

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.

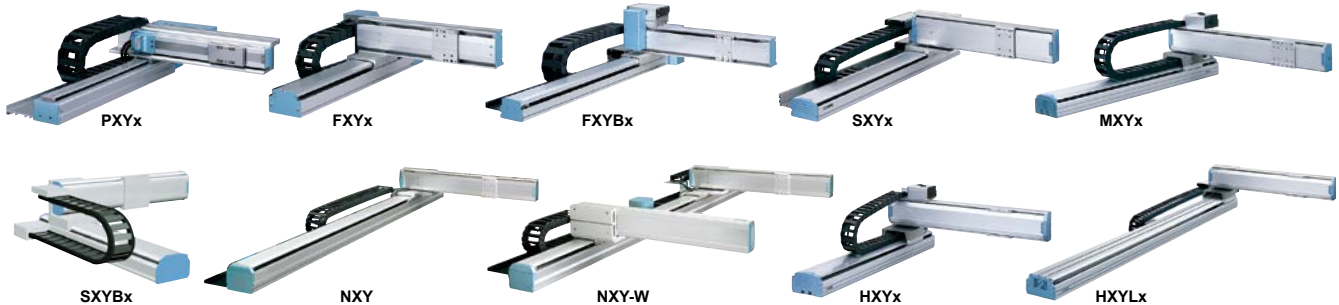
Additionally, various custom-order products other than models stated in the catalog are also supported. For detail, please feel free to consult YAMAHA.

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.

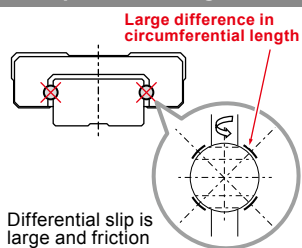
POINT 1

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.

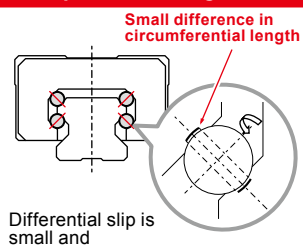
2-row gothic arch groove type 4-point contact guide



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

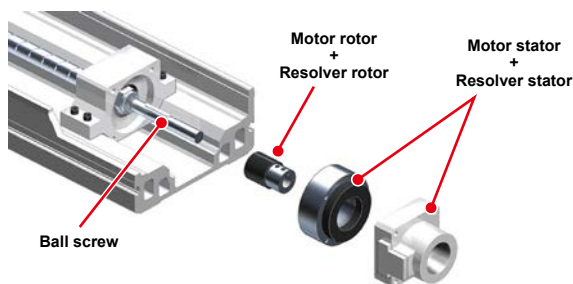
Low price

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.

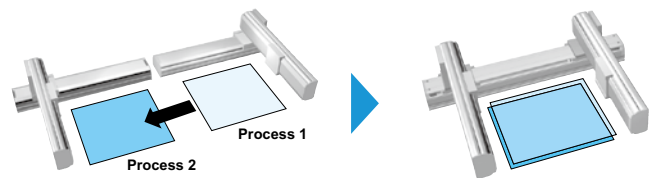


POINT 6

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

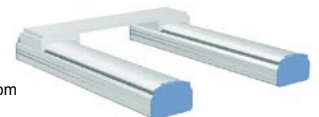


Clamped base/moving table

● **Dual-robot (2 axes)**

Type with synchronous drive between two axes

Note. The dual-robot is supported as a custom order.

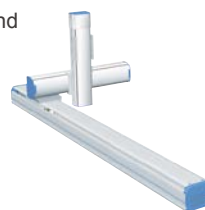


3 axes combinations

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



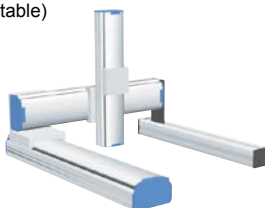
- Z-axis clamped table and moving base type
ZR-axis model: ZFH / ZH



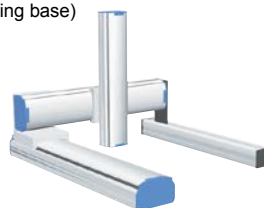
- Shaft up/down type
ZR-axis model: ZS



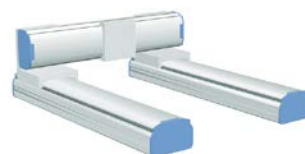
- X-Y Gantry + Z-axis
(Clamped base/moving table)



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

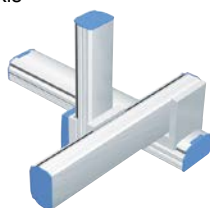


- Dual-robot (3 axes)
Note. The dual-robot is supported as a custom order.



4 axes combinations

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



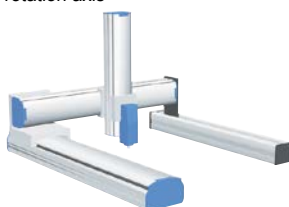
- Z-axis clamped table and moving base type + rotation axis
ZR-axis model: ZRFH / ZRH



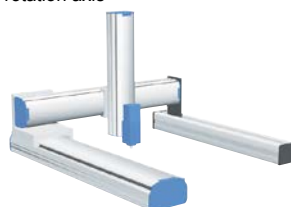
- ZR-axis integrated type
ZR-axis model: ZRS



- 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.

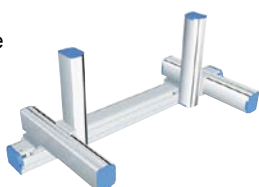


- Double Y-axis specifications
Robot model: NXY-W

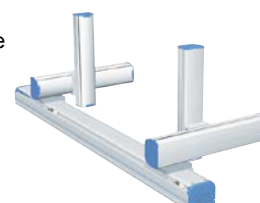


6 axes combination

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



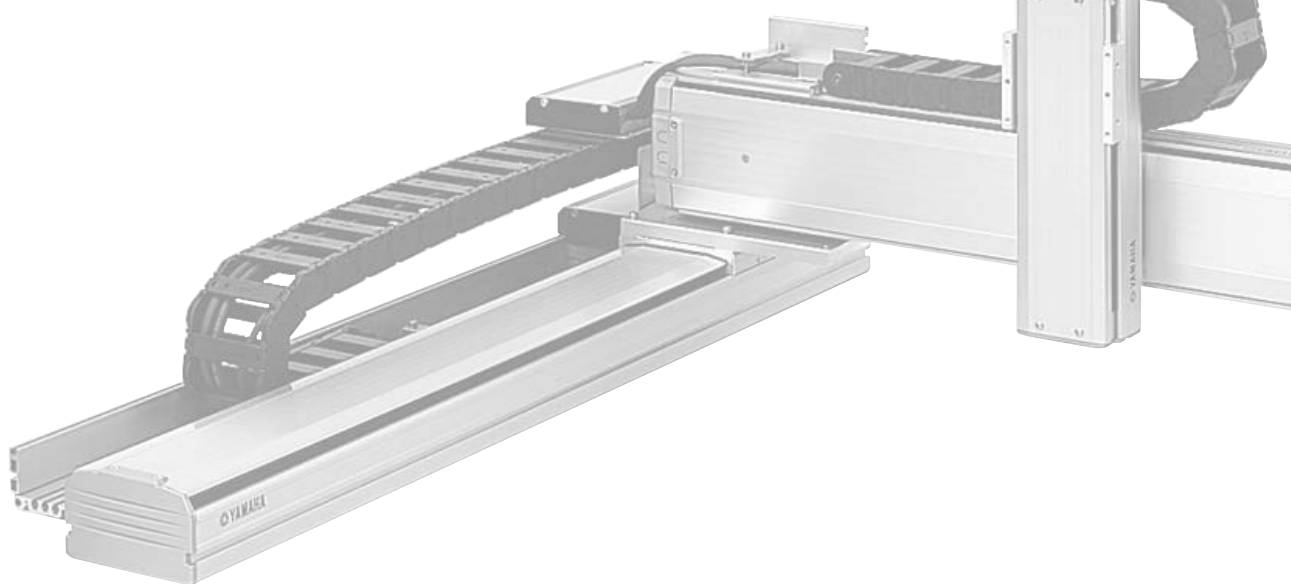
- Double Y-axis specifications/ Z-axis clamped table and moving base type
Robot model: NXY-W-ZFH



Special orders

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

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CARTESIAN ROBOTS

XY-X SERIES

CONTENTS

■ Arm & cable variations	240
■ 2-axis spec selection guide...	242
■ 3-axis spec selection guide...	244
■ Robot ordering method description	248
■ Robot ordering method terminology	249

