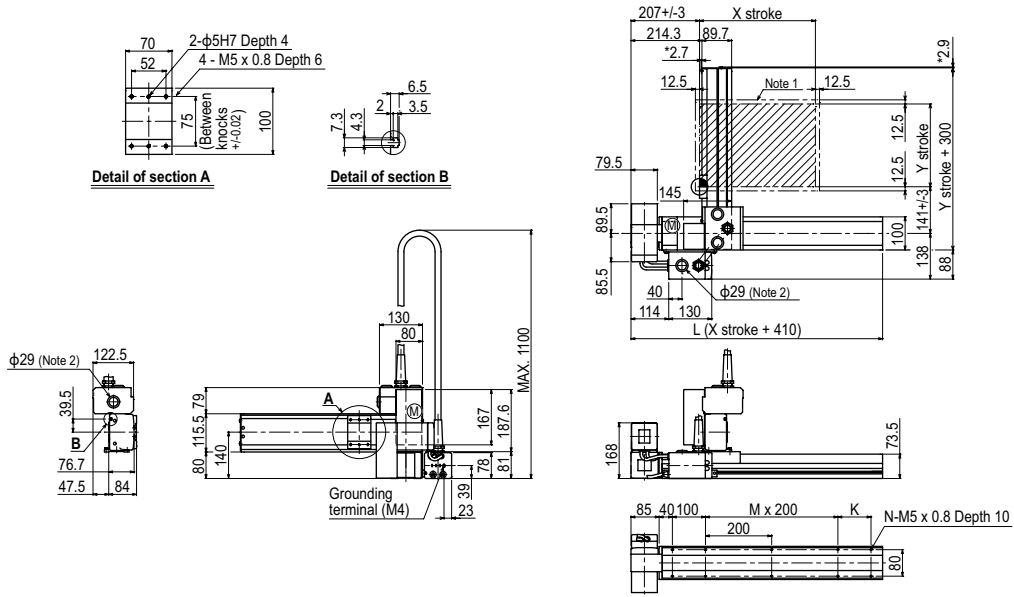
## FXyBx 2 axes A1



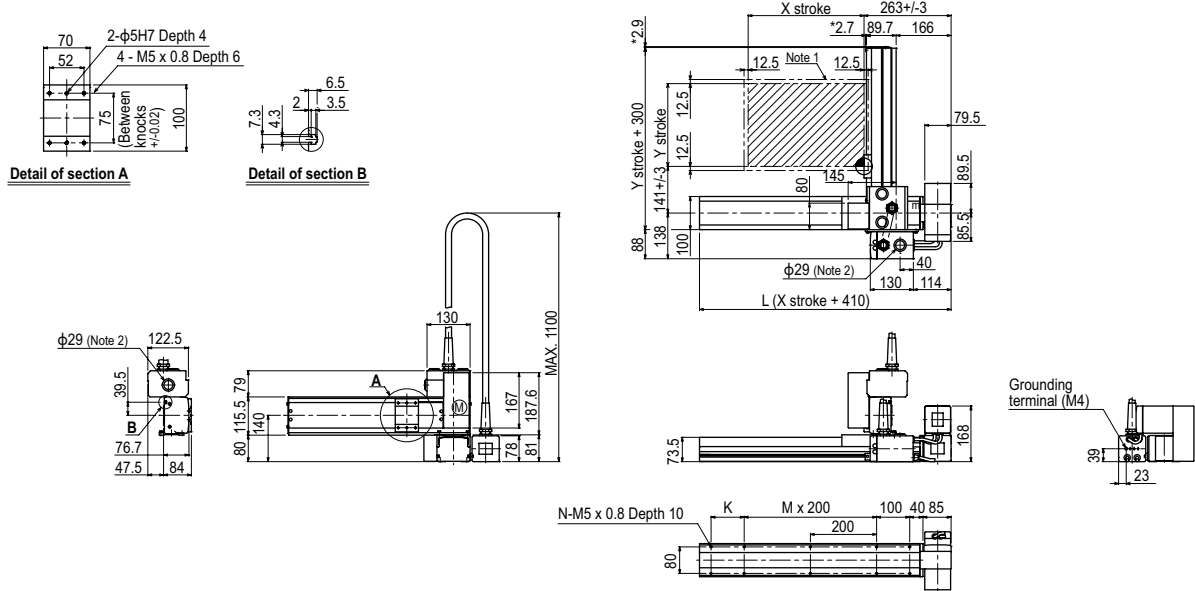
X stroke	150	250	350	450	550	650	750	850	950
<b>L</b>	560	660	760	860	960	1060	1160	1260	1360
<b>K</b>	100	200	100	200	100	200	100	200	100
<b>M</b>	1	1	2	2	3	3	4	4	5
<b>N</b>	8	8	10	10	12	12	14	14	16
<b>Y stroke</b>	150	250	350	450	550				

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.  
 Note 3. The dimension marked with an asterisk (\*) indicates the height of the screw.

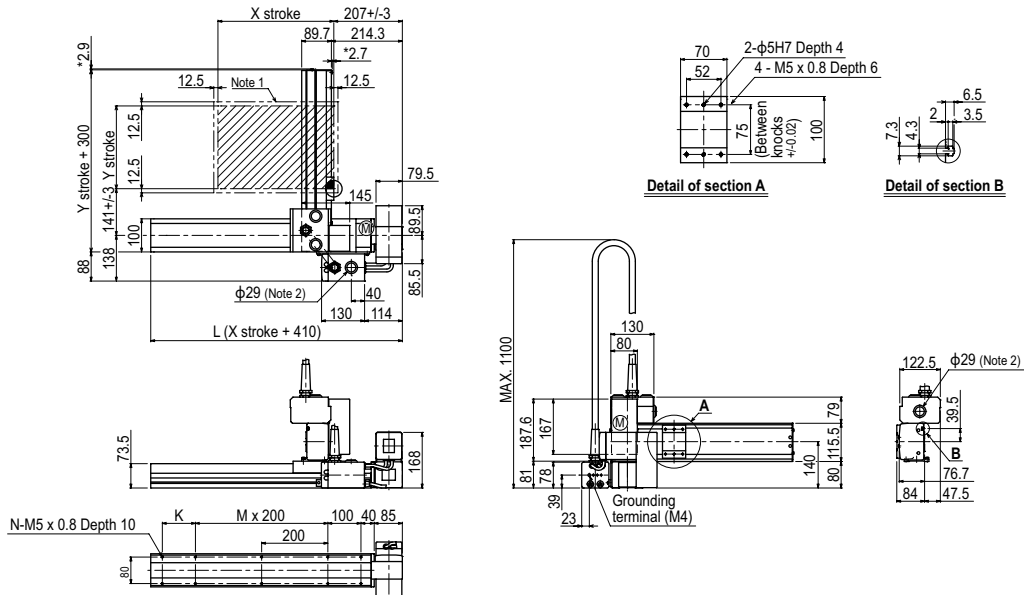
**FXYBx 2 axes (A2)**



**FXYBx 2 axes (A3)**



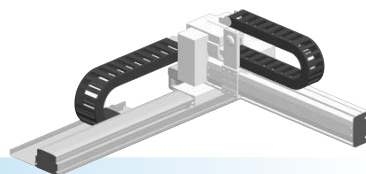
**FXYBx 2 axes (A4)**



- Articulated robots  
**YA**
- Linear conveyor modules  
**LCM100**
- Compact single-axis robots  
**TRANSEVO**
- Single-axis robots  
**FLIP-X**
- Linear motor single-axis robots  
**PHASER**
- Cartesian robots  
**XX-X**
- SCARA robots  
**YK-X**
- Pick & place robots  
**YP-X**
- CLEAN**
- CONTROLLER**
- INFORMATION**
- Arm type
- Gantry type
- Moving arm type
- Pole type
- XZ type**

# FXyBx 2 axes / IO

- Arm type
- Cable carrier
- Type with Y-axis I/O cable carrier added



## Ordering method

<b>FXyBx - C</b>				<b>IO</b>		<b>RCX222</b>				
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>Y-axis stroke</b>	<b>ZR-axis</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
	A1 A2 A3 A4		15 to 245cm	15 to 55cm		3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None N1: OP.DIO24/16 (NPN) <sup>Note 1</sup> P1: OP.DIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <sup>Note 1</sup>	B10	-
<b>AC servo motor output (W)</b>	100	100
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.04	+/-0.04
<b>Drive system</b>	Timing belt	Timing belt
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	Equivalent to lead 25	Equivalent to lead 25
<b>Maximum speed (mm/sec)</b>	1875	1875
<b>Moving range (mm)</b>	150 to 2450	150 to 550
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots'.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.

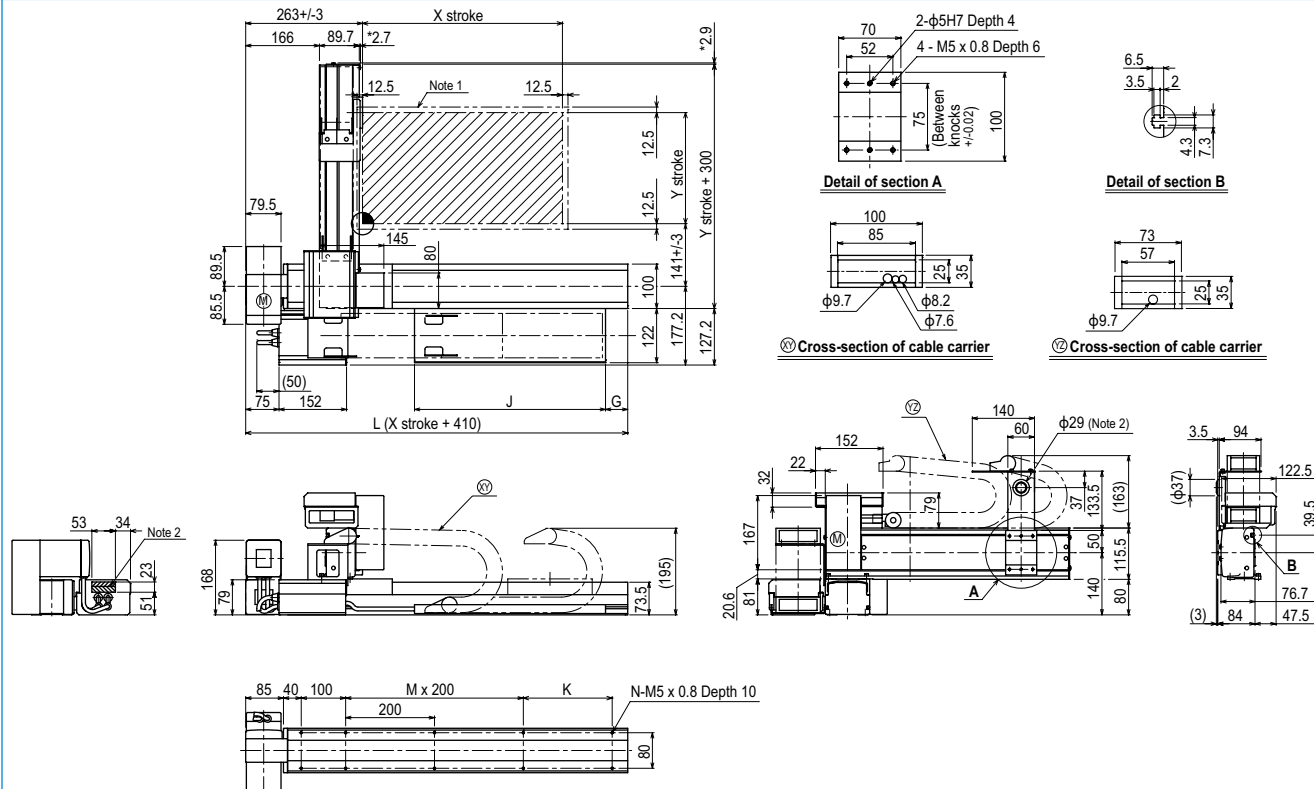
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
150	7
250	6
350	5
450	5
550	3

## Controller

Controller	Operation method
RCX222	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## FXyBx 2 axes / IO A1



Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper. Note 3. The dimension marked with an asterisk (\*) indicates the height of the screw.  
 Note 2. The shaded position indicates a user cable extraction port.

X stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450
<b>L</b>	560	660	760	860	960	1060	1160	1260	1360	1460	1560	1660	1760	1860	1960	2060	2160	2260	2360	2460	2560	2660	2760	2860
<b>K</b>	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200
<b>M</b>	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12
<b>N</b>	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30
<b>G</b>	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50
<b>J</b>	330	330	430	430	530	530	630	630	730	730	830	830	930	930	1030	1030	1130	1130	1230	1230	1330	1330	1430	1430
<b>Y stroke</b>	150	250	350	450	550																			

Articulated robots  
YA

Linear conveyor  
modules  
LCMT100

Compact  
single-axis robots  
TRANSERVO

Single-axis robots  
FLIP-X

Linear motor  
single-axis robots  
PHASER

Cartesian  
robots  
XY-X

SCARA  
robots  
YK-X

Pick & place  
robots  
YP-X

CLEAN

CONTROLLER

INFORMATION

Arm type

Gantry type

Moving arm  
type

Pole type

XZ type

# SXYx 2 axes

● Arm type ● Cable carrier



## Ordering method

<b>SXYx - C</b>					<b>RCX222</b>				
Model	Cable	Combination	X-axis stroke	Y-axis stroke	Cable	Controller	Usable for CE	Input/Output selection 1	Input/Output selection 2
A1			15 to 105cm	15 to 65cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None N1: OP.DIO24/16 (NPN) <sup>Note 1</sup> P1: OP.DIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <sup>Note 1</sup>	F14H	F14
<b>AC servo motor output (W)</b>	200	100
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20
<b>Maximum speed</b> <sup>Note 4</sup> (mm/sec)	1200	1200
<b>Moving range (mm)</b>	150 to 1050	150 to 650
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flange machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

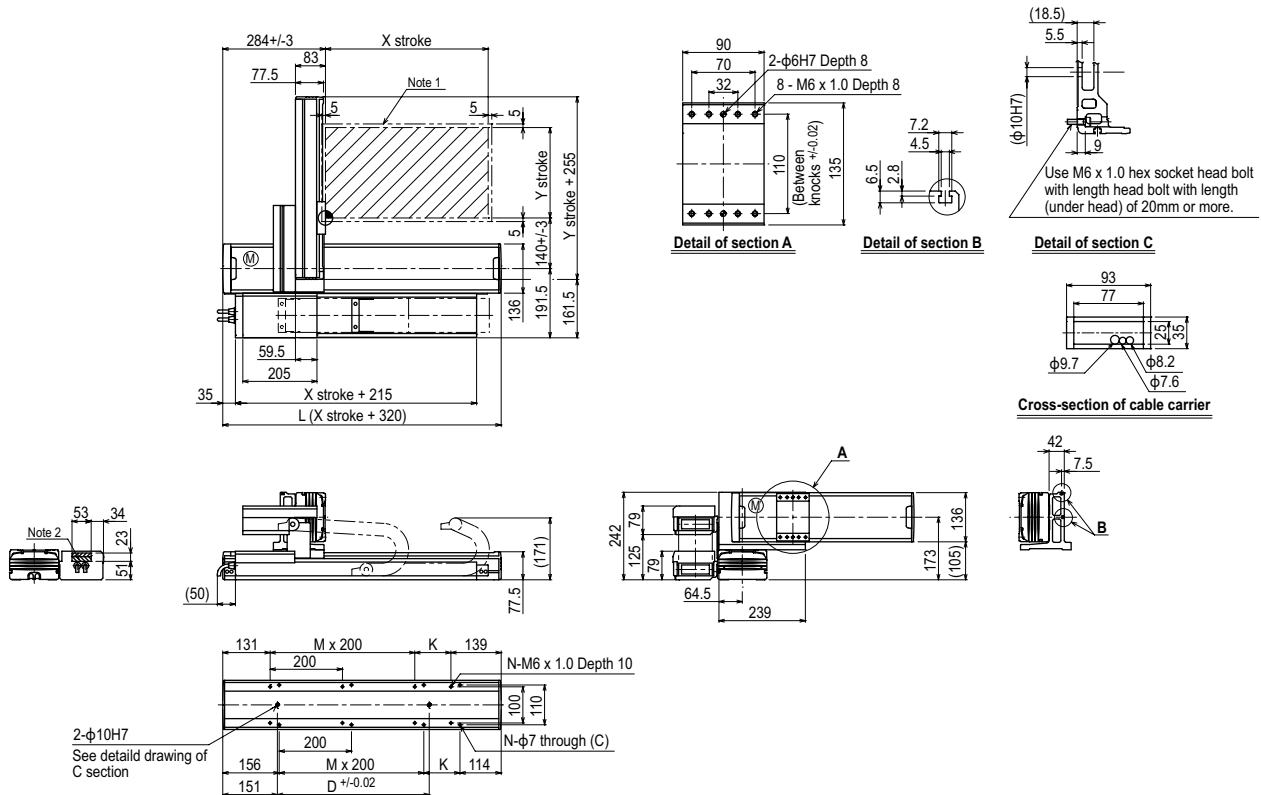
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
150	20
250	17
350	15
450	13
550	11
650	9

## Controller

Controller	Operation method
RCX222	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## SXYx 2 axes A1

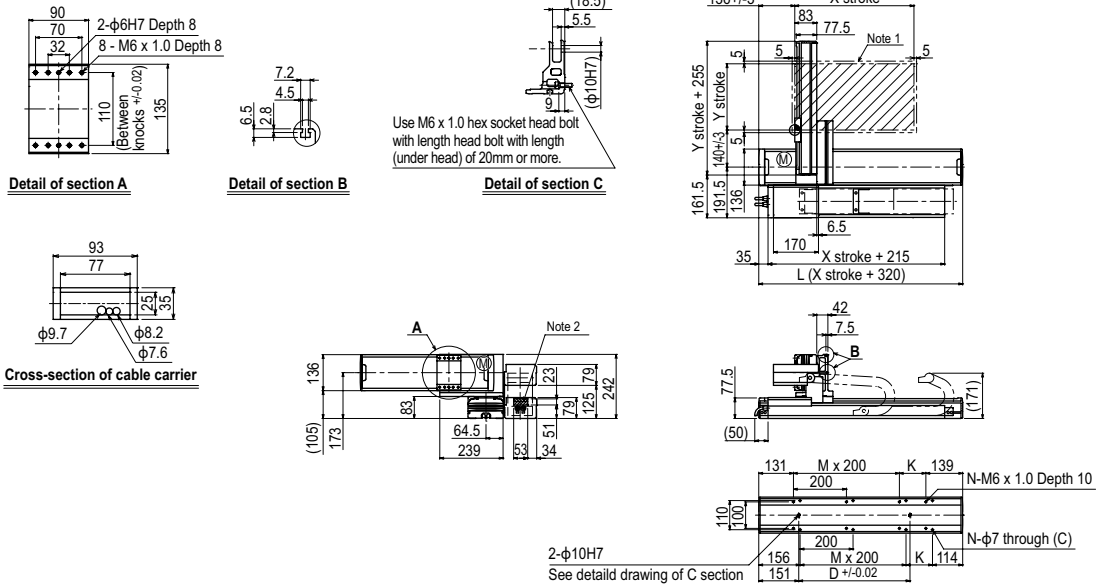


X stroke	Y stroke										
	150	250	350	450	550	650	750	850	950	1050	
<b>L</b>	470	570	670	770	870	970	1070	1170	1270	1370	
<b>K</b>	200	100	200	100	200	100	200	100	200	100	
<b>D</b>	240	240	420	420	600	600	780	960	960	1140	
<b>M</b>	0	1	1	2	2	3	3	4	4	5	
<b>N</b>	4	6	6	8	8	10	10	12	12	14	
<b>Y stroke</b>	150	250	350	450	550	650					
<b>Maximum speed for each stroke (mm/sec)</b> <sup>Note 3</sup>	<b>X-axis</b>	1200					960	780	600	540	
	<b>Speed setting</b>	-					80%	65%	50%	45%	

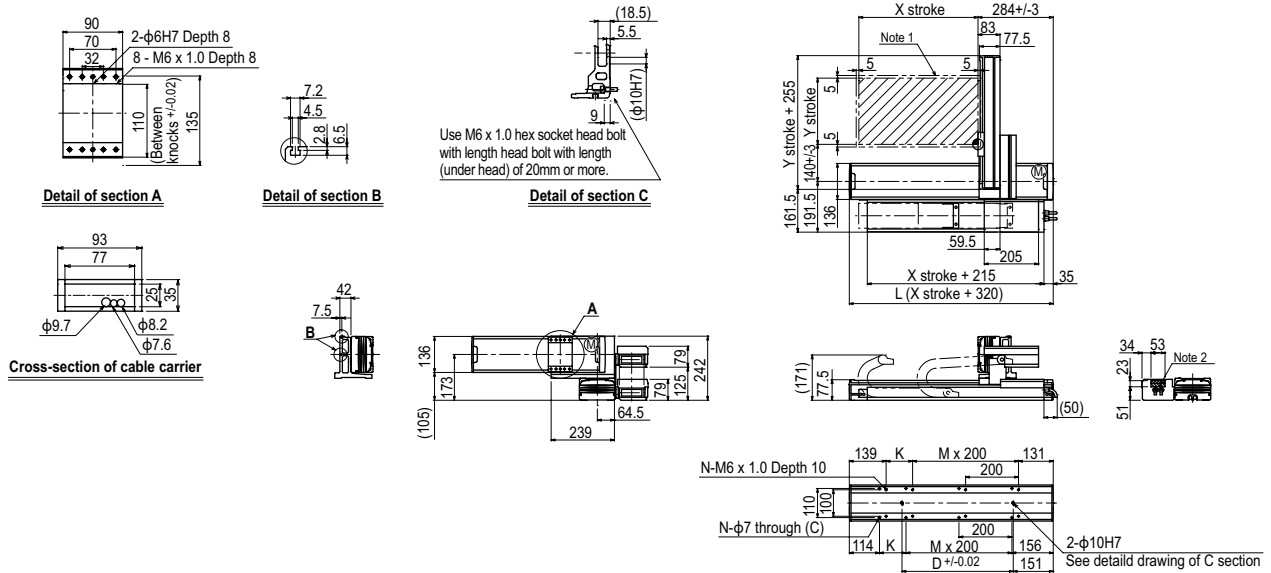
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. The shaded position indicates an user cable extraction port.

Note 3. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

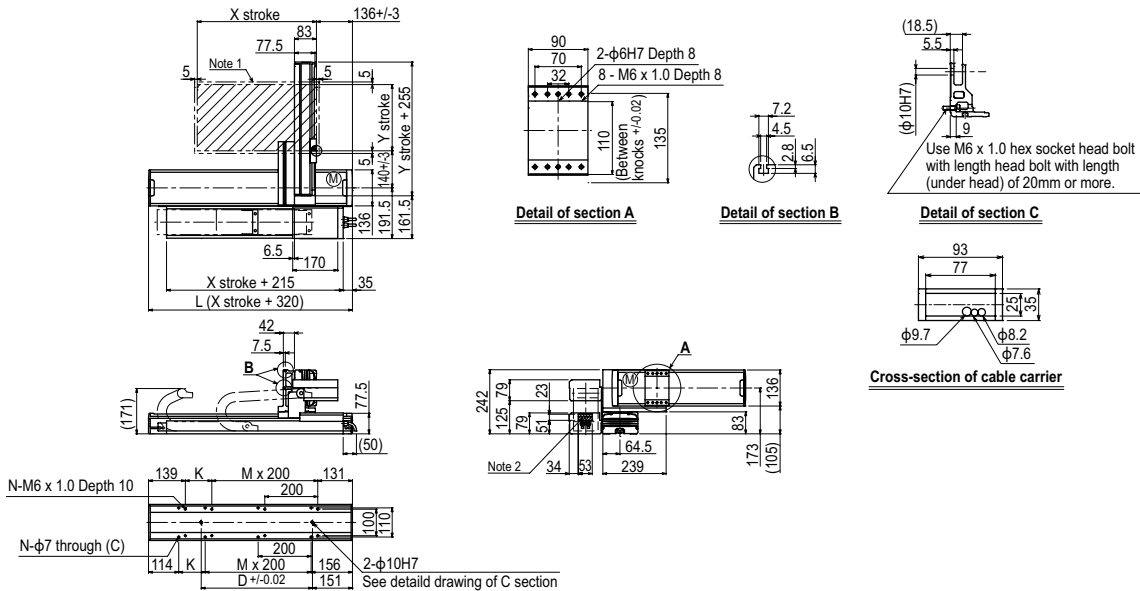
SXYx 2 axes **A2**



SXYx 2 axes **A3**

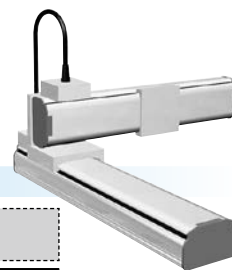


SXYx 2 axes **A4**



# SXYx 2 axes

● Arm type ● Whipover



## Ordering method

<b>SXYx - S</b>					<b>RCX222</b>				
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>Y-axis stroke</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
A1			15 to 85cm	15 to 65cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None N1: OP.DIO24/16 (NPN) <sup>Note 1</sup> P1: OP.DIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <sup>Note 1</sup>	F14H	F14
<b>AC servo motor output (W)</b>	200	100
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20
<b>Maximum speed</b> <sup>Note 4</sup> (mm/sec)	1200	1200
<b>Moving range (mm)</b>	150 to 850	150 to 650
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

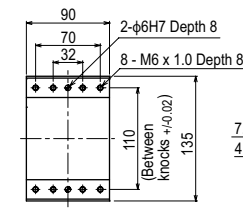
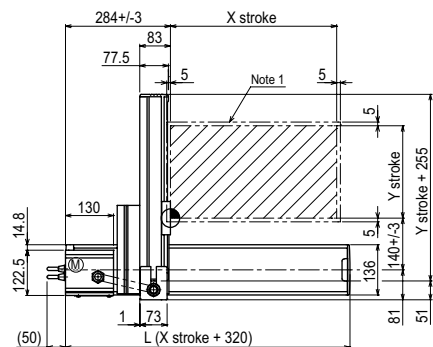
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
150	20
250	17
350	15
450	13
550	11
650	9

## Controller

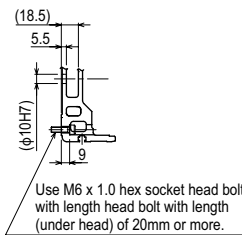
Controller	Operation method
RCX222	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## SXYx 2 axes A1

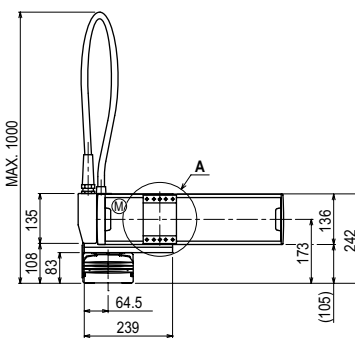
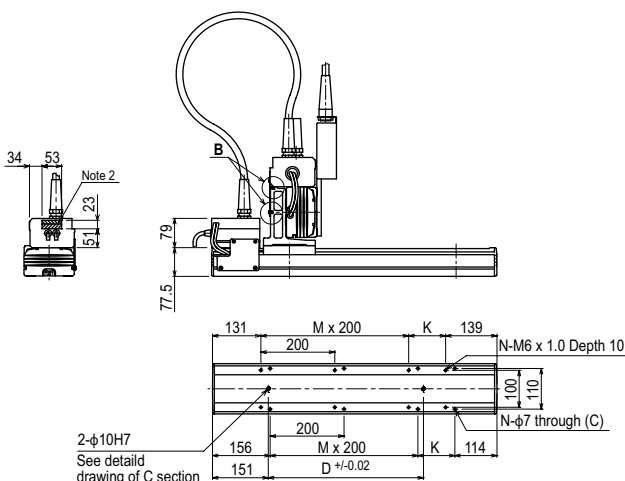


Detail section A

Detail section B



Detail section C



X stroke	150	250	350	450	550	650	750	850
<b>L</b>	470	570	670	770	870	970	1070	1170
<b>K</b>	200	100	200	100	200	100	200	100
<b>D</b>	240	240	420	420	600	600	780	960
<b>M</b>	0	1	1	2	2	3	3	4
<b>N</b>	4	6	6	8	8	10	10	12

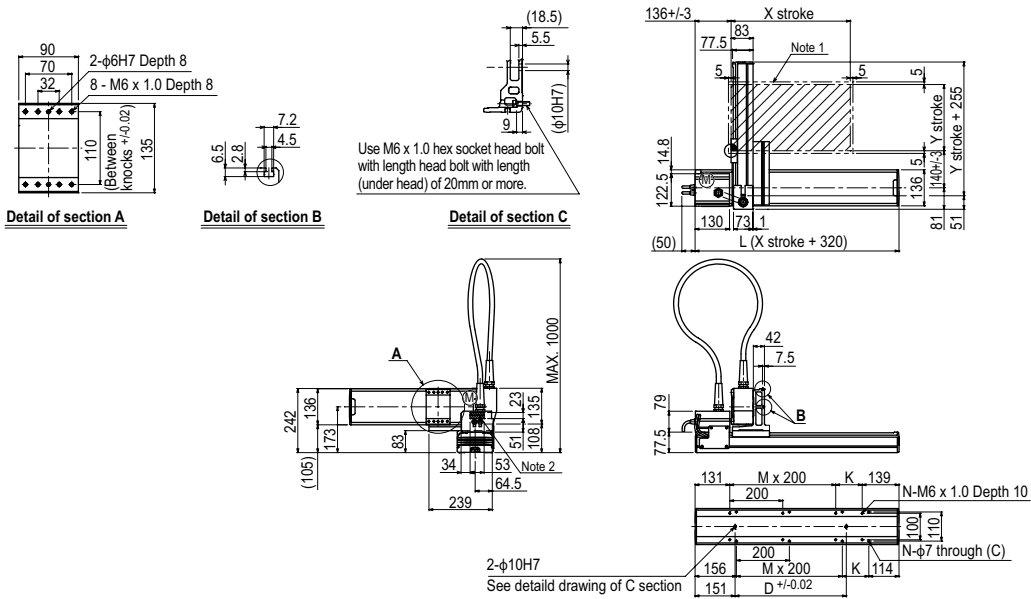
Y stroke	150	250	350	450	550	650	
<b>Maximum speed for each stroke (mm/sec)</b> <sup>Note 3</sup>	X-axis	1200				960	780
<b>Speed setting</b>		-				80%	65%

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. The shaded position indicates a user cable extraction port.

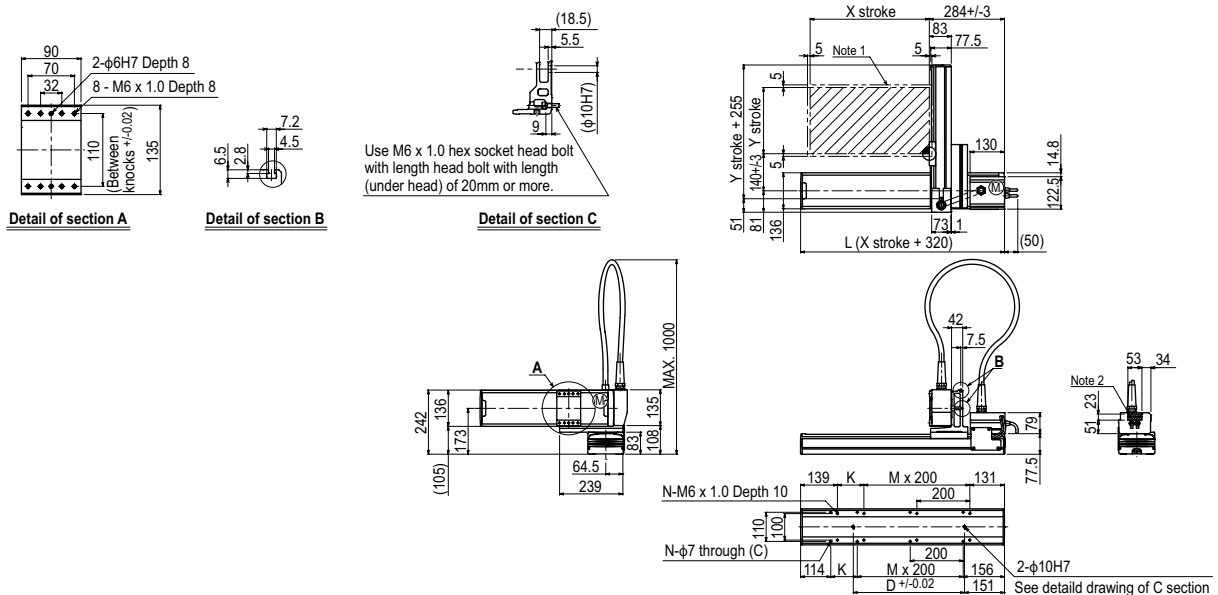
Note 3. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table above.



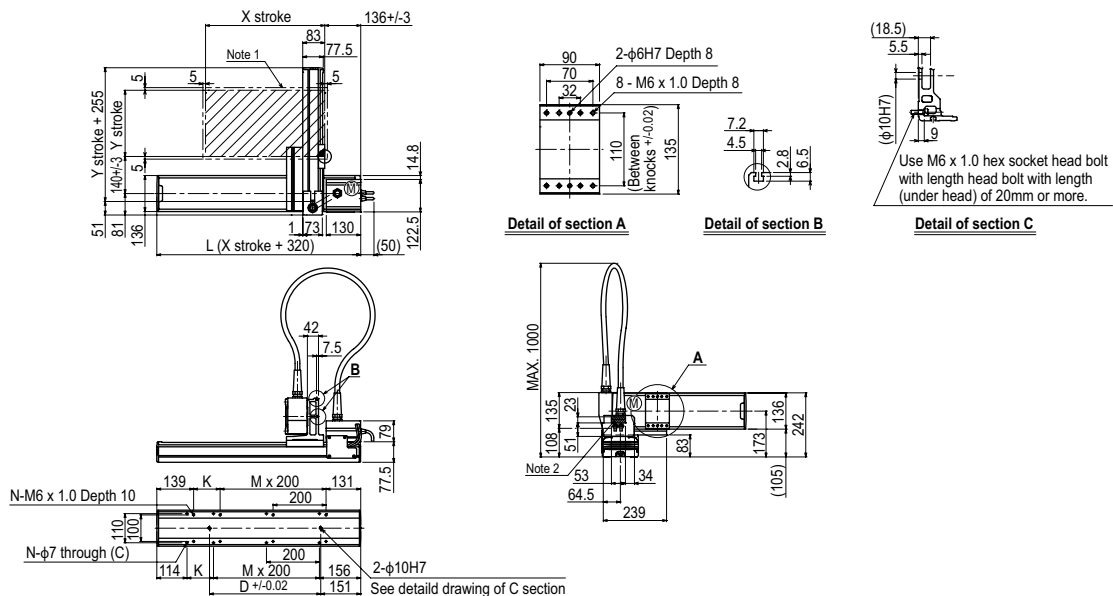
SXYx 2 axes **A2**



SXYx 2 axes **A3**



SXYx 2 axes **A4**





Articulated robots  
YA

Linear conveyor  
modules  
LCMT100

Compact  
single-axis robots  
TRANSERVO

Single-axis robots  
FLIP-X

Linear motor  
single-axis robots  
PHASER

Cartesian  
robots  
XY-X

SCARA  
robots  
YK-X

Pick & place  
robots  
YP-X

CLEAN

CONTROLLER

INFORMATION

Arm type

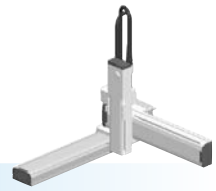
Gantry type

Moving arm  
type

Pole type

XZ type





### Ordering method

**SXYx - S** [ ] [ ] [ ] **ZF** [ ] [ ] **RCX340-3** [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

**Model** - **Cable** - **Combination** - **X-axis stroke** - **Y-axis stroke** - **ZR-axis** - **Z-axis stroke** - **Cable**

A1  
A2  
A3  
A4

15 to 85cm  
15 to 65cm  
15 to 35cm

3L: 3.5m  
5L: 5m  
10L: 10m

**RCX240S** [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

**Controller / Number of controllable axes** - **Safety standard** - **Option A (OP.A)** - **Option B (OP.B)** - **Option C (OP.C)** - **Option D (OP.D)** - **Option E (OP.E)** - **Absolute battery**

**Specify various controller setting items. RCX340 ▶ P.542**

**Controller** - **CE Marking** - **Expansion I/O** - **Network option** - **IVY System** - **Gripper** - **Battery**

**Specify various controller setting items. RCX240/RCX240S ▶ P.532**

### Specification

	X-axis	Y-axis	Z-axis
<b>Axis construction</b> <sup>Note 1</sup>	F14H	F14	F10-BK
<b>AC servo motor output (W)</b>	200	100	100
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20	10
<b>Maximum speed</b> <sup>Note 4</sup> (mm/sec)	1200	1200	600
<b>Moving range (mm)</b>	150 to 850	150 to 650	150 to 350
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10		

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

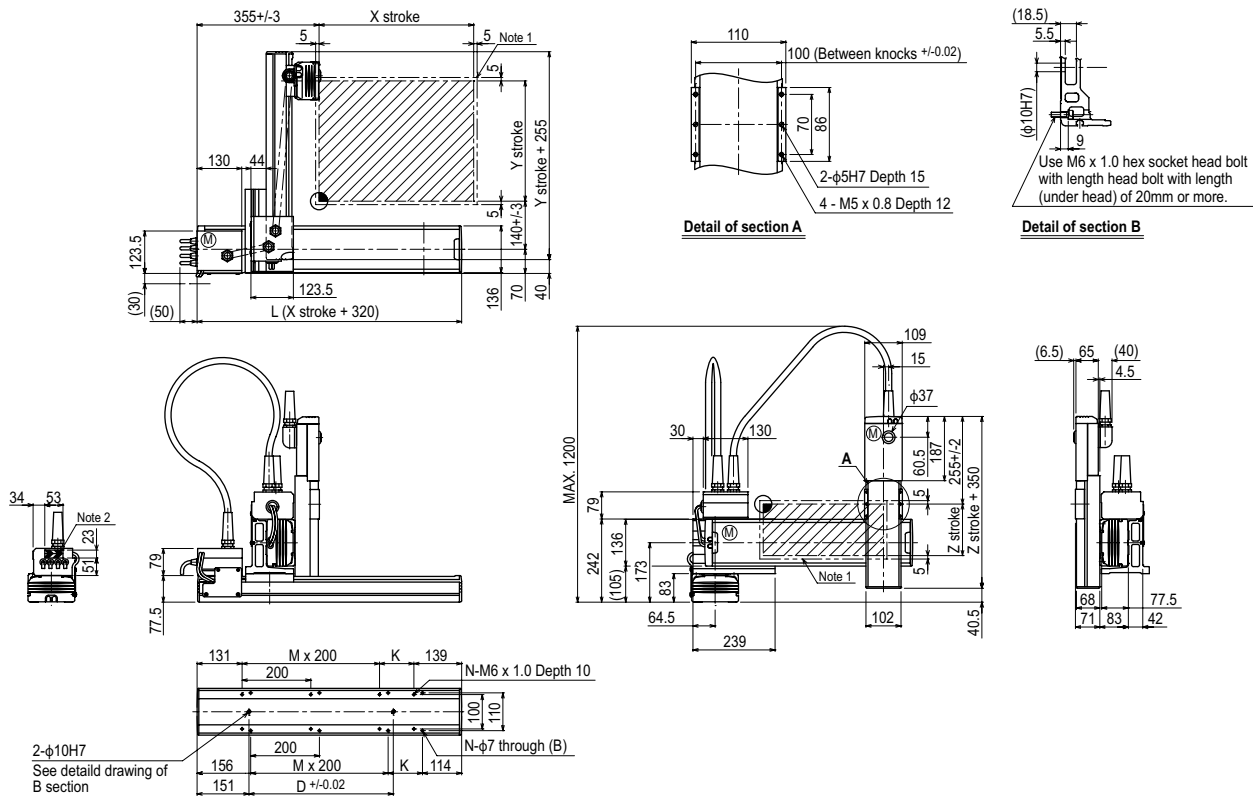
### Maximum payload (kg)

Y stroke (mm)	Z stroke (mm)		
	150	250	350
150	10	10	10
250	10	10	9
350	9	8	7
450	7	6	5
550	5	4	3
650	3	2	1

### Controller

Controller	Operation method
RCX340 RCX240S	Programming / I/O point trace / Remote command / Operation using RS-232C communication

### SXYx 3 axes / ZF (A1)



X stroke	150	250	350	450	550	650	750	850	
	L	470	570	670	770	870	970	1070	1170
K	200	100	200	100	200	100	200	100	
D	240	240	420	420	600	600	780	960	
M	0	1	1	2	2	3	3	4	
N	4	6	6	8	8	10	10	12	
<b>Y stroke</b>	<b>150</b>	<b>250</b>	<b>350</b>	<b>450</b>	<b>550</b>	<b>650</b>			
<b>Z stroke</b>	<b>150</b>	<b>250</b>	<b>350</b>						
<b>Maximum speed for each stroke (mm/sec)</b> <sup>Note 3</sup>	<b>X-axis</b>	1200				960	780		
	<b>Speed setting</b>	-				80%	65%		

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. The shaded position indicates an user cable extraction port.