ARM TYPE	
PXYx 2 axes C	250
FXYx 2 axes C	252
FXYx 2 axes / IO C	254
FXYx 3 axes / ZS C	255
FXYx 3 axes / ZT C	256
FXYBx 2 axes C	258
FXYBx 2 axes S	260
FXYBx 2 axes / IO C	262
SXYx 2 axes C	264
SXYx 2 axes S	266
SXYx 2 axes / IO C	268
SXYx 3 axes / ZF C	270
SXYx 3 axes / ZF S	271
SXYx 3 axes / ZFL20	272
SXYx 3 axes / ZFH C	273
SXYx 3 axes / ZS C	274
SXYx 3 axes / ZS S	275
SXYx 4 axes / ZRF C	276
SXYx 4 axes / ZRF S	277
SXYx 4 axes / ZRFL20 C	278
SXYx 4 axes / ZRFH C	279
SXYx 4 axes / ZRS C	280
SXYx 4 axes / ZRS S	281
SXYBx 2 axes C	282
SXYBx 3 axes / ZF C	284
SXYBx 3 axes / ZFL20 C	285

SXYBx 3 axes / ZFH C	286
SXYBx 3 axes / ZS C	287
SXYBx 4 axes / ZRS C	288
NXY 2 axes C	290
NXY 3 axes / ZFL C	292
NXY 3 axes / ZFH C	294
NXY-W 4 axes C	296
NXY-W 6 axes / ZFL C	297
NXY-W 6 axes / ZFH C	298
MXYx 2 axes C	300
MXYx 2 axes S	302
MXYx 2 axes / IO C	304
MXYx 3 axes / ZFL20/10 C	305
MXYx 3 axes / ZFH C	306
MXYx 4 axes / ZRFL20/10 C	307
MXYx 4 axes / ZRFH C	308
HXYx 2 axes C	310
HXYx 3 axes / ZL C	312
HXYx 3 axes / ZH C	313
HXYx 4 axes / ZRL C	314
HXYx 4 axes / ZRH C	315
HXYLx 2 axes C	316

GANTRY TYPE	
MXYx 2 axes C	318
MXYx 2 axes / IO C	320
MXYx 3 axes / ZFL20/10 C	321
MXYx 3 axes / ZFH C	322
MXYx 4 axes / ZRFL20/10 C	323
MXYx 4 axes / ZRFH C	324
HXYx 2 axes C	326
HXYx 3 axes / ZL C	328
HXYx 3 axes / ZH C	329
HXYx 4 axes / ZRL C	330
HXYx 4 axes / ZRH C	331
HXYLx 2 axes C	332

MOVING ARM TYPE	
SXYx 2 axes S	334
SXYx 3 axes / ZF S	336
SXYx 3 axes / ZFL20 S	337
SXYx 3 axes / ZFH S	338
SXYx 3 axes / ZS S	339
MXYx 2 axes C	340
MXYx 3 axes / ZFL20/10 C	342
MXYx 3 axes / ZFH C	343
HXYx 2 axes C	344
HXYx 3 axes / ZH C	346

POLE TYPE	
SXYx 2 axes S	348
MXYx 2 axes C	349
MXYx 2 axes S	350
MXYx 3 axes / ZPMH C	351
HXYx 2 axes C	352
HXYx 2 axes S	353
HXYx 3 axes / ZPH C	354
HXYx 3 axes / ZPH S	355

XZ TYPE	
SXYx 2 axes / ZF C	356
SXYx 2 axes / ZF S	357
SXYx 2 axes / ZFL20 C	358
SXYx 2 axes / ZS C	359
SXYx 2 axes / ZF C	360
SXYBx 2 axes / ZFL20 C	361
MXYx 2 axes / ZFL10 C	362
MXYx 2 axes / ZFH C	363
HXYx 2 axes / ZL C	364
HXYx 2 axes / ZH C	365

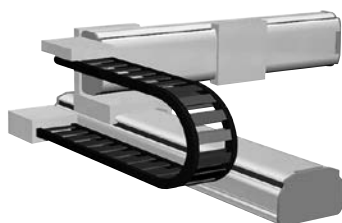
Arm & cable variations

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)

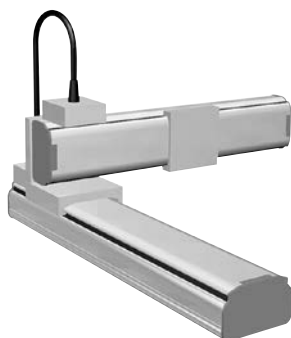
When adding cables to a cable carrier track, keep the cable occupation rate at 30% or less.



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

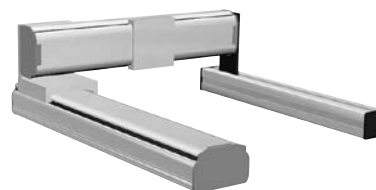
The type with moving Y-axis carriage.



P.250

Gantry type

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



P.318

Moving arm type

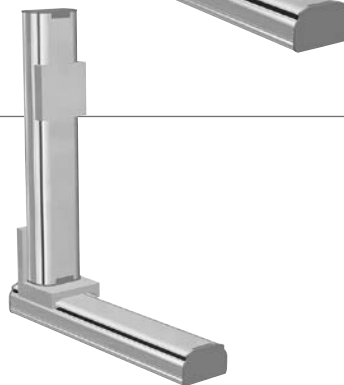
The type with a moving Y-axis arm.



P.334

Pole type

The type with vertically moving Y-axis carriage.



P.348

XZ type

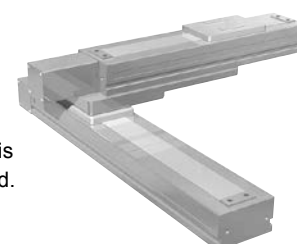
The type with combination of X-axis for horizontal movement and Z-axis for vertical movement.



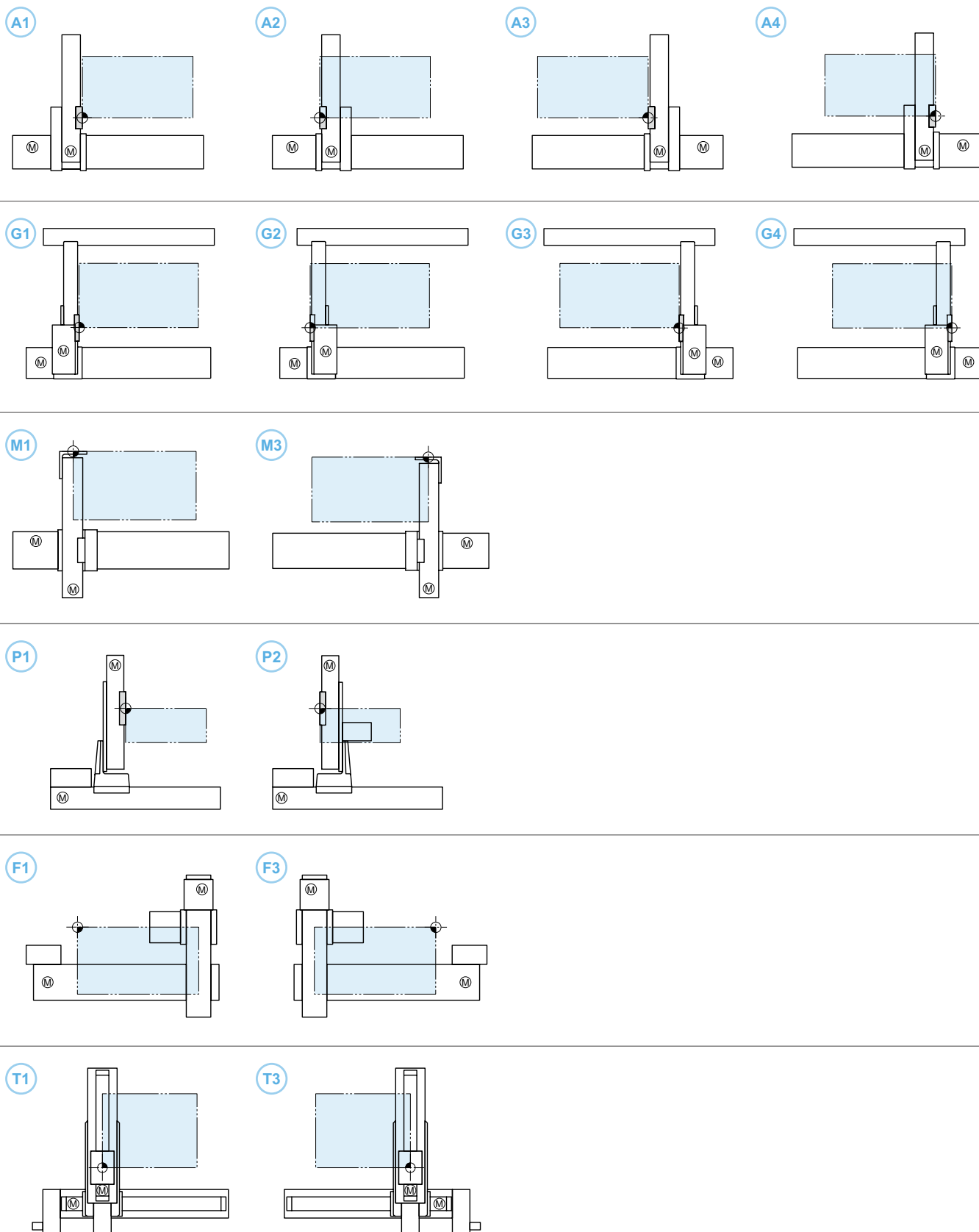
P.356

Clean type

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



P.456



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

①

Arm type



②

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

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

Gantry type



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

Moving arm type



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

Pole type



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

XZ type



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

③	④	⑤	⑥ Decide the model	
Cable type	X-axis stroke (mm)	Maximum speed (X-axis / Y-axis) (mm/sec)	Model ^(Note 1)	Detailed info page
Cable carrier	150 to 650	720 / 720	PXYx-C-A*	P250

Cable type	X-axis stroke (mm)	Maximum speed (X-axis / Y-axis) (mm/sec)	Model	Detailed info page
Cable carrier	150 to 1050	1200 / 800	FXYx-C-A*	P252
Cable carrier	150 to 1050	1200 / 800	FXYx-C-A* (I/O)	P254
Cable carrier	150 to 2450	1875 / 1875	FXYBx-C-A*	P258
Whipover	150 to 950	1875 / 1875	FXYBx-S-A*	P260
Cable carrier	150 to 2450	1875 / 1875	FXYBx-C-A* (I/O)	P262
Cable carrier	150 to 1050	1200 / 1200	SXYx-C-A*	P264
Whipover	150 to 850	1200 / 1200	SXYx-S-A*	P266
Cable carrier	150 to 1050	1200 / 1200	SXYx-C-A* (I/O)	P268
Cable carrier	150 to 3050	1875 / 1875	SXYBx-C-A*	P282
Cable carrier	500 to 2000	1200 / 1200	NXY-C-A*	P290
Cable carrier	250 to 1250	1200 / 1200	MXYx-C-A*	P300
Whipover	250 to 850	1200 / 1200	MXYx-S-A*	P302
Cable carrier	250 to 1250	1200 / 1200	MXYx-C-A* (I/O)	P304
Cable carrier	250 to 1250	1200 / 1200	HXYx-C-A*	P310
Cable carrier	1150 to 2050	1200 / 1200	HXYLx-C-A*	P316

Cable type	X-axis stroke (mm)	Maximum speed (X-axis / Y-axis) (mm/sec)	Model	Detailed info page
Cable carrier	250 to 1050	1200 / 1200	MXYx-C-G*	P318
Cable carrier	250 to 1050	1200 / 1200	MXYx-C-G* (I/O)	P320
Cable carrier	250 to 1250	1200 / 1200	HXYx-C-G*	P326
Cable carrier	1150 to 2050	1200 / 1200	HXYLx-C-G*	P332

Cable type	X-axis stroke (mm)	Maximum speed (X-axis / Y-axis) (mm/sec)	Model	Detailed info page
Cable carrier	150 to 850	1200 / 1200	SXYx-C-M*	P334
Cable carrier	250 to 1250	1200 / 1200	MXYx-C-M*	P340
Cable carrier	250 to 1250	1200 / 1200	HXYx-C-M*	P346

Cable type	X-axis stroke (mm)	Maximum speed (X-axis / Y-axis) (mm/sec)	Model	Detailed info page
Whipover	150 to 850	1200 / 600	SXYx-S-P*	P348
Cable carrier	250 to 1250	1200 / 600	MXYx-C-P*	P349
Whipover	250 to 950	1200 / 600	MXYx-S-P*	P350
Cable carrier	250 to 1250	1200 / 600	HXYx-C-P*	P352
Whipover	250 to 850	1200 / 600	HXYx-S-P*	P353

Cable type	X-axis stroke (mm)	Maximum speed (X-axis / Y-axis) (mm/sec)	Model	Detailed info page
Cable carrier	150 to 1050	1200 / 600	SXYx-C-F* (ZF)	P356
Whipover	150 to 850	1200 / 600	SXYx-S-F* (ZF)	P357
Cable carrier	150 to 1050	1200 / 1200	SXYx-C-F* (ZFL20)	P358
Cable carrier	150 to 1050	1200 / 1000	SXYx-C-F* (ZS12)	P359
Cable carrier	150 to 1050	1200 / 500	SXYx-C-F* (ZS6)	P359
Cable carrier	150 to 3050	1875 / 600	SXYBx-C-F* (ZF)	P360
Cable carrier	150 to 3050	1875 / 1200	SXYBx-C-F* (ZFL20)	P361
Cable carrier	150 to 1050	1200 / 600	MXYx-C-F* (ZFL10)	P362
Cable carrier	150 to 1050	1200 / 600	MXYx-C-F* (ZFH)	P363
Cable carrier	250 to 1250	1200 / 600	HXYx-C-F* (ZL)	P364
Cable carrier	250 to 1250	1200 / 300	HXYx-C-F* (ZH)	P365

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

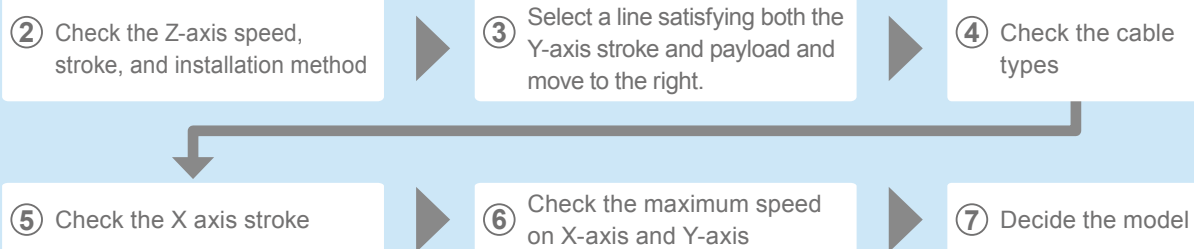
The type with a moving Y-axis arm.

Pole type

The type with vertically moving Y-axis carriage.

①			②			③										
Arm type			Z-axis			Y-axis stroke (mm)										
Speed (mm/sec)	Stroke (mm)	Installation method	150	250	350	450	550	650	750	850	950	1050				
1000	150	Shaft vertical type	3													
500	150		5			3										
800	50 to 300	Clamped base · moving table type (60W)	3													
600	150	Clamped base · moving table type (100W)	10	9	7	5	3									
	250		10	8	6	4	2									
	350		10	9	7	5	3	1								
	150	Clamped base · moving table type (100W)	10	9		7	5	3								
	250		10	10	8	6	4	2								
350	10		9	7	5	3	1									
1200	150	Clamped base · moving table type (200W)	8			6	4	2								
	250		8	7	5	3	1									
	350		8	6	4	2	1									
600	150	Clamped table · moving base type (200W)	13	10	8	6	4	2								
	250		12	9	7	5	3	1								
	350		11	8	6	4	2	1								
1000	150	Shaft vertical type	3													
500	150		3													
			5													
		5														
600	150	Clamped base · moving table type (100W)	8	6	4	2	1									
	250		7	5	3	1										
	350		6	4	2											
1200	150	Clamped base · moving table type (200W)	7	5	3	1										
	250		6	4	2											
	350		5	3	1											
600	150	Clamped table · moving base type (200W)	7	5	3	1										
	250		6	4	2											
	350		5	3	1											
1000	150	Shaft vertical type	3													
500	150		5			4	3									
1200	150	Clamped base · moving table type (200W)	8				5	3								
	250		8	7	4	2										
	350		8	6	3	1										
600	150	Clamped table · moving base type (200W)	13	12	10	8	5	3								
	250		13	11	9	7	4	2								
	350		12	10	8	6	3	1								
600	150	Clamped base · moving table type (200W)	15			12	12	8								
	250		15			11	11	7								
	350		15			10	10	6								
1200	150	Clamped base · moving table type (200W)	8													
	250		8					7								
	350		8					6								
600	150	Clamped table · moving base type (200W)	14			12		8								
	250		13			11		7								
	350		12			10		6								
600	250	Clamped base · moving table type (200W)		20				18								
	350		20				17									
	450		20			19	16									
	550		20			18	15									
300	250	Clamped table · moving base type (200W)		25		20	18									
	350		25		20	17										
	450		24		19	16										
	550		23		18	15										

Payload (kg)



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

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

3-axis spec selection guide

① Gantry type

② 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	

③ 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	

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	

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									
	15									

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

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

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	P.351
Cable carrier	250 to 1250	1200 / 600	HXYx-C-P2-ZPH	P.354
Whipover	250 to 850	1200 / 600	HXYx-S-P1-ZPH	P.355