Note 3. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

Articulated robots  
YA

Linear conveyor modules  
LCM100

Compact single-axis robots  
TRANSEVO

Single-axis robots  
FLIP-X

Linear motor single-axis robots  
PHASER

Cartesian robots  
XX-X

SCARA robots  
YK-X

Pick & place robots  
YP-X

CLEAN

CONTROLLER INFORMATION

Arm type

Gantry type

Moving arm type

Pole type

XZ type



















# SXYx 4 axes / ZRS



- Arm type
- Cable carrier
- ZR axis integrated type

## Ordering method

**SXYx - C** [ ] [ ] [ ] [ ] **15** [ ]

**Model**   **Cable**   **Combination**   **X-axis stroke**   **Y-axis stroke**   **ZR-axis**   **Z-axis stroke**   **Cable**

A1   15 to 105cm   15 to 65cm   ZRS12   3L: 3.5m  
A2   5L: 5m  
A3   10L: 10m  
A4

**RCX340-4** [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

**Controller / Number of controllable axes**   **Safety standard**   **Option A (OP.A)**   **Option B (OP.B)**   **Option C (OP.C)**   **Option D (OP.D)**   **Option E (OP.E)**   **Absolute battery**

**Specify various controller setting items. RCX340 ▶ P542**

**RCX240S** [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

**Controller**   **CE Marking**   **Expansion I/O**   **Network option**   **IVY System**   **Gripper**   **Battery**

**Specify various controller setting items. RCX240/RCX240S ▶ P532**

## Specification

	X-axis	Y-axis	Z-axis: ZRS12	Z-axis: ZRS6	R-axis
<b>Axis construction</b> <small>Note 1</small>	F14H	F14	-	-	-
<b>AC servo motor output (W)</b>	200	100	60	100	
<b>Repeatability</b> <small>Note 2</small> (XYZ: mm) (R: °)	+/-0.01	+/-0.01	+/-0.02	+/-0.005	
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C10)	Harmonic gear	
<b>Ball screw lead</b> <small>Note 3</small> (Deceleration ratio) (mm)	20	20	12	6	(1/50)
<b>Maximum speed</b> <small>Note 4</small> (XYZ: mm/sec) (R: °/sec)	1200	1200	1000	500	1020
<b>Moving range (XYZ: mm) (R: °)</b>	150 to 1050	150 to 650	150		360
<b>Robot cable length (m)</b>	Standard: 3.5   Option: 5, 10				

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

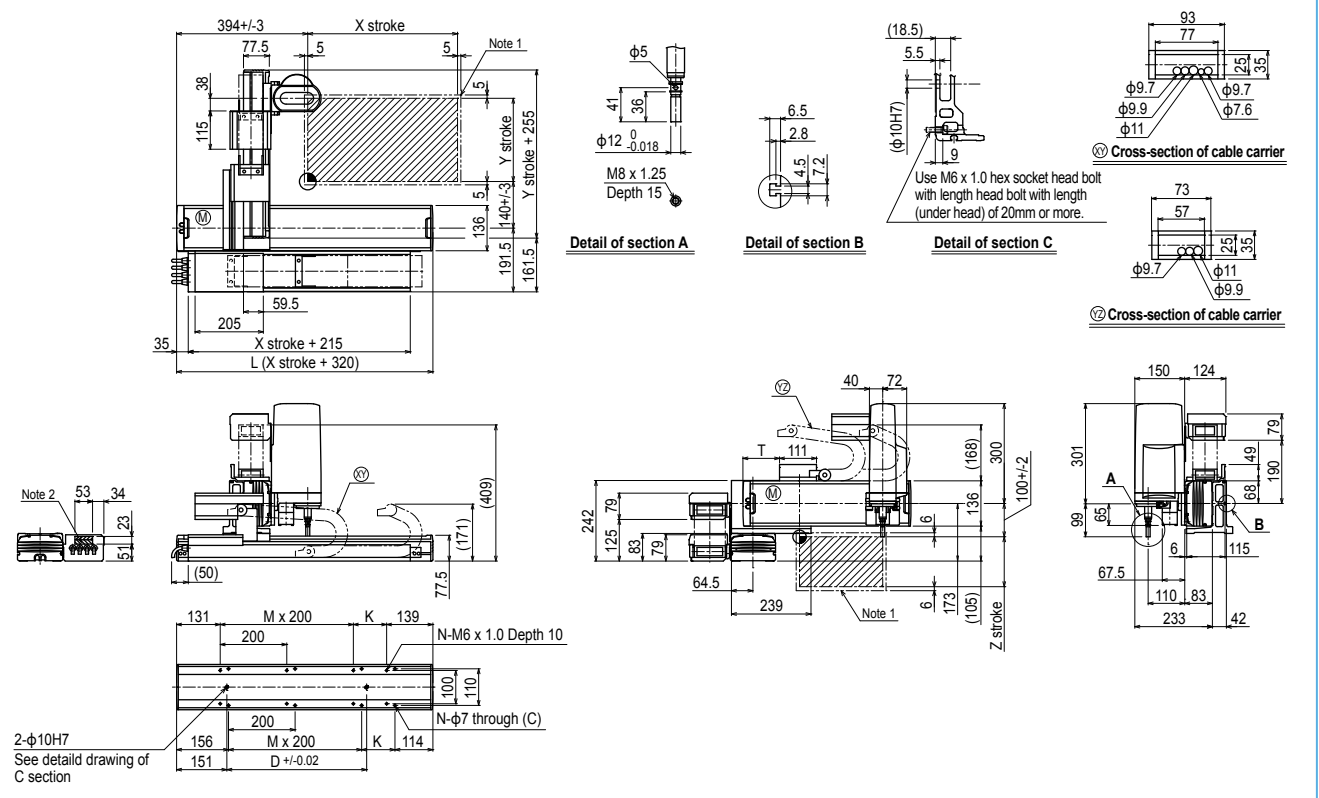
## Maximum payload (kg)

Y stroke (mm)	ZRS12	ZRS6
150	3	5
250	3	5
350	3	5
450	3	5
550	3	5
650	3	4

## Controller

Controller	Operation method
RCX340	Programming / I/O point trace / Remote command / Operation using RS-232C communication
RCX240S	

## SXYx 4 axes / ZRS A1

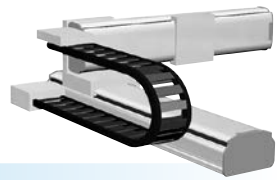


X stroke	150	250	350	450	550	650	750	850	950	1050	
	L	470	570	670	770	870	970	1070	1170	1270	1370
K	200	100	200	100	200	100	200	100	200	100	
D	240	240	420	420	600	600	780	960	960	1140	
M	0	1	1	2	2	3	3	4	4	5	
N	4	6	6	8	8	10	10	12	12	14	
Y stroke	150	250	350	450	550	650					
T	55	110	165	220	275	330					
Z stroke	150										
<b>Maximum speed for each stroke (mm/sec)</b> <small>Note 3</small>	X-axis		1200			960		780	600	540	
<b>Speed setting</b>			-			80%		65%	50%	45%	

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. The shaded position indicates a user cable extraction port.  
 Note 3. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.



# SXYBx 2 axes



- Arm type
- Cable carrier

## Ordering method

<b>SXYBx - C</b>					<b>RCX222</b>					
Model	Cable	Combination	X-axis stroke	Y-axis stroke	Cable	Controller	Usable for CE	Regenerative unit	Input/Output selection 1	Input/Output selection 2
A1			15 to 305cm	15 to 55cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	No entry: None R: RG2	N: NPN P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link	No entry: None N1: OP.DIO24/16 (NPN) P1: OP.DIO24/17 (PNP) EN: Ethernet

Note 1. Regenerative unit RG2 is required when the maximum speed on the RCX222 exceeds 1250mm/sec.  
 Note 2. NPN cannot be selected if using CE marking.  
 Note 3. Available only for the master. See P.66 for details on YC-Link system.  
 Note 4. Only when CC or DN or PB was selected for I/O select 1 above, EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <sup>Note 1</sup>	B14H	B14
<b>AC servo motor output (W)</b>	200	100
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.04	+/-0.04
<b>Drive system</b>	Timing belt	Timing belt
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	Equivalent to lead 25	Equivalent to lead 25
<b>Maximum speed (mm/sec)</b>	1875	1875
<b>Moving range (mm)</b>	150 to 3050	150 to 550
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.

## Maximum payload (kg)

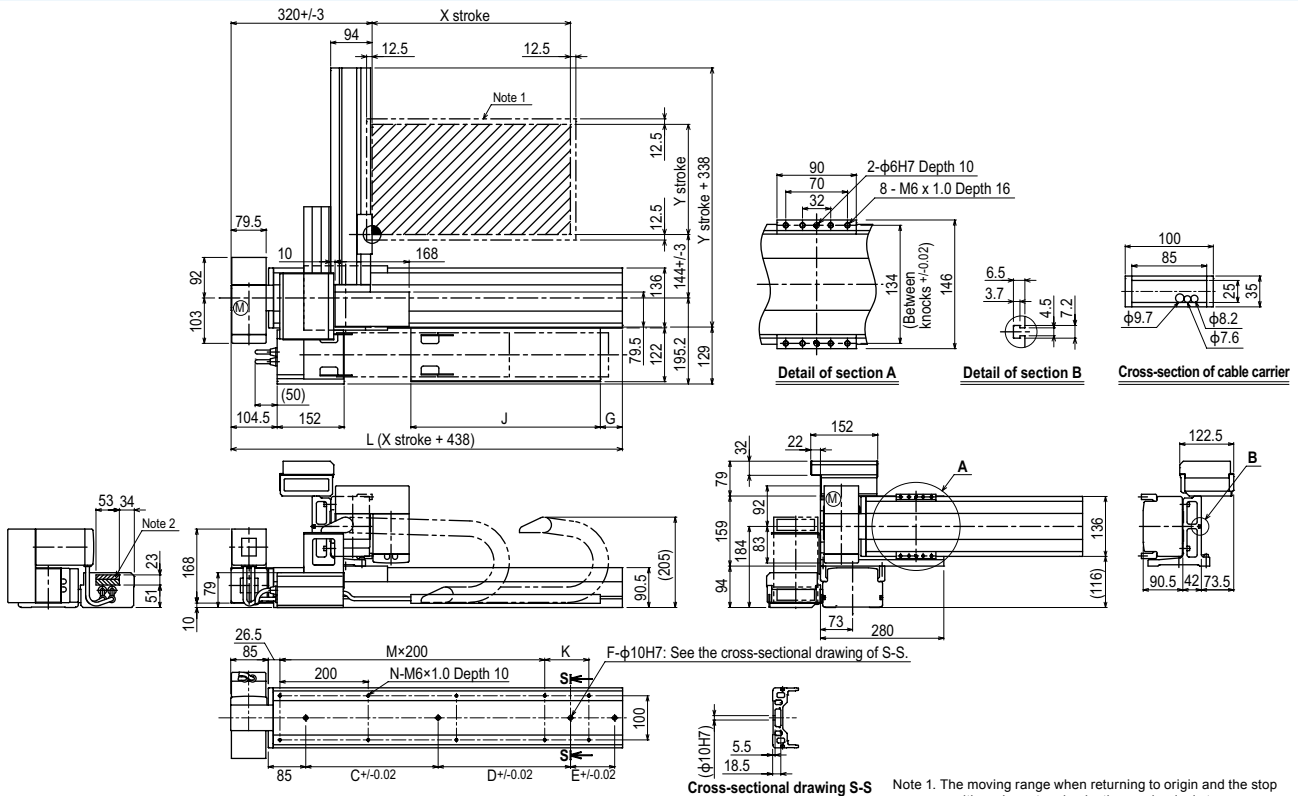
Y stroke (mm)	XY 2 axes
150	14
250	12
350	10
450	8
550	7

## Controller

Controller	Operation method
RCX222	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. Regenerative unit RG2 is required when the maximum speed exceeds 1250mm/sec.

## SXYBx 2 axes A1



Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. The shaded position indicates an user cable extraction port.

X stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050	
L	588	688	788	888	988	1088	1188	1288	1388	1488	1588	1688	1788	1888	1988	2088	2188	2288	2388	2488	2588	2688	2788	2888	2988	3088	3188	3288	3388	3488	
K	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200
C	240	420	600	600	780	780	960	960	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140
D	-	-	-	-	-	-	-	-	-	-	240	240	240	420	600	600	780	780	960	960	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140
E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	240	240	420	420	600	600	780	780	960	960	
F	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
M	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16	16
N	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30	32	32	34	34	36	
G	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	
J	330	330	430	430	530	530	630	630	730	730	830	830	930	930	1030	1030	1130	1130	1230	1230	1330	1330	1430	1430	1530	1530	1630	1630	1730	1730	
Y stroke	150	250	350	450	550																										



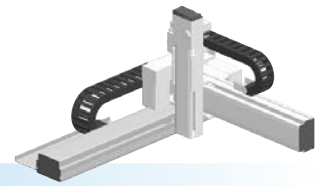




# SXYBx

3 axes / ZFL20

- Arm type
- Cable carrier
- Z-axis: clamped base / moving table type (200W)



## Ordering method

**SXYBx - C** [ ] [ ] [ ] **ZFL20** [ ] [ ] [ ] **RCX340-3** [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

**Model** - **Cable** - **Combination** - **X-axis stroke** - **Y-axis stroke** - **ZR-axis** - **Z-axis stroke** - **Cable**

Controller / Number of controllable axes: RCX340-3  
 Safety standard: [ ]  
 Option A (OP.A): [ ]  
 Option B (OP.B): [ ]  
 Option C (OP.C): [ ]  
 Option D (OP.D): [ ]  
 Option E (OP.E): [ ]  
 Absolute battery: [ ]

Specify various controller setting items. RCX340 ▶ **P542**

**RCX240S** [ ] **R** [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Controller: RCX240S-R  
 CE Marking: [ ]  
 Regenerative unit: [ ]  
 Expansion I/O: [ ]  
 Network option: [ ]  
 iVY System: [ ]  
 Gripper: [ ]  
 Battery: [ ]

Specify various controller setting items. RCX240/RCX240S ▶ **P532**

## Specification

	X-axis	Y-axis	Z-axis
Axis construction <sup>Note 1</sup>	B14H	B14	F10-BK equivalent guide-reinforced model
AC servo motor output (W)	200	100	200
Repeatability <sup>Note 2</sup> (mm)	+/-0.04	+/-0.04	+/-0.01
Drive system	Timing belt	Timing belt	Ball screw (Class C7)
Ball screw lead <sup>Note 3</sup> (Deceleration ratio) (mm)	Equivalent to lead 25	Equivalent to lead 25	20
Maximum speed (mm/sec)	1875	1875	1200
Moving range (mm)	150 to 3050	150 to 450	150 to 350
Robot cable length (m)	Standard: 3.5 Option: 5,10		

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.

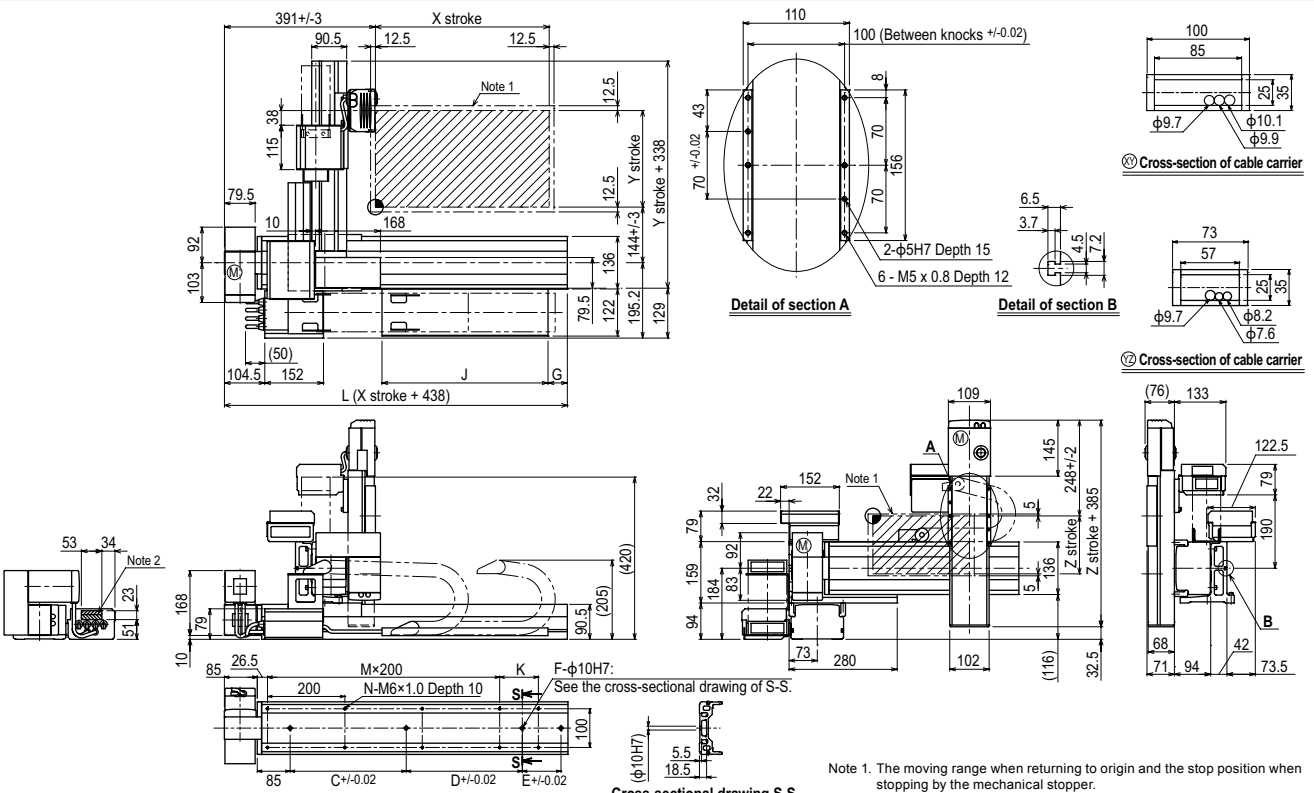
## Maximum payload (kg)

Y stroke (mm)	Z stroke (mm)		
	150	250	350
150	7	6	5
250	5	4	3
350	3	2	1
450	1	-	-

## Controller

Controller	Operation method
RCX340 RCX240S-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## SXYBx 3 axes / ZFL20 (A1)



X stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050						
L	588	688	788	888	988	1088	1188	1288	1388	1488	1588	1688	1788	1888	1988	2088	2188	2288	2388	2488	2588	2688	2788	2888	2988	3088	3188	3288	3388	3488						
K	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100						
C	240	420	600	600	780	780	960	960	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140						
D	-	-	-	-	-	-	-	-	-	-	240	240	240	420	600	600	780	780	960	960	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140						
E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
F	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4						
M	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16						
N	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30	32	32	34	34	36						
G	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50						
J	330	330	430	430	530	530	630	630	730	730	830	830	930	930	1030	1030	1130	1130	1230	1230	1330	1330	1430	1430	1530	1530	1630	1630	1730	1730						
Y stroke	150	250	350	450																																
Z stroke	150	250	350																																	







Articulated robots  
YA

Linear conveyor  
modules  
LCMT100

Compact  
single-axis robots  
TRANSERVO

Single-axis robots  
FLIP-X

Linear motor  
single-axis robots  
PHASER

Cartesian  
robots  
XY-X

SCARA  
robots  
YK-X

Pick & place  
robots  
YP-X

CLEAN

CONTROLLER

INFORMATION

Arm type

Gantry type

Moving arm  
type

Pole type

XZ type

# NXY 2 axes

● Arm type ● Cable carrier



## Ordering method

<b>NXY - C</b>					<b>RCX222</b>		<b>R</b>			
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>Y-axis stroke</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Regenerative unit</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
	A1 A3		50 to 200cm	15 to 65cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	R: RG2	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None N1: OP.DIO24/16 (NPN) <sup>Note 1</sup> P1: OP.DIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <sup>Note 1</sup>	N15	F14
<b>AC servo motor output (W)</b>	400	100
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7) φ15	Ball screw (Class C7) φ15
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20
<b>Maximum speed (mm/sec)</b>	1200	1200
<b>Moving range (mm)</b>	500 to 2000	150 to 650
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.

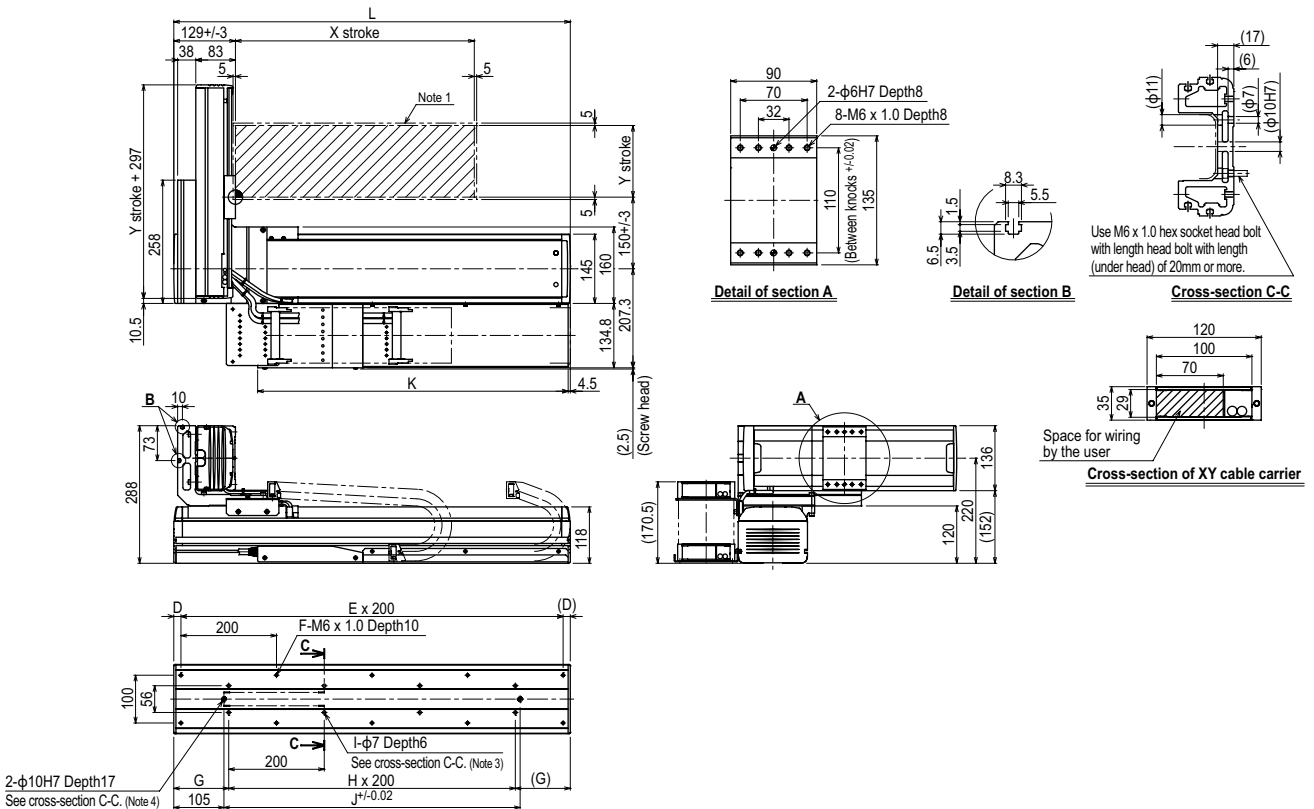
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
150	25
250	21
350	18
450	16
550	13
650	11

## Controller

Controller	Operation method
RCX222-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## NXY 2 axes A1

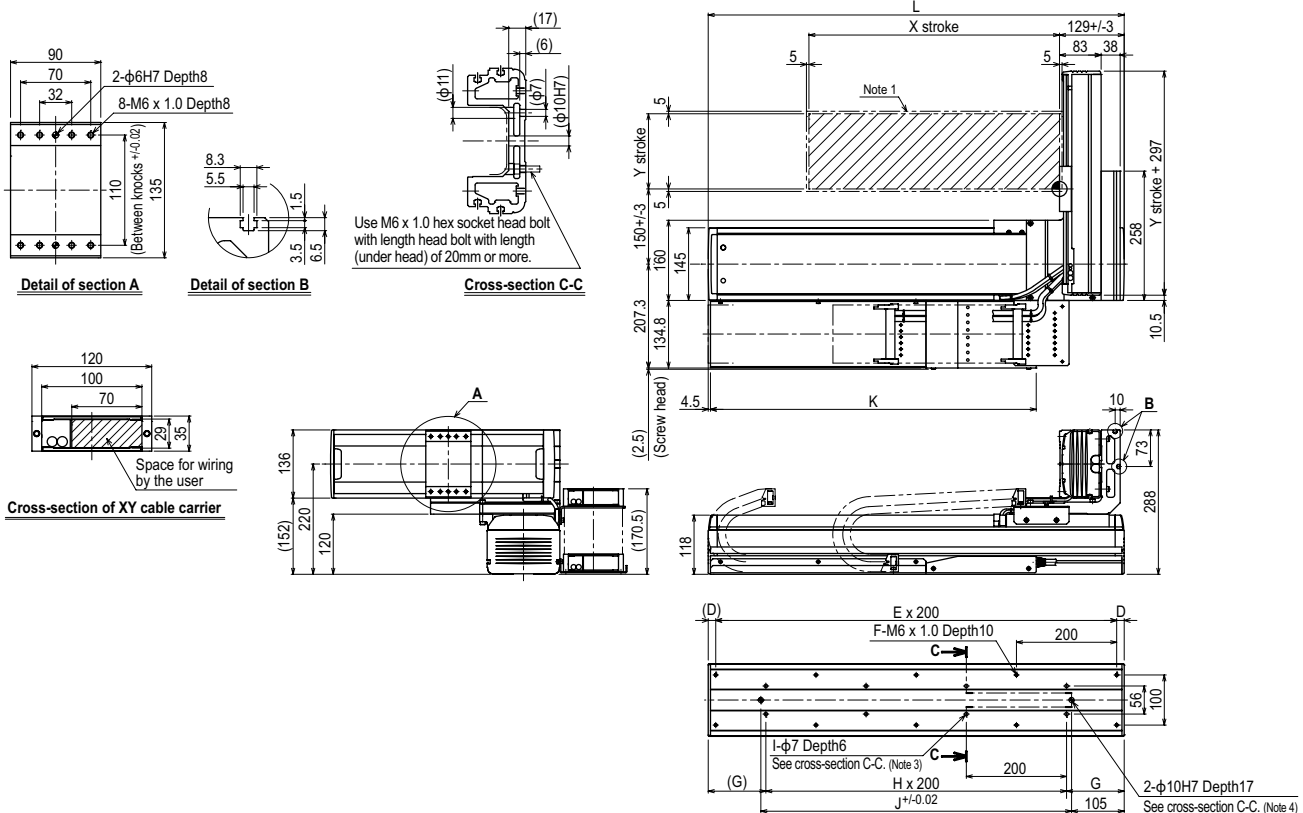


X stroke	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
L	830	930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330
D	15	65	15	65	15	65	15	65	15	65	15	65	15	65	15	65
E	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11
F	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24
G	115	165	115	165	115	165	115	165	115	165	115	165	115	165	115	165
H	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10
I	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22
J	620	720	820	920	1020	1120	1220	1320	1420	1520	1620	1720	1820	1920	2020	2120
K	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400
Y stroke	150	250	350	450	550	650										

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. The origin of the X axis is set originally as the drawing and it is possible to change it to the R side origin by changing parameters.  
 Note 3. When using φ7 holes for installation, you must not use a washer, spring washer, etc. in the main unit.  
 Note 4. When using a φ10H7 hole, make sure that the pin does not go into deeper than as shown in the drawing.  
 Note 5. Use M4 tap of the box next to X axis for the user grounding terminal.  
 Note 6. The M4 taps at both ends of the cable carriage can be used for fixing cables.



NXY 2 axes **A3**

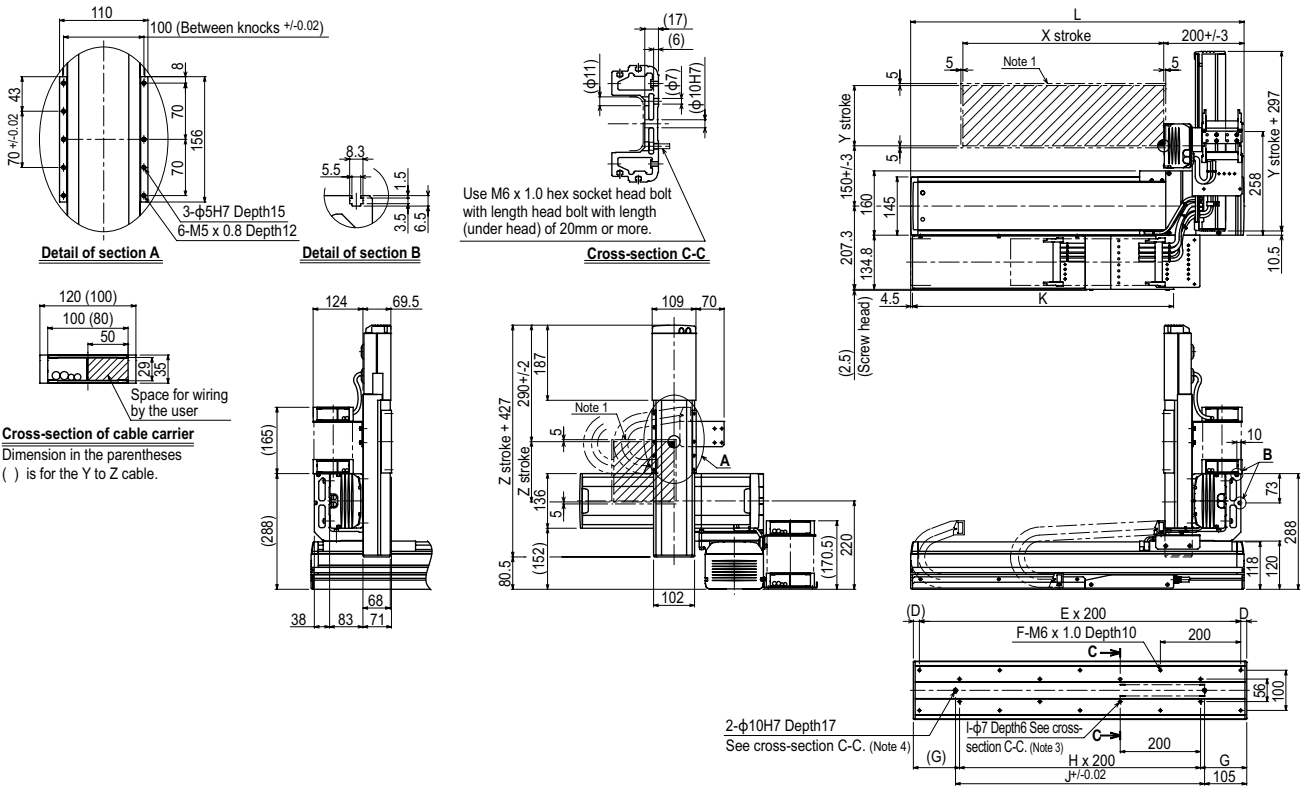


X stroke	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
L	830	930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330
D	15	65	15	65	15	65	15	65	15	65	15	65	15	65	15	65
E	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11
F	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24
G	115	165	115	165	115	165	115	165	115	165	115	165	115	165	115	165
H	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10
I	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22
J	620	720	820	920	1020	1120	1220	1320	1420	1520	1620	1720	1820	1920	2020	2120
K	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400
Y stroke	150	250	350	450	550	650										

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. The origin of the X axis is set originally as the drawing and it is possible to change it to the R side origin by changing parameters.  
 Note 3. When using φ7 holes for installation, you must not use a washer, spring washer, etc. in the main unit.  
 Note 4. When using a φ10H7 hole, make sure that the pin does not go into deeper than as shown in the drawing.  
 Note 5. Use M4 tap of the box next to X axis for the user grounding terminal.  
 Note 6. The M4 taps at both ends of the cable carriage can be used for fixing cables.

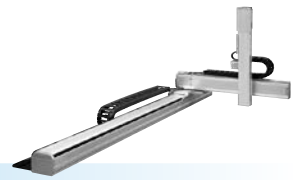


NXY 3 axes / ZFL20 **A3**



X stroke	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
L	830	930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330
D	15	65	15	65	15	65	15	65	15	65	15	65	15	65	15	65
E	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11
F	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24
G	115	165	115	165	115	165	115	165	115	165	115	165	115	165	115	165
H	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10
I	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22
J	620	720	820	920	1020	1120	1220	1320	1420	1520	1620	1720	1820	1920	2020	2120
K	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400
Y stroke	150	250	350	450	550	650										
Z stroke	150	250	350													

- Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.
- Note 2. The origin of the X axis is set originally as the drawing and it is possible to change it to the R side origin by changing parameters.
- Note 3. When using φ7 holes for installation, you must not use a washer, spring washer, etc. in the main unit.
- Note 4. When using a φ10H7 hole, make sure that the pin does not go into deeper than as shown in the drawing.
- Note 5. Use M4 tap of the box next to X axis for the user grounding terminal.
- Note 6. The M4 taps at both ends of the cable carriage can be used for fixing cables.



- Arm type
- Cable carrier
- Z-axis clamped table: moving base type (200W)

### Ordering method

**NXY - C** [ ] [ ] [ ] **ZFH** [ ] [ ] **RCX340-3** [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Model Cable Combination X-axis stroke Y-axis stroke ZR-axis Z-axis stroke Cable

Controller / Number of controllable axes Safety standard Option A (OP.A) Option B (OP.B) Option C (OP.C) Option D (OP.D) Option E (OP.E) Absolute battery

Specify various controller setting items. RCX340 ▶ **P542**

**RCX240** [ ] **R** [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Controller Note 1 CE Marking Regenerative unit Expansion I/O Network option IVY System Gripper Battery

Specify various controller setting items. RCX240/RCX240S ▶ **P532**

Note 1. Reference of special order: RCX222+SR1-X

### Specification

	X-axis	Y-axis	Z-axis
Axis construction <sup>Note 1</sup>	N15	F14	F10-BK equivalent guide-reinforced model
AC servo motor output (W)	400	100	200
Repeatability <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7) φ15	Ball screw (Class C7) φ15	Ball screw (Class C7) φ15
Ball screw lead <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20	10
Maximum speed (mm/sec)	1200	1200	600
Moving range (mm)	500 to 2000	150 to 650	150 to 350
Robot cable length (m)	Standard: 3.5 Option: 5, 10		

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.

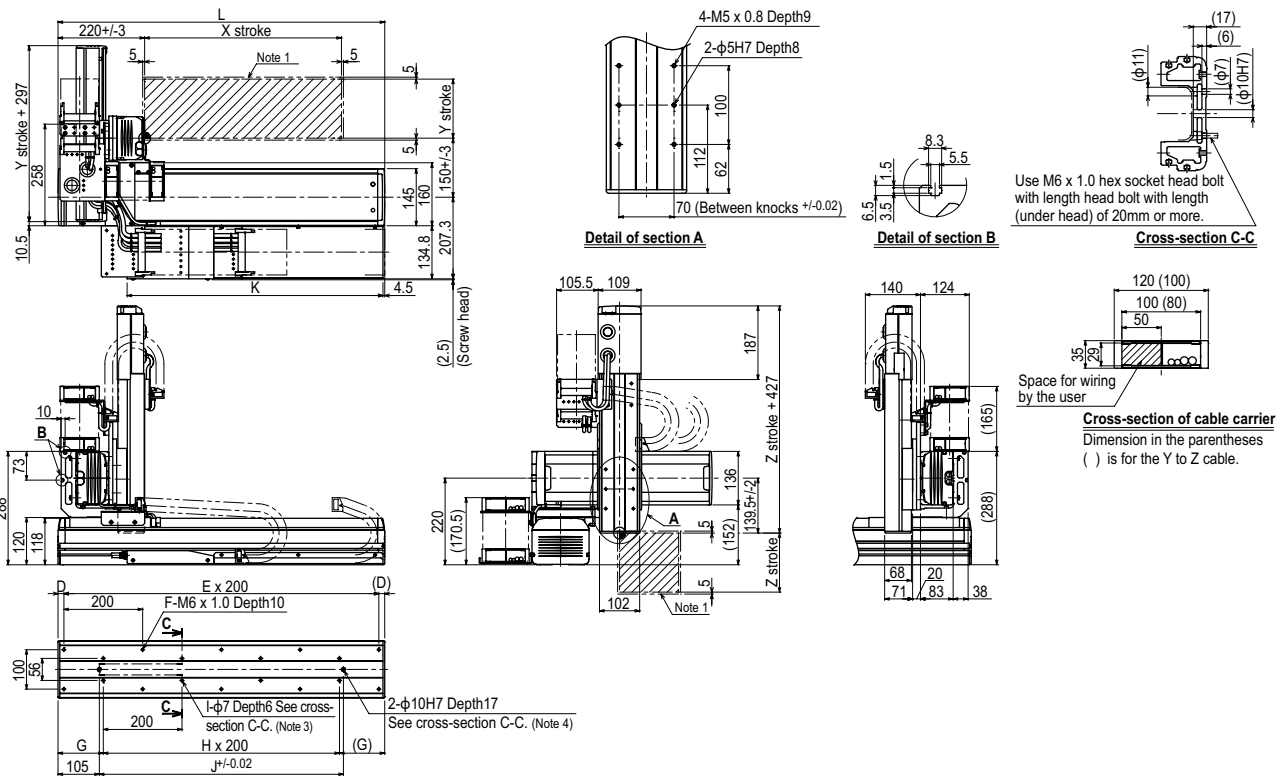
### Maximum payload (kg)

Y stroke (mm)	Z stroke (mm)		
	150	250	350
150	13	13	12
250	12	11	10
350	10	9	8
450	8	7	6
550	5	4	3
650	3	2	1

### Controller

Controller	Operation method
RCX340	Programming / I/O point trace / Remote command / Operation using RS-232C communication
RCX240-R	

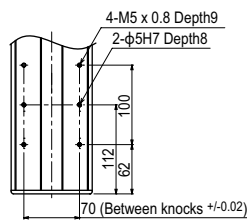
### NXY 3 axes / ZFH (A1)



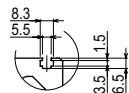
X stroke	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
L	830	930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330
D	15	65	15	65	15	65	15	65	15	65	15	65	15	65	15	65
E	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11
F	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24
G	115	165	115	165	115	165	115	165	115	165	115	165	115	165	115	165
H	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10
I	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22
J	620	720	820	920	1020	1120	1220	1320	1420	1520	1620	1720	1820	1920	2020	2120
K	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400
Y stroke	150	250	350	450	550	650										
Z stroke	150	250	350													

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. The origin of the X axis is set originally as the drawing and it is possible to change it to the R side origin by changing parameters.  
 Note 3. When using φ7 holes for installation, you must not use a washer, spring washer, etc. in the main unit.  
 Note 4. When using a φ10H7 hole, make sure that the pin does not go into deeper than as shown in the drawing.  
 Note 5. Use M4 tap of the box next to X axis for the user grounding terminal.  
 Note 6. The M4 taps at both ends of the cable carriage can be used for fixing cables.