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**

	—		—		—		—	RCX222				
① Model		② Cable		③ Combination Note 1		④ X-axis stroke		⑤ Y-axis stroke		⑥ Cable		⑦ Controller
PXYx FXYx FXYBx SXYx SXYBx NXY MXYx HXYx HXYLx		C Cable carrier S Whipover		A1 to 4 Arm type G1 to 4 Gantry type M1 / M3 Moving arm type P1 / P2 Pole type F1 / F3 XZ type						3L 3.5m 5L 5m 10L 10m		

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**

① Model	② Cable	③ Combination	④ X-axis stroke	⑤ Y-axis stroke	⑥ ZR-axis	⑦ Z-axis stroke	⑧ Cable	⑨ Controller
FXYx SXYx SXYBx NXY MXYx HXYx	C Cable carrier S Whipover	A1 to 4 Arm type G1 to 4 Gantry type M1/3 Moving arm type P1 to 2 Pole type			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 ZRF Clamped base • moving table type (100W)+R-axis ZRS Shaft vertical type ZR-axis integrated type ZRFL/ZRL Clamped base • moving table type (200W)+R-axis ZRFH/ZRH Clamped table • moving base type (200W)+R-axis		3L 3.5m 5L 5m 10L 10m	RCX240 RCX240S RCX340

Robot ordering method terminology

① Model	Enter the robot unit model.
② Cable	Cable specs can be selected. To find detailed information see P.240. C: Cable carrier S: Whipover
③ Combination (Arm variations)	Select the arm variation and combination method. ●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.  ●Clean type Special model for clean rooms with moving Y-axis carriage installed upward.  To find information on combinations see P.240.
④ X-axis stroke	Select the X axis stroke. Enter in centimeters (cm). (For example enter 50 for a stroke of 500mm.)
⑤ Y-axis stroke	Select the Y axis stroke. Enter in centimeters (cm). (For example enter 50 for a stroke of 500mm.)
⑥ ZR-axis	Select the Z axis installation direction. The R axis is installed with 4-axis specifications. To find more information see P.37. [3-axes] 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 [4-axes] 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
⑦ Z-axis stroke	Select the Z axis stroke. Enter in centimeters (cm). (For example enter 15 for a stroke of 150mm.)
⑧ Cable	Select the length of the robot cable connecting the robot and controller. 3L : 3.5m 5L : 5m 10L : 10m
⑨ Controller	2-axis specifications: Select the RCX222. 3 / 4-axis specifications: Select either the RCX240 (RCX240S) or RCX340.

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

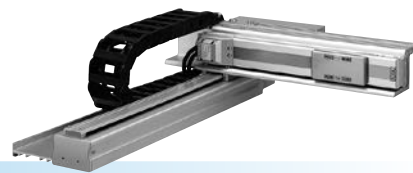
Pole type

XZ type

PXYx

2 axes

● Arm type ● Cable carrier



Ordering method

Model	Cable	Combination	X-axis stroke	Y-axis stroke	Cable	Controller	Usable for CE	Input/Output selection 1	Input/Output selection 2
PXYx - C						RCX222			
	A1		15 to 65cm	5 to 30cm	3L: 3.5m	RCX222	No entry: Standard	N: NPN ^{Note 1}	No entry: None
	A2				5L: 5m		E: CE marking	P: PNP	Nt: OP.DIO24/16
	A3				10L: 10m			CC: CC-Link	(NPN) ^{Note 1}
	A4							DN: DeviceNet™	Pt: OP.DIO24/17
								PB: PROFIBUS	(PNP)
								EN: Ethernet	EN: Ethernet ^{Note 3}
								YC: YC-Link ^{Note 2}	

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
Axis construction ^{Note 1}	—	T4H
AC servo motor output (W)	60	30
Repeatability ^{Note 2} (mm)	+/-0.02	+/-0.02
Drive system	Ball screw (Class C10)	Ball screw (Class C10)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	12	12
Maximum speed ^{Note 4} (mm/sec)	720	720
Moving range (mm)	150 to 650	50 to 300
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 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.

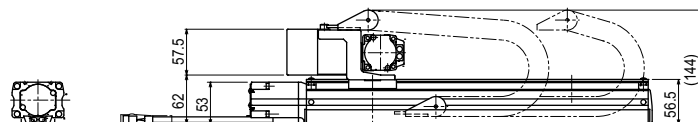
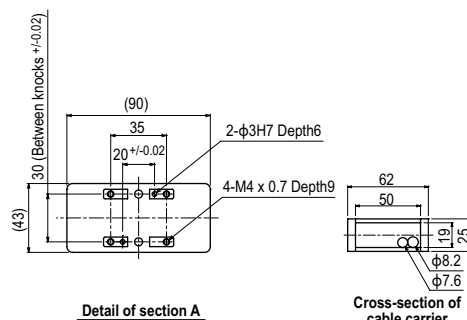
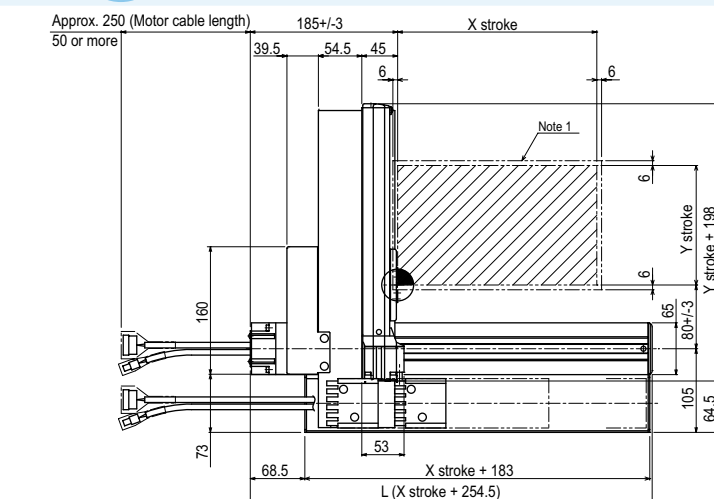
Maximum payload (kg)

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

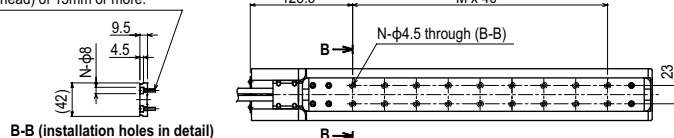
Controller

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.



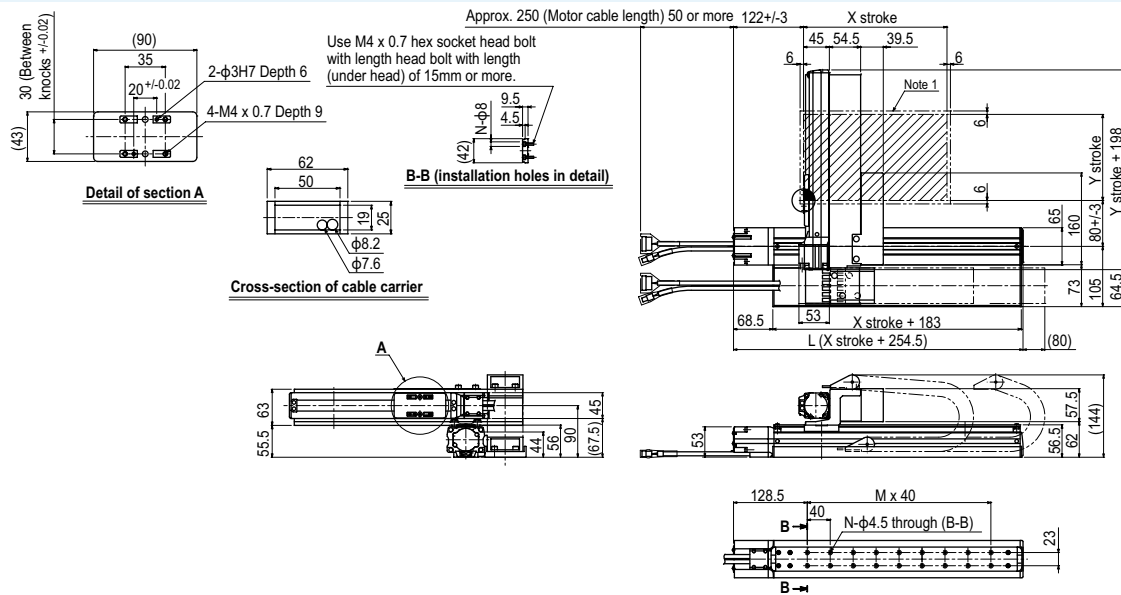
B-B (installation holes in detail)

X stroke	150	250	350	450	550	650
L	404.5	504.5	604.5	704.5	804.5	904.5
M	5	8	10	13	15	18
N	12	18	22	28	32	38
Y stroke	50	100	150	200	250	300
Maximum speed for each stroke (mm/sec) ^{Note 2}	720					600
Speed setting	—					83%