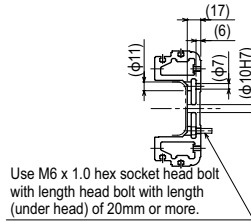
NXY 3 axes / ZFH **A3**



Detail of section A

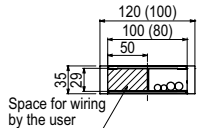


Detail of section B

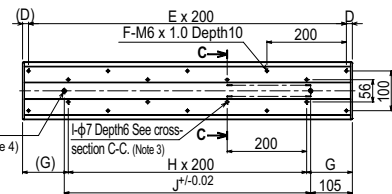
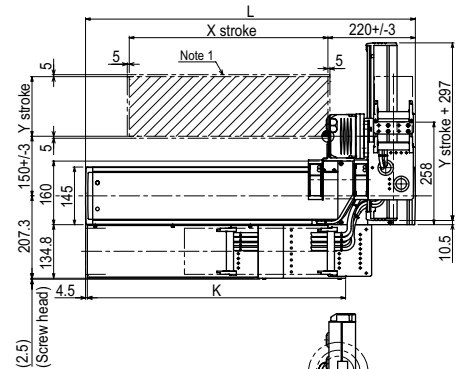
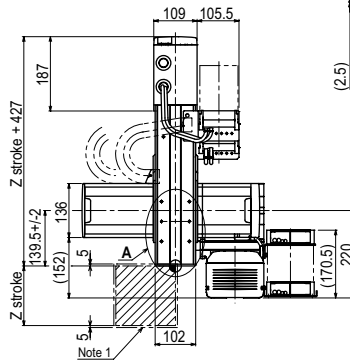
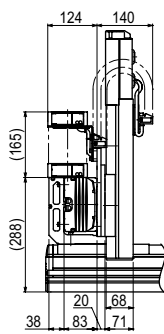


Cross-section C-C

Use M6 x 1.0 hex socket head bolt with length head bolt with length (under head) of 20mm or more.



Cross-section of cable carrier  
Dimension in the parentheses ( ) is for the Y to Z cable.



2-φ10H7 Depth17  
See cross-section C-C. (Note 4)

X stroke	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
L	830	930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330
D	15	65	15	65	15	65	15	65	15	65	15	65	15	65	15	65
E	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11
F	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24
G	115	165	115	165	115	165	115	165	115	165	115	165	115	165	115	165
H	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10
I	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22
J	620	720	820	920	1020	1120	1220	1320	1420	1520	1620	1720	1820	1920	2020	2120
K	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400
Y stroke	150	250	350	450	550	650										
Z stroke	150	250	350													

- Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.
- Note 2. The origin of the X axis is set originally as the drawing and it is possible to change it to the R side origin by changing parameters.
- Note 3. When using φ7 holes for installation, you must not use a washer, spring washer, etc. in the main unit.
- Note 4. When using a φ10H7 hole, make sure that the pin does not go into deeper than as shown in the drawing.
- Note 5. Use M4 tap of the box next to X axis for the user grounding terminal.
- Note 6. The M4 taps at both ends of the cable carriage can be used for fixing cables.

# NXY-W 4 axes



- Arm type
- Cable carrier
- Double Y axes specifications

## Ordering method

**NXY - C - WA1**

Model	Cable	Combination	X-axis stroke	Y-axis stroke	Cable
			25 to 175cm	15 to 65cm <sup>Note 1</sup>	3L: 3.5m 5L: 5m 10L: 10m

**RCX340-4**

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ **P.542**

**RCX240**

Controller <sup>Note 2</sup>	CE Marking	Regenerative unit	Expansion I/O	Network option	IVY System	Gripper	Battery

Specify various controller setting items. RCX240/RCX240S ▶ **P.532**

Note 1. When the Y-axis stroke is different between the right and left, it will be an order-made.  
Note 2. Reference of special order: 2 units of RCX222

## Specification

	X-axis	Y-axis <sup>Note 1</sup>
Axis construction <sup>Note 2</sup>	N15D	F14
AC servo motor output (W)	400	100
Repeatability <sup>Note 3</sup> (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7) $\phi$ 15	Ball screw (Class C7) $\phi$ 15
Ball screw lead <sup>Note 4</sup> (Deceleration ratio) (mm)	20	20
Maximum speed (mm/sec)	1200	1200
Moving range (mm)	250 to 1750	150 to 650
Robot cable length (m)	Standard: 3.5 Option: 5, 10	

Note 1. The same two Y axes are installed and they have same specifications. If axes of individually different stroke are desired, it will be an order-made. In that case, consult YAMAHA.  
Note 2. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
Note 3. Positioning repeatability in one direction.  
Note 4. Leads not listed in the catalog are also available. Contact us for details.

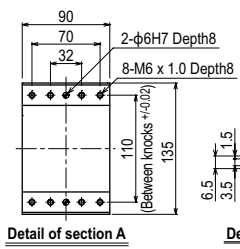
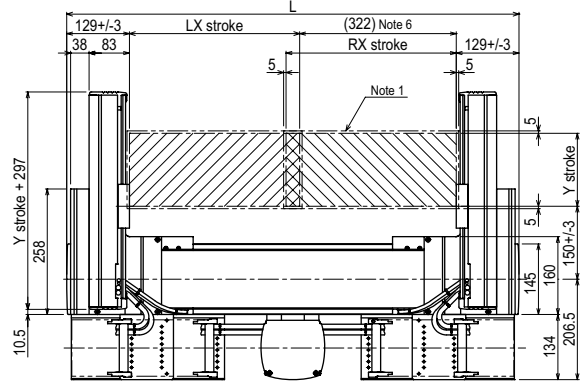
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
150	25
250	21
350	18
450	16
550	13
650	11

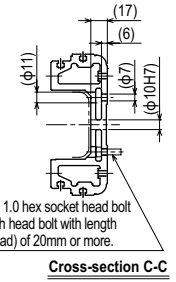
## Controller

Controller	Operation method
RCX340	Programming / I/O point trace / Remote command / Operation using RS-232C communication
RCX240-R	

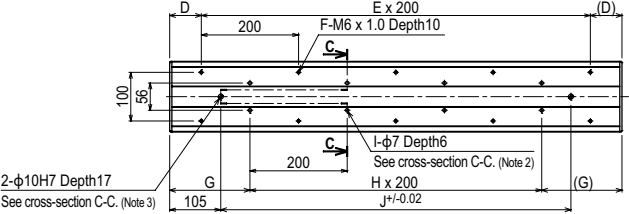
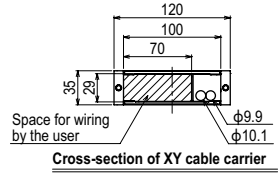
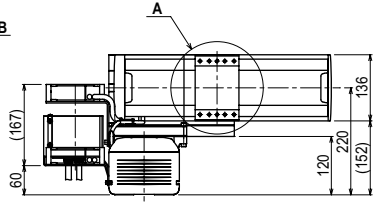
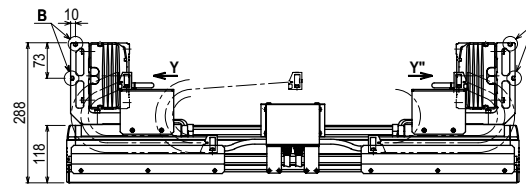
## NXY-W 4 axes WA1



Detail of section B



Use M6 x 1.0 hex socket head bolt with length head bolt with length (under head) of 20mm or more.



X stroke	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750
L	830	930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330
D	15	65	15	65	15	65	15	65	15	65	15	65	15	65	15	65
E	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11
F	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24
G	115	165	115	165	115	165	115	165	115	165	115	165	115	165	115	165
H	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10
I	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22
J	620	720	820	920	1020	1120	1220	1320	1420	1520	1620	1720	1820	1920	2020	2120
Y stroke	150	250	350	450	550	650										

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
Note 2. When using  $\phi$ 7 holes for installation, you must not use a washer, spring washer, etc. in the main unit.  
Note 3. When using a  $\phi$ 10H7 hole, make sure that the pin does not go into deeper than as shown in the drawing.  
Note 4. Use M4 tap of the box next to X axis for the user grounding terminal.  
Note 5. The M4 taps at both ends of the cable carriage can be used for fixing cables.  
Note 6. Minimum dimension between LX and RX sliders.







Articulated robots  
YA

Linear conveyor  
modules  
LCMT100

Compact  
single-axis robots  
TRANSERVO

Single-axis robots  
FLIP-X

Linear motor  
single-axis robots  
PHASER

Cartesian  
robots  
XY-X

SCARA  
robots  
YK-X

Pick & place  
robots  
YP-X

CLEAN

CONTROLLER

INFORMATION

Arm type

Gantry type

Moving arm  
type

Pole type

XZ type

# MXYx 2 axes

- Arm type
- Cable carrier



## Ordering method

<b>MXYx - C</b>					<b>RCX222</b>		<b>R</b>			
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>Y-axis stroke</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Regenerative unit</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
A1		A1	25 to 125cm	15 to 65cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	R: RG2	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None N1: OP.DIO24/16 (NPN) <sup>Note 1</sup> P1: OP.DIO24/17 (PNP) <sup>Note 1</sup> EN: Ethernet <sup>Note 3</sup>

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <sup>Note 1</sup>	F17	F14H
<b>AC servo motor output (W)</b>	400	200
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20
<b>Maximum speed</b> <sup>Note 4</sup> (mm/sec)	1200	1200
<b>Moving range (mm)</b>	250 to 1250	150 to 650
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots'.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

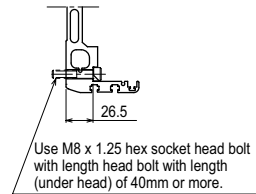
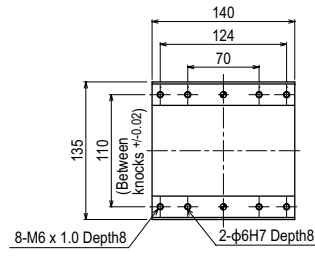
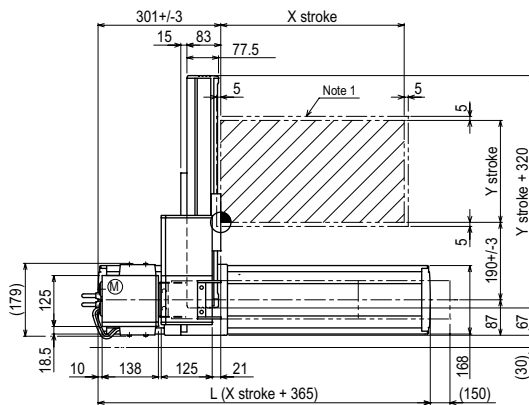
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
150	30
250	30
350	25
450	20
550	20
650	16

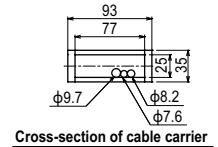
## Controller

Controller	Operation method
RCX222-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

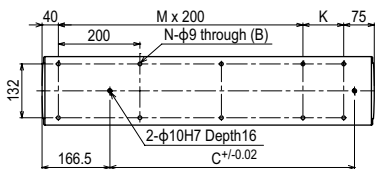
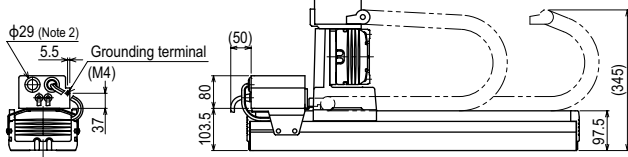
## MXYx 2 axes A1



**Detail of section B**



**Cross-section of cable carrier**



X stroke	Y stroke											
	150	250	350	450	550	650	750	850	950	1050	1150	1250
<b>L</b>	615	715	815	915	1015	1115	1215	1315	1415	1515	1615	
<b>K</b>	100	200	100	200	100	200	100	200	100	200	100	
<b>C</b>	240	420	600	600	780	780	960	960	1140	1140	1320	
<b>M</b>	2	2	3	3	4	4	5	5	6	6	7	
<b>N</b>	8	8	10	10	12	12	14	14	16	16	18	
<b>Y stroke</b>	150	250	350	450	550	650						
<b>Maximum speed for each stroke (mm/sec)</b> <sup>Note 3</sup>	X-axis		1200				960	840	720	600	480	
<b>Speed setting</b>	X-axis		-				80%	70%	60%	50%	40%	

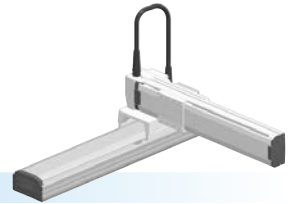
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.

Note 3. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.



# MXYx 2 axes

● Arm type ● Whipover



## Ordering method

<b>MXYx - S</b>					<b>RCX222</b>		<b>R</b>			
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>Y-axis stroke</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Regenerative unit</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
A1			25 to 85cm	15 to 65cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	R: RG2	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None N1: OPDIO24/16 (NPN) <sup>Note 1</sup> P1: OPDIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <sup>Note 1</sup>	F17	F14H
<b>AC servo motor output (W)</b>	400	200
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20
<b>Maximum speed</b> <sup>Note 4</sup> (mm/sec)	1200	1200
<b>Moving range (mm)</b>	250 to 850	150 to 650
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

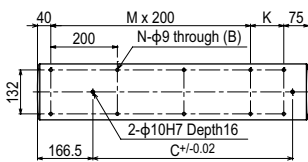
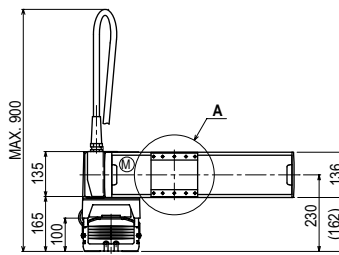
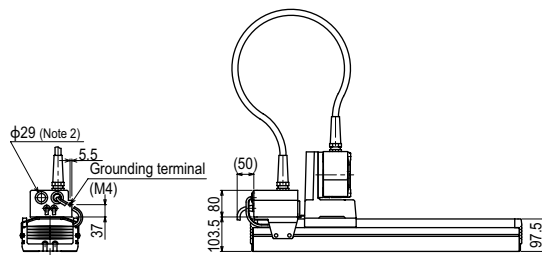
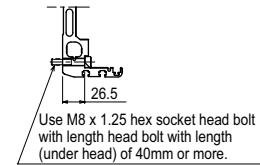
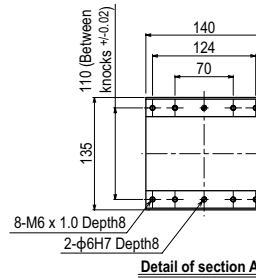
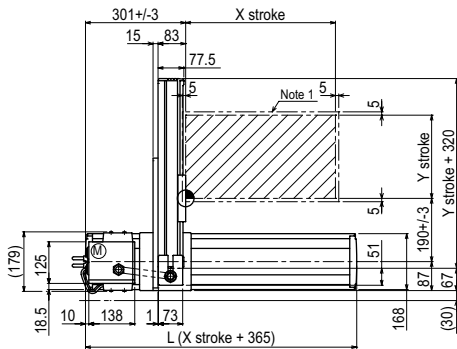
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
150	30
250	30
350	25
450	20
550	20
650	16

## Controller

Controller	Operation method
RCX222-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## MXYx 2 axes A1

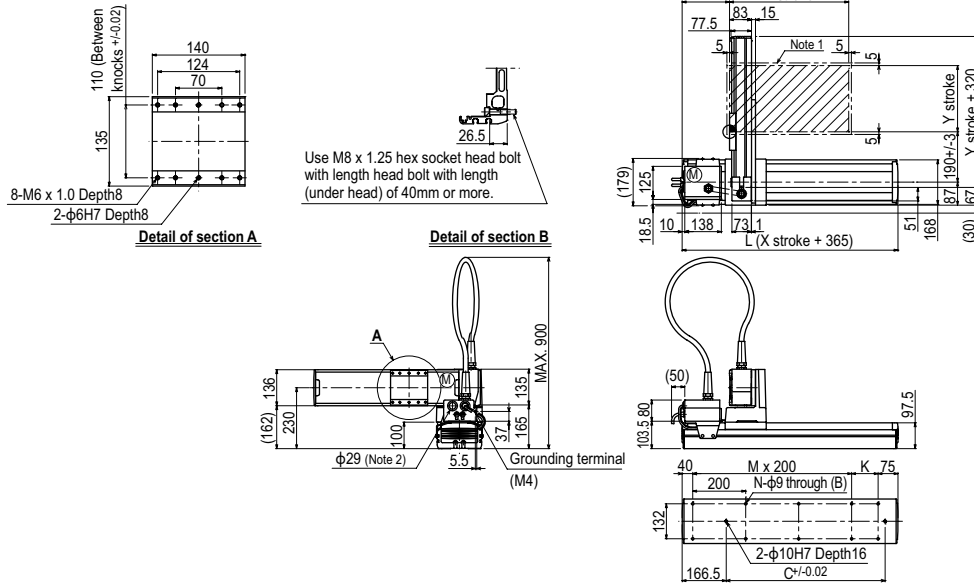


X stroke	250	350	450	550	650	750	850
<b>L</b>	615	715	815	915	1015	1115	1215
<b>K</b>	100	200	100	200	100	200	100
<b>C</b>	240	420	600	600	780	780	960
<b>M</b>	2	2	3	3	4	4	5
<b>N</b>	8	8	10	10	12	12	14
<b>Y stroke</b>	150	250	350	450	550	650	
<b>Maximum speed for each stroke (mm/sec)</b> <sup>Note 3</sup>	<b>X-axis</b>		1200				960
<b>Speed setting</b>	<b>X-axis</b>		-				80%

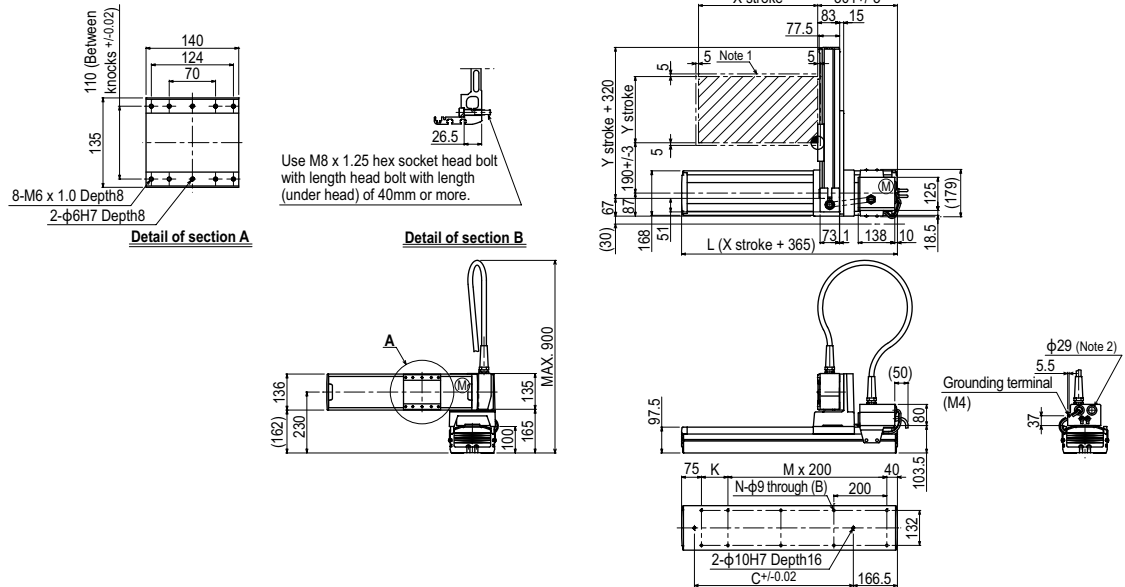
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.

Note 3. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

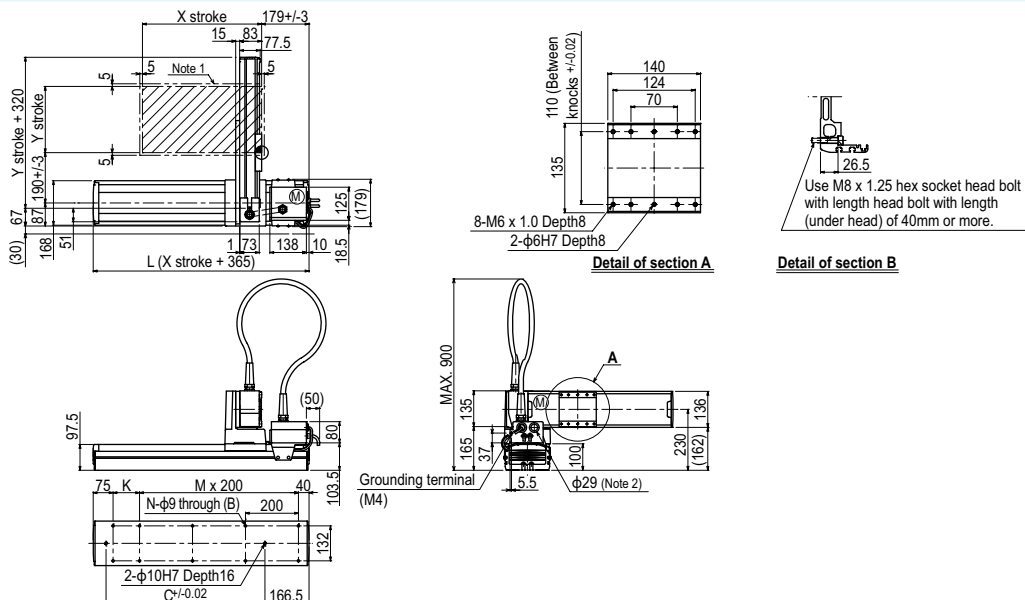
MXYx 2 axes **A2**



MXYx 2 axes **A3**



MXYx 2 axes **A4**

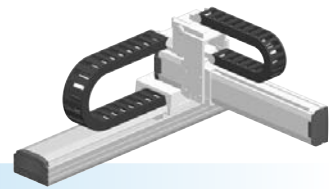


Articulated robots  
 YA  
 Linear conveyor modules  
 LCM100  
 Compact single-axis robots  
 TRANSEVO  
 Single-axis robots  
 FLIP-X  
 Linear motor single-axis robots  
 PHASER  
 Cartesian robots  
 XX-X  
 SCARA robots  
 YK-X  
 Pick & place robots  
 YP-X  
 CLEAN  
 CONTROLLER INFORMATION  
 Arm type  
 Gantry type  
 Moving arm type  
 Pole type  
 XZ type

# MXYx

2 axes / IO

- Arm type
- Cable carrier
- Type with Y-axis I/O cable carrier added



## Ordering method

<b>MXYx - C</b>					<b>IO</b>		<b>RCX222</b>			<b>R</b>		
Model	Cable	Combination	X-axis stroke	Y-axis stroke	ZR-axis	Cable	Controller	Usable for CE	Regenerative unit	Input/Output selection 1	Input/Output selection 2	
A1			25 to 125cm	15 to 65cm		3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry; Standard E: CE marking	R: RG2	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet <sup>Note 2</sup> YC: YC-Link <sup>Note 2</sup>	No entry; None N1: OPDIO24/16 (NPN) <sup>Note 1</sup> P1: OPDIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>	

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <sup>Note 1</sup>	F17	F14H
<b>AC servo motor output (W)</b>	400	200
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20
<b>Maximum speed</b> <sup>Note 4</sup> (mm/sec)	1200	1200
<b>Moving range (mm)</b>	250 to 1250	150 to 650
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flange machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

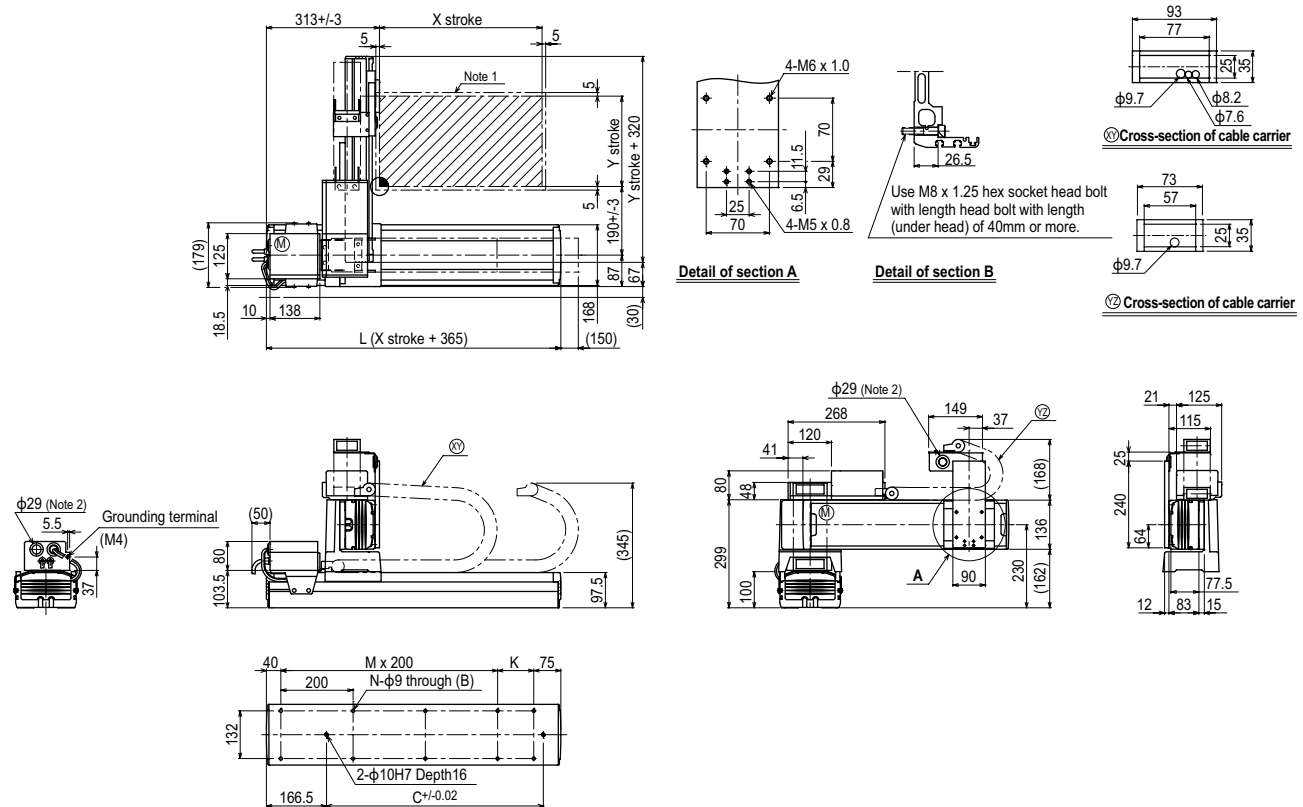
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
150	29
250	29
350	24
450	19
550	19
650	15

## Controller

Controller	Operation method
RCX222-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## MXYx 2 axes / IO (A1)

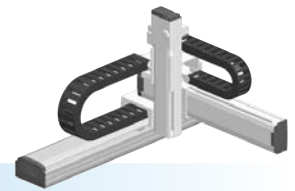


X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
<b>L</b>	615	715	815	915	1015	1115	1215	1315	1415	1515	1615
<b>K</b>	100	200	100	200	100	200	100	200	100	200	100
<b>C</b>	240	420	600	780	780	960	960	1140	1140	1320	1320
<b>M</b>	2	2	3	3	4	4	5	5	6	6	7
<b>N</b>	8	8	10	10	12	12	14	14	16	16	18
<b>Y stroke</b>	150	250	350	450	550	650					
<b>Maximum speed for each stroke (mm/sec)</b> <sup>Note 3</sup>	<b>X-axis</b>		1200				960	840	720	600	480
<b>Speed setting</b>			-				80%	70%	60%	50%	40%

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.

Note 3. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

- Arm type
- Cable carrier
- Z-axis: clamped base / moving table type (200W)



### Ordering method

#### MXYx - C

Model	Cable	Combination	X-axis stroke	Y-axis stroke	ZR-axis	Z-axis stroke	Cable
		A1 A2 A3 A4	25 to 125cm	15 to 65cm	ZFL20 ZFL10	15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m

#### RCX340-3

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
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Specify various controller setting items. RCX340 ▶ **P542**

#### RCX240

Controller	CE Marking	Regenerative unit	Expansion I/O	Network option	IVY System	Gripper	Battery
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Specify various controller setting items. RCX240/RCX240S ▶ **P532**

### Specification

	X-axis	Y-axis	Z-axis: ZFL20	Z-axis: ZFL10
Axis construction <sup>Note 1</sup>	F17	F14H	F10-BK equivalent guide-reinforced model	
AC servo motor output (W)	400	200	200	
Repeatability <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01	+/-0.01	
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)	
Ball screw lead <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20	20	10
Maximum speed <sup>Note 4</sup> (mm/sec)	1200	1200	1200	600
Moving range (mm)	250 to 1250	150 to 650	150 to 350	
Robot cable length (m)	Standard: 3.5 Option: 5,10			

Note. The standard types are ZFL with higher rigidity as compared with ZF types which are conventional standard types. When you need the ZF type, please consult YAMAHA.

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.

Note 2. Positioning repeatability in one direction.

Note 3. Leads not listed in the catalog are also available. Contact us for details.

Note 4. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

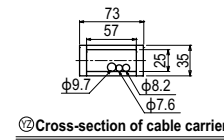
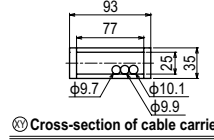
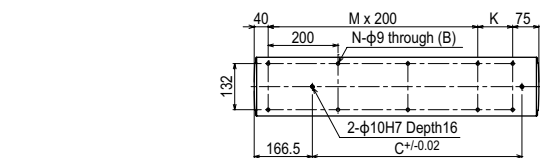
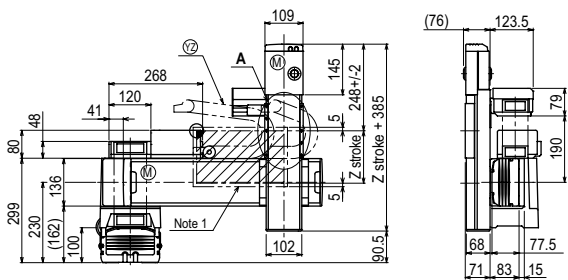
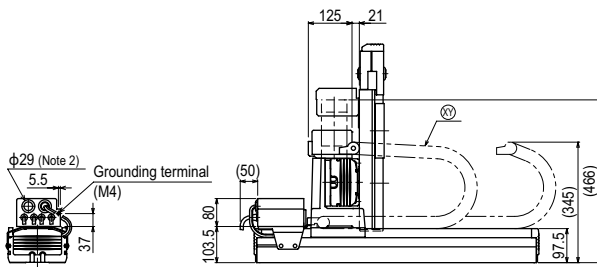
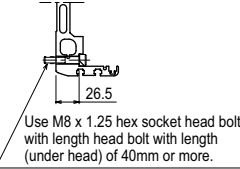
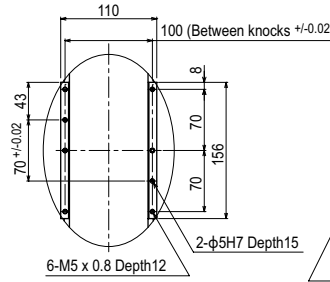
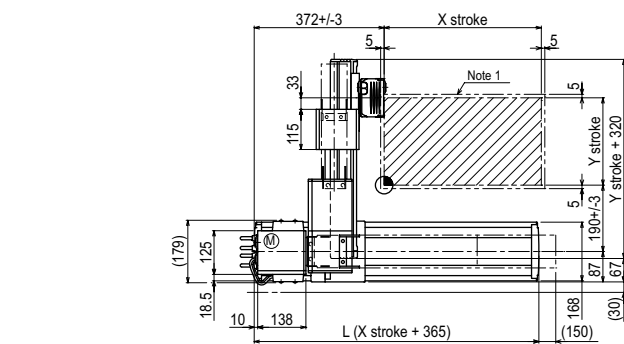
### Maximum payload (kg)

	Z stroke (mm)					
	ZFL20			ZFL10		
	150	250	350	150	250	350
150	8	8	8	15	15	15
250	8	8	8	15	15	15
350	8	8	8	15	15	15
450	8	8	8	12	11	10
550	8	8	8	12	11	10
650	8	7	6	8	7	6

### Controller

Controller	Operation method
RCX340 RCX240-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

### MXYx 3 axes / ZFL20/10 A1



X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
L	615	715	815	915	1015	1115	1215	1315	1415	1515	1615
K	100	200	100	200	100	200	100	200	100	200	100
C	240	420	600	600	780	780	960	960	1140	1140	1320
M	2	2	3	3	4	4	5	5	6	6	7
N	8	8	10	10	12	12	14	14	16	16	18
Y stroke	150	250	350	450	550	650					
Z stroke	150	250	350								
Maximum speed for each stroke (mm/sec) <sup>Note 3</sup>	X-axis		1200				960	840	720	600	480
Speed setting			-				80%	70%	60%	50%	40%

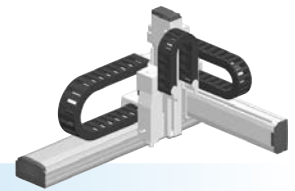
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
Note 2. User cable extraction port.

Note 3. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

Articulated robots  
YA  
Linear conveyor modules  
LCM100  
Compact single-axis robots  
TRANSEVO  
Single-axis robots  
FLIP-X  
Linear motor single-axis robots  
PHASER  
Cartesian robots  
XX-X  
SCARA robots  
YK-X  
Pick & place robots  
YP-X  
CLEAN  
CONTROLLER INFORMATION  
Arm type  
Gantry type  
Moving arm type  
Pole type  
XZ type







### Ordering method

**MXYx - C**

Model	Cable	Combination	X-axis stroke	Y-axis stroke	ZR-axis	Z-axis stroke	Cable
		A1	25 to 125cm	15 to 65cm	ZRFL20	15 to 35cm	3L: 3.5m
		A2			ZRFL10		5L: 5m
		A3					10L: 10m
		A4					

**RCX340-4**

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ P.542

**RCX240**

Controller	CE Marking	Regenerative unit	Expansion I/O	Network option	IVY System	Gripper	Battery

Specify various controller setting items. RCX240/RCX240S ▶ P.532

### Specification

	X-axis	Y-axis	Z-axis: ZRFL20	Z-axis: ZRFL10	R-axis
Axis construction <sup>Note 1</sup>	F17	F14H	F10-BK equivalent guide-reinforced model		R5
AC servo motor output (W)	400	200	200		50
Repeatability <sup>Note 2</sup> (XYZ: mm) (R: °)	+/-0.01	+/-0.01	+/-0.01		+/-0.0083
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)		Harmonic gear
Ball screw lead <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20	20	10	(1/50)
Maximum speed <sup>Note 4</sup> (XYZ: mm/sec) (R: °/sec)	1200	1200	1200	600	360
Moving range (XYZ: mm)(R: °)	250 to 1250	150 to 650	150 to 350		360
Robot cable length (m)	Standard: 3.5 Option: 5, 10				

Note. The standard types are ZRFL with higher rigidity as compared with ZRF types which are conventional standard types. When you need the ZRF type, please consult YAMAHA.

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.

Note 2. Positioning repeatability in one direction.

Note 3. Leads not listed in the catalog are also available. Contact us for details.

Note 4. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

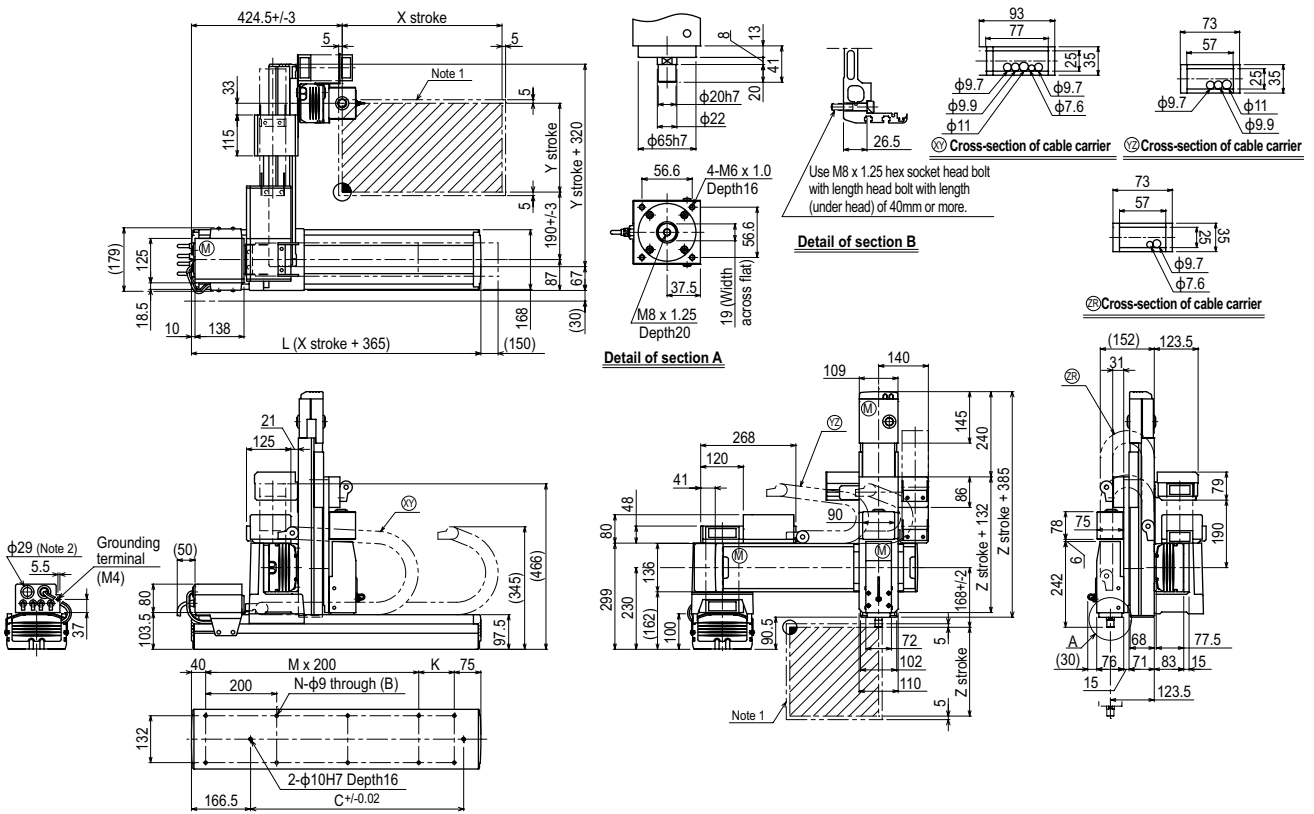
### Maximum payload (kg)

Y stroke (mm)	Z stroke (mm)					
	ZRFL20			ZRFL10		
150	4	4	4	11	11	11
250	4	4	4	11	11	11
350	4	4	4	11	11	11
450	4	4	4	8	7	6
550	4	4	4	8	7	6
650	4	4	4	4	3	2

### Controller

Controller	Operation method
RCX340 RCX240-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

### MXYx 4 axes / ZRFL20/10 (A1)



X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
L	615	715	815	915	1015	1115	1215	1315	1415	1515	1615
K	100	200	100	200	100	200	100	200	100	200	100
C	240	420	600	600	780	780	960	960	1140	1140	1320
M	2	2	3	3	4	4	5	5	6	6	7
N	8	8	10	10	12	12	14	14	16	16	18
Y stroke	150	250	350	450	550	650					
Z stroke	150	250	350								
Maximum speed for each stroke (mm/sec) <sup>Note 3</sup>	X-axis		1200				960	840	720	600	480
	Speed setting		-				80%	70%	60%	50%	40%

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

Note 2. User cable extraction port.

Note 3. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

Articulated robots  
YA

Linear conveyor modules  
LCM100

Compact single-axis robots  
TRANSEVO

Single-axis robots  
FLIP-X

Linear motor single-axis robots  
PHASER

Cartesian robots  
XX-X

SCARA robots  
YK-X

Pick & place robots  
YP-X

CLEAN

CONTROLLER INFORMATION

Arm type

Gantry type

Moving arm type

Pole type

XZ type



Articulated robots  
YA

Linear conveyor  
modules  
LCMT100

Compact  
single-axis robots  
TRANSERVO

Single-axis robots  
FLIP-X

Linear motor  
single-axis robots  
PHASER

Cartesian  
robots  
XY-X

SCARA  
robots  
YK-X

Pick & place  
robots  
YP-X

CLEAN

CONTROLLER

INFORMATION

Arm type

Gantry type

Moving arm  
type

Pole type

XZ type

# HXYx 2 axes

● Arm type ● Cable carrier



## Ordering method

<b>HXYx - C</b>					<b>RCX222HP</b>		<b>R</b>			
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>Y-axis stroke</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Regenerative unit</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
A1			25 to 125cm	25 to 65cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222HP	No entry: Standard E: CE marking	R: RG2	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet <sup>TM</sup> PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None N1: OPDI024/16 (NPN) <sup>Note 1</sup> P1: OPDI024/17 (PNP) EN: Ethernet <sup>Note 3</sup>

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <sup>Note 1</sup>	F20	F17
<b>AC servo motor output (W)</b>	600	400
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20
<b>Maximum speed</b> <sup>Note 4</sup> (mm/sec)	1200	1200
<b>Moving range (mm)</b>	250 to 1250	250 to 650
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

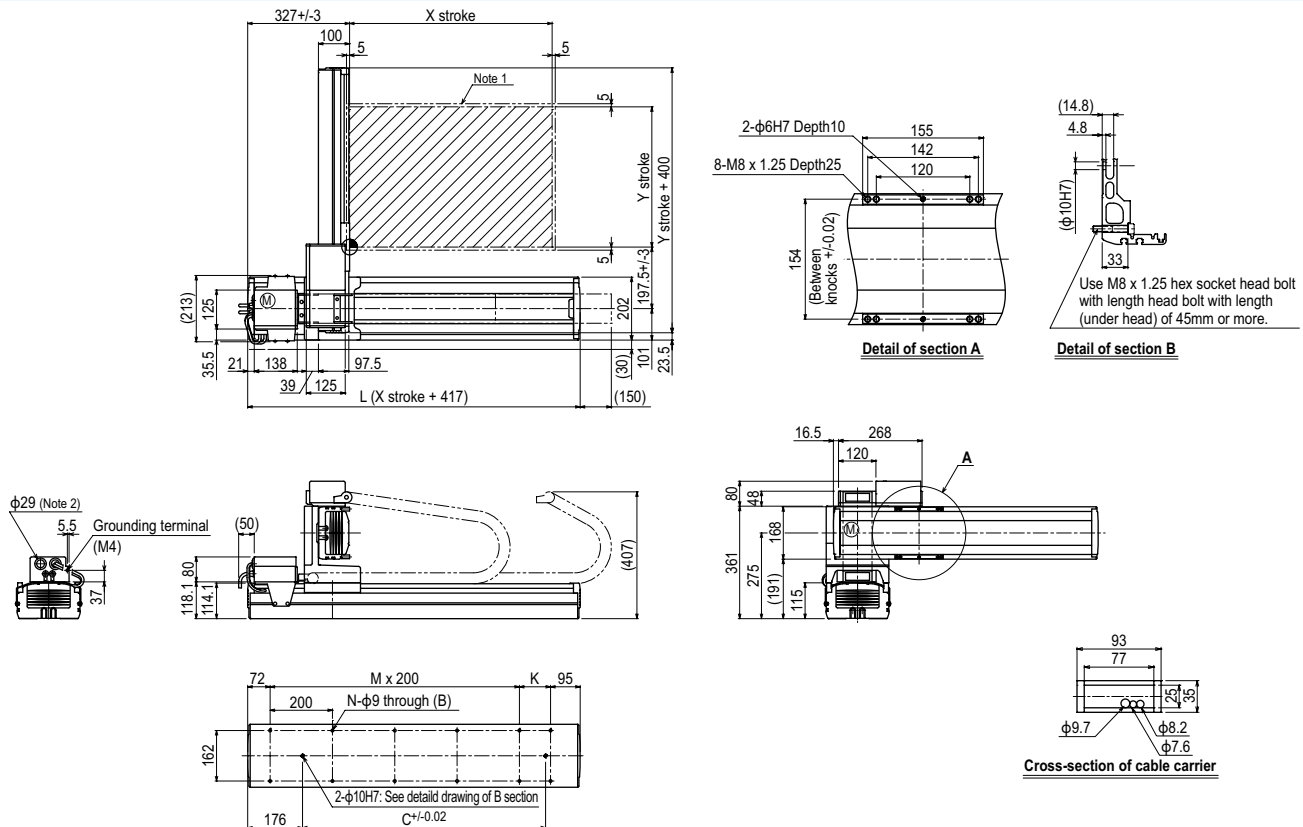
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
250	40
350	40
450	35
550	30
650	30

## Controller

Controller	Operation method
RCX222HP-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## HXYx 2 axes A1

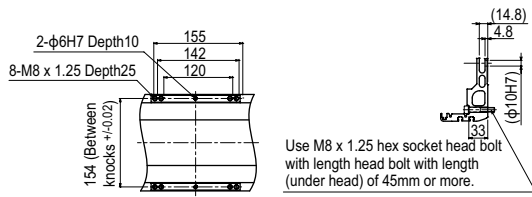


X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
<b>L</b>	667	767	867	967	1067	1167	1267	1367	1467	1567	1667
<b>K</b>	100	200	100	200	100	200	100	200	100	200	100
<b>C</b>	420	420	600	600	780	780	960	960	1140	1320	1320
<b>M</b>	2	2	3	3	4	4	5	5	6	6	7
<b>N</b>	8	8	10	10	12	12	14	14	16	16	18
<b>Y stroke</b>	250	350	450	550	650						
<b>Maximum speed for each stroke (mm/sec)</b> <sup>Note 3</sup>	<b>X-axis</b>		1200				960	840	720	600	480
<b>Speed setting</b>			-				80%	70%	60%	50%	40%

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.

Note 3. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

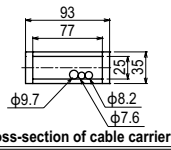
HXYx 2 axes **A2**



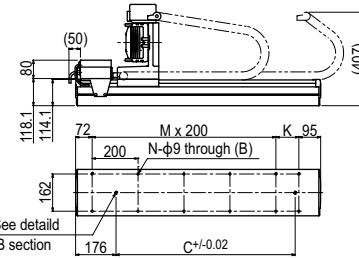
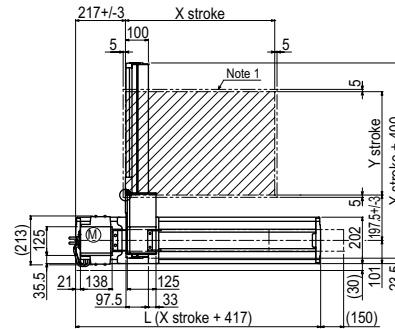
Detail of section A

Detail of section B

Use M8 x 1.25 hex socket head bolt with length head bolt with length (under head) of 45mm or more.

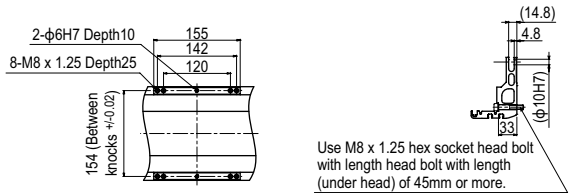


Cross-section of cable carrier



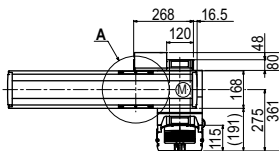
2-φ10H7: See detail drawing of B section

HXYx 2 axes **A3**

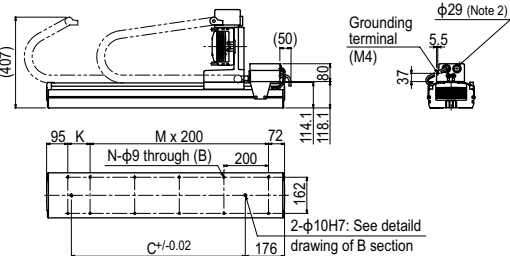
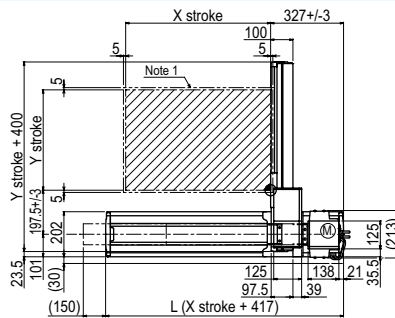


Detail of section A

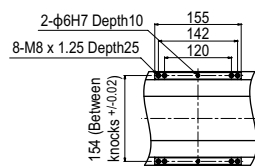
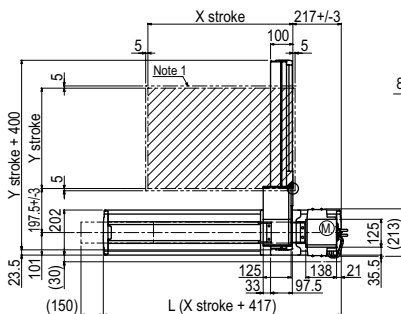
Detail of section B



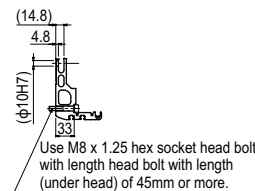
Cross-section of cable carrier



HXYx 2 axes **A4**

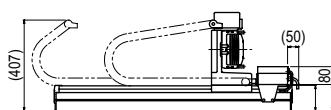


Detail of section A

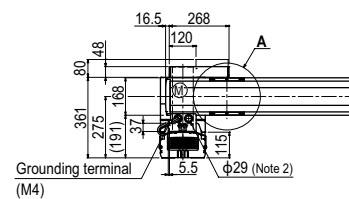


Detail of section B

Use M8 x 1.25 hex socket head bolt with length head bolt with length (under head) of 45mm or more.



Cross-section of cable carrier



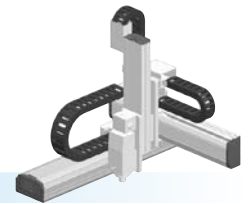
Articulated robots	YA
Linear conveyor modules	LCM100
Compact single-axis robots	TRANSEVO
Single-axis robots	FLIP-X
Linear motor single-axis robots	PHASER
Cartesian robots	XX-X
SCARA robots	YK-X
Pick & place robots	YP-X
CLEAN	
CONTROLLER	
INFORMATION	
Arm type	
Gantry type	
Moving arm type	
Pole type	
XZ type	











### Ordering method

**HXYx - C** [ ] [ ] [ ] **ZRH** [ ] [ ] [ ] **RCX340-4** [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

**Model** - **Cable** - **Combination** - **X-axis stroke** - **Y-axis stroke** - **ZR-axis** - **Z-axis stroke** - **Cable**

**RCX340-4** Controller / Number of controllable axes - Safety standard - Option A (OP.A) - Option B (OP.B) - Option C (OP.C) - Option D (OP.D) - Option E (OP.E) - Absolute battery

**RCX240** Controller - CE Marking - Regenerative unit - Expansion I/O - Network option - iVY System - Gripper - Battery

**R** Specify various controller setting items. RCX340 ▶ **P.542**

Specify various controller setting items. RCX240/RCX240S ▶ **P.532**

### Specification

	X-axis	Y-axis	Z-axis	R-axis
<b>Axis construction</b> <sup>Note 1</sup>	F20	F17	F14H-BK	R20
<b>AC servo motor output (W)</b>	600	400	200	200
<b>Repeatability</b> <sup>Note 2</sup> (XYZ: mm)(R: °)	+/-0.01	+/-0.01	+/-0.01	+/-0.0083
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)	Harmonic gear
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20	5	(1/50)
<b>Maximum speed</b> <sup>Note 4</sup> (XYZ: mm/sec) (R: °/sec)	1200	1200	300	360
<b>Moving range (XYZ: mm) (R: °)</b>	250 to 1250	250 to 650	250 to 550	360
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10			

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

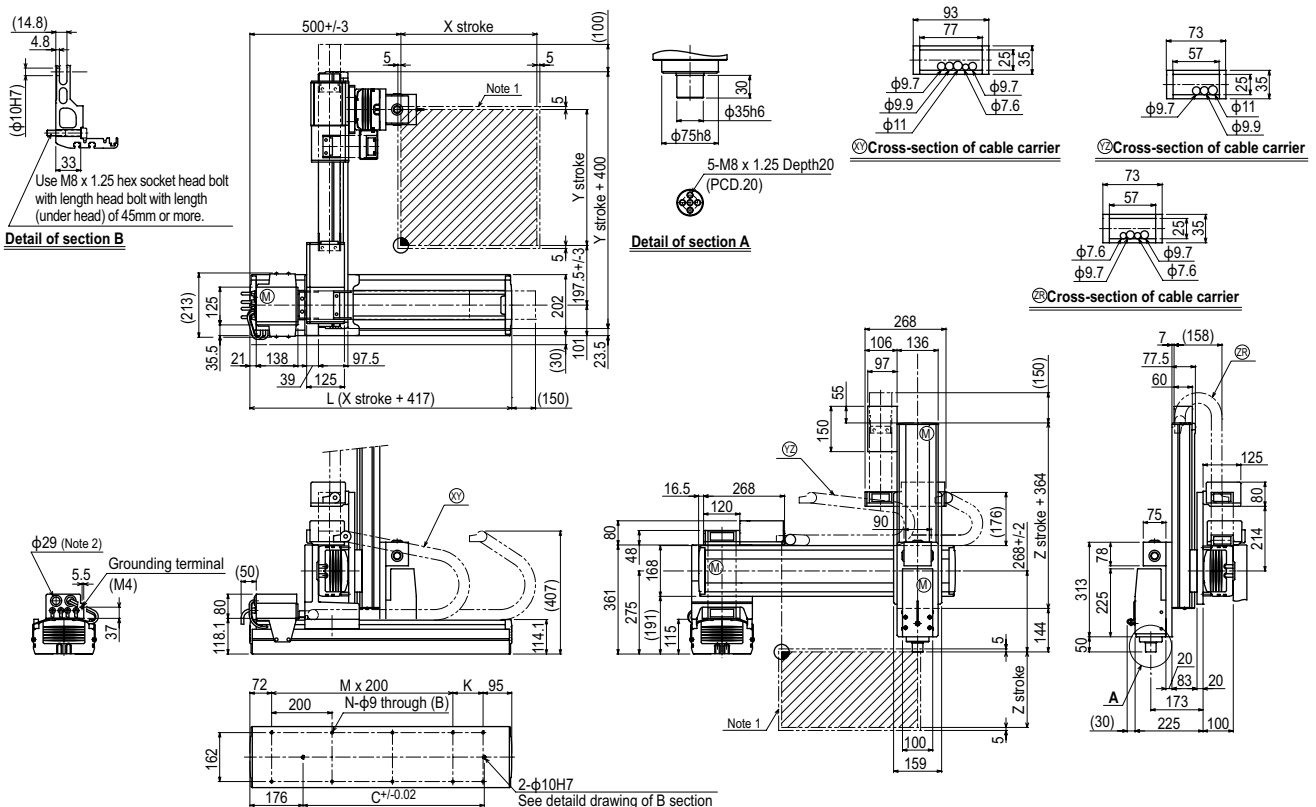
### Maximum payload (kg)

Y stroke (mm)	Z stroke (mm)			
	250	350	450	550
250	12	12	12	12
350	12	12	12	12
450	12	12	12	11
550	11	10	9	8
650	11	10	9	8

### Controller

Controller	Operation method
RCX340 RCX240-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

### HXYx 4 axes / ZRH A1



X stroke	250	350	450	550	650	750	850	950	1050	1150	1250	
	L	667	767	867	967	1067	1167	1267	1367	1467	1567	1667
K	100	200	100	200	100	200	100	200	100	200	100	
C	420	420	600	600	780	780	960	960	1140	1320	1320	
M	2	2	3	3	4	4	5	5	6	6	7	
N	8	8	10	10	12	12	14	14	16	16	18	
<b>Y stroke</b>	<b>250</b>	<b>350</b>	<b>450</b>	<b>550</b>	<b>650</b>							
<b>Z stroke</b>	<b>250</b>	<b>350</b>	<b>450</b>	<b>550</b>								
<b>Maximum speed for each stroke (mm/sec)</b> <sup>Note 3</sup>	<b>X-axis</b>	1200				960	840	720	600	480		
	<b>Speed setting</b>	-				80%	70%	60%	50%	40%		

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.  
 Note 3. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

Articulated robots  
YA

Linear conveyor modules  
LCM100

Compact single-axis robots  
TRANSEVO

Single-axis robots  
FLIP-X

Linear motor single-axis robots  
PHASER

Cartesian robots  
XX-X

SCARA robots  
YK-X

Pick & place robots  
YP-X

CLEAN

CONTROLLER INFORMATION

Arm type

Gantry type

Moving arm type

Pole type

XZ type

# HXYLx 2 axes

● Arm type   ● Cable carrier



## Ordering method

<b>HXYLx - C</b>					<b>RCX222HP</b>			<b>R</b>		
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>Y-axis stroke</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Regenerative unit</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
A1		A1	115 to 205cm	25 to 65cm	3L: 3.5m	RCX222HP	No entry: Standard E: CE marking	R: RG2	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None N1: OPDIO24/16 (NPN) <sup>Note 1</sup> P1: OPDIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>
A2		A2			5L: 5m					
A3		A3			10L: 10m					
A4		A4								

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <sup>Note 1</sup>	F20N	F17
<b>AC servo motor output (W)</b>	400	400
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.04	+/-0.01
<b>Drive system</b>	Ball screw (Class C10)	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20
<b>Maximum speed (mm/sec)</b>	1200	1200
<b>Moving range (mm)</b>	1150 to 2050	250 to 650
<b>Robot cable length (m)</b>	Standard: 3.5   Option: 5, 10	

Note 1. Use caution that the frame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.

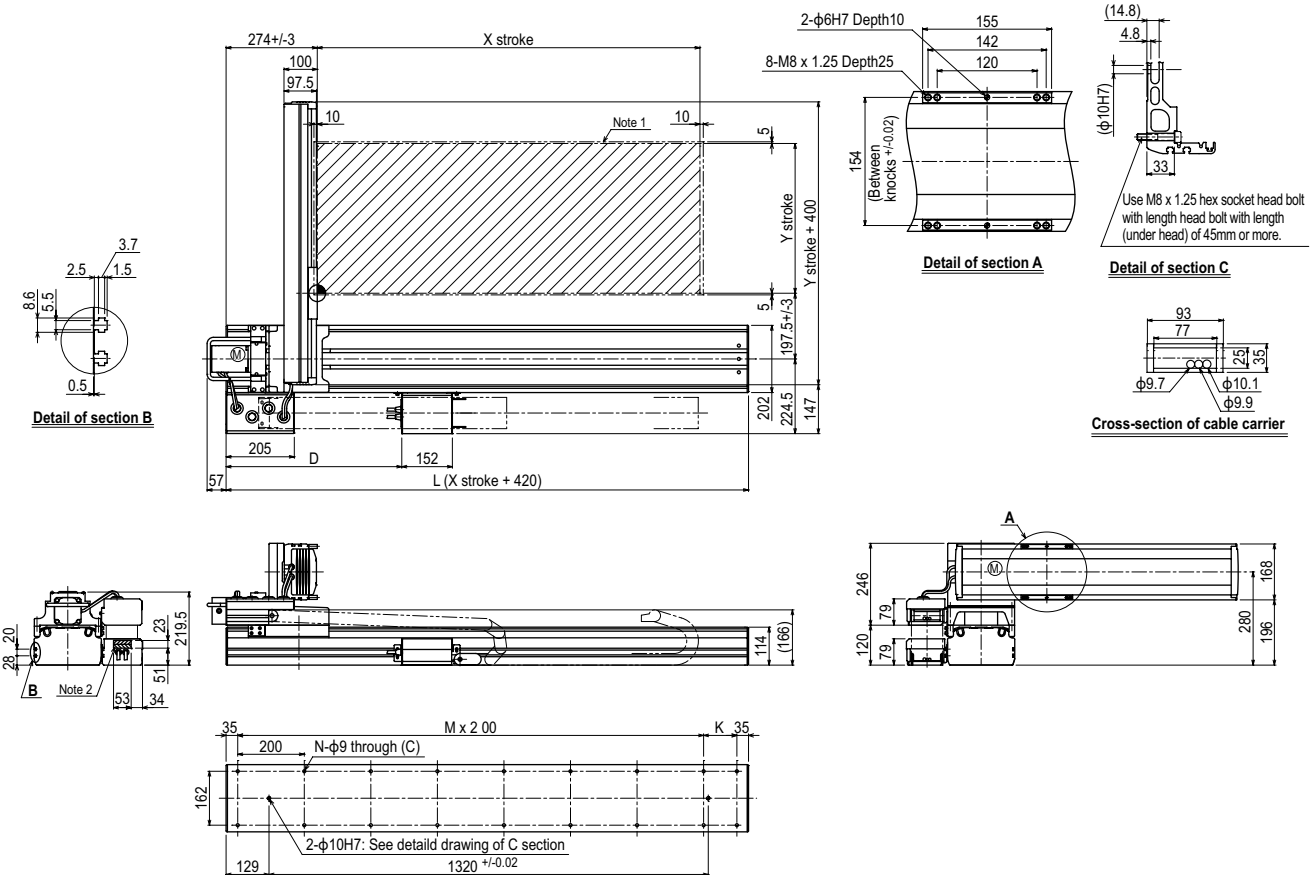
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
250	40
350	40
450	35
550	30
650	30

## Controller

Controller	Operation method
RCX222HP-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

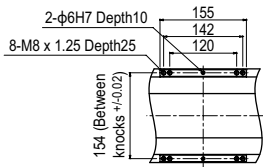
## HXYLx 2 axes A1



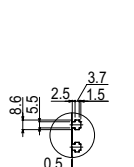
X stroke	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050
<b>L</b>	1570	1670	1770	1870	1970	2070	2170	2270	2370	2470
<b>D</b>	528	574	620	666	712	758	804	850	896	942
<b>K</b>	100	200	100	200	100	200	100	200	100	200
<b>M</b>	7	7	8	8	9	9	10	10	11	11
<b>N</b>	18	18	20	20	22	22	24	24	26	26
<b>Y stroke</b>	250	350	450	550	650					

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. The shaded position indicates a user cable extraction port.

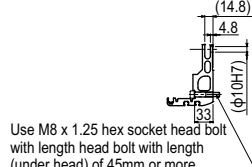
HXYLx 2 axes **A2**



Detail of section A

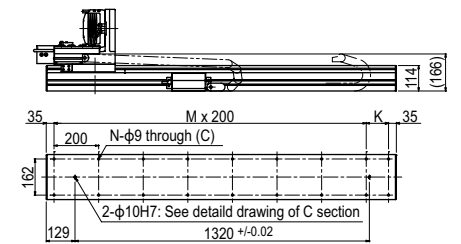
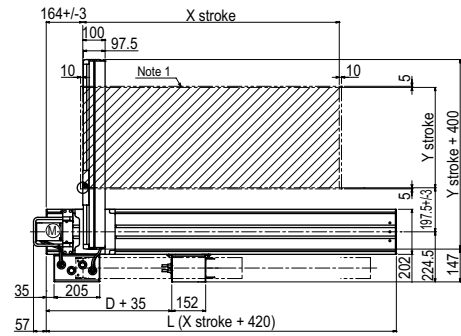


Detail of section B

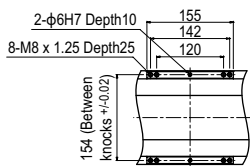


Detail of section C

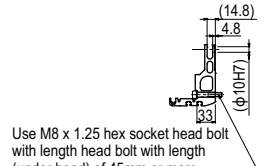
Cross-section of cable carrier



HXYLx 2 axes **A3**

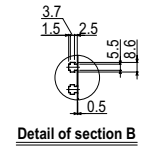
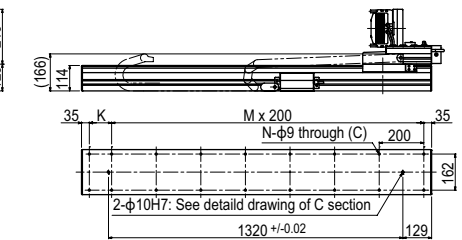
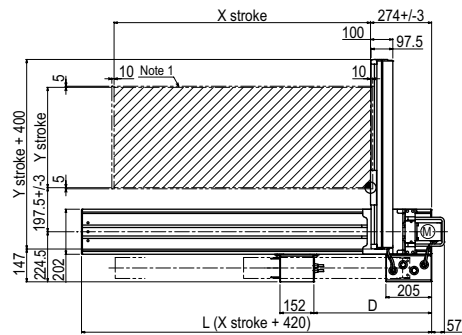


Detail of section A



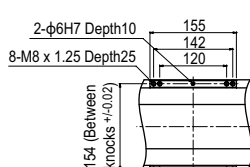
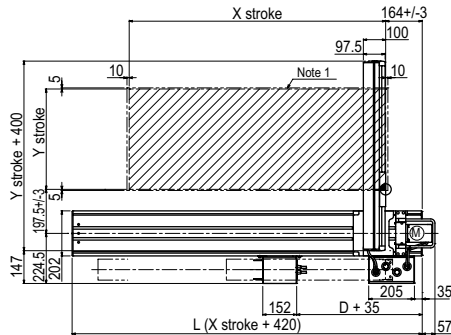
Detail of section C

Cross-section of cable carrier

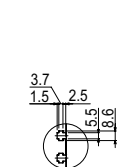


Detail of section B

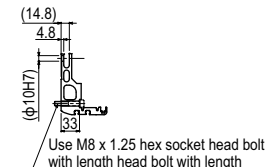
HXYLx 2 axes **A4**



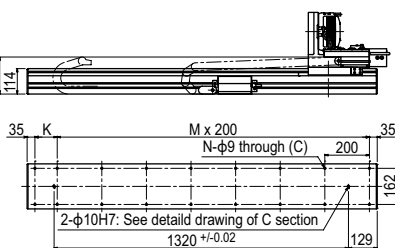
Detail of section A



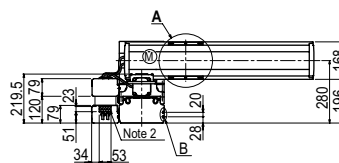
Detail of section B



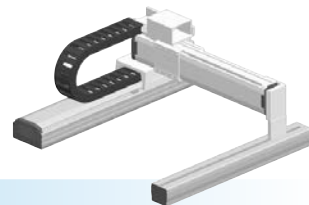
Detail of section C



Cross-section of cable carrier



# MXYx 2 axes



- Gantry type
- Cable carrier

## Ordering method

<b>MXYx - C</b>					<b>RCX222</b>		<b>R</b>			
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>Y-axis stroke</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Regenerative unit</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
G1		G1	25 to 125cm	15 to 85cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	R: RG2	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet <sup>TM</sup> PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None N1: OPDIO24/16 (PNP) <sup>Note 1</sup> P1: OPDIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>
G2		G2								
G3		G3								
G4		G4								

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <sup>Note 1</sup>	F17	F14H
<b>AC servo motor output (W)</b>	400	200
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20
<b>Maximum speed</b> <sup>Note 4</sup> (mm/sec)	1200	1200
<b>Moving range (mm)</b>	250 to 1250	150 to 850
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5, 10	

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 850mm (750mm for Y-axis), resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

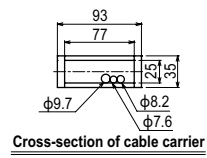
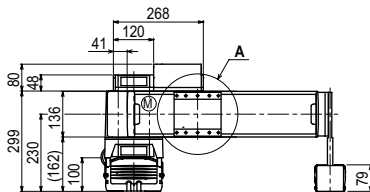
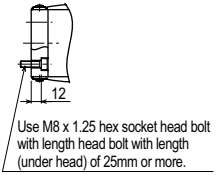
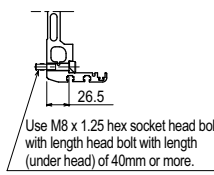
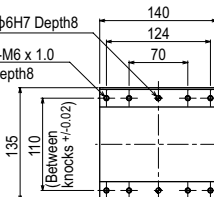
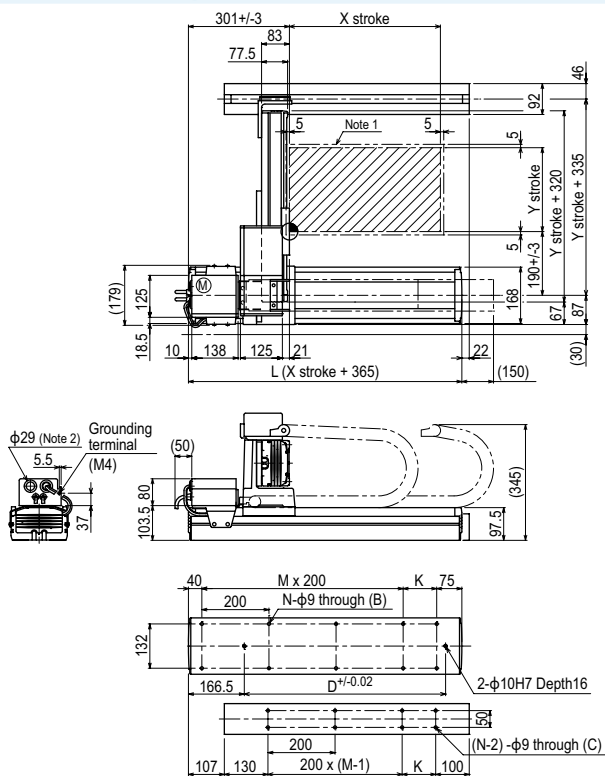
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
150	30
250	30
350	30
450	30
550	30
650	30
750	25
850	20

## Controller

Controller	Operation method
RCX222-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## MXYx 2 axes G1



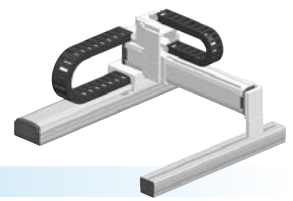
X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
L	615	715	815	915	1015	1115	1215	1315	1415	1515	1615
K	100	200	100	200	100	200	100	200	100	200	100
D	240	420	600	600	780	780	960	960	1140	1140	1320
M	2	2	3	3	4	4	5	5	6	6	7
N	8	8	10	10	12	12	14	14	16	16	18
Y stroke	150	250	350	450	550	650	750	850			
<b>Maximum speed for each stroke</b> <sup>Note 3</sup> (mm/sec)	<b>X-axis</b>		1200		960		840	720	600	480	
	<b>Speed setting</b>		-		80%		70%	60%	50%	40%	
	<b>Y-axis</b>		1200		960		780				
	<b>Speed setting</b>		-		80%		65%				

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.

Note 3. When the X-axis stroke is longer than 850mm (750mm for Y-axis), resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.



# MXYx 2 axes / IO



- Gantry type
- Cable carrier
- Type with Y-axis I/O cable carrier added

## Ordering method

<b>MXYx - C</b>												
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>Y-axis stroke</b>	<b>ZR-axis</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Regenerative unit</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>	
G1			25 to 125cm	15 to 85cm		3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	R: RG2	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None Nt: OP.DIO24/16 (NPN) <sup>Note 1</sup> Pt: OP.DIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>	
G2												
G3												
G4												

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <sup>Note 1</sup>	F17	F14H
<b>AC servo motor output (W)</b>	400	200
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20
<b>Maximum speed</b> <sup>Note 4</sup> (mm/sec)	1200	1200
<b>Moving range (mm)</b>	250 to 1250	150 to 850
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5, 10	

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots'.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 850mm (750mm for Y-axis), resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

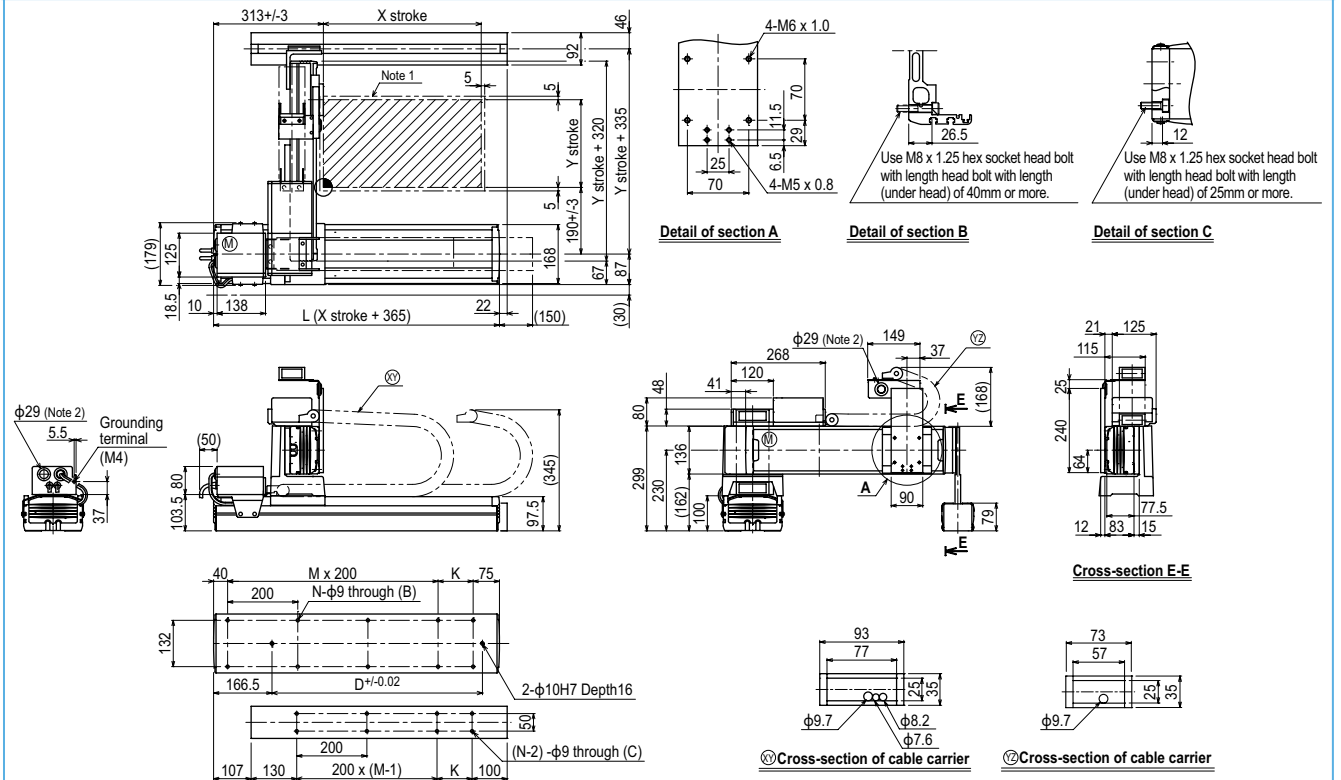
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
150	29
250	29
350	29
450	29
550	29
650	29
750	24
850	19

## Controller

Controller	Operation method
RCX222-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

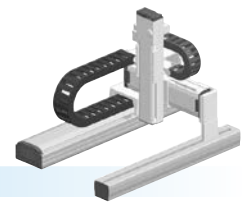
## MXYx 2 axes / IO G1



	X stroke										
	250	350	450	550	650	750	850	950	1050	1150	1250
<b>L</b>	615	715	815	915	1015	1115	1215	1315	1415	1515	1615
<b>K</b>	100	200	100	200	100	200	100	200	100	200	100
<b>D</b>	240	420	600	600	780	780	960	960	1140	1140	1320
<b>M</b>	2	2	3	3	4	4	5	5	6	6	7
<b>N</b>	8	8	10	10	12	12	14	14	16	16	18
		Y stroke									
		150	250	350	450	550	650	750	850		
<b>Maximum speed for each stroke (mm/sec)</b> <sup>Note 3</sup>	<b>X-axis</b>	1200					960	840	720	600	480
	<b>Speed setting</b>	-					80%	70%	60%	50%	40%
	<b>Y-axis</b>	1200									
	<b>Speed setting</b>	-									

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.  
 Note 3. When the X-axis stroke is longer than 850mm (750mm for Y-axis), resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

- Gantry type
- Cable carrier
- Z-axis: clamped base / moving table type (200W)



### Ordering method

**MXy<sub>x</sub>-C**

Model	Cable	Combination	X-axis stroke	Y-axis stroke	ZR-axis	Z-axis stroke	Cable
G1			25 to 125cm	15 to 85cm	ZFL20	15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m
G2					ZFL10		
G3							
G4							

**RCX340-3**

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ **P542**

**RCX240**

Controller	CE Marking	Regenerative unit	Expansion I/O	Network option	IVY System	Gripper	Battery

Specify various controller setting items. RCX240/RCX240S ▶ **P532**

### Specification

	X-axis	Y-axis	Z-axis: ZFL20	Z-axis: ZFL10
Axis construction <sup>Note 1</sup>	F17	F14H-BK	F10-BK equivalent guide-reinforced model	
AC servo motor output (W)	400	200	200	
Repeatability <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01	+/-0.01	
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)	
Ball screw lead <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20	20	10
Maximum speed <sup>Note 4</sup> (mm/sec)	1200	1200	1200	600
Moving range (mm)	250 to 1250	150 to 850	150 to 350	
Robot cable length (m)	Standard: 3.5 Option: 5, 10			

Note. The standard types are ZFL with higher rigidity as compared with ZF types which are conventional standard types. When you need the ZF type, please consult YAMAHA.

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.

Note 2. Positioning repeatability in one direction.

Note 3. Leads not listed in the catalog are also available. Contact us for details.

Note 4. When the X-axis stroke is longer than 850mm (750mm for Y-axis), resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

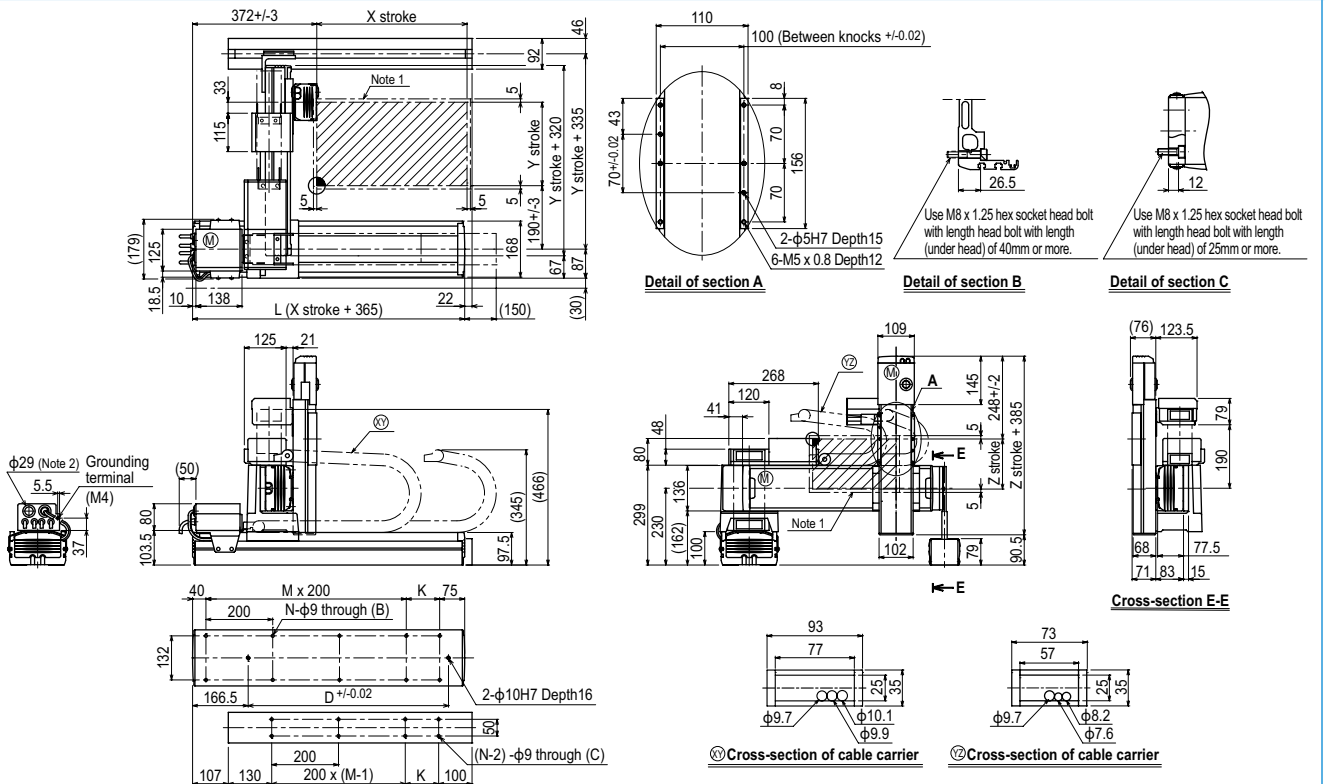
### Maximum payload (kg)

Y stroke (mm)	Z stroke (mm)					
	ZFL20			ZFL10		
150	8	8	8	15	15	15
250	8	8	8	15	15	15
350	8	8	8	15	15	15
450	8	8	8	15	15	15
550	8	8	8	15	15	15
650	8	8	8	15	15	15
750	8	8	8	15	15	15
850	8	8	8	12	11	10

### Controller

Controller	Operation method
RCX340 RCX240-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

### MXy<sub>x</sub> 3 axes / ZFL20/10 G1



X stroke	250	350	450	550	650	750	850	950	1050	1150	1250	
L	615	715	815	915	1015	1115	1215	1315	1415	1515	1615	
K	100	200	100	200	100	200	100	200	100	200	100	
D	240	420	600	600	780	780	960	960	1140	1140	1320	
M	2	2	3	3	4	4	5	5	6	6	7	
N	8	8	10	10	12	12	14	14	16	16	18	
Y stroke	150	250	350	450	550	650	750	850				
Z stroke	150	250	350									
Maximum speed for each stroke (mm/sec) <sup>Note 3</sup>	X-axis			Y-axis			Z-axis					
	Speed setting			Speed setting			Speed setting			Speed setting		
	1200			1200			960	840	720	600	480	
	-			-			80%	70%	60%	50%	40%	
	-			-			960	780				
	-			-			80%	65%				

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

Note 2. User cable extraction port.