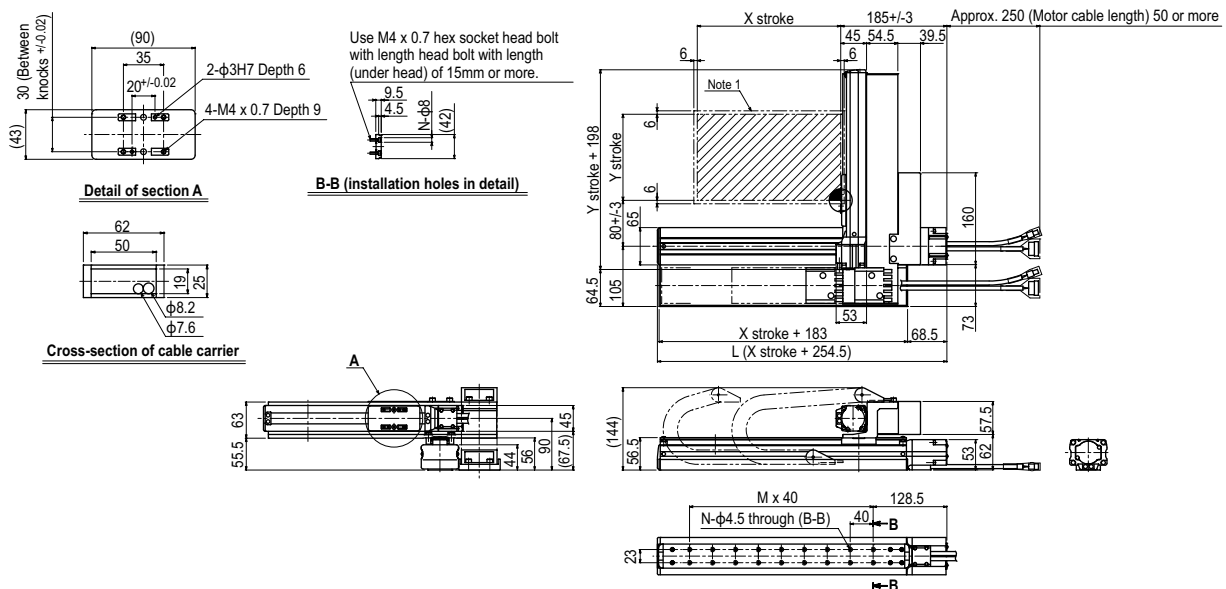
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

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.

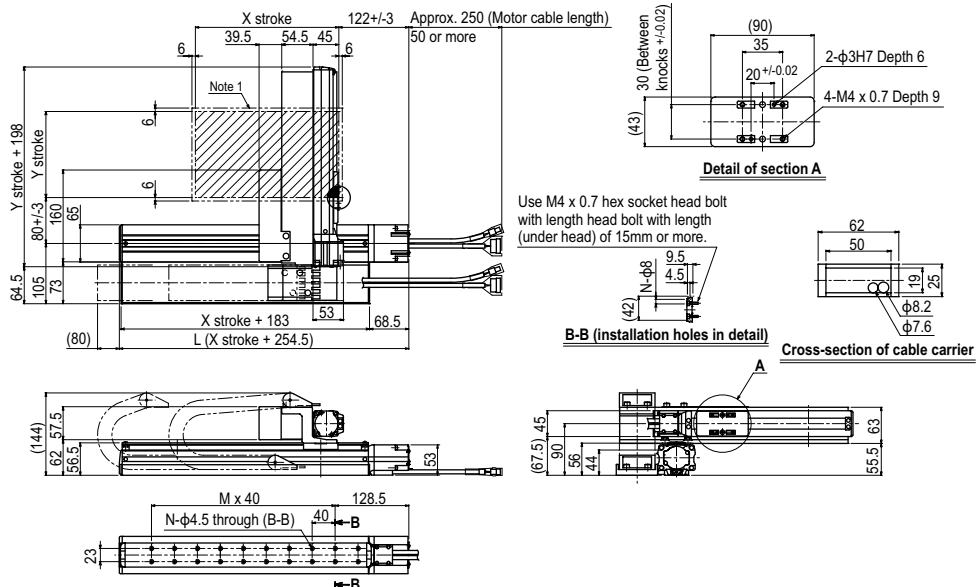
PXYx 2 axes **A2**



PXYx 2 axes **A3**



PXYx 2 axes **A4**



FXYx 2 axes

● Arm type ● Cable carrier



Ordering method

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

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
Axis construction	—	—
AC servo motor output (W)	100	60
Repeatability ^{Note 1} (mm)	+/-0.01	+/-0.02
Drive system	Ball screw (Class C7)	Ball screw (Class C10)
Ball screw lead ^{Note 2} (Deceleration ratio) (mm)	20	12
Maximum speed ^{Note 3} (mm/sec)	1200	800
Moving range (mm)	150 to 1050	150 to 550
Robot cable length (m)	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.

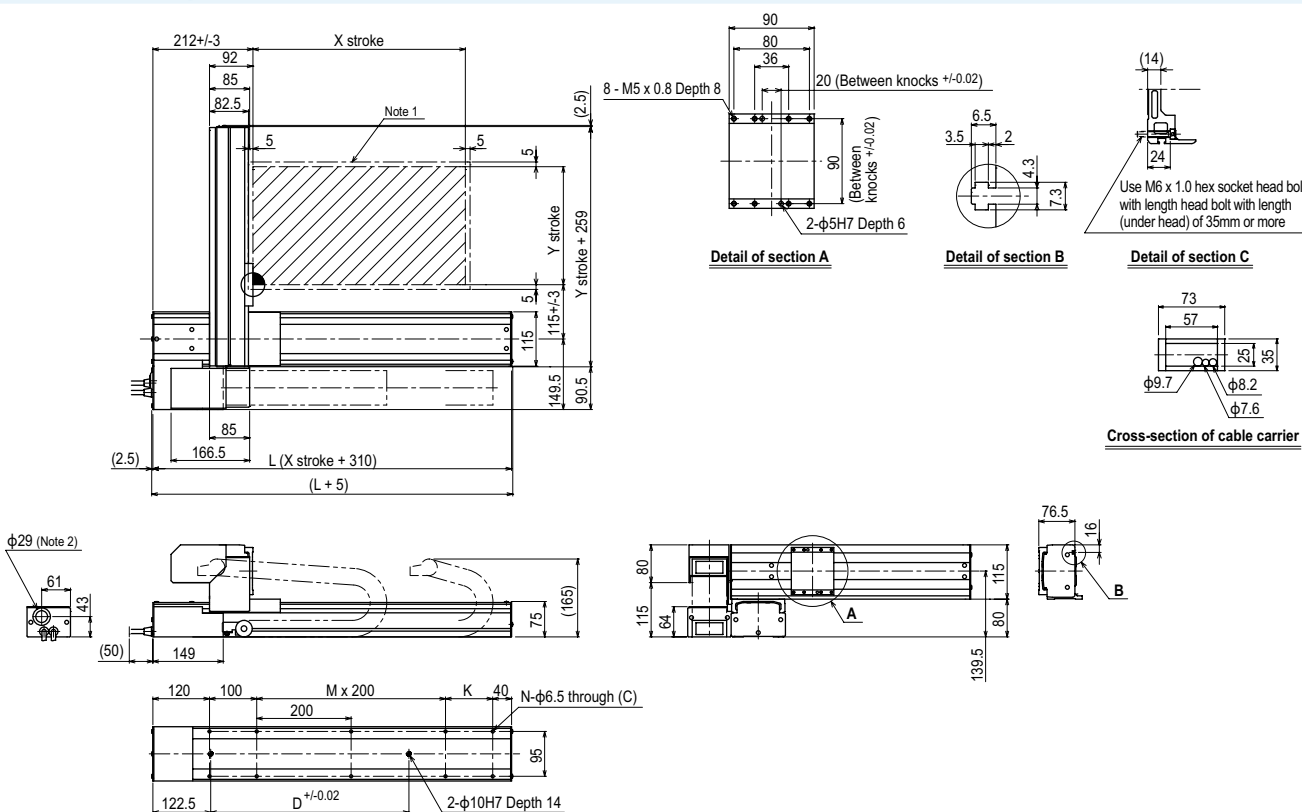
Maximum payload (kg)

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



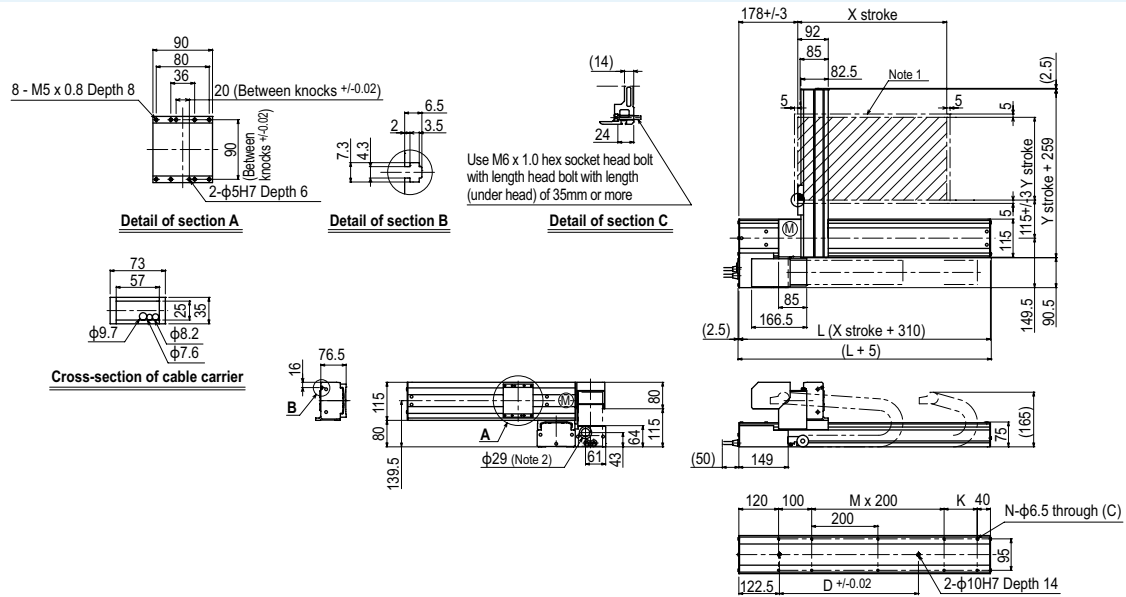
X stroke	150	250	350	450	550	650	750	850	950	1050
L	460	560	660	760	860	960	1060	1160	1260	1360
K	200	100	200	100	200	100	200	100	200	100
D	240	240	420	420	600	600	780	960	960	1140
M	0	1	1	2	2	3	3	4	4	5
N	6	8	8	10	10	12	12	14	14	16
Y stroke	150	250	350	450	550					
Maximum speed for each stroke (mm/sec) ^{Note 3}	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.

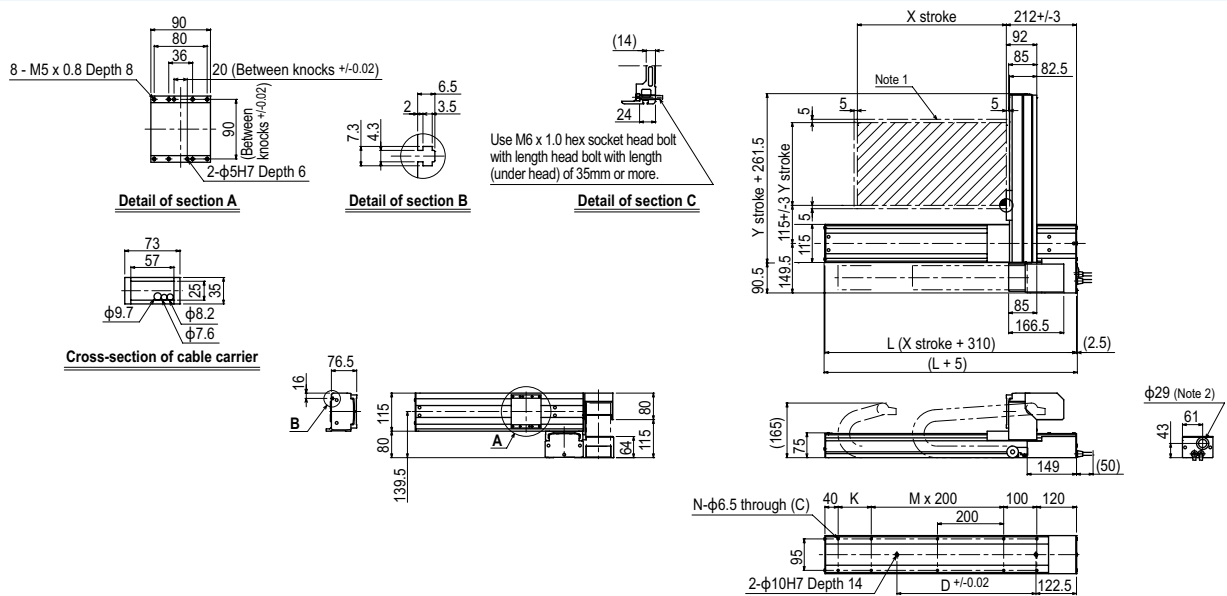
Note 2. User cable extraction port.

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.

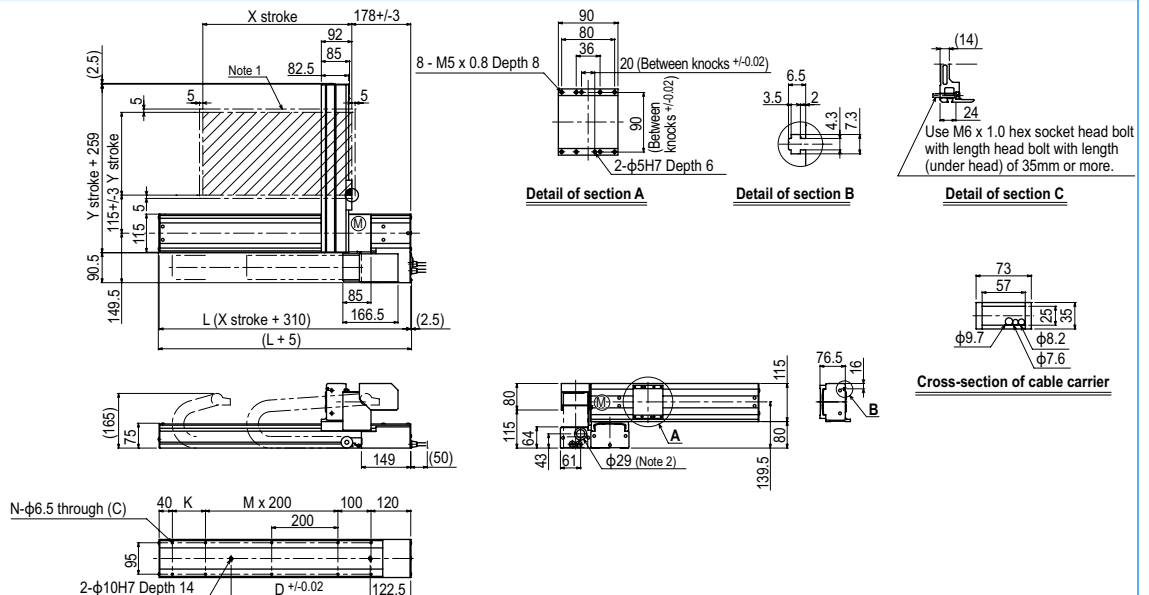
FXYx 2 axes A2



FXYx 2 axes A3



FXYx 2 axes A4



FXYx

3 axes / ZT

● Arm type ● Cable carrier ● Z-axis: clamped base / moving table type (60W)

Ordering method

FXYx - C **Model** **Cable** **Combination** **X-axis stroke** **Y-axis stroke** **ZR-axis** **Lead** **Z-axis stroke** **Cable** **RCX340-3** **Controller / Number of controllable axes** **Safety standard** **Option A (O.P.A)** **Option B (O.P.B)** **Option C (O.P.C)** **Option D (O.P.D)** **Option E (O.P.E)** **Absolute battery**

RCX240S **Controller** **CE Marking** **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 ^{Note 1}	—	—	T6-12-BK
AC servo motor output (W)	100	60	60
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.02	+/-0.02
Drive system	Ball screw (Class C7)	Ball screw (Class C10)	Ball screw (Class C10)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	12	12
Maximum speed ^{Note 4} (mm/sec)	1200	800	800
Moving range (mm)	150 to 1050	150 to 550	50 to 300
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.