Note 3. When the X-axis stroke is longer than 850mm (750mm for Y-axis), resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

Articulated robots  
YA

Linear conveyor modules  
LCM100

Compact single-axis robots  
TRANSEVO

Single-axis robots  
FLIP-X

Linear motor single-axis robots  
PHASER

Cartesian robots  
XX-X

SCARA robots  
YK-X

Pick & place robots  
YP-X

CLEAN

CONTROLLER INFORMATION

Arm type

Gantry type

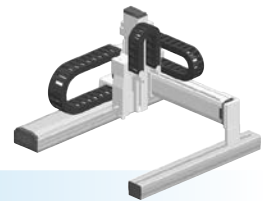
Moving arm type

Pole type

XZ type







### Ordering method

#### MXy<sub>x</sub> - C

Model	Cable	Combination	X-axis stroke	Y-axis stroke	ZR-axis	Z-axis stroke	Cable
G1			25 to 125cm	15 to 85cm	ZRFL20	15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m
G2					ZRFL10		
G3							
G4							

#### RCX340-4

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ P.542

#### RCX240

Controller	CE Marking	Regenerative unit	Expansion I/O	Network option	iVY System	Gripper	Battery

Specify various controller setting items. RCX240/RCX240S ▶ P.532

### Specification

	X-axis	Y-axis	Z-axis: ZRFL20	Z-axis: ZRFL10	R-axis
Axis construction <sup>Note 1</sup>	F17	F14H	F10-BK equivalent guide-reinforced model		R5
AC servo motor output (W)	400	200	200		50
Repeatability <sup>Note 2</sup> (XYZ: mm)(R: °)	+/-0.01	+/-0.01	+/-0.01		+/-0.0083
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)		Harmonic gear
Ball screw lead <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20	20	10	(1/50)
Maximum speed <sup>Note 4</sup> (XYZ: mm/sec) (R: °/sec)	1200	1200	1200	600	360
Moving range (XYZ: mm)(R: °)	250 to 1250	150 to 850	150 to 350		360
Robot cable length (m)	Standard: 3.5 Option: 5,10				

Note. The standard types are ZRFL with higher rigidity as compared with ZRF types which are conventional standard types. When you need the ZRF type, please consult YAMAHA.  
 Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 850mm (750mm for Y-axis), resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

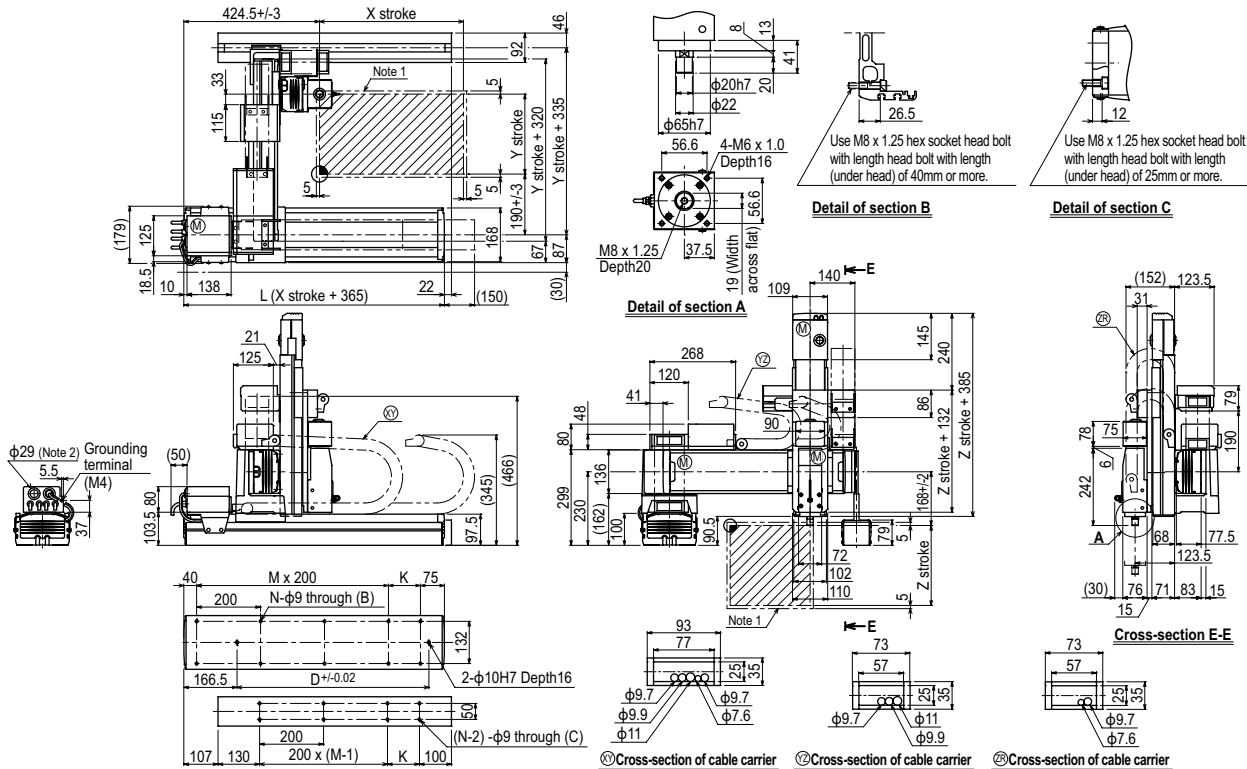
### Maximum payload (kg)

Y stroke (mm)	Z stroke (mm)					
	ZRFL20			ZRFL10		
150	4	4	4	11	11	11
250	4	4	4	11	11	11
350	4	4	4	11	11	11
450	4	4	4	11	11	11
550	4	4	4	11	11	11
650	4	4	4	11	11	11
750	4	4	4	11	11	11
850	4	4	4	8	7	6

### Controller

Controller	Operation method
RCX340 RCX240-R	Programming / I/O port trace / Remote command / Operation using RS-232C communication

### MXy<sub>x</sub> 4 axes / ZRFL20/10 (G1)



X stroke	250	350	450	550	650	750	850	950	1050	1150	1250	
	L	615	715	815	915	1015	1115	1215	1315	1415	1515	1615
K	100	200	100	200	100	200	100	200	100	200	100	
D	240	420	600	600	780	780	960	960	1140	1140	1320	
M	2	2	3	3	4	4	5	5	6	6	7	
N	8	8	10	10	12	12	14	14	16	16	18	
Y stroke	150	250	350	450	550	650	750	850				
Z stroke	150	250	350									
Maximum speed for each stroke (mm/sec) <sup>Note 3</sup>	X-axis	1200					960	840	720	600	480	
	Speed setting	-					80%	70%	60%	50%	40%	
	Y-axis	1200					960	780				
Speed setting	-					80%	65%					

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.

Note 3. When the X-axis stroke is longer than 850mm (750mm for Y-axis), resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.



Articulated robots  
YA

Linear conveyor  
modules  
LCMT100

Compact  
single-axis robots  
TRANSERVO

Single-axis robots  
FLIP-X

Linear motor  
single-axis robots  
PHASER

Cartesian  
robots  
XY-X

SCARA  
robots  
YK-X

Pick & place  
robots  
YP-X

CLEAN

CONTROLLER

INFORMATION

Arm type

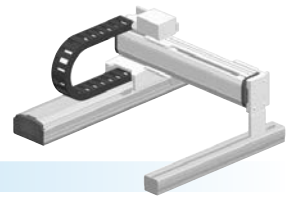
Gantry type

Moving arm  
type

Pole type

XZ type

# HXYx 2 axes



- Gantry type
- Cable carrier

## Ordering method

<b>HXYx - C</b>					<b>RCX222HP</b>		<b>R</b>			
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>Y-axis stroke</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Regenerative unit</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
G1			25 to 125cm	25 to 105cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222HP	No entry: Standard E: CE marking	R: RG2	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None Nt: OPDIO24/16 (NPN) <sup>Note 1</sup> Pt: OPDIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <sup>Note 1</sup>	F20	F17
<b>AC servo motor output (W)</b>	600	400
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20
<b>Maximum speed</b> <sup>Note 4</sup> (mm/sec)	1200	1200
<b>Moving range (mm)</b>	250 to 1250	250 to 1050
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5, 10	

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots'.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis/Y-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

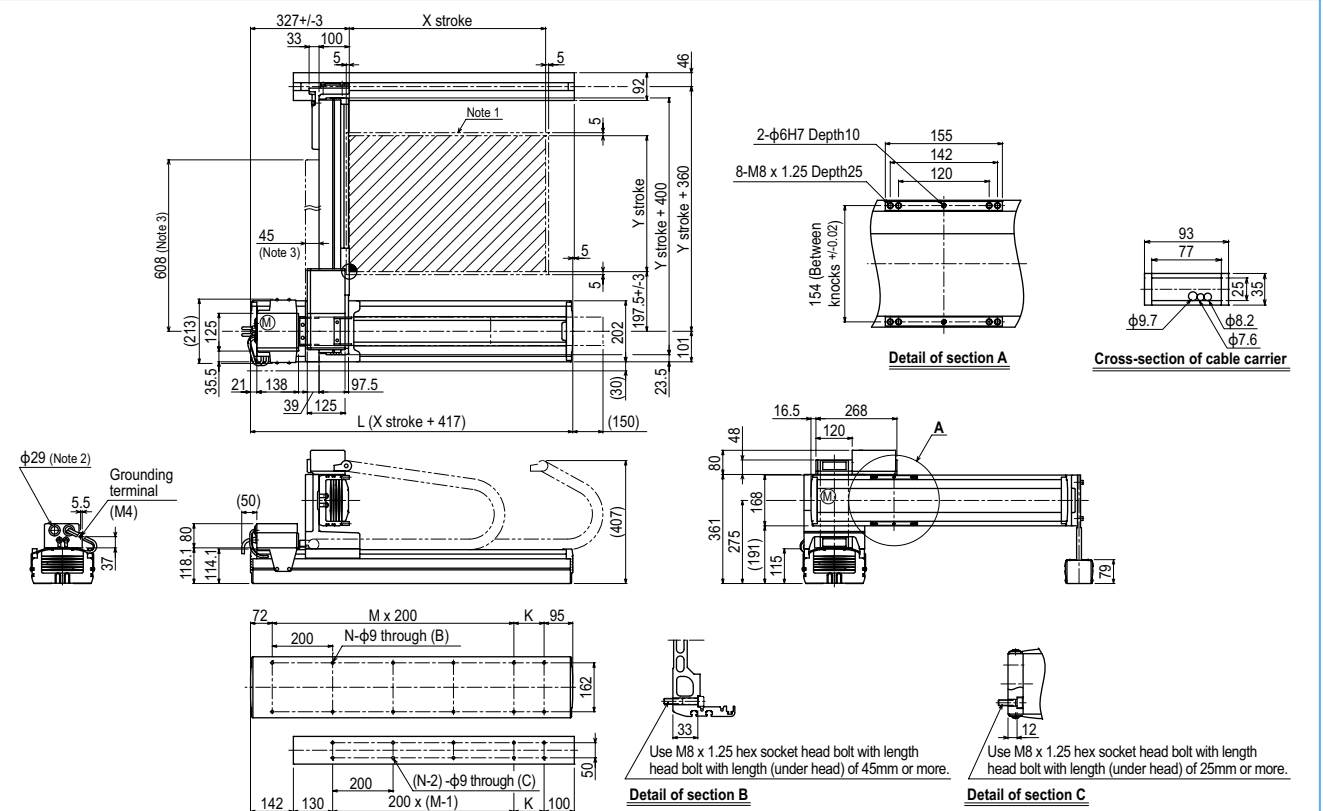
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
250 to 1050	50

## Controller

Controller	Operation method
RCX222HP-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## HXYx 2 axes G1

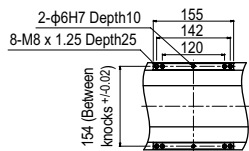


X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
	<b>L</b>	667	767	867	967	1067	1167	1267	1367	1467	1567
<b>K</b>	100	200	100	200	100	200	100	200	100	200	100
<b>F</b>	420	420	600	600	780	780	960	960	1140	1320	1320
<b>M</b>	2	2	3	3	4	4	5	5	6	6	7
<b>N</b>	8	8	10	10	12	12	14	14	16	16	18
Y stroke	250	350	450	550	650	750	850	950	1050		
<b>Maximum speed for each stroke (mm/sec)</b> <sup>Note 4</sup>	<b>X-axis</b>		1200				960	840	720	600	480
	<b>Y-axis</b>		1200				960	840	720		
	<b>Speed setting</b>		-				80%	70%	60%	50%	40%

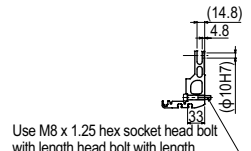
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.  
 Note 3. Dimension of reinforced bracket (To be installed when the Y stroke is 750mm or longer)

Note 4. When the X-axis/Y-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

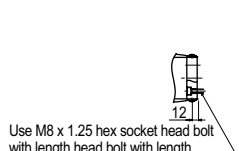
HXYx 2 axes **G2**



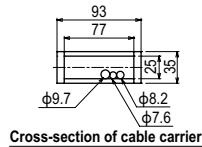
Detail of section A



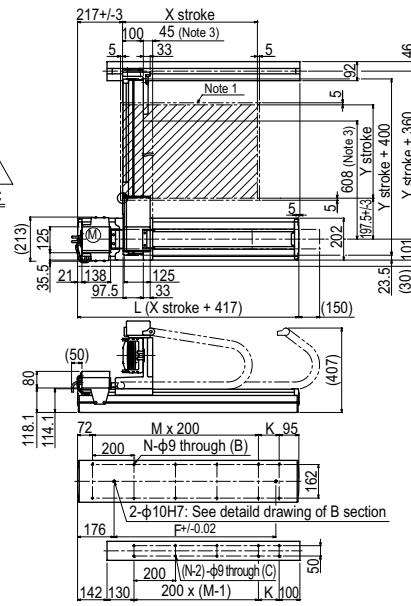
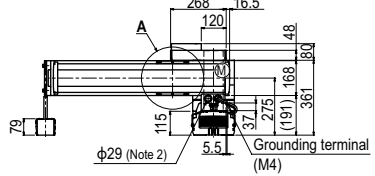
Detail of section B



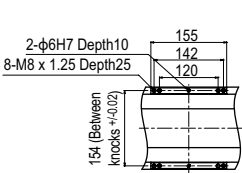
Detail of section C



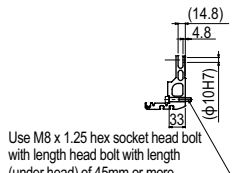
Cross-section of cable carrier



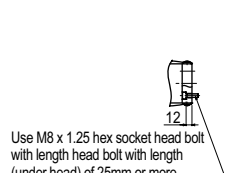
HXYx 2 axes **G3**



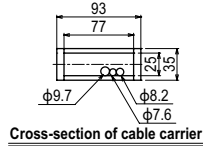
Detail of section A



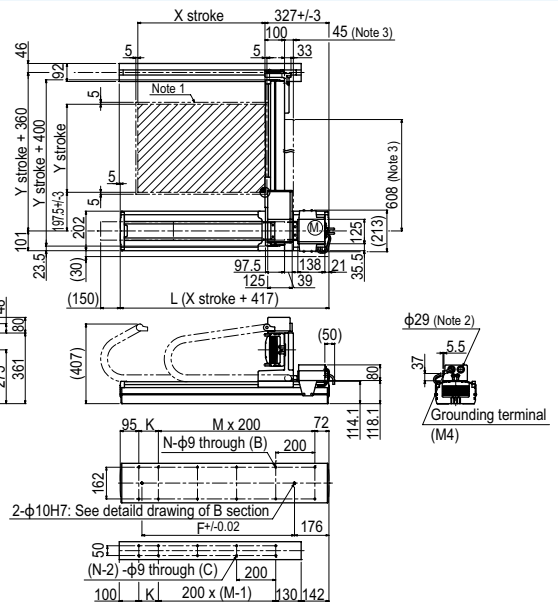
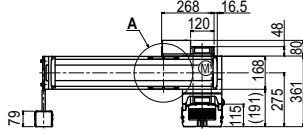
Detail of section B



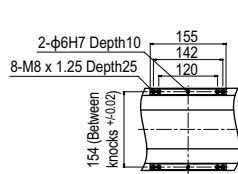
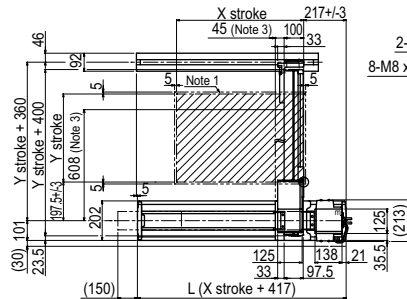
Detail of section C



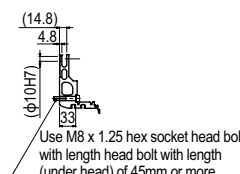
Cross-section of cable carrier



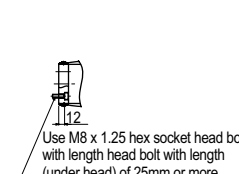
HXYx 2 axes **G4**



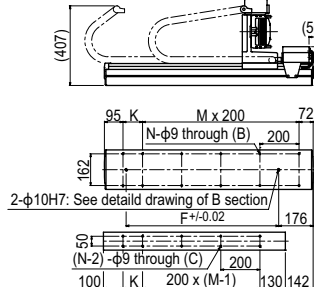
Detail of section A



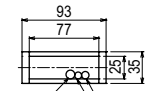
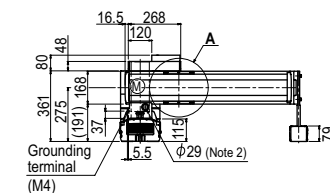
Detail of section B



Detail of section C



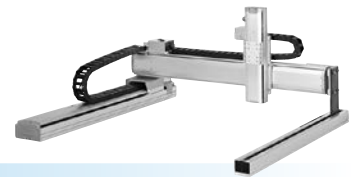
Cross-section of cable carrier



Cross-section of cable carrier

# HXYx 3 axes / ZL

- Gantry type
- Cable carrier
- Z-axis: clamped base / moving table type (200W)



## Ordering method

**HXYx - C** [ ] [ ] [ ] **ZL** [ ] [ ] [ ] **RCX340-3** [ ] [ ] [ ] [ ] [ ] [ ] [ ]

**Model** **Cable** **Combination** **X-axis stroke** **Y-axis stroke** **ZR-axis** **Z-axis stroke** **Cable**

G1 25 to 125cm 25 to 105cm 25 to 55cm 3L: 3.5m  
G2 5L: 5m  
G3 10L: 10m  
G4

**RCX340-3** Controller / Number of controllable axes Safety standard Option A (OP.A) Option B (OP.B) Option C (OP.C) Option D (OP.D) Option E (OP.E) Absolute battery

**Specify various controller setting items. RCX340 ▶ P.542**

**RCX240** [ ] **R** [ ] [ ] [ ] [ ] [ ] [ ]

Controller CE Marking Regenerative unit Expansion I/O Network option IVY System Gripper Battery

**Specify various controller setting items. RCX240/RCX240S ▶ P.532**

## Specification

	X-axis	Y-axis	Z-axis
<b>Axis construction</b> <small>Note 1</small>	F20	F17	F14H-BK
<b>AC servo motor output (W)</b>	600	400	200
<b>Repeatability</b> <small>Note 2</small> (mm)	+/-0.01	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> <small>Note 3</small> (Deceleration ratio) (mm)	20	20	10
<b>Maximum speed</b> <small>Note 4</small> (mm/sec)	1200	1200	600
<b>Moving range (mm)</b>	250 to 1250	250 to 1050	250 to 550
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10		

- Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis/Y-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

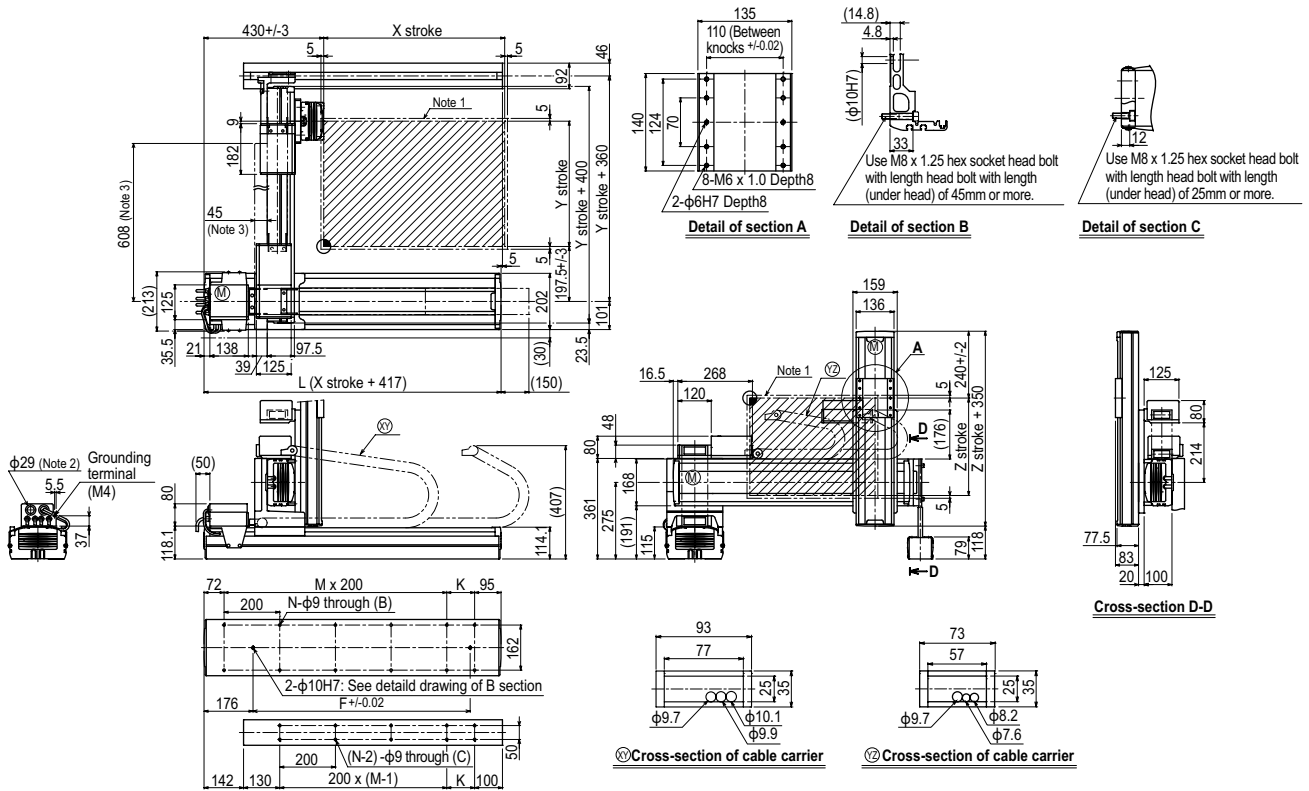
## Maximum payload (kg)

Y stroke (mm)	Z stroke (mm)
250 to 1050	20

## Controller

Controller	Operation method
RCX340	Programming / I/O point trace / Remote command / Operation using RS-232C communication
RCX240-R	

## HXYx 3 axes / ZL (G1)



X stroke	250	350	450	550	650	750	850	950	1050	1150	1250			
<b>L</b>	667	767	867	967	1067	1167	1267	1367	1467	1567	1667			
<b>K</b>	100	200	100	200	100	200	100	200	100	200	100			
<b>F</b>	420	420	600	600	780	780	960	960	1140	1320	1320			
<b>M</b>	2	2	3	3	4	4	5	5	6	6	7			
<b>N</b>	8	8	10	10	12	12	14	14	16	16	18			
<b>Y stroke</b>	250	350	450	550	650	750	850	950	1050					
<b>Z stroke</b>	250	350	450	550										
<b>Maximum speed for each stroke (mm/sec)</b> <small>Note 4</small>	X-axis		1200		960		840		720		600		480	
	Y-axis		1200		960		840		720					
	Speed setting		-		80%		70%		60%		50%		40%	

- Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.  
 Note 3. Dimension of reinforced bracket (To be installed when the Y stroke is 750mm or longer)

- Note 4. When the X-axis/Y-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

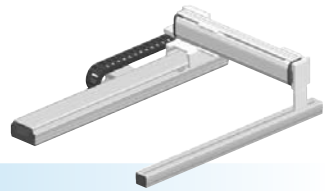








# HXYLx 2 axes



- Gantry type
- Cable carrier

## Ordering method

**HXYLx - C** [ ] [ ] [ ] [ ] **RCX222HP** [ ] **R** [ ] [ ]

Model	Cable	Combination	X-axis stroke	Y-axis stroke	Cable	Controller	Usable for CE	Regenerative unit	Input/Output selection 1	Input/Output selection 2
G1			115 to 205cm	25 to 105cm	3L: 3.5m	RCX222HP	No entry: Standard E: CE marking	R: RG2	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet <sup>TM</sup> PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None N1: OPDIO24/16 (NPN) <sup>Note 1</sup> P1: OPDIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>
G2					5L: 5m					
G3					10L: 10m					
G4										

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <sup>Note 1</sup>	F20N	F17
<b>AC servo motor output (W)</b>	400	400
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.04	+/-0.01
<b>Drive system</b>	Ball screw (Class C10)	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20
<b>Maximum speed</b> <sup>Note 4</sup> (mm/sec)	1200	1200
<b>Moving range (mm)</b>	1150 to 2050	250 to 1050
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5, 10	

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the Y-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

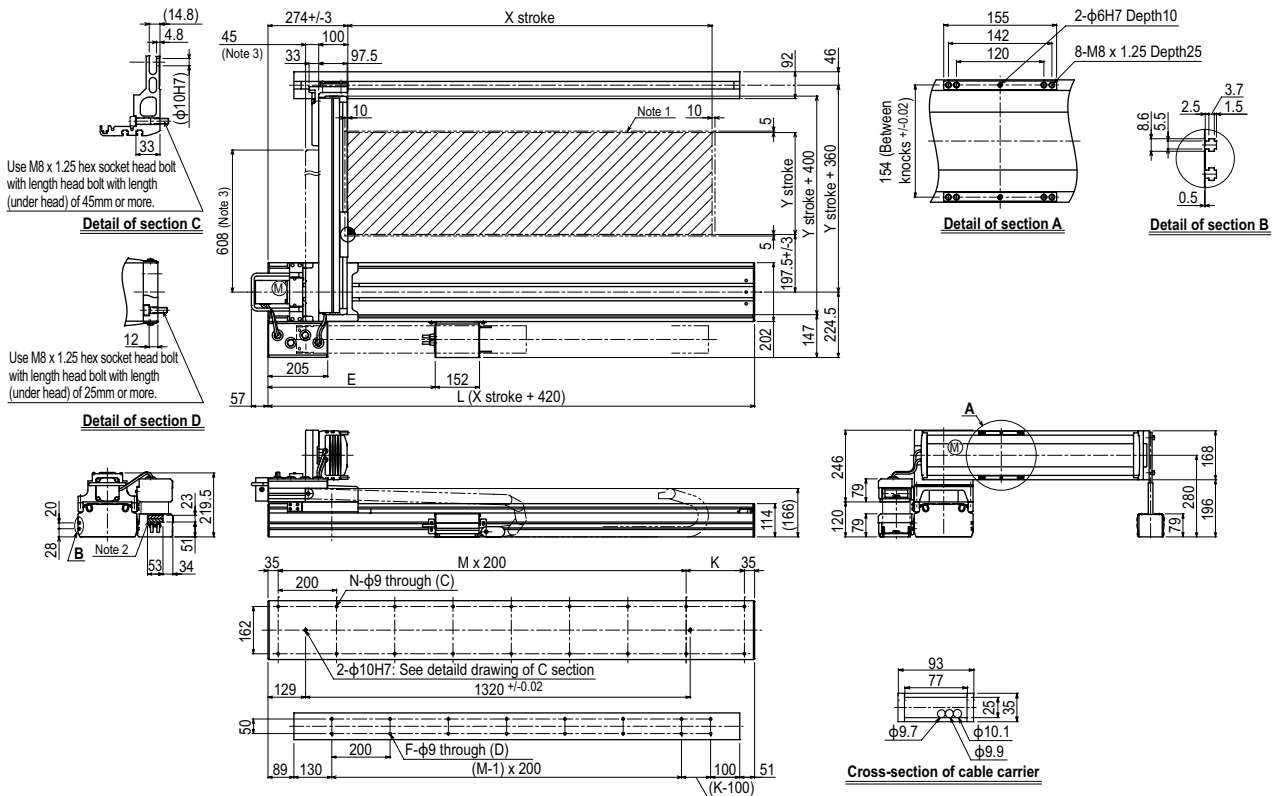
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
250 to 1050	50

## Controller

Controller	Operation method
RCX222HP-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## HXYLx 2 axes G1

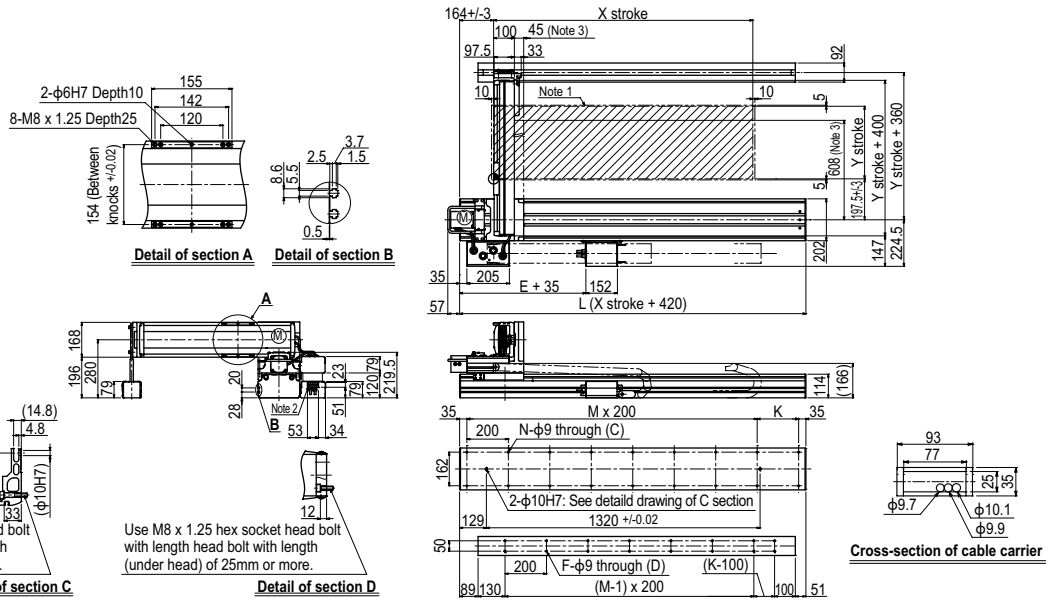


X stroke	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	
<b>L</b>	1570	1670	1770	1870	1970	2070	2170	2270	2370	2470	
<b>E</b>	528	574	620	666	712	758	804	850	896	942	
<b>K</b>	100	200	100	200	100	200	100	200	100	200	
<b>M</b>	7	7	8	8	9	9	10	10	11	11	
<b>N</b>	18	18	20	20	22	22	24	24	26	26	
<b>F</b>	14	16	16	18	18	20	20	22	22	24	
<b>Y stroke</b>	250	350	450	550	650	750	850	950	1050		
<b>Maximum speed for each stroke (mm/sec)</b> <sup>Note 4</sup>	Y-axis		1200				960		840		720
<b>Speed setting</b>			-				80%		70%		60%

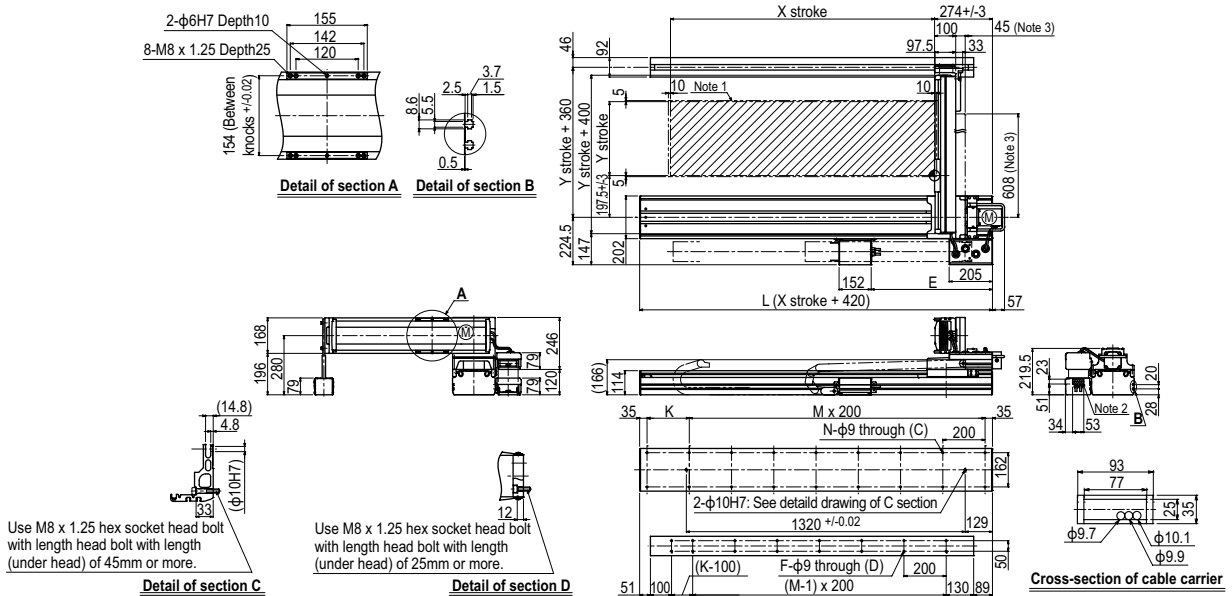
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.  
 Note 3. Dimension of reinforced bracket (To be installed when the Y stroke is 750mm or longer)

Note 4. When the Y-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

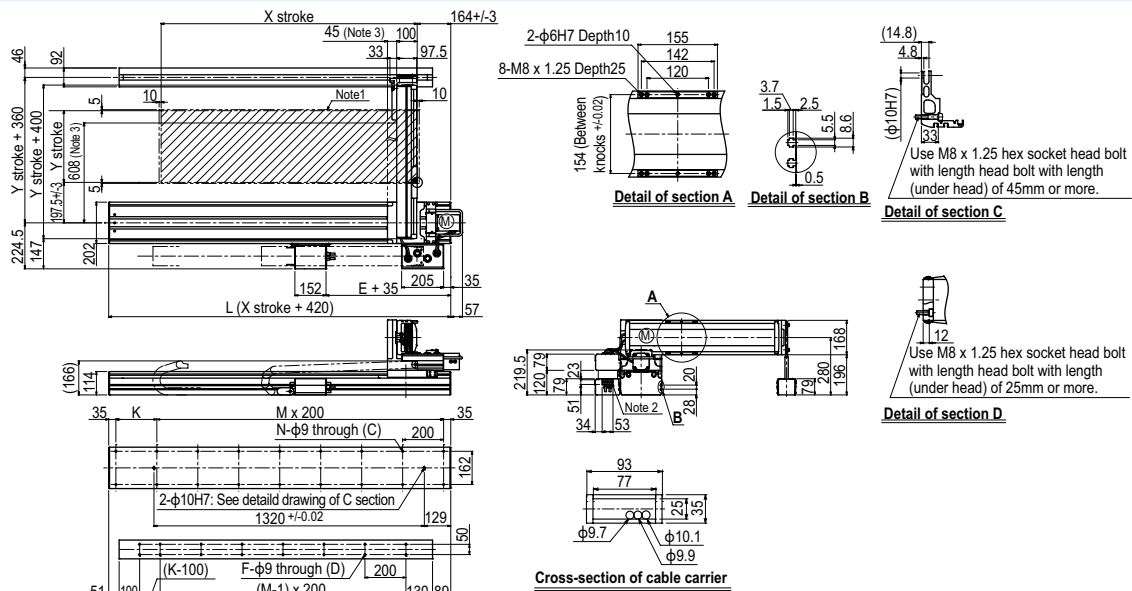
HXYLx 2 axes **G2**



HXYLx 2 axes **G3**



HXYLx 2 axes **G4**



Articulated robots  
 YA  
 Linear conveyor modules  
 LCM100  
 Compact single-axis robots  
 TRANSEVO  
 Single-axis robots  
 FLIP-X  
 Linear motor single-axis robots  
 PHASER  
 Cartesian robots  
 XX-X  
 SCARA robots  
 YK-X  
 Pick & place robots  
 YP-X  
 CLEAN  
 INFORMATION  
 INFORMATION  
 Arm type  
 Gantry type  
 Moving arm type  
 Pole type  
 XZ type

# SXYx 2 axes

● Moving arm type ● Whipover



## Ordering method

<b>SXYx - S</b>					<b>RCX222</b>				
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b> Note 1	<b>Y-axis stroke</b> Note 1	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
M1		M1	15 to 85cm	15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	N: NPN Note 2 P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link Note 3	No entry: None N1: OP.DIO24/16 (NPN) Note 2 P1: OP.DIO24/17 (PNP) EN: Ethernet Note 4

Note 1. The total of the X and Y strokes should be 1000mm or less.  
 Note 2. NPN cannot be selected if using CE marking.  
 Note 3. Available only for the master. See P.66 for details on YC-Link system.  
 Note 4. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> Note 1	F14H	F14
<b>AC servo motor output (W)</b>	200	100
<b>Repeatability</b> Note 2 (mm)	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> Note 3 (Deceleration ratio) (mm)	20	20
<b>Maximum speed</b> Note 4 (mm/sec)	1200	1200
<b>Moving range (mm)</b>	150 to 850	150 to 350
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flange machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

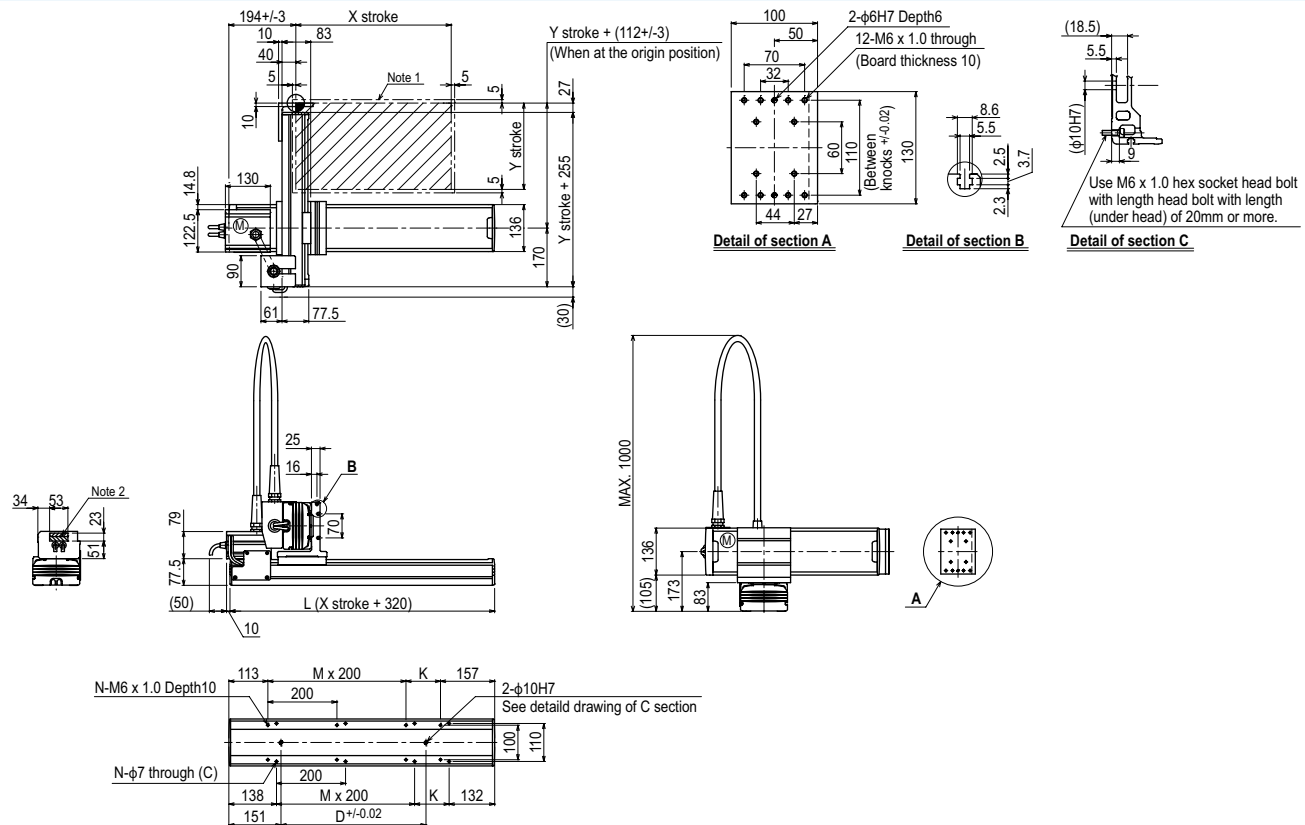
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
150	15
250	14
350	13

## Controller

Controller	Operation method
RCX222	Programming / I/O point trace / Remote command / Operation using RS-232C communication

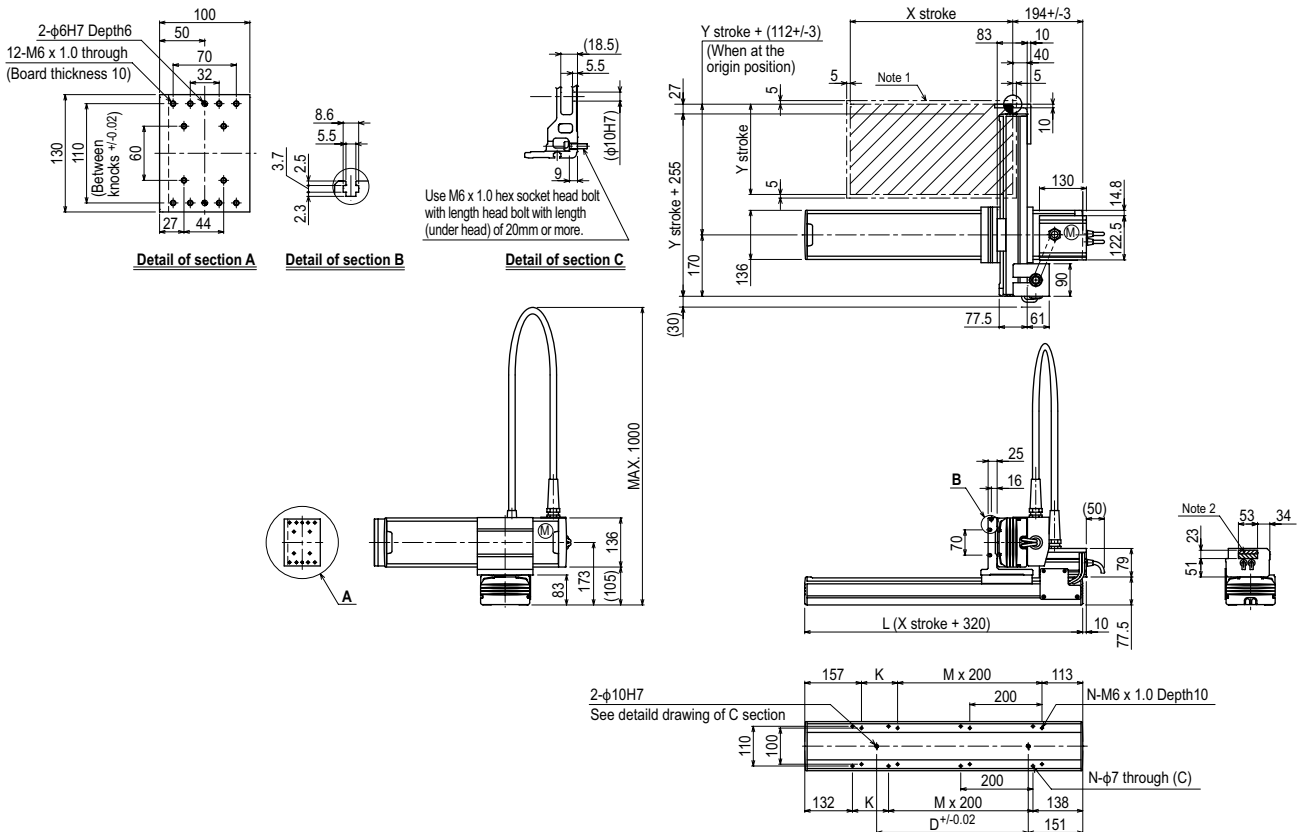
## SXYx 2 axes M1



X stroke	150	250	350	450	550	650	750	850
<b>L</b>	470	570	670	770	870	970	1070	1170
<b>K</b>	200	100	200	100	200	100	200	100
<b>D</b>	240	240	420	420	600	600	780	960
<b>M</b>	0	1	1	2	2	3	3	4
<b>N</b>	4	6	6	8	8	10	10	12
<b>Y stroke</b>	150	250	350					
<b>Maximum speed for each stroke (mm/sec)</b>	X-axis		1200		960		780	
<b>Speed setting</b>			-		80%		65%	

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. The shaded position indicates a user cable extraction port.  
 Note 3. The total of the X and Y strokes should be 1000mm or less.  
 Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

SXYx 2 axes M3



X stroke <sup>Note 3</sup>	150	250	350	450	550	650	750	850
L	470	570	670	770	870	970	1070	1170
K	200	100	200	100	200	100	200	100
D	240	240	420	420	600	600	780	960
M	0	1	1	2	2	3	3	4
N	4	6	6	8	8	10	10	12
Y stroke <sup>Note 3</sup>	150	250	350					
Maximum speed for each stroke (mm/sec) <sup>Note 4</sup>	X-axis		1200			960		780
Speed setting			-			80%		65%

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

Note 2. The shaded position indicates an user cable extraction port.

Note 3. The total of the X and Y strokes should be 1000mm or less.

Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.



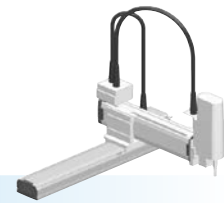






# SXYx 3 axes / ZS

- Moving arm type
- Whipover
- Z-axis shaft vertical type



## Ordering method

**SXYx - S** [ ] [ ] [ ] [ ] **15** [ ]

Model	Cable	Combination	X-axis stroke <sup>Note 1</sup>	Y-axis stroke <sup>Note 1</sup>	ZR-axis	Z-axis stroke	Cable
M1	M1	M3	15 to 85cm	15 to 35cm	ZS12 ZS6		3L: 3.5m 5L: 5m 10L: 10m

**RCX340-3** [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Controller / Number of controllable axes Safety standard Option A (OP.A) Option B (OP.B) Option C (OP.C) Option D (OP.D) Option E (OP.E) Absolute battery

**RCX240S** [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Controller CE Marking Expansion I/O Network option iVY System Gripper Battery

Note 1. The total of the X and Y strokes should be 1000mm or less.

## Specification

	X-axis	Y-axis	Z-axis: ZS12	Z-axis: ZS6
Axis construction <sup>Note 1</sup>	F14H	F14		-
AC servo motor output (W)	200	100		60
Repeatability <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01		+/-0.02
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C10)	
Ball screw lead <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20	12	6
Maximum speed <sup>Note 4</sup> (mm/sec)	1200	1200	1000	500
Moving range (mm)	150 to 850	150 to 350		150
Robot cable length (m)	Standard: 3.5 Option: 5,10			

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.

Note 2. Positioning repeatability in one direction.

Note 3. Leads not listed in the catalog are also available. Contact us for details.

Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

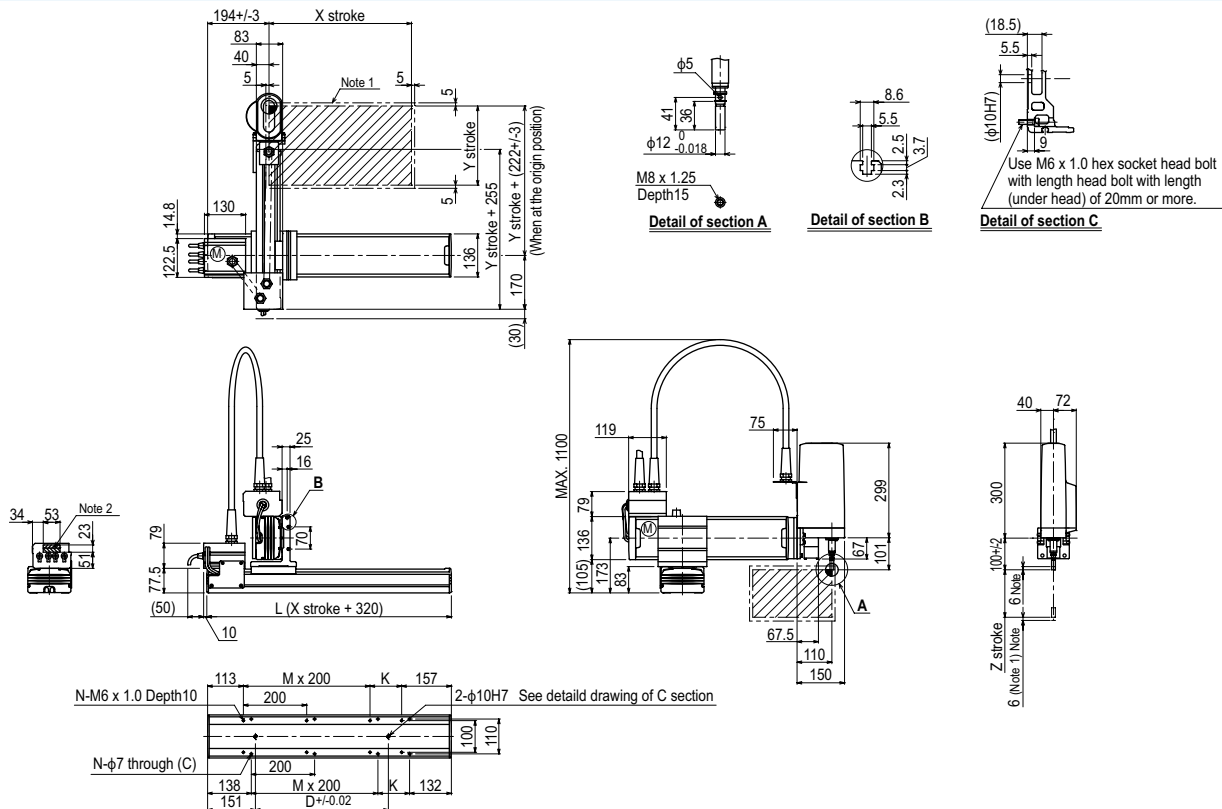
## Maximum payload (kg)

Y stroke (mm)	ZS12	ZS6
150 to 350	3	5

## Controller

Controller	Operation method
RCX340 RCX240S	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## SXYx 3 axes / ZS M1



X stroke <sup>Note 3</sup>	150	250	350	450	550	650	750	850
L	470	570	670	770	870	970	1070	1170
K	200	100	200	100	200	100	200	100
D	240	240	420	420	600	600	780	960
M	0	1	1	2	2	3	3	4
N	4	6	6	8	8	10	10	12
Y stroke <sup>Note 3</sup>	150	250	350					
Z stroke	150							
Maximum speed for each stroke (mm/sec) <sup>Note 4</sup>	X-axis		1200			960		780
Speed setting			-			80%		65%

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

Note 2. The shaded position indicates an user cable extraction port.

Note 3. The total of the X and Y strokes should be 1000mm or less.

Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

Articulated robots  
YA

Linear conveyor modules  
LCM100

Compact single-axis robots  
TRANSERVO

Single-axis robots  
FLIP-X

Linear motor single-axis robots  
PHASER

Cartesian robots  
XX-X

SCARA robots  
YK-X

Pick & place robots  
YP-X

CLEAN

CONTROLLER INFORMATION

Arm type

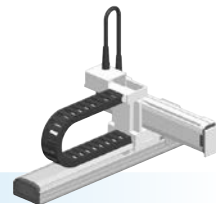
Gantry type

Moving arm type

Pole type

XZ type

# MXYx 2 axes



- Moving arm type
- Cable carrier

## Ordering method

<b>MXYx - C</b>					<b>RCX222</b>		<b>R</b>			
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>Y-axis stroke</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Regenerative unit</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
M1		M1	25 to 125cm	15 to 55cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	R: RG2	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None N1: OP.DIO24/16 (PNP) <sup>Note 1</sup> P1: OP.DIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <sup>Note 1</sup>	F17	F14H
<b>AC servo motor output (W)</b>	400	200
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20
<b>Maximum speed</b> <sup>Note 4</sup> (mm/sec)	1200	1200
<b>Moving range (mm)</b>	250 to 1250	150 to 550
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flange machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

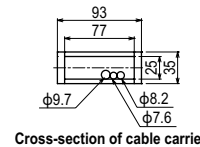
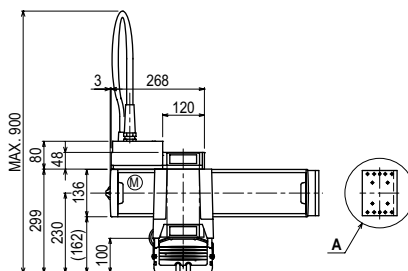
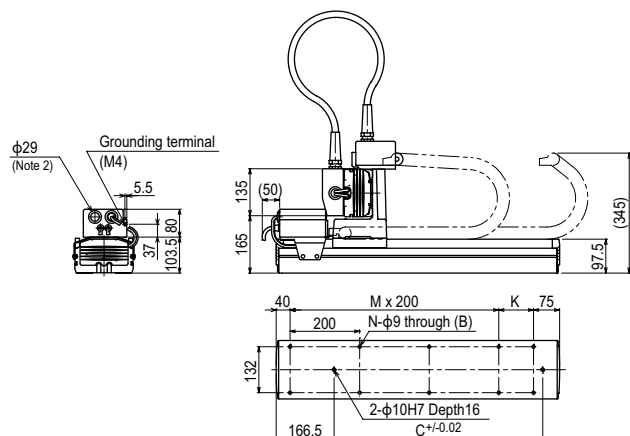
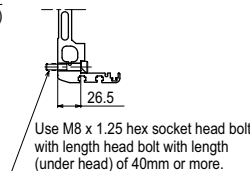
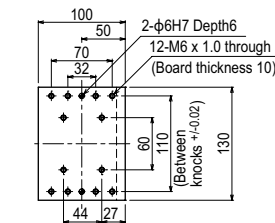
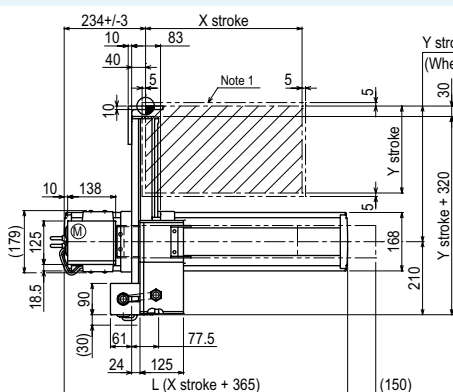
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
150 to 550	20

## Controller

Controller	Operation method
RCX222-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## MXYx 2 axes M1



X stroke	250	350	450	550	650	750	850	950	1050	1150	1250	
<b>L</b>	615	715	815	915	1015	1115	1215	1315	1415	1515	1615	
<b>K</b>	100	200	100	200	100	200	100	200	100	200	100	
<b>D</b>	240	420	600	600	780	780	960	960	1140	1140	1320	
<b>M</b>	2	2	3	3	4	4	5	5	6	6	7	
<b>N</b>	8	8	10	10	12	12	14	14	16	16	18	
<b>Y stroke</b>	150	250	350	450	550							
<b>Maximum speed for each stroke (mm/sec)</b>	<b>X-axis</b>		1200					960	840	720	600	480
<b>Speed setting</b>	<b>X-axis</b>		-					80%	70%	60%	50%	40%

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.

Note 3. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

MXyX 2 axes **M3**

**Detail of section A**  
100, 50, 70, 32, 2-φ6H7 Depth6, 12-M6 x 1.0 through (Board thickness 10), 60, 110, 130, 27, 44, (Between knockouts ±0.02)

**Detail of section B**  
26.5

**Cross-section of cable carrier**  
93, 77, 25, 35, φ9.7, φ8.2, φ7.6

Use M8 x 1.25 hex socket head bolt with length head bolt with length (under head) of 40mm or more.

**Y stroke + 320**  
30, 210, 168, 5, 5, 5, 5, 234±3, 83, 10, 40, 10, 10, 138, 10, 125, 18.5, (179), 1.00, 30, 77.5, 61, 24, 125, 24, L (X stroke + 365)

**Y stroke**  
Y stroke + (140±3) (When at the origin position)

**X stroke**  
X stroke

**MAX. 900**  
268, 3, 120, 48, 80, 100, (162), 230, 299

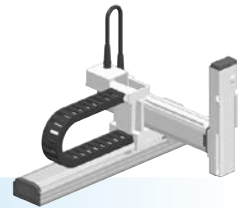
**Grounding terminal (M4)**  
φ29 (Note 2), 5.5, 103.5, 80, 37

**Dimensions:**  
75, K, M x 200, 40, N-φ9 through (B), 200, 2-φ10H7 Depth16, C±0.02, 166.5, 132, 97.5, (345), 135, 165

X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
L	615	715	815	915	1015	1115	1215	1315	1415	1515	1615
K	100	200	100	200	100	200	100	200	100	200	100
D	240	420	600	600	780	780	960	960	1140	1140	1320
M	2	2	3	3	4	4	5	5	6	6	7
N	8	8	10	10	12	12	14	14	16	16	18
Y stroke	150	250	350	450	550						
Maximum speed for each stroke (mm/sec) <sup>Note 3</sup>	X-axis		1200				960	840	720	600	480
Speed setting			-				80%	70%	60%	50%	40%

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
Note 2. User cable extraction port.  
Note 3. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

- Moving arm type
- Cable carrier
- Z-axis: clamped base / moving table type (200W)



### Ordering method

**MXYx - C**

Model	Cable	Combination	X-axis stroke	Y-axis stroke	ZR-axis	Z-axis stroke	Cable
		M1 M3	25 to 125cm	15 to 55cm	ZFL20 ZFL10	15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m

**RCX340-3**

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ **P.542**

**RCX240**

Controller	CE Marking	Regenerative unit	Expansion I/O	Network option	IVY System	Gripper	Battery

Specify various controller setting items. RCX240/RCX240S ▶ **P.532**

### Specification

	X-axis	Y-axis	Z-axis: ZFL20	Z-axis: ZFL10
<b>Axis construction</b> <small>Note 1</small>	F17	F14H	F10-BK equivalent guide-reinforced model	
<b>AC servo motor output (W)</b>	400	200	200	
<b>Repeatability</b> <small>Note 2</small> (mm)	+/-0.01	+/-0.01	+/-0.01	
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)	
<b>Ball screw lead</b> <small>Note 3</small> (Deceleration ratio) (mm)	20	20	20	10
<b>Maximum speed</b> <small>Note 4</small> (mm/sec)	1200	1200	1200	600
<b>Moving range (mm)</b>	250 to 1250	150 to 550	150 to 350	
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10			

Note. The standard types are ZFL with higher rigidity as compared with ZF types which are conventional standard types. When you need the ZF type, please consult YAMAHA.

Note 1. Use caution that the frame machining (installation holes, tap holes) differs from single-axis robots'.

Note 2. Positioning repeatability in one direction.

Note 3. Leads not listed in the catalog are also available. Contact us for details.

Note 4. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

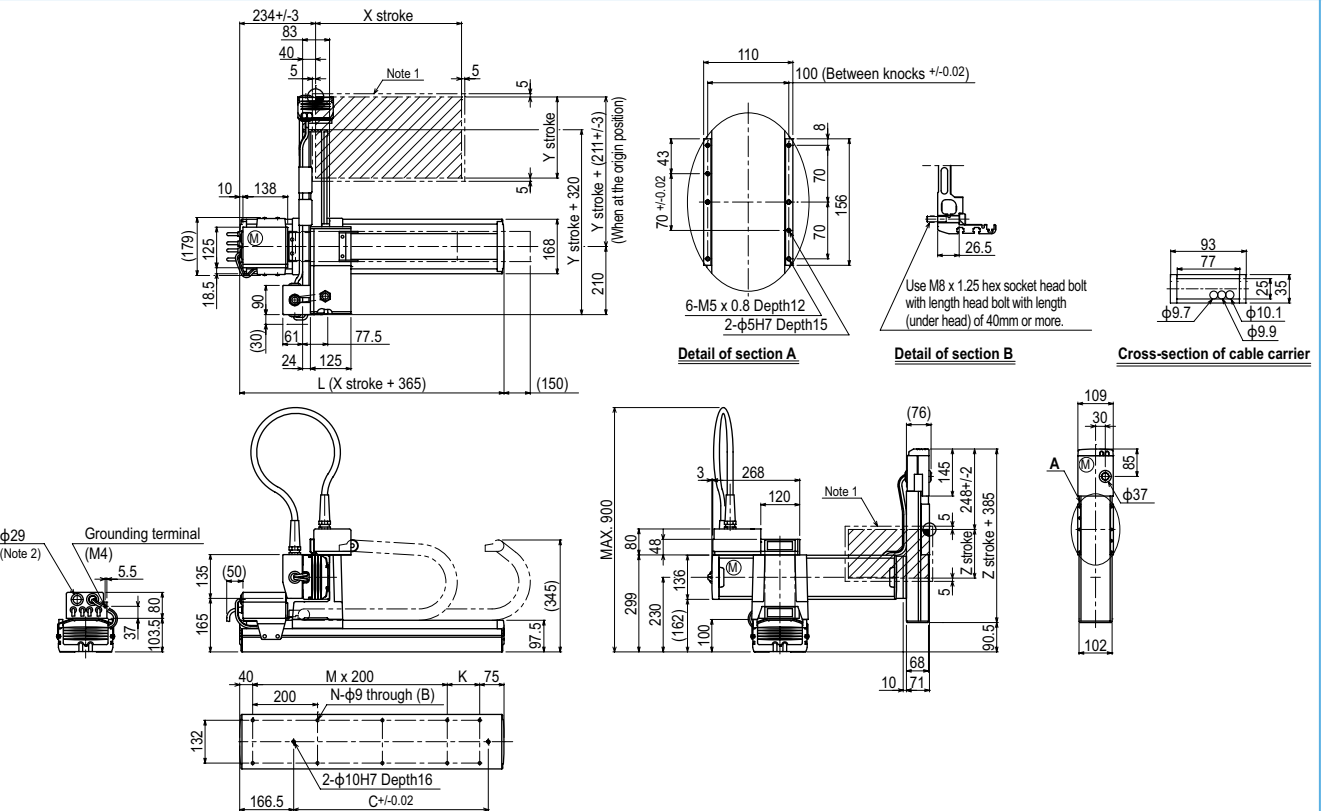
### Maximum payload (kg)

Y stroke (mm)	Z stroke (mm)					
	ZFL20			ZFL10		
150 to 550	8	8	8	12	11	10

### Controller

Controller	Operation method
RCX340	Programming / I/O point trace / Remote command / Operation using RS-232C communication
RCX240-R	

### MXYx 3 axes / ZFL20/10 (M1)



	X stroke	250	350	450	550	650	750	850	950	1050	1150	1250	
<b>L</b>		615	715	815	915	1015	1115	1215	1315	1415	1515	1615	
<b>K</b>		100	200	100	200	100	200	100	200	100	200	100	
<b>C</b>		240	420	600	600	780	780	960	960	1140	1140	1320	
<b>M</b>		2	2	3	3	4	4	5	5	6	6	7	
<b>N</b>		8	8	10	10	12	12	14	14	16	16	18	
<b>Y stroke</b>		150	250	350	450	550							
<b>Z stroke</b>		150	250	350									
<b>Maximum speed for each stroke (mm/sec)</b> <small>Note 3</small>	<b>X-axis</b>	1200					960	840	720	600	480		
	<b>Speed setting</b>	-					80%	70%	60%	50%	40%		

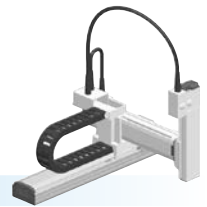
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

Note 2. User cable extraction port.

Note 3. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

# MXYx **3 axes / ZFH**

- Moving arm type
- Cable carrier
- Z-axis: clamped table / moving base type (200W)



## Ordering method

**MXYx - C** [ ] [ ] [ ] **ZFH** [ ] [ ] [ ]

Model	Cable	Combination	X-axis stroke	Y-axis stroke	ZR-axis	Z-axis stroke	Cable
		M1 M3	25 to 125cm	15 to 55cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m

**RCX340-3** [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
--	-----------------	-----------------	-----------------	-----------------	-----------------	-----------------	------------------

Specify various controller setting items. RCX340 ▶ **P.542**

**RCX240** [ ] **R** [ ] [ ] [ ] [ ] [ ] [ ]

Controller	CE Marking	Regenerative unit	Expansion I/O	Network option	iVY System	Gripper	Battery
------------	------------	-------------------	---------------	----------------	------------	---------	---------

Specify various controller setting items. RCX240/RCX240S ▶ **P.532**

## Specification

	X-axis	Y-axis	Z-axis
Axis construction <sup>Note 1</sup>	F17	F14H	F10-BK equivalent guide-reinforced model
AC servo motor output (W)	400	200	200
Repeatability <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20	10
Maximum speed <sup>Note 4</sup> (mm/sec)	1200	1200	600
Moving range (mm)	250 to 1250	150 to 550	150 to 350
Robot cable length (m)	Standard: 3.5 Option: 5,10		

Note. The standard types are ZFH with higher rigidity as compared with ZF types which are conventional standard types. When you need the ZF type, please consult YAMAHA.

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots'.

Note 2. Positioning repeatability in one direction.

Note 3. Leads not listed in the catalog are also available. Contact us for details.

Note 4. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

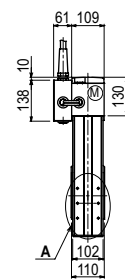
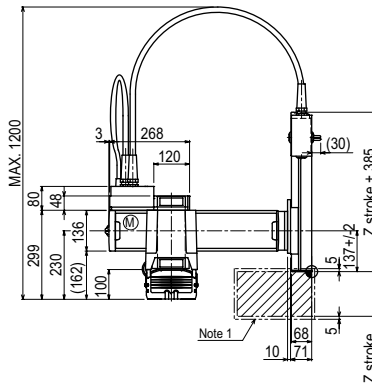
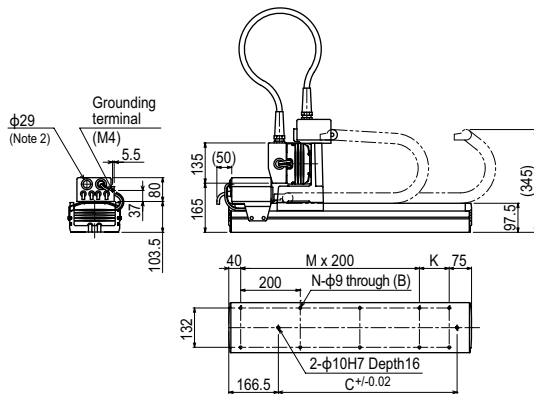
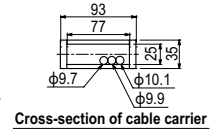
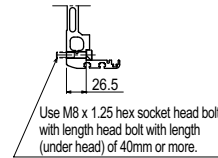
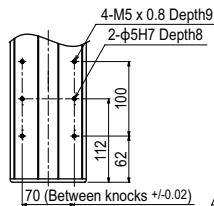
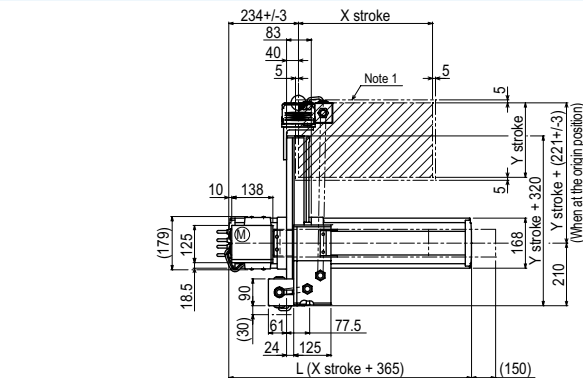
## Maximum payload (kg)

	Z stroke (mm)		
Y stroke (mm)	150	250	350
150 to 550	12	11	10

## Controller

Controller	Operation method
RCX340 RCX240-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## MXYx 3 axes / ZFH **M1**



X stroke <sup>Note 3</sup>	250	350	450	550	650	750	850	950	1050	1150	1250
L	615	715	815	915	1015	1115	1215	1315	1415	1515	1615
K	100	200	100	200	100	200	100	200	100	200	100
D	240	420	600	600	780	780	960	960	1140	1140	1320
M	2	2	3	3	4	4	5	5	6	6	7
N	8	8	10	10	12	12	14	14	16	16	18
Y stroke <sup>Note 3</sup>	150			250		350		450		550	
Z stroke	150			250		350					
Maximum speed for each stroke (mm/sec) <sup>Note 4</sup>	X-axis		1200				960	840	720	600	480
	Speed setting		-				80%	70%	60%	50%	40%

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

Note 2. User cable extraction port.

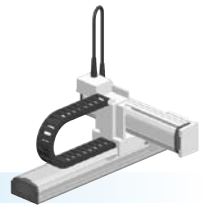
Note 3. The total of the Y and Z strokes should be 800mm or less.

Note 4. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

Articulated robots  
YA  
Linear conveyor modules  
LCM100  
Compact single-axis robots  
TRANSEVO  
Single-axis robots  
FLIP-X  
Linear motor single-axis robots  
PHASER  
Cartesian robots  
XX-X  
SCARA robots  
YK-X  
Pick & place robots  
YP-X  
CLEAN  
CONTROLLER INFORMATION  
Arm type  
Gantry type  
Moving arm type  
Pole type  
XZ type

# HXYx 2 axes

● Moving arm type ● Cable carrier



## Ordering method

<b>HXYx - C</b>					<b>RCX222HP</b>			<b>R</b>		
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>Y-axis stroke</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Regenerative unit</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
M1		M1	25 to 125cm	25 to 65cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222HP	No entry: Standard E: CE marking	R: RG2	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet <sup>TM</sup> PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None N1: OP.DIO24/16 (NPN) <sup>Note 1</sup> P1: OP.DIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <sup>Note 1</sup>	F20	F17
<b>AC servo motor output (W)</b>	600	400
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20
<b>Maximum speed</b> <sup>Note 4</sup> (mm/sec)	1200	1200
<b>Moving range (mm)</b>	250 to 1250	250 to 650
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5, 10	

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

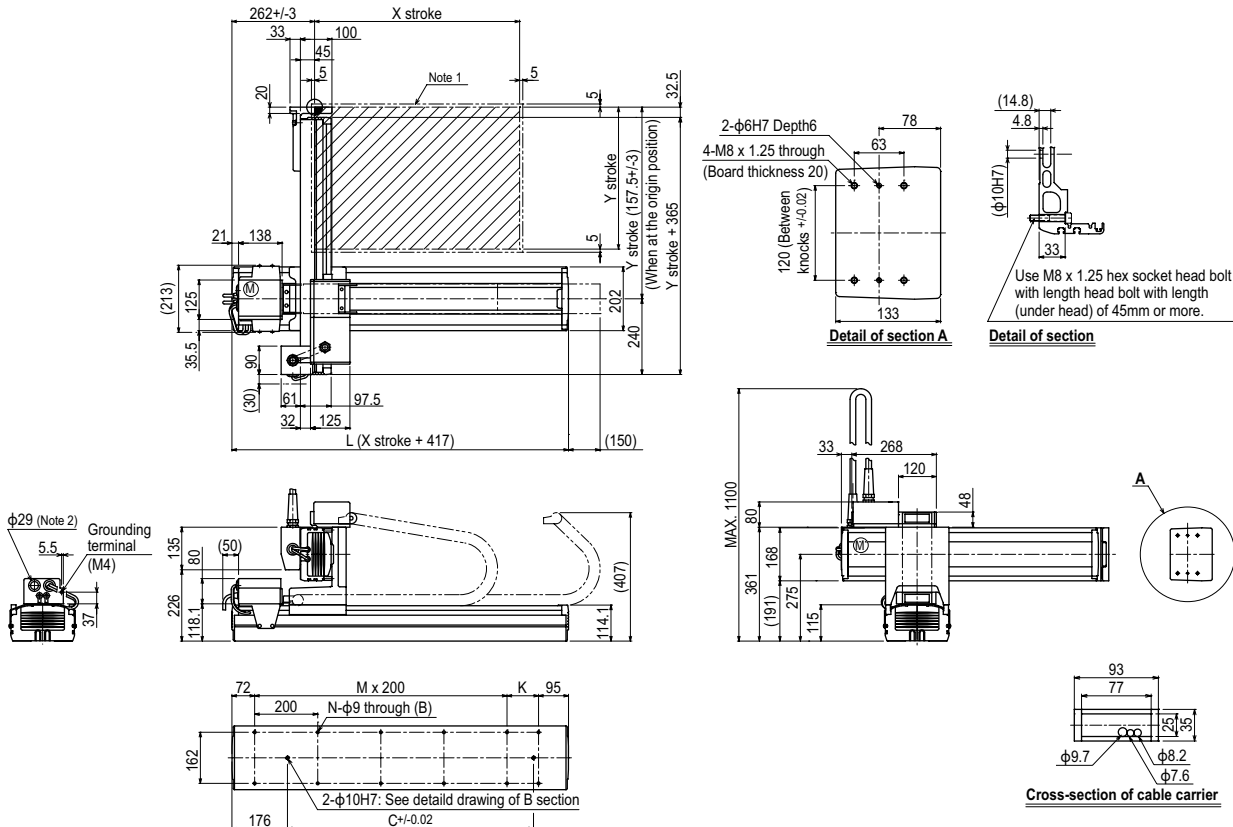
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
250 to 650	30

## Controller

Controller	Operation method
RCX222HP-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## HXYx 2 axes M1

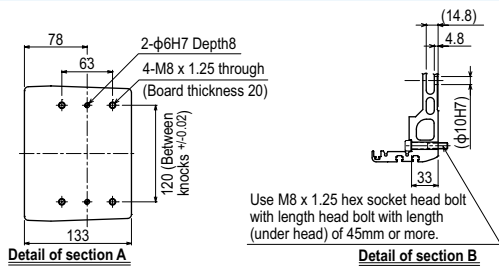


X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
<b>L</b>	667	767	867	967	1067	1167	1267	1367	1467	1567	1667
<b>K</b>	100	200	100	200	100	200	100	200	100	200	100
<b>C</b>	420	420	600	600	780	780	960	960	1140	1320	1320
<b>M</b>	2	2	3	3	4	4	5	5	6	6	7
<b>N</b>	8	8	10	10	12	12	14	14	16	16	18
<b>Y stroke</b>	250	350	450	550	650						
<b>Maximum speed for each stroke (mm/sec)</b>	<b>X-axis</b>		1200				960	840	720	600	480
<b>Speed setting</b>	<b>X-axis</b>		-				80%	70%	60%	50%	40%

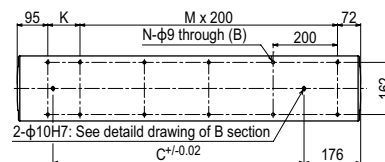
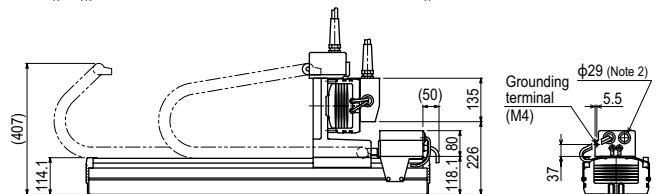
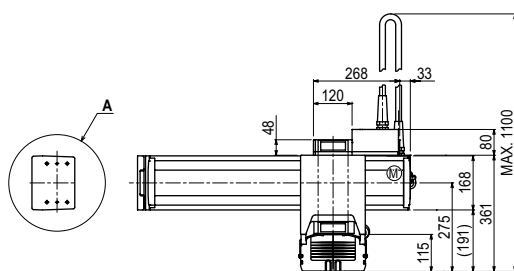
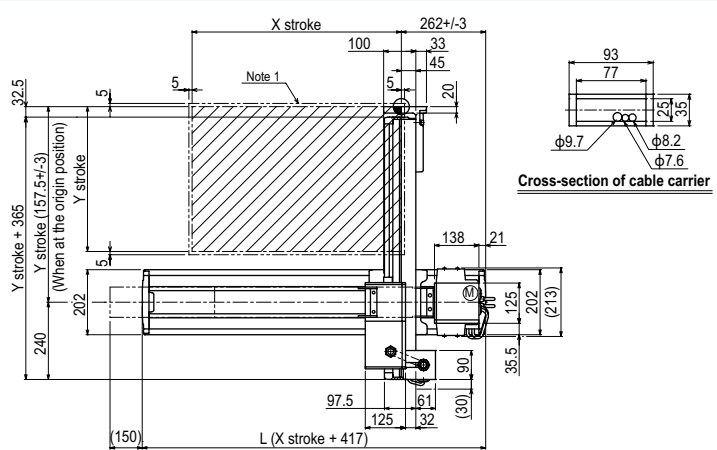
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.

Note 3. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

HXYx 2 axes **M3**



Use M8 x 1.25 hex socket head bolt with length head bolt with length (under head) of 45mm or more.