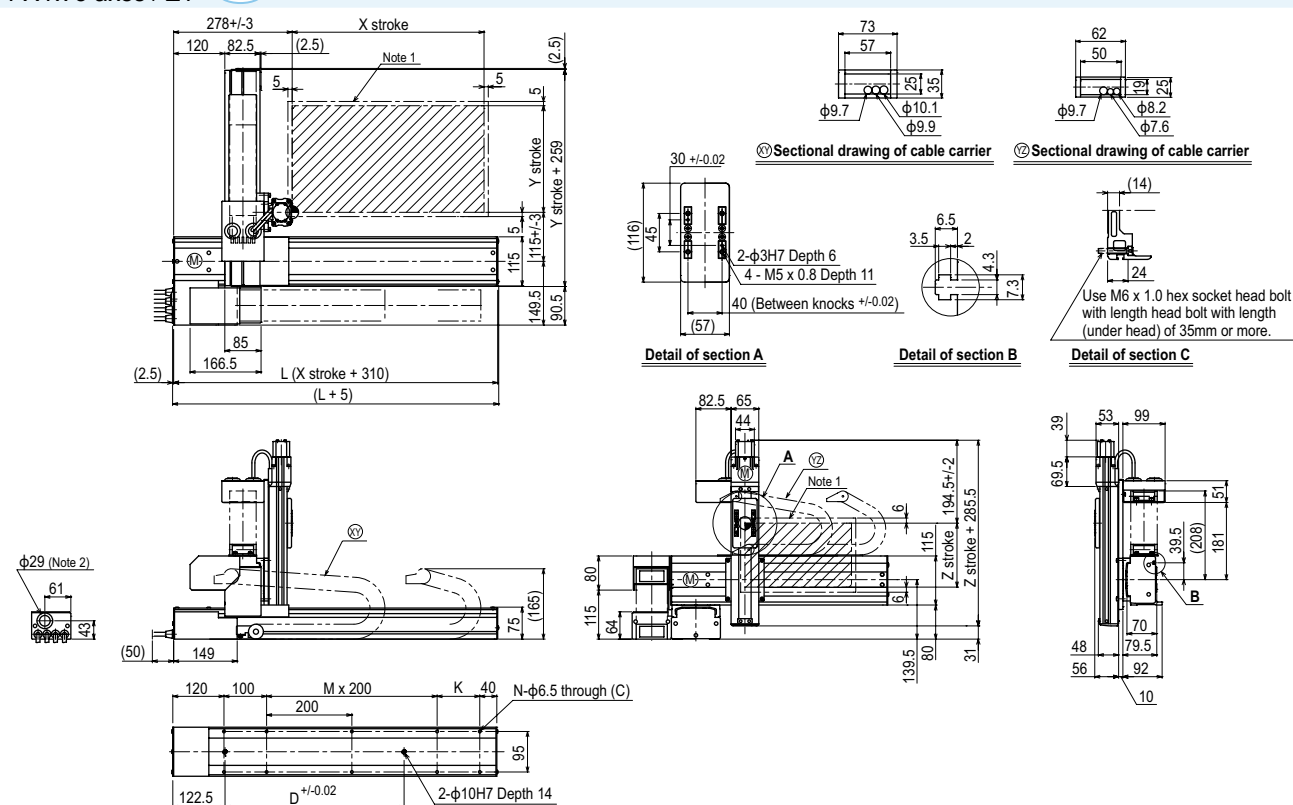
Maximum payload (kg)

Y stroke (mm)	ZT
150 to 550	3

Controller

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

FXYx 3 axes / ZT A1



X stroke	150	250	350	450	550	650	750	850	950	1050
L	460	560	660	760	860	960	1060	1160	1260	1360
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					
Z stroke	50	100	150	200	250	300				
Maximum speed for each stroke (mm/sec) ^{Note 1}	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. 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
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FXyBx 2 axes

● Arm type ● Cable carrier



Ordering method

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

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
Axis construction ^{Note 1}	B10	—
AC servo motor output (W)	100	100
Repeatability ^{Note 2} (mm)	+/-0.04	+/-0.04
Drive system	Timing belt	Timing belt
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	Equivalent to lead 25	Equivalent to lead 25
Maximum speed (mm/sec)	1875	1875
Moving range (mm)	150 to 2450	150 to 550
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.

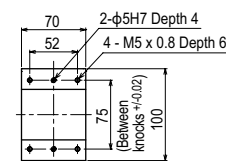
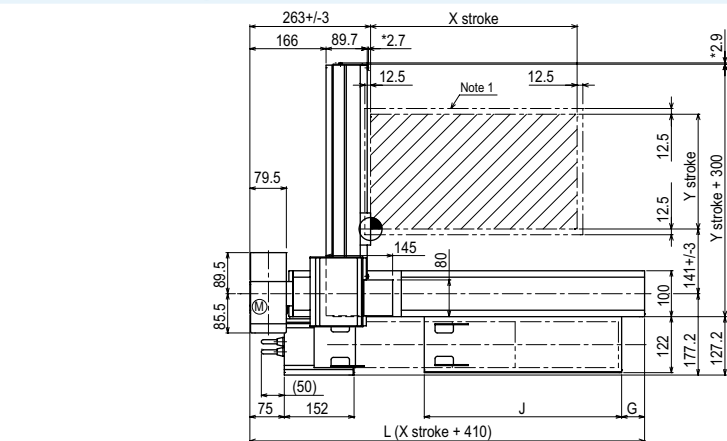
Maximum payload (kg)

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

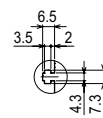
Controller

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

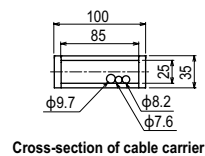
FXyBx 2 axes A1



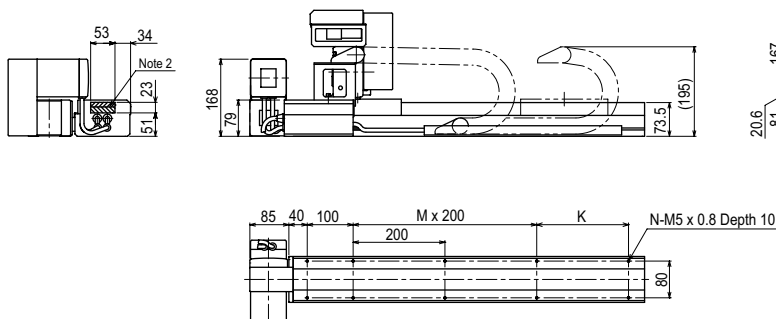
Detail of section A



Detail of section B



Cross-section of cable carrier



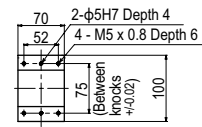
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

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

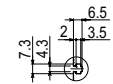
Note 3. The dimension marked with an asterisk (*) indicates the height of the screw.

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
L	560	660	760	860	960	1060	1160	1260	1360	1460	1560	1660	1760	1860	1960	2060	2160	2260	2360	2460	2560	2660	2760	2860
K	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12
N	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30
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
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
Y stroke	150	250	350	450	550																			

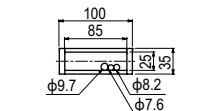
FXYBx 2 axes A2



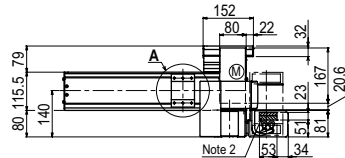
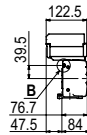
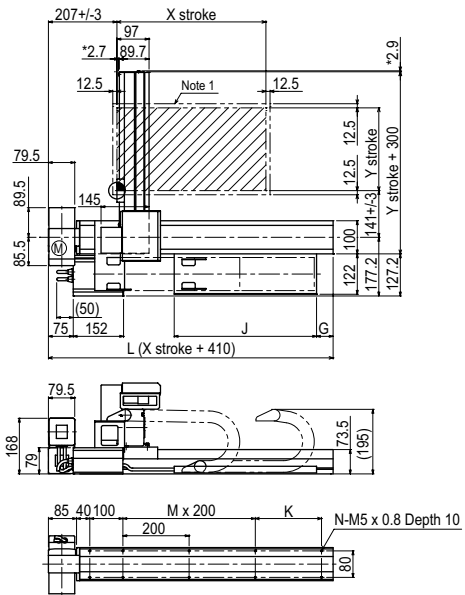
Detail of section A



Detail of section B

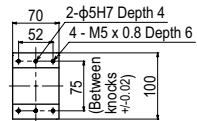


Cross-section of cable carrier

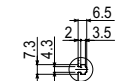


Detail of section B

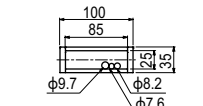
FXYBx 2 axes A3



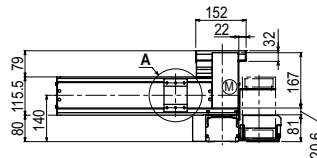
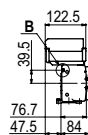
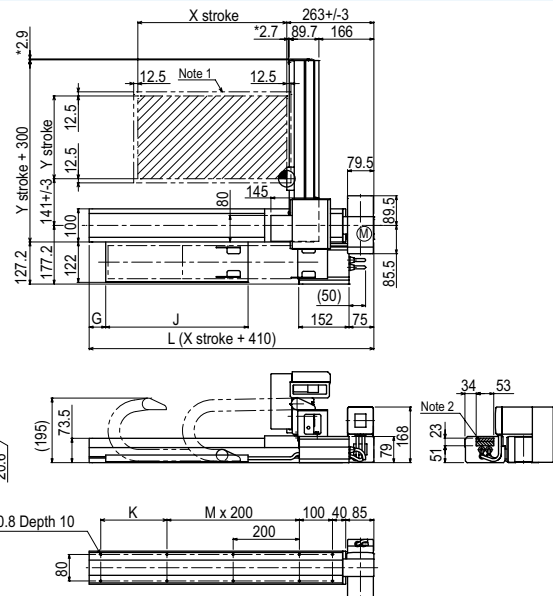
Detail of section A