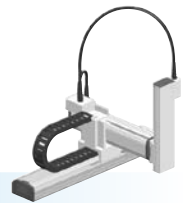


X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
L	667	767	867	967	1067	1167	1267	1367	1467	1567	1667
K	100	200	100	200	100	200	100	200	100	200	100
C	420	420	600	600	780	780	960	960	1140	1320	1320
M	2	2	3	3	4	4	5	5	6	6	7
N	8	8	10	10	12	12	14	14	16	16	18
Y stroke	250	350	450	550	650						
Maximum speed for each stroke (mm/sec) <sup>Note 3</sup>	X-axis		1200				960	840	720	600	480
	Speed setting		-				80%	70%	60%	50%	40%

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
Note 2. User cable extraction port.  
Note 3. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

# HXYx 3 axes / ZH

● Moving arm type ● Cable carrier ● Z-axis: clamped table / moving base type (200W)



## Ordering method

**HXYx - C** [ ] [ ] [ ] **ZH** [ ] [ ] [ ] **RCX340-3** [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Model Cable Combination X-axis stroke Y-axis stroke ZR-axis Z-axis stroke Cable

Controller / Number of controllable axes Safety standard Option A (OP.A) Option B (OP.B) Option C (OP.C) Option D (OP.D) Option E (OP.E) Absolute battery

**RCX240** [ ] **R** [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Controller CE Marking Regenerative unit Expansion I/O Network option IVY System Gripper Battery

Specify various controller setting items. RCX340 ▶ **P542**

Specify various controller setting items. RCX240/RCX240S ▶ **P532**

## Specification

	X-axis	Y-axis	Z-axis
Axis construction <sup>Note 1</sup>	F20	F17	F14H-BK
AC servo motor output (W)	600	400	200
Repeatability <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead <sup>Note 3</sup> (Deceleration ratio) (mm)	20	20	5
Maximum speed <sup>Note 4</sup> (mm/sec)	1200	1200	300
Moving range (mm)	250 to 1250	250 to 650	250 to 550
Robot cable length (m)	Standard: 3.5 Option: 5,10		

Note 1. Use caution that the flange machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

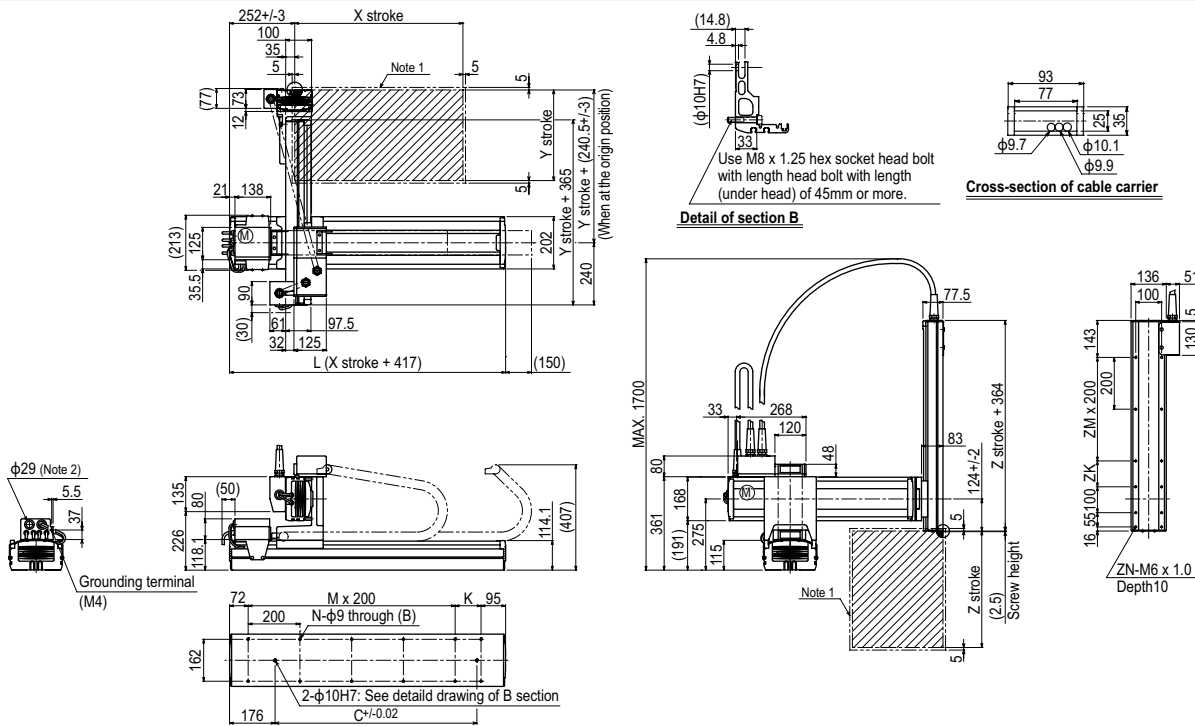
## Maximum payload (kg)

Y stroke (mm)	Z stroke (mm)				
	250	350	450	550	650
250	18	18	18	18	18
350	18	18	18	18	18
450	18	18	18	18	18
550	18	17	16	15	15
650	18	17	16	15	15

## Controller

Controller	Operation method
RCX340	Programming / I/O point trace / Remote command / Operation using RS-232C communication
RCX240-R	

## HXYx 3 axes / ZH M1



X stroke		250	350	450	550	650	750	850	950	1050	1150	1250	
		L	667	767	867	967	1067	1167	1267	1367	1467	1567	1667
K	100	200	100	200	100	200	100	200	100	200	100		
C	420	420	600	600	780	780	960	960	1140	1320	1320		
M	2	2	3	3	4	4	5	5	6	6	7		
N	8	8	10	10	12	12	14	14	16	16	18		
Y stroke		250	350	450	550	650							
Z stroke		250	350	450	550								
ZK		100	200	100	200								
ZM		1	1	2	2								
ZN		10	10	12	12								
Maximum speed for each stroke (mm/sec) <sup>Note 3</sup>	X-axis	1200				960		840	720	600	480		
	Speed setting	-				80%		70%	60%	50%	40%		

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.

Note 3. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.



Articulated robots  
YA

Linear conveyor  
modules  
LCMT100

Compact  
single-axis robots  
TRANSERVO

Single-axis robots  
FLIP-X

Linear motor  
single-axis robots  
PHASER

Cartesian  
robots  
XY-X

SCARA  
robots  
YK-X

Pick & place  
robots  
YP-X

CLEAN

CONTROLLER

INFORMATION

Arm type

Gantry type

Moving arm  
type

Pole type

XZ type

# SXYx 2 axes

● Pole type ● Whipover



## Ordering method

<b>SXYx - S - P1</b>				<b>RCX222</b>			
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke<sup>Note 1</sup></b>	<b>Y-axis stroke<sup>Note 1</sup></b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>
			15 to 85cm	15 to 55cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking
							<b>Input/Output selection 1</b>
							N: NPN <sup>Note 2</sup> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 3</sup>
							<b>Input/Output selection 2</b>
							No entry: None N1: OP.DIO24/16 (NPN) <sup>Note 2</sup> P1: OP.DIO24/17 (PNP) EN: Ethernet <sup>Note 4</sup>

Note 1. The total of the X and Y strokes should be 1100mm or less.  
 Note 2. NPN cannot be selected if using CE marking.  
 Note 3. Available only for the master. See P.66 for details on YC-Link system.  
 Note 4. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction<sup>Note 1</sup></b>	F14H	F14-BK
<b>AC servo motor output (W)</b>	200	100
<b>Repeatability<sup>Note 2</sup> (mm)</b>	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead<sup>Note 3</sup> (Deceleration ratio) (mm)</b>	20	10
<b>Maximum speed<sup>Note 4</sup> (mm/sec)</b>	1200	600
<b>Moving range (mm)</b>	150 to 850	150 to 550
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots'.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

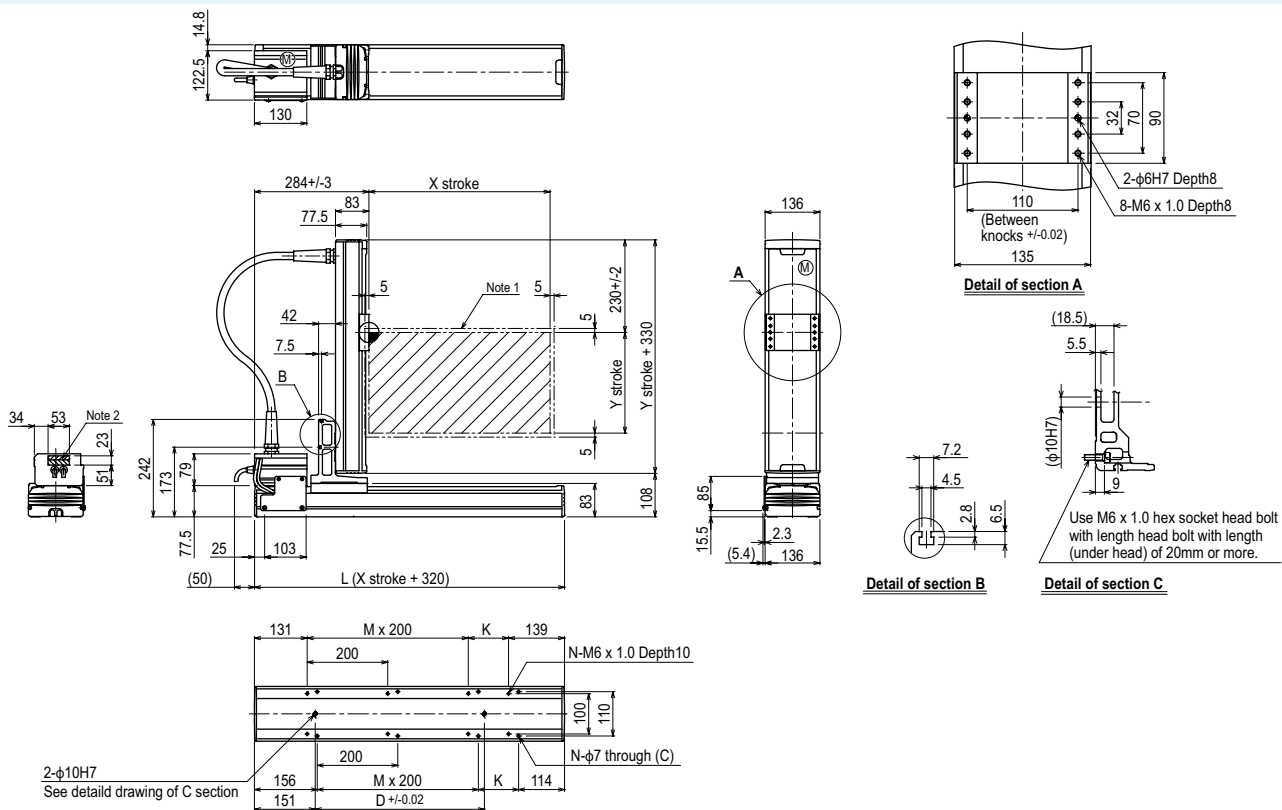
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
150 to 550	8

## Controller

Controller	Operation method
RCX222	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## SXYx 2 axes P1



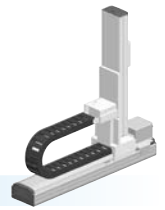
X stroke <sup>Note 3</sup>	150	250	350	450	550	650	750	850
<b>L</b>	470	570	670	770	870	970	1070	1170
<b>K</b>	200	100	200	100	200	100	200	100
<b>D</b>	240	240	420	420	600	600	780	780
<b>M</b>	0	1	1	2	2	3	3	4
<b>N</b>	4	6	6	8	8	10	10	12
Y stroke <sup>Note 3</sup>	150	250	350	450	550			
<b>Maximum speed for each stroke (mm/sec)<sup>Note 4</sup></b>	1200				960		780	
<b>Speed setting</b>	-				80%		65%	

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. The shaded position indicates a user cable extraction port.

Note 3. The total of the X and Y strokes should be 1100mm or less.  
 Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

# MXYx 2 axes

Pole type Cable carrier



## Ordering method

<b>MXYx</b>	<b>C</b>	<b>P2</b>				<b>RCX222</b>		<b>R</b>		
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b> 25 to 125cm	<b>Y-axis stroke</b> 15 to 65cm	<b>Cable</b> 3L: 3.5m 5L: 5m 10L: 10m	<b>Controller</b> RCX222	<b>Usable for CE</b> No entry: Standard E: CE marking	<b>Regenerative unit</b> R: RG2	<b>Input/Output selection 1</b> N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	<b>Input/Output selection 2</b> No entry: None NT: OP.DIO24/16 (NPN) <sup>Note 1</sup> Pt: OP.DIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <sup>Note 1</sup>	F17	F14H-BK
<b>AC servo motor output (W)</b>	400	200
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	10
<b>Maximum speed</b> <sup>Note 4</sup> (mm/sec)	1200	600
<b>Moving range (mm)</b>	250 to 1250	150 to 650
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flange machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

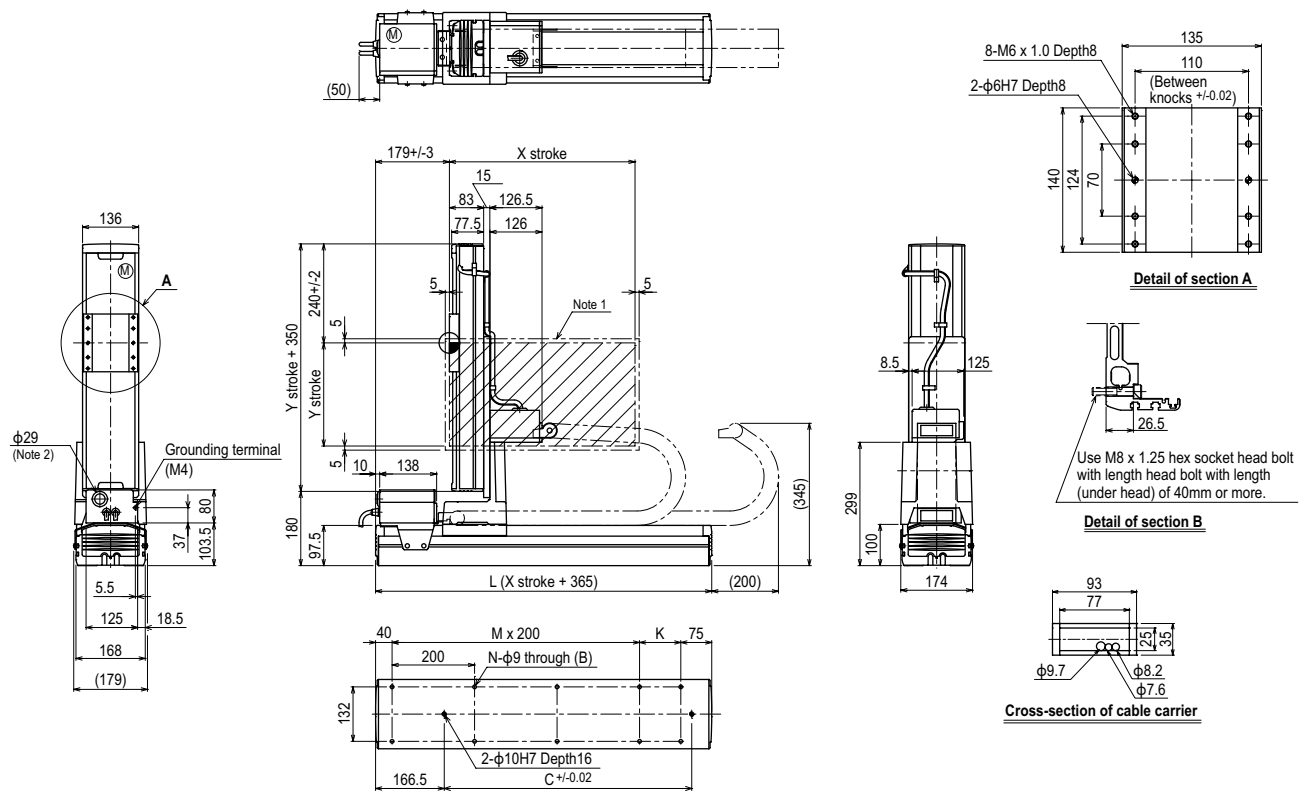
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
150 to 650	20

## Controller

Controller	Operation method
RCX222-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## MXYx 2 axes P2



X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
<b>L</b>	615	715	815	915	1015	1115	1215	1315	1415	1515	1615
<b>K</b>	100	200	100	200	100	200	100	200	100	200	100
<b>C</b>	240	420	600	600	780	780	960	960	1140	1140	1320
<b>M</b>	2	2	3	3	4	4	5	5	6	6	7
<b>N</b>	8	8	10	10	12	12	14	14	16	16	18
<b>Y stroke</b>	150	250	350	450	550	650					
<b>Maximum speed for each stroke (mm/sec)</b> <sup>Note 3</sup>	<b>X-axis</b>		1200				960	840	720	600	480
	<b>Speed setting</b>		-				80%	70%	60%	50%	40%

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.  
 Note 3. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

Articulated robots  
YA

Linear conveyor modules  
LCM100

Compact single-axis robots  
TRANSEVO

Single-axis robots  
FLIP-X

Linear motor single-axis robots  
PHASER

Cartesian robots  
XX-X

SCARA robots  
YK-X

Pick & place robots  
YP-X

CLEAN

CONTROLLER INFORMATION

Arm type

Gantry type

Moving arm type

Pole type

XZ type

# MXYx 2 axes

● Pole type ● Whipover



## Ordering method

<b>MXYx - S - P1</b>				<b>RCX222</b>		<b>R</b>				
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b> <small>Note 1</small>	<b>Y-axis stroke</b> <small>Note 1</small>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Regenerative unit</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
			25 to 95cm	15 to 65cm	3L: 3.5m 6L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	R: RG2	N: NPN <small>Note 2</small> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <small>Note 3</small>	No entry: None N1: OPDIO24/16 (NPN) <small>Note 2</small> P1: OPDIO24/17 (PNP) EN: Ethernet <small>Note 4</small>

Note 1. The total of the X and Y strokes should be 1100mm or less.  
 Note 2. NPN cannot be selected if using CE marking.  
 Note 3. Available only for the master. See P.66 for details on YC-Link system.  
 Note 4. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <small>Note 1</small>	F17	F14H-BK
<b>AC servo motor output (W)</b>	400	200
<b>Repeatability</b> <small>Note 2</small> (mm)	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> <small>Note 3</small> (Deceleration ratio) (mm)	20	10
<b>Maximum speed</b> <small>Note 4</small> (mm/sec)	1200	600
<b>Moving range (mm)</b>	250 to 950	150 to 650
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots'.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

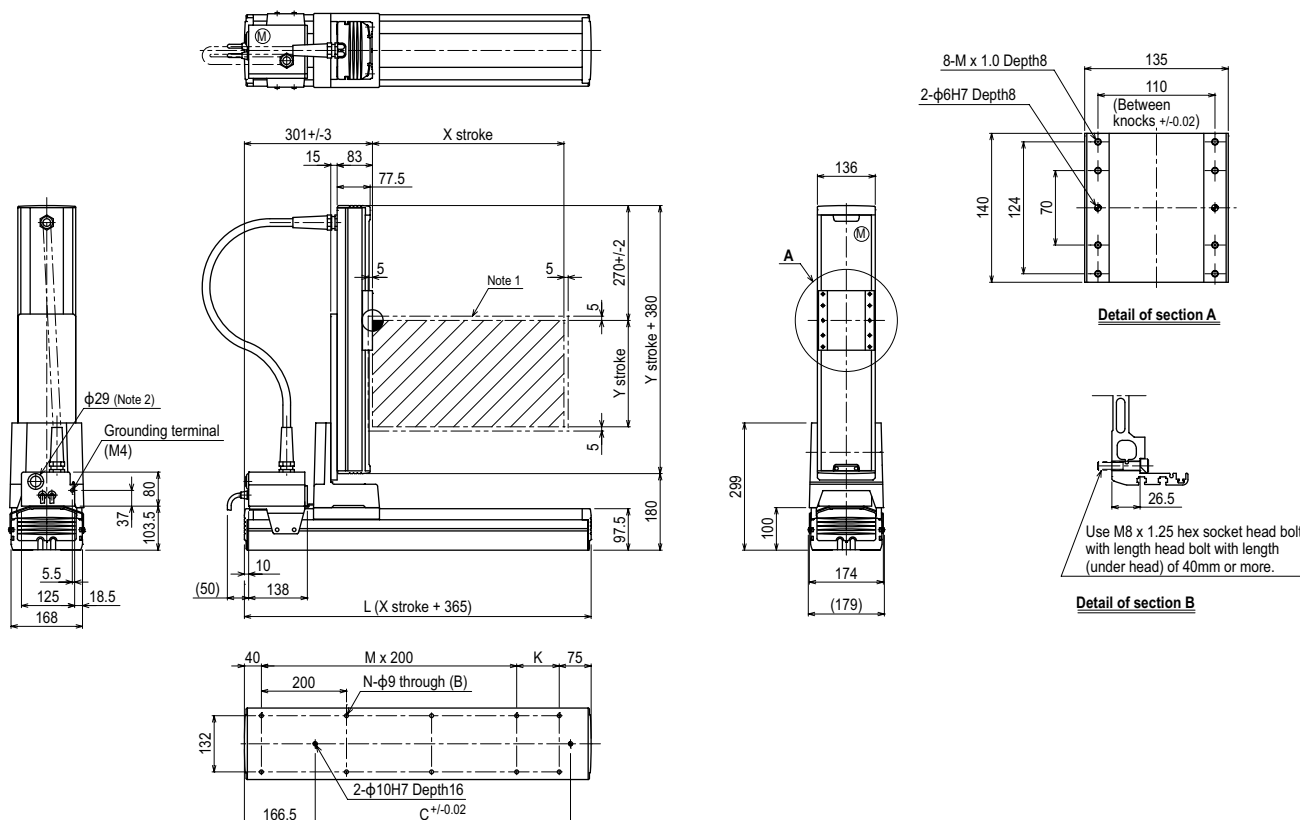
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
150 to 650	20

## Controller

Controller	Operation method
RCX222-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## MXYx 2 axes P1



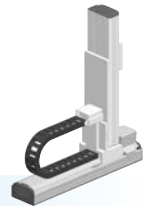
X stroke <small>Note 3</small>	250	350	450	550	650	750	850	950
<b>L</b>	615	715	815	915	1015	1115	1215	1315
<b>K</b>	100	200	100	200	100	200	100	200
<b>C</b>	240	420	600	600	780	780	960	960
<b>M</b>	2	2	3	3	4	4	5	5
<b>N</b>	8	8	10	10	12	12	14	14
Y stroke <small>Note 3</small>	150	250	350	450	550	650		
<b>Maximum speed for each stroke (mm/sec)</b> <small>Note 4</small>	<b>X-axis</b>		1200			960		840
<b>Speed setting</b>			-			80%		70%

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.

Note 3. The total of the X and Y strokes should be 1100mm or less.  
 Note 4. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.



# HXYx 2 axes



● Pole type   ● Cable carrier

## Ordering method

**HXYx - C - P2**   **RCX222HP**   **R**

Model	Cable	Combination	X-axis stroke	Y-axis stroke	Cable	Controller	Usable for CE	Regenerative unit	Input/Output selection 1	Input/Output selection 2
			25 to 125cm	25 to 105cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222HP	No entry: Standard E: CE marking	R: RG2	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None N1: OPDIO24/16 (NPN) <sup>Note 1</sup> P1: OPDIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
<b>Axis construction</b> <sup>Note 1</sup>	F20	F20-BK
<b>AC servo motor output (W)</b>	600	600
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	10
<b>Maximum speed</b> <sup>Note 4</sup> (mm/sec)	1200	600
<b>Moving range (mm)</b>	250 to 1250	250 to 1050
<b>Robot cable length (m)</b>	Standard: 3.5   Option: 5, 10	

Note 1. Use caution that the flange machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis/Y-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

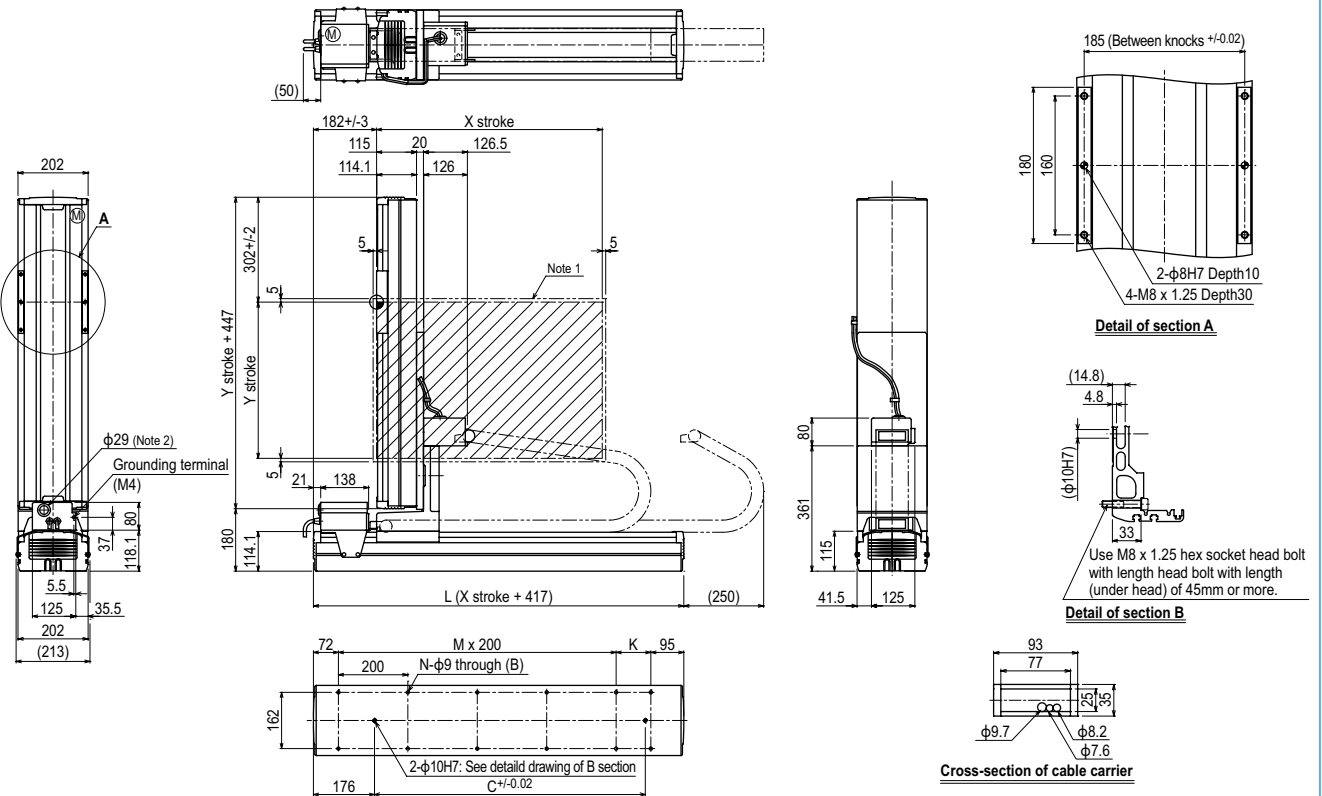
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
250 to 1050	30

## Controller

Controller	Operation method
RCX222HP-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## HXYx 2 axes P2



X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
	<b>L</b>	667	767	867	967	1067	1167	1267	1367	1467	1567
<b>K</b>	100	200	100	200	100	200	100	200	100	200	100
<b>C</b>	420	420	600	600	780	708	960	1140	1320	1320	1320
<b>M</b>	2	2	3	3	4	4	5	5	6	6	7
<b>N</b>	8	8	10	10	12	12	14	14	16	16	18
Y stroke	250	350	450	550	650	750	850	950	1050		
<b>Maximum speed for each stroke (mm/sec)</b> <sup>Note 3</sup>	<b>X-axis</b>		1200		960		840	720	600	480	
	<b>Y-axis</b>		600		480		420	360			
<b>Speed setting</b>			-		80%		70%	60%	50%	40%	

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.

Note 3. When the X-axis/Y-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

# HXYx 2 axes

● Pole type ● Whipover



## Ordering method

<b>HXYx</b>	<b>S</b>	<b>P1</b>				<b>RCX222HP</b>		<b>R</b>		
Model	Cable	Combination	X-axis stroke <small>Note 1</small>	Y-axis stroke <small>Note 1</small>	Cable	Controller	Usable for CE	Regenerative unit	Input/Output selection 1	Input/Output selection 2
			25 to 85cm	25 to 85cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222HP	No entry: Standard E: CE marking	R: RG2	N: NPN <small>Note 2</small> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <small>Note 3</small>	No entry: None Nt: OPDIO24/16 (NPN) <small>Note 2</small> Pt: OPDIO24/17 (PNP) EN: Ethernet <small>Note 4</small>

Note 1. The total of the X and Y strokes should be 1100mm or less.  
 Note 2. NPN cannot be selected if using CE marking.  
 Note 3. Available only for the master. See P.66 for details on YC-Link system.  
 Note 4. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Y-axis
Axis construction <small>Note 1</small>	F20	F20-BK
AC servo motor output (W)	600	600
Repeatability <small>Note 2</small> (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead <small>Note 3</small> (Deceleration ratio) (mm)	20	10
Maximum speed <small>Note 4</small> (mm/sec)	1200	600
Moving range (mm)	250 to 850	250 to 850
Robot cable length (m)	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flange machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis/Y-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

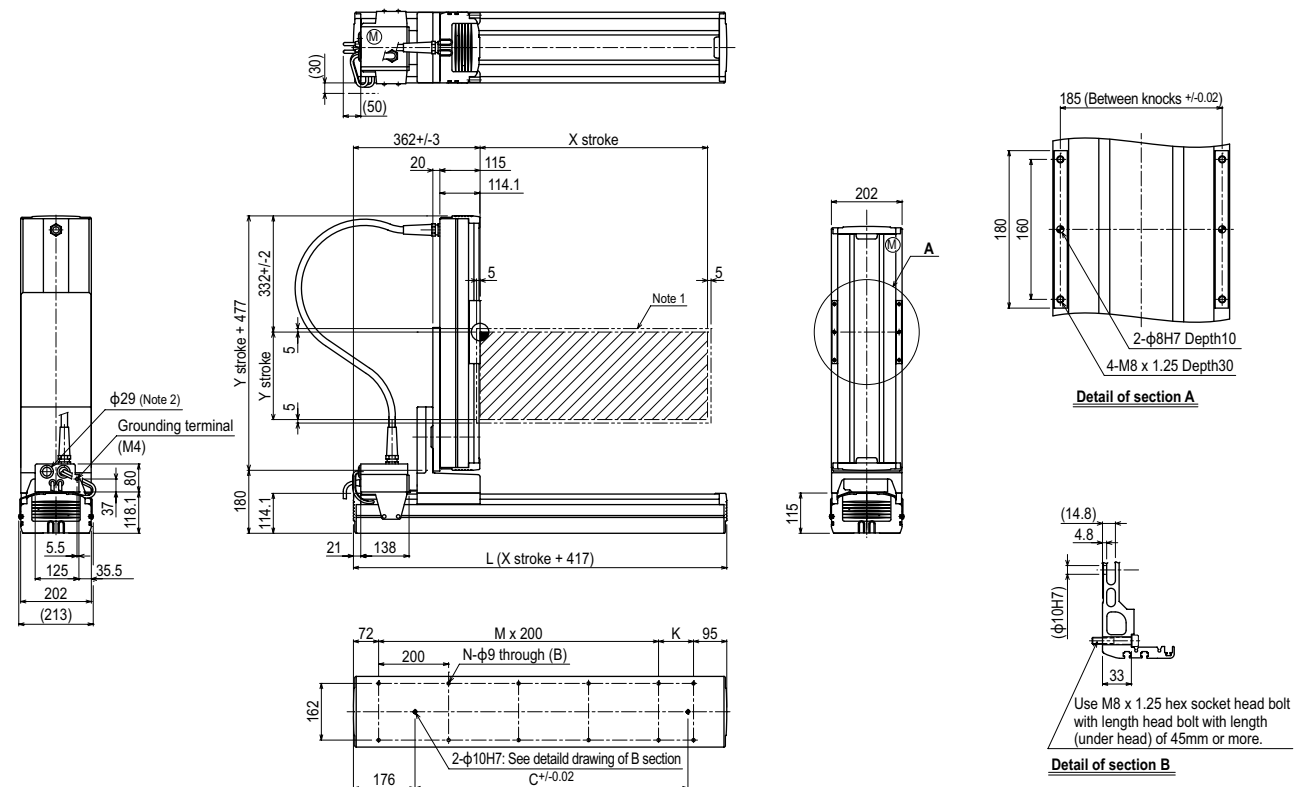
## Maximum payload (kg)

Y stroke (mm)	XY 2 axes
250 to 850	30

## Controller

Controller	Operation method
RCX222HP-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## HXYx 2 axes P1



X stroke <small>Note 3</small>	250	350	450	550	650	750	850
	L	667	767	867	967	1067	1167
K	100	200	100	200	100	200	100
C	420	420	600	600	780	780	960
M	2	2	3	3	4	4	5
N	8	8	10	10	12	12	14
Y stroke <small>Note 3</small>	250	350	450	550	650	750	850
Maximum speed for each stroke (mm/sec) <small>Note 4</small>	X-axis		1200		960		
	Y-axis		600		480		
	Speed setting		-		80%		

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.

Note 3. The total of the X and Y strokes should be 1100mm or less.  
 Note 4. When the X-axis/Y-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.







# SXYx 2 axes / ZF

● XZ type   ● Cable carrier   ● Z-axis: clamped base / moving table type (100W)



## Ordering method

<b>SXYx - C</b>			<b>ZF</b>			<b>RCX222</b>				
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>ZR-axis</b>	<b>Z-axis stroke</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
	F1 F3		15 to 105cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet <sup>Note 2</sup> YC: YC-Link <sup>Note 2</sup>	No entry: None N1: OP.DIO24/16 (NPN) <sup>Note 1</sup> P1: OP.DIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Z-axis
<b>Axis construction</b> <sup>Note 1</sup>	F14	F10-BK
<b>AC servo motor output (W)</b>	100	100
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	10
<b>Maximum speed</b> <sup>Note 4</sup> (mm/sec)	1200	600
<b>Moving range (mm)</b>	150 to 1050	150 to 350
<b>Robot cable length (m)</b>	Standard: 3.5   Option: 5,10	

Note 1. Use caution that the frame machining (installation holes, tap holes) differs from single-axis robots'.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

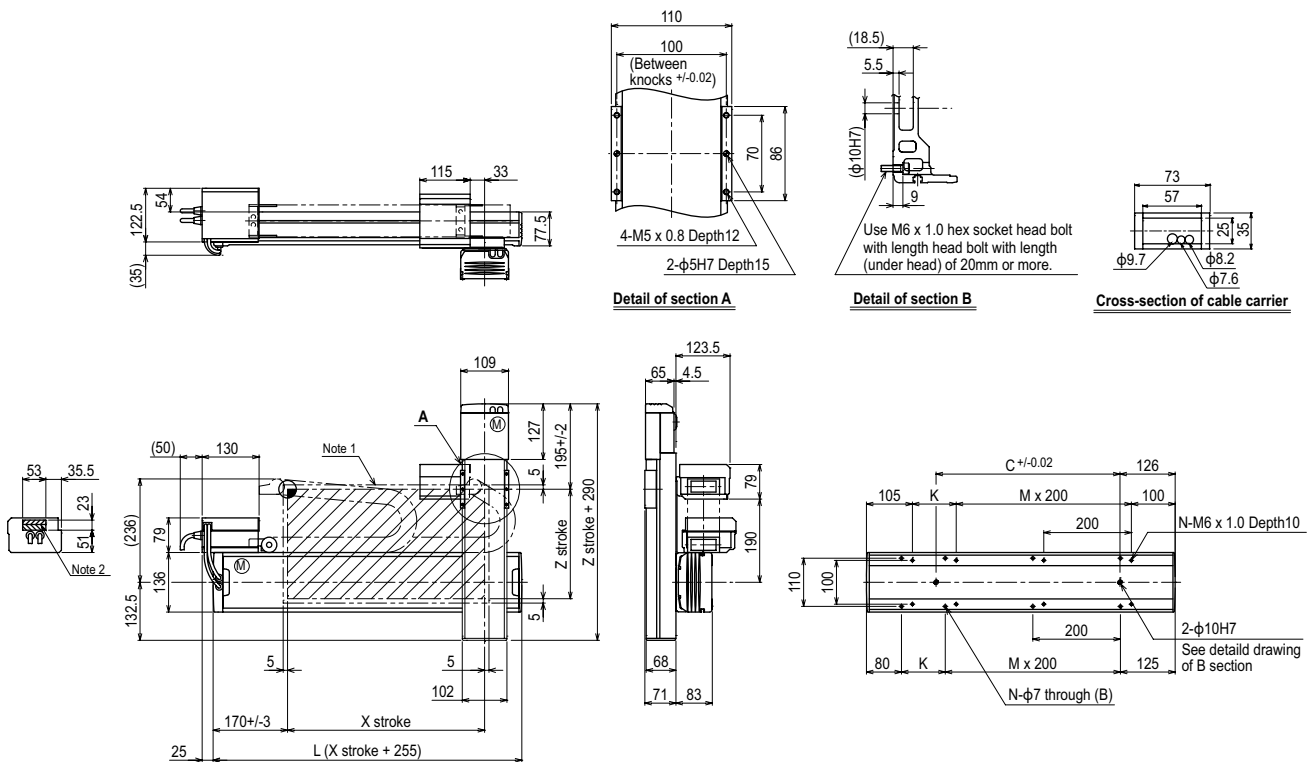
## Maximum payload (kg)

X stroke (mm)	Z stroke (mm)
150 to 1050	150 to 350
	10

## Controller

Controller	Operation method
RCX222	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## SXYx 2 axes / ZF (F1)



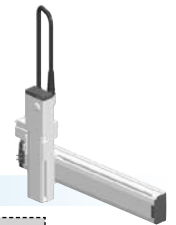
X stroke	150	250	350	450	550	650	750	850	950	1050
<b>L</b>	405	505	605	705	805	905	1005	1105	1205	1305
<b>K</b>	200	100	200	100	200	100	200	100	200	100
<b>C</b>	240	240	420	420	600	600	780	780	960	960
<b>M</b>	0	1	1	2	2	3	3	4	4	5
<b>N</b>	4	6	6	8	8	10	10	12	12	14
<b>Z stroke</b>	150	250	350							
<b>Maximum speed for each stroke (mm/sec)</b> <sup>Note 3</sup>	<b>X-axis</b>		1200			960		780	600	540
<b>Speed setting</b>			-			80%		65%	50%	45%

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. The shaded position indicates a user cable extraction port.

Note 3. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

# SXYx 2 axes / ZF

XZ type
Whipover
Z-axis: clamped base / moving table type (100W)



## Ordering method

<b>SXYx - S</b>			<b>ZF</b>			<b>RCX222</b>				
Model	Cable	Combination	X-axis stroke	ZR-axis	Z-axis stroke	Cable	Controller	Usable for CE	Input/Output selection 1	Input/Output selection 2
		F1 F3	15 to 85cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None Nt: OPDIO24/16 (NPN) <sup>Note 1</sup> Pt: OPDIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Z-axis
Axis construction <sup>Note 1</sup>	F14	F10-BK
AC servo motor output (W)	100	100
Repeatability <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead <sup>Note 3</sup> (Deceleration ratio) (mm)	20	10
Maximum speed <sup>Note 4</sup> (mm/sec)	1200	600
Moving range (mm)	150 to 850	150 to 350
Robot cable length (m)	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flange machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

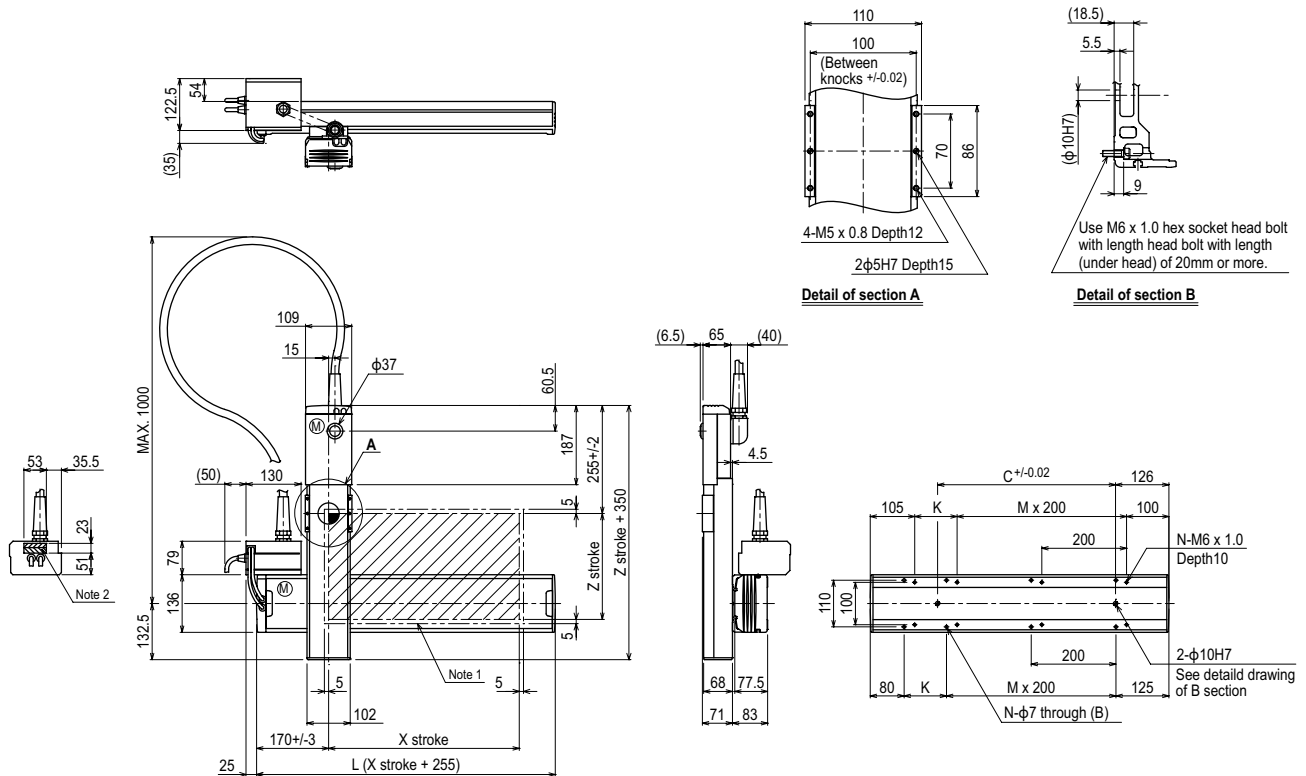
## Maximum payload (kg)

X stroke (mm)	Z stroke (mm)
150 to 850	150 to 350
	10

## Controller

Controller	Operation method
RCX222	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## SXYx 2 axes / ZF (F1)



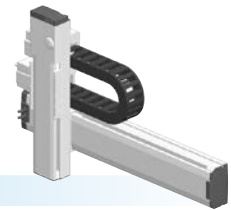
X stroke	150	250	350	450	550	650	750	850
L	405	505	605	705	805	905	1005	1105
K	200	100	200	100	200	100	200	100
C	240	240	420	420	600	600	780	780
M	0	1	1	2	2	3	3	4
N	4	6	6	8	8	10	10	12
Z stroke	150	250	350					
Maximum speed for each stroke (mm/sec) <sup>Note 3</sup>	X-axis		1200			960		780
Speed setting			-			80%		65%

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. The shaded position indicates a user cable extraction port.

Note 3. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

Articulated robots  
YA  
Linear conveyor modules  
LCM100  
Compact single-axis robots  
TRANSEVO  
Single-axis robots  
FLIP-X  
Linear motor single-axis robots  
PHASER  
Cartesian robots  
XX-X  
SCARA robots  
YK-X  
Pick & place robots  
YP-X  
CLEAN  
CONTROLLER INFORMATION  
Arm type  
Gantry type  
Moving arm type  
Pole type  
XZ type

# SXYx 2 axes / ZFL20



● XZ type    ● Cable carrier    ● Z-axis: clamped base / moving table type (200W)

## Ordering method

<b>SXYx - C</b>			<b>ZFL20</b>			<b>RCX222</b>		<b>R</b>			
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>ZR-axis</b>	<b>Z-axis stroke</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Regenerative unit</b> <small>Note 1</small>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
F1			15 to 105cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	R: RG2	N: NPN <small>Note 2</small> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <small>Note 3</small>	No entry: None Nt: OPDIO24/16 (NPN) <small>Note 2</small> Pt: OPDIO24/17 (PNP) EN: Ethernet <small>Note 4</small>

Note 1. DRCX0510 uses the RGU-2 regenerative unit. The RCX222 uses the RG2.  
 Note 2. NPN cannot be selected if using CE marking.  
 Note 3. Available only for the master. See P.66 for details on YC-Link system.  
 Note 4. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Z-axis
<b>Axis construction</b> <small>Note 1</small>	F14	F10-BK equivalent guide-reinforced model
<b>AC servo motor output (W)</b>	100	200
<b>Repeatability</b> <small>Note 2</small> (mm)	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> <small>Note 3</small> (Deceleration ratio) (mm)	20	20
<b>Maximum speed</b> <small>Note 4</small> (mm/sec)	1200	1200
<b>Moving range (mm)</b>	150 to 1050	150 to 350
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5, 10	

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

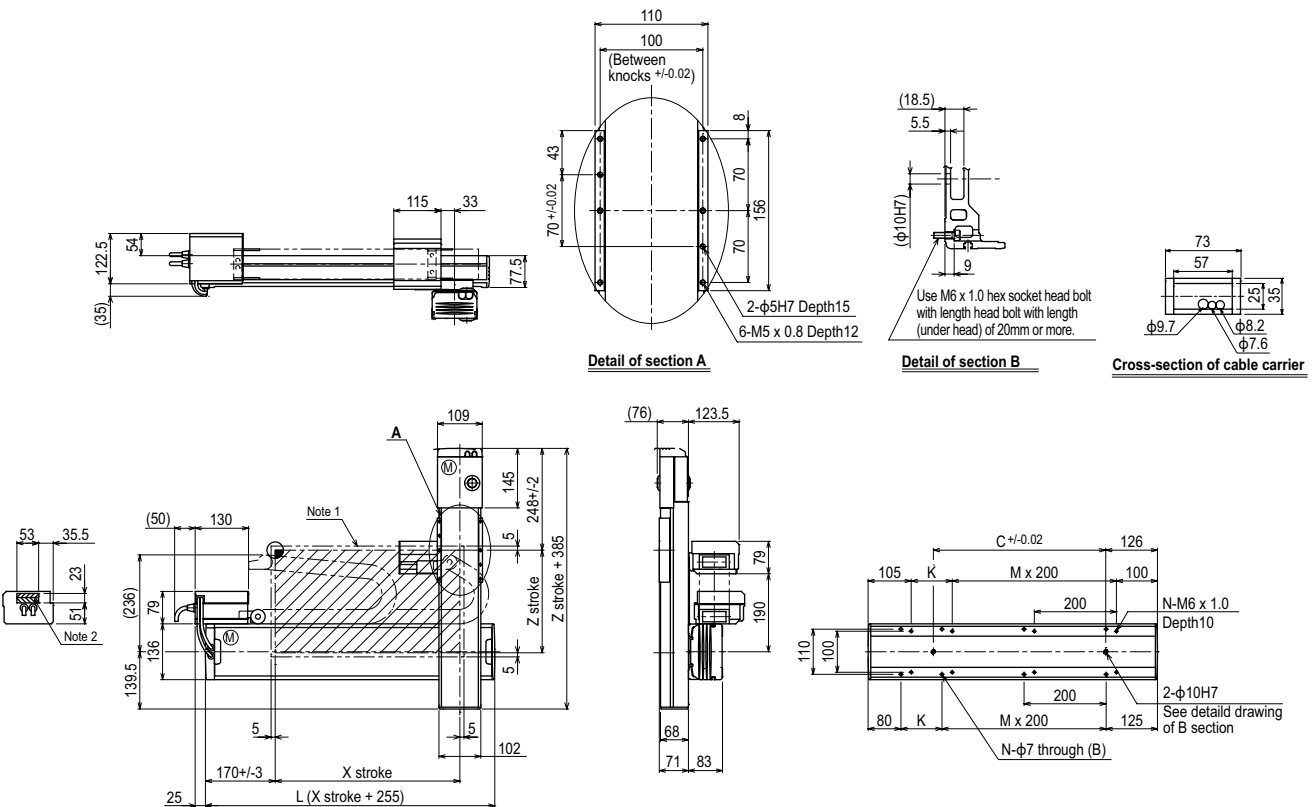
## Maximum payload (kg)

X stroke (mm)	Z stroke (mm)
150 to 1050	150 to 350
	8

## Controller

Controller	Operation method
RCX222-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

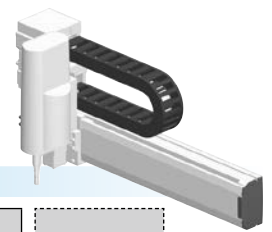
## SXYx 2 axes / ZFL20 (F1)



X stroke	150	250	350	450	550	650	750	850	950	1050
<b>L</b>	405	505	605	705	805	905	1005	1105	1205	1305
<b>K</b>	200	100	200	100	200	100	200	100	200	100
<b>C</b>	240	240	420	420	600	600	780	780	960	960
<b>M</b>	0	1	1	2	2	3	3	4	4	5
<b>N</b>	4	6	6	8	8	10	10	12	12	14
<b>Z stroke</b>	150	250	350							
<b>Maximum speed for each stroke (mm/sec)</b> <small>Note 3</small>	<b>X-axis</b>		1200				960	780	600	540
<b>Speed setting</b>			-				80%	65%	50%	45%

# SXYx 2 axes / ZS

- XZ type
- Cable carrier
- Z-axis shaft vertical type



## Ordering method

<b>SXYx - C</b>				<b>15</b>		<b>RCX222</b>				
Model	Cable	Combination	X-axis stroke	ZR-axis	Z-axis stroke	Cable	Controller	Usable for CE	Input/Output selection 1	Input/Output selection 2
	F1		15 to 105cm	ZS12		3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	N: NPN P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link	No entry: None Nt: OP.DIO24/16 (NPN) Pt: OP.DIO24/17 (PNP) EN: Ethernet

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Z-axis: ZS12	Z-axis: ZS6
Axis construction	F14		-
AC servo motor output (W)	100		60
Repeatability (mm)	+/-0.01		+/-0.02
Drive system	Ball screw (Class C7)		Ball screw (Class C10)
Ball screw lead (Deceleration ratio) (mm)	20	12	6
Maximum speed (mm/sec)	During RCX240 use	1200	1000
	During DRCX use	1200	900
Moving range (mm)	150 to 1050		150
Robot cable length (m)	Standard: 3.5 Option: 5,10		

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

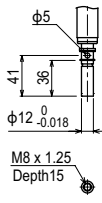
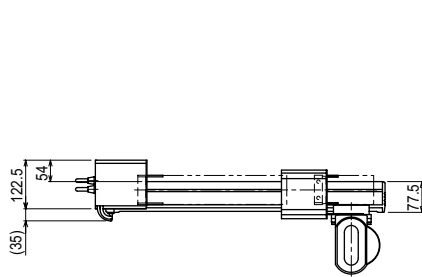
## Maximum payload (kg)

Y stroke (mm)	ZS12	ZS6
150 to 1050	3	5

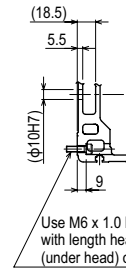
## Controller

Controller	Operation method
RCX222	Programming / I/O point trace / Remote command / Operation using RS-232C communication

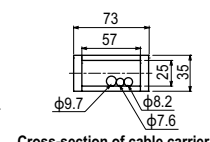
## SXYx 2 axes / ZS (F1)



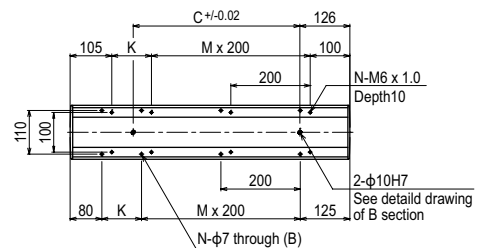
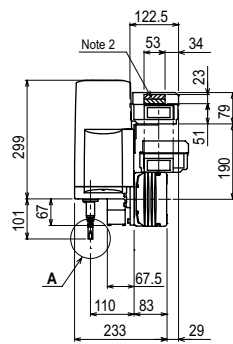
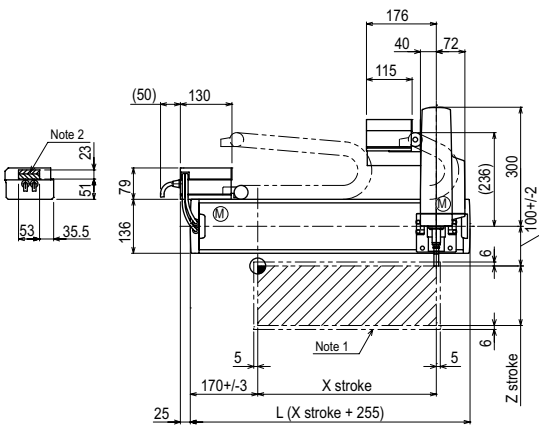
Detail of section A



Detail of section B



Cross-section of cable carrier



X stroke	150	250	350	450	550	650	750	850	950	1050	
L	405	505	605	705	805	905	1005	1105	1205	1305	
K	200	100	200	100	200	100	200	100	200	100	
C	240	240	420	420	600	600	780	780	960	960	
M	0	1	1	2	2	3	3	4	4	5	
N	4	6	6	8	8	10	10	12	12	14	
Z stroke	150										
Maximum speed for each stroke (mm/sec)	X-axis	1200					960	780	600	540	
	Speed setting	-					80%	65%	50%	45%	

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. The shaded position indicates an user cable extraction port.

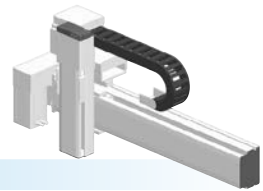
Note 3. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

- Articulated robots YA
- Linear conveyor modules LCM100
- Compact single-axis robots TRANSERVO
- Single-axis robots FLIP-X
- Linear motor single-axis robots PHASER
- Cartesian robots XX-X
- SCARA robots YK-X
- Pick & place robots YP-X
- CLEAN
- CONTROLLER INFORMATION
- Arm type
- Gantry type
- Moving arm type
- Pole type
- XZ type

# SXYBx

2 axes / ZF

- XZ type
- Cable carrier
- Z-axis: clamped base / moving table type (100W)



## Ordering method

<b>SXYBx - C</b>			<b>ZF</b>			<b>RCX222</b>					
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>ZR-axis</b>	<b>Z-axis stroke</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Regenerative unit</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
F1		F1	15 to 305cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	No entry: None R: RG2	N: NPN P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link	No entry: None N1: OP.DIO24/16 (NPN) P1: OP.DIO24/17 (PNP) EN: Ethernet

Note 1. Regenerative unit RG2 is required when the maximum speed on the RCX222 exceeds 1250mm/sec.  
 Note 2. NPN cannot be selected if using CE marking.  
 Note 3. Available only for the master. See P.66 for details on YC-Link system.  
 Note 4. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Z-axis
<b>Axis construction</b> <sup>Note 1</sup>	B14H	F10-BK
<b>AC servo motor output (W)</b>	200	100
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.04	+/-0.01
<b>Drive system</b>	Timing belt	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	Equivalent to lead 25	10
<b>Maximum speed (mm/sec)</b>	1875	600
<b>Moving range (mm)</b>	150 to 3050	150 to 350
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5, 10	

Note 1. Use caution that the flange machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.

## Maximum payload (kg)

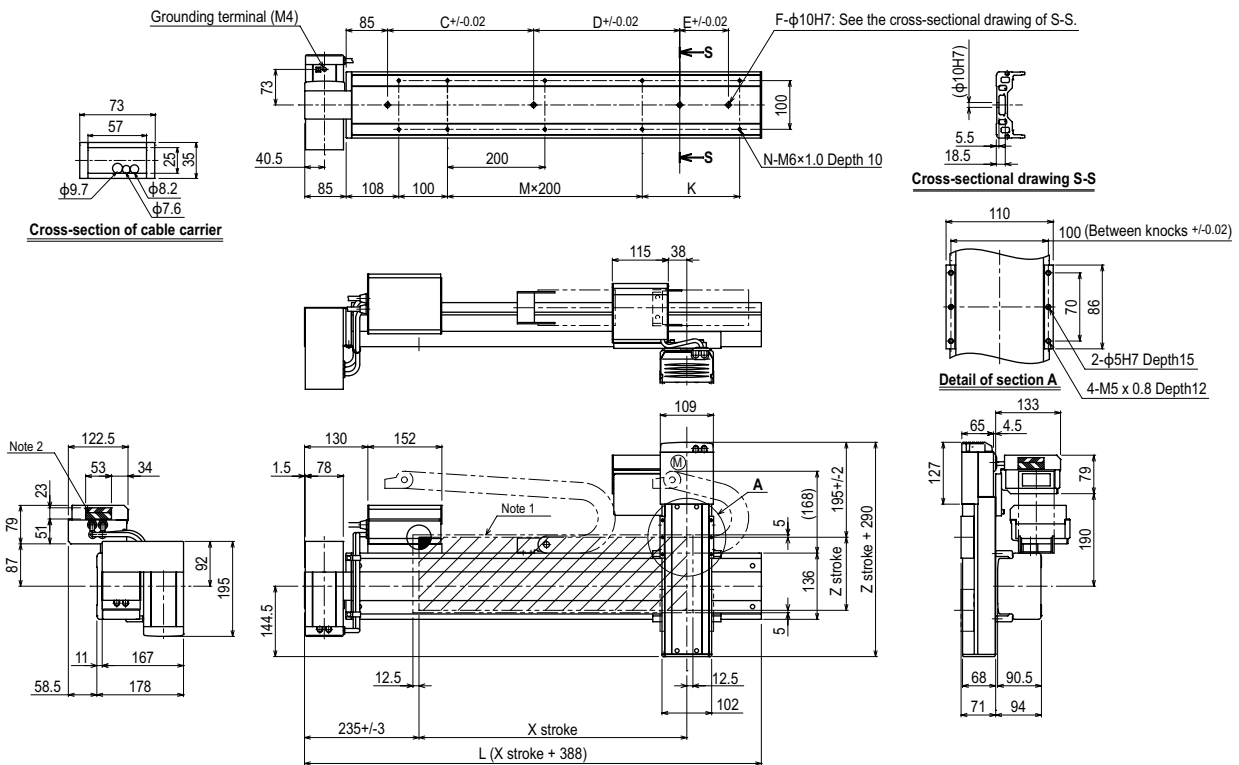
X stroke (mm)	Z stroke (mm)
150 to 3050	150 to 350
	10

## Controller

Controller	Operation method
RCX222	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. A regenerative unit is required when the maximum speed exceeds 1250mm/sec.

## SXYBx 2 axes / ZF (F1)

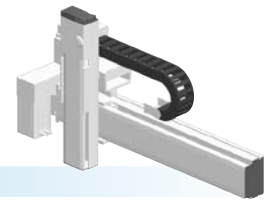


Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. The shaded position indicates an user cable extraction port.  
 Note 3. LU specification should be used for installation of the X axis motor.

X stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050	
<b>L</b>	538	638	738	838	938	1038	1138	1238	1338	1438	1538	1638	1738	1838	1938	2038	2138	2238	2338	2438	2538	2638	2738	2838	2938	3038	3138	3238	3338	3438	
<b>K</b>	-	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200
<b>C</b>	240	420	420	600	600	780	780	960	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140
<b>D</b>	-	-	-	-	-	-	-	-	-	-	-	240	240	420	600	600	780	780	960	960	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140
<b>E</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	240	240	420	420	600	600	780	960	
<b>F</b>	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4
<b>M</b>	1	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	
<b>N</b>	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30	32	32	34	34	36	
<b>Z stroke</b>	150	250	350																												

# SXYBx 2 axes / ZFL20

XZ type Cable carrier Z-axis: clamped base / moving table type (200W)



## Ordering method

<b>SXYBx - C</b>			<b>ZFL20</b>			<b>RCX222</b>		<b>R</b>			
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>ZR-axis</b>	<b>Z-axis stroke</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Regenerative unit</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
F1		F1	15 to 305cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	R: RG2	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 3</sup>	No entry: None Nt: OP.DIO24/16 (NPN) <sup>Note 1</sup> Pt: OP.DIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Z-axis
<b>Axis construction</b> <sup>Note 1</sup>	B14H	F10-BK equivalent guide-reinforced model
<b>AC servo motor output (W)</b>	200	200
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.04	+/-0.01
<b>Drive system</b>	Timing belt	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	Equivalent to lead 25	20
<b>Maximum speed (mm/sec)</b>	1875	1200
<b>Moving range (mm)</b>	150 to 3050	150 to 350
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.

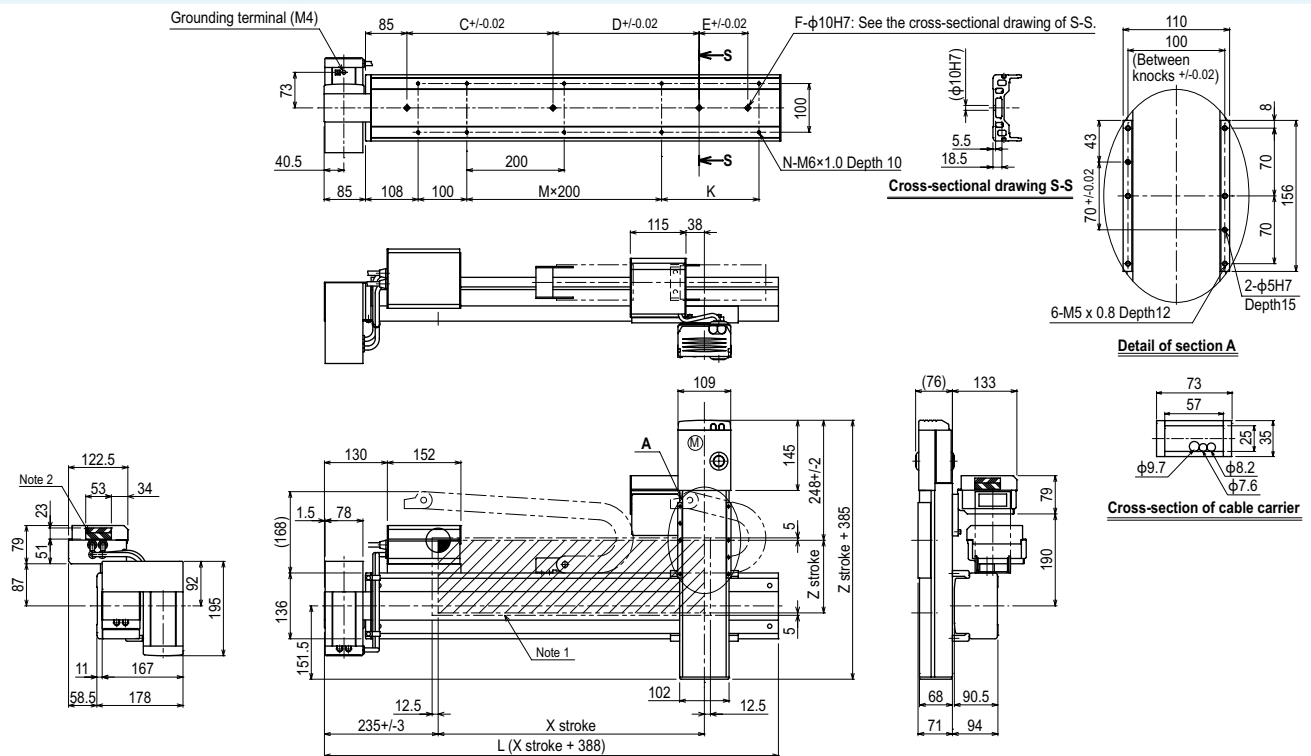
## Maximum payload (kg)

X stroke (mm)	Z stroke (mm)
150 to 3050	150 to 350
	8

## Controller

Controller	Operation method
RCX222-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## SXYBx 2 axes / ZFL20 F1



Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. The shaded position indicates an user cable extraction port.  
 Note 3. LU specification should be used for installation of the X axis motor.

X stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050	
<b>L</b>	538	638	738	838	938	1038	1138	1238	1338	1438	1538	1638	1738	1838	1938	2038	2138	2238	2338	2438	2538	2638	2738	2838	2938	3038	3138	3238	3338	3438	
<b>K</b>	-	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200
<b>C</b>	240	420	420	600	600	780	780	960	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140
<b>D</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>E</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>F</b>	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4
<b>M</b>	1	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	
<b>N</b>	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30	32	32	34	34	36	
<b>Z stroke</b>	150	250	350																												

Articulated robots  
YA

Linear conveyor modules  
LCM100

Compact single-axis robots  
TRANSEVO

Single-axis robots  
FLIP-X

Linear motor single-axis robots  
PHASER

Cartesian robots  
XX-X

SCARA robots  
YK-X

Pick & place robots  
YP-X

CLEAN

CONTROLLER INFORMATION

Arm type

Gantry type

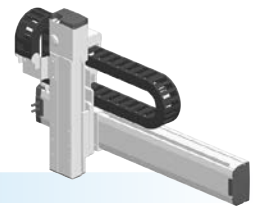
Moving arm type

Pole type

XZ type







### Ordering method

<b>MXYx - C</b>			<b>ZFH</b>			<b>RCX222</b>		<b>R</b>			
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>ZR-axis</b>	<b>Z-axis stroke</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Regenerative unit</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
F1		F1	15 to 105cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	R: RG2	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet <sup>TM</sup> PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None N1: OP.DIO24/16 (NPN) <sup>Note 1</sup> P1: OP.DIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>
F3		F3									

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

### Specification

	X-axis	Z-axis
<b>Axis construction</b> <sup>Note 1</sup>	F14H	F10-BK equivalent guide-reinforced model
<b>AC servo motor output (W)</b>	200	200
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	10
<b>Maximum speed</b> <sup>Note 4</sup> (mm/sec)	1200	600
<b>Moving range (mm)</b>	150 to 1050	150 to 350
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flame machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

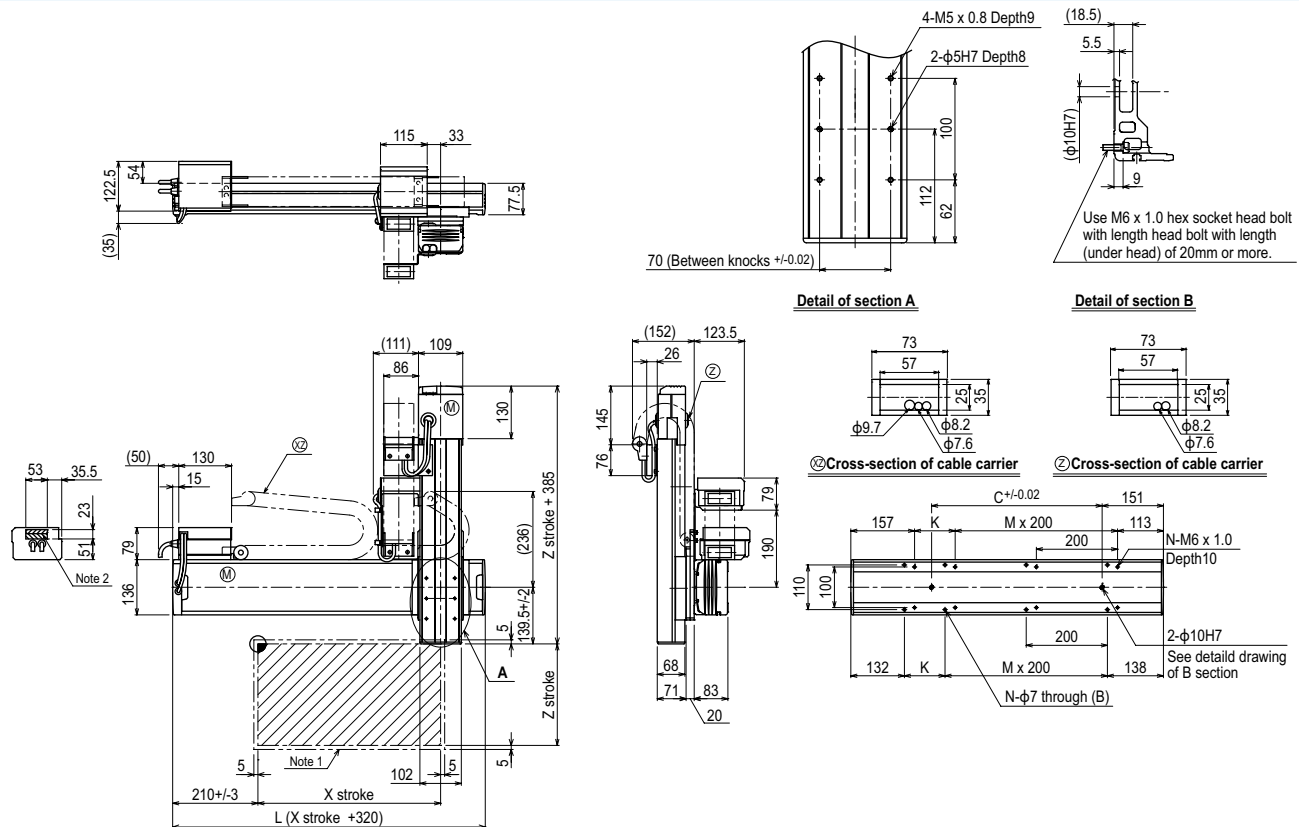
### Maximum payload (kg)

X stroke (mm)	Z stroke (mm)		
	150	250	350
150 to 1050	14	13	12

### Controller

Controller	Operation method
RCX222-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

### MXYx 2 axes / ZFH (F1)



X stroke	150	250	350	450	550	650	750	850	950	1050	
	<b>L</b>	470	570	670	770	870	970	1070	1170	1270	1370
<b>K</b>	200	100	200	100	200	100	200	100	200	100	
<b>C</b>	240	240	420	420	600	600	780	960	960	1140	
<b>M</b>	0	1	1	2	2	3	3	4	4	5	
<b>N</b>	4	6	6	8	8	10	10	12	12	14	
<b>Z stroke</b>	150	250	350								
<b>Maximum speed for each stroke (mm/sec)</b> <sup>Note 3</sup>	<b>X-axis</b>	1200					960	780	600	540	
	<b>Speed setting</b>	-					80%	65%	50%	45%	

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. The shaded position indicates a user cable extraction port.

Note 3. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

Articulated robots  
YA

Linear conveyor modules  
LCM100

Compact single-axis robots  
TRANSEVO

Single-axis robots  
FLIP-X

Linear motor single-axis robots  
PHASER

Cartesian robots  
XX-X

SCARA robots  
YK-X

Pick & place robots  
YP-X

CLEAN

CONTROLLER INFORMATION

Arm type

Gantry type

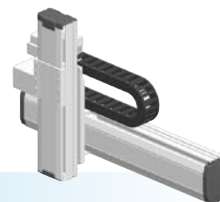
Moving arm type

Pole type

XZ type

# HXYx 2 axes / ZL

● XZ type ● Cable carrier ● Z-axis: clamped base / moving table type (200W)



## Ordering method

<b>HXYx - C</b>			<b>ZL</b>			<b>RCX222</b>		<b>R</b>			
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>ZR-axis</b>	<b>Z-axis stroke</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Regenerative unit</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
F1			25 to 125cm		25 to 55cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	R: RG2	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None N1: OPDIO24/16 (NPN) <sup>Note 1</sup> P1: OPDIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>
F3											

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Z-axis
<b>Axis construction</b> <sup>Note 1</sup>	F17	F14H-BK
<b>AC servo motor output (W)</b>	400	200
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	10
<b>Maximum speed</b> <sup>Note 4</sup> (mm/sec)	1200	600
<b>Moving range (mm)</b>	250 to 1250	250 to 550
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flange machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

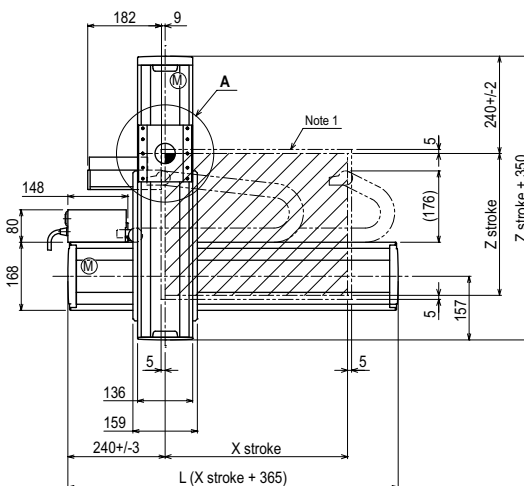
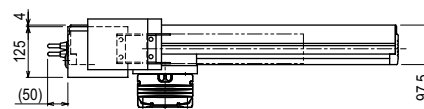
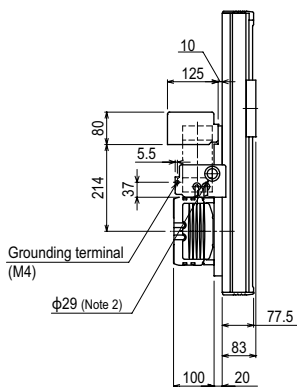
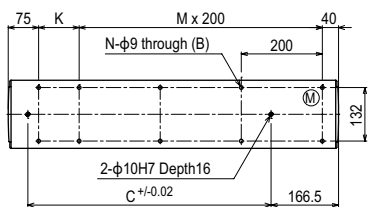
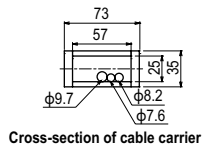
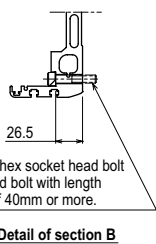
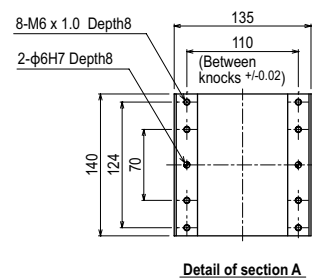
## Maximum payload (kg)

X stroke (mm)	Z stroke (mm)
250 to 1250	250 to 550
	20

## Controller

Controller	Operation method
RCX222-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

## HXYx 2 axes / ZL (F1)



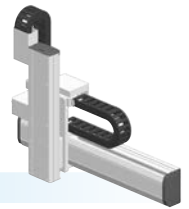
X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
<b>L</b>	615	715	815	915	1015	1115	1215	1315	1415	1515	1615
<b>K</b>	100	200	100	200	100	200	100	200	100	200	100
<b>C</b>	240	420	600	600	780	780	960	960	1140	1140	1320
<b>M</b>	2	2	3	3	4	4	5	5	6	6	7
<b>N</b>	8	8	10	10	12	12	14	14	16	16	18
<b>Z stroke</b>	250	350	450	550							
<b>Maximum speed for each stroke (mm/sec)</b> <sup>Note 3</sup>	X-axis		1200				960	840	720	600	480
<b>Speed setting</b>			-				80%	70%	60%	50%	40%

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.

Note 3. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

# HXYx 2 axes / ZH

● XZ type ● Cable carrier ● Z-axis: clamped table / moving base type (200W)



## Ordering method

<b>HXYx - C</b>			<b>ZH</b>			<b>RCX222</b>		<b>R</b>			
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>ZR-axis</b>	<b>Z-axis stroke</b>	<b>Cable</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Regenerative unit</b>	<b>Input/Output selection 1</b>	<b>Input/Output selection 2</b>
F1		F1	25 to 125cm		25 to 55cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	R: RG2	N: NPN <sup>Note 1</sup> P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link <sup>Note 2</sup>	No entry: None N1: OP.DIO24/16 (NPN) <sup>Note 1</sup> P1: OP.DIO24/17 (PNP) EN: Ethernet <sup>Note 3</sup>

Note 1. NPN cannot be selected if using CE marking.  
 Note 2. Available only for the master. See P.66 for details on YC-Link system.  
 Note 3. Only when CC or DN or PB was selected for I/O select 1 above. EN can be selected in I/O select 2.

## Specification

	X-axis	Z-axis
<b>Axis construction</b> <sup>Note 1</sup>	F17	F14H-BK
<b>AC servo motor output (W)</b>	400	200
<b>Repeatability</b> <sup>Note 2</sup> (mm)	+/-0.01	+/-0.01
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)
<b>Ball screw lead</b> <sup>Note 3</sup> (Deceleration ratio) (mm)	20	5
<b>Maximum speed</b> <sup>Note 4</sup> (mm/sec)	1200	300
<b>Moving range (mm)</b>	250 to 1250	250 to 550
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10	

Note 1. Use caution that the flange machining (installation holes, tap holes) differs from single-axis robots.  
 Note 2. Positioning repeatability in one direction.  
 Note 3. Leads not listed in the catalog are also available. Contact us for details.  
 Note 4. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

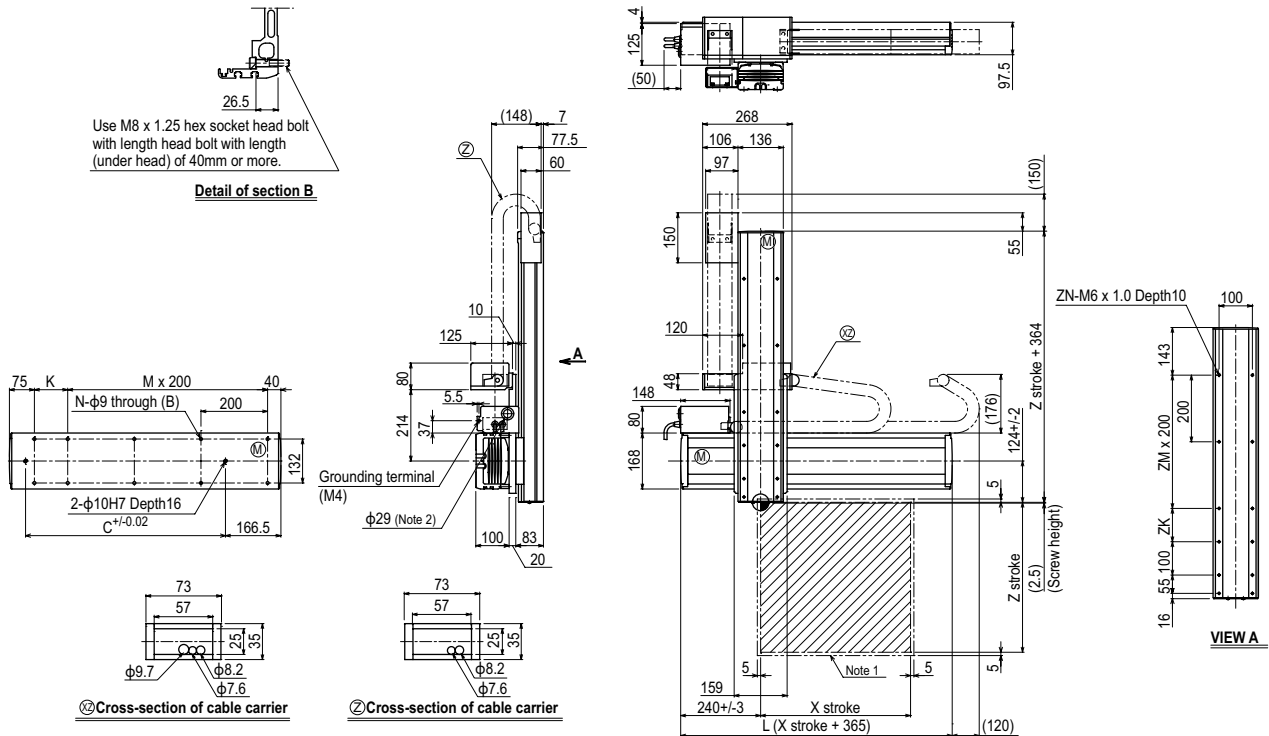
## Maximum payload (kg)

X stroke (mm)	Z stroke (mm)
250 to 1250	250 to 550
	30

## Controller

Controller	Operation method
RCX222-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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<b>M</b>	2	2	3	3	4	4	5	5	6	6	7
<b>N</b>	8	8	10	10	12	12	14	14	16	16	18

Z stroke	250	350	450	550
<b>ZK</b>	100	200	100	200
<b>ZM</b>	1	1	2	2
<b>ZN</b>	10	10	12	12

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.  
 Note 2. User cable extraction port.

Maximum speed for each stroke (mm/sec)	X-axis	1200	960	840	720	600	480
<b>Speed setting</b>		-	80%	70%	60%	50%	40%

Note 3. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

Articulated robots  
YA

Linear conveyor modules  
LCM100

Compact single-axis robots  
TRANSEVO

Single-axis robots  
FLIP-X

Linear motor single-axis robots  
PHASER

Cartesian robots  
XX-X

SCARA robots  
YK-X

Pick & place robots  
YP-X

CLEAN

CONTROLLER INFORMATION

Arm type

Gantry type

Moving arm type

Pole type

XZ type

# MEMO

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CLEAN

CONTROLLER

INFORMATION

Arm type

Gantry type

Moving arm  
type

Pole type

XZ type