Detail of section B

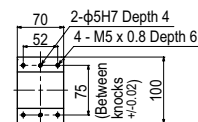
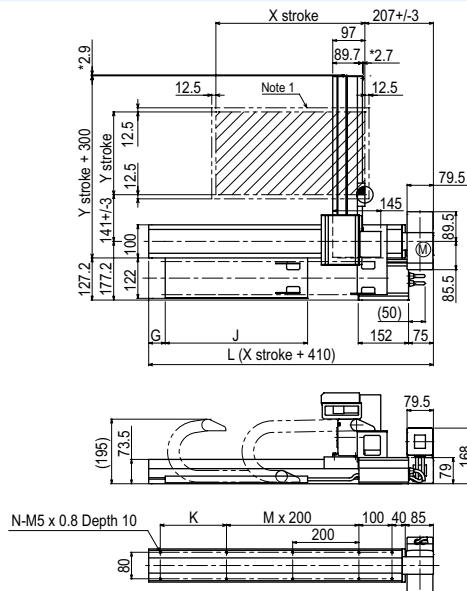


Cross-section of cable carrier

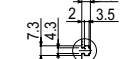


Detail of section B

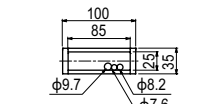
FXYBx 2 axes A4



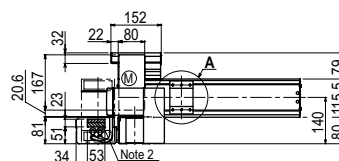
Detail of section A



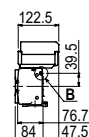
Detail of section B



Cross-section of cable carrier



Detail of section B



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
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FXyBx

2 axes

● Arm type ● Whipover

Ordering method

FXyBx - S						RCX222			
Model	Cable	Combination	X-axis stroke	Y-axis stroke	Cable	Controller	Usable for CE	Input/Output selection 1	Input/Output selection 2
A1		A1	15 to 95cm	15 to 55cm	3L: 3.5m	RCX222	No entry: Standard	N: NPN ^{Note 1}	No entry: None
A2		A2			5L: 5m		E: CE marking	P: PNP	N1: OP.DIO24/16
A3		A3			10L: 10m			CC: CC-Link	(NPN) ^{Note 1}
A4		A4						DN: DeviceNet TM	P1: OP.DIO24/17
								PB: PROFIBUS	(PNP)
								EN: Ethernet	EN: Ethernet ^{Note 3}
								YC: YC-Link ^{Note 2}	

Note 1 NPN cannot be selected if using CE marking.

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
Axis construction ^{Note 1}	B10	—
AC servo motor output (W)	100	100
Repeatability ^{Note 2} (mm)	+/-0.04	+/-0.04
Drive system	Timing belt	Timing belt
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	Equivalent to lead 25	Equivalent to lead 25
Maximum speed (mm/sec)	1875	1875
Moving range (mm)	150 to 950	150 to 550
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.

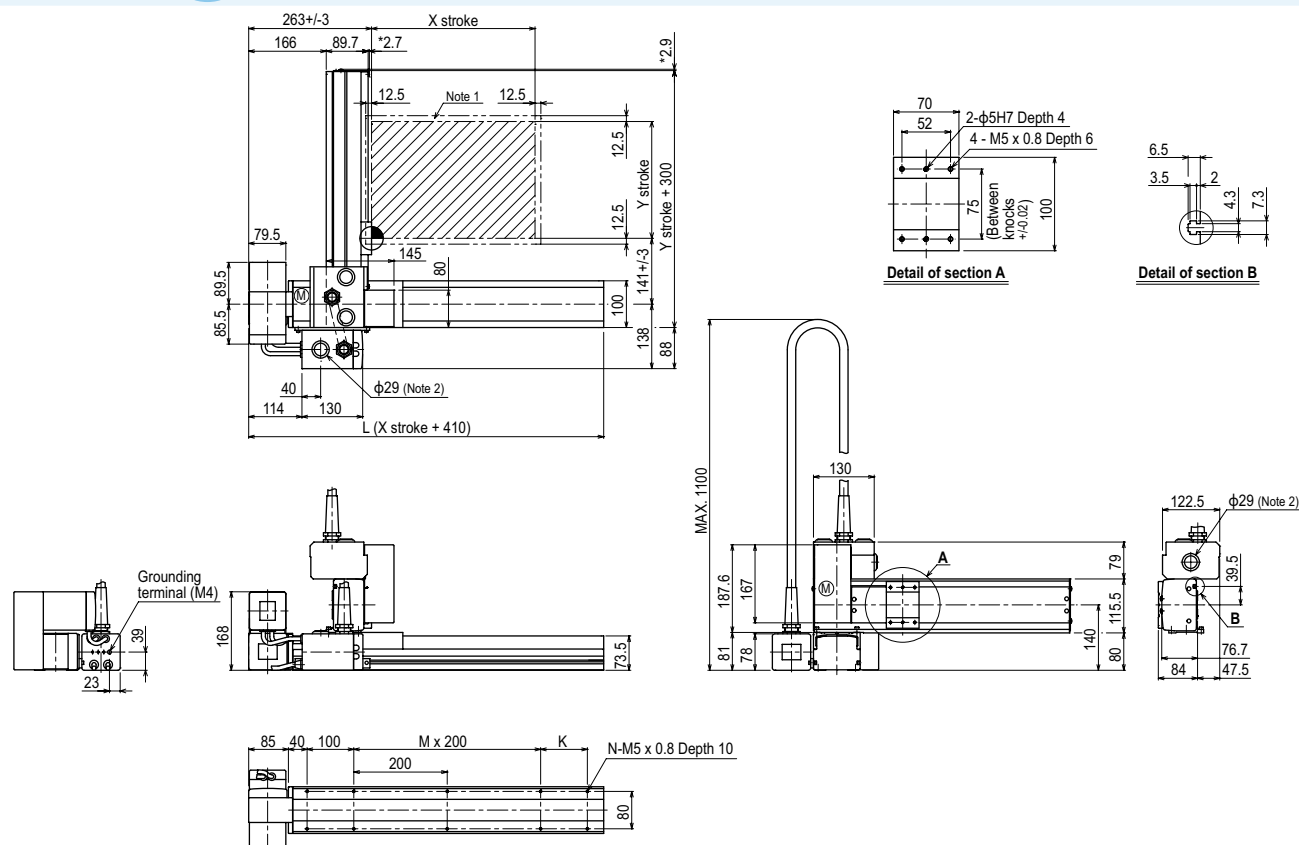
Maximum payload (kg)

Y stroke (mm)	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



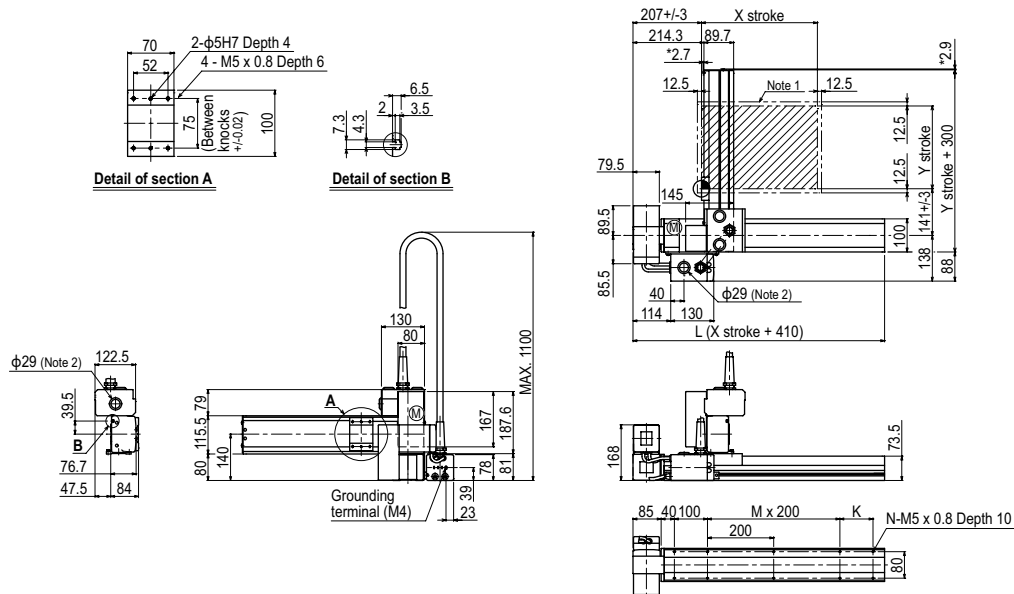
X stroke	150	250	350	450	550	650	750	850	950
L	560	660	760	860	960	1060	1160	1260	1360
K	100	200	100	200	100	200	100	200	100
M	1	1	2	2	3	3	4	4	5
N	8	8	10	10	12	12	14	14	16
Y stroke	150	250	350	450	550				

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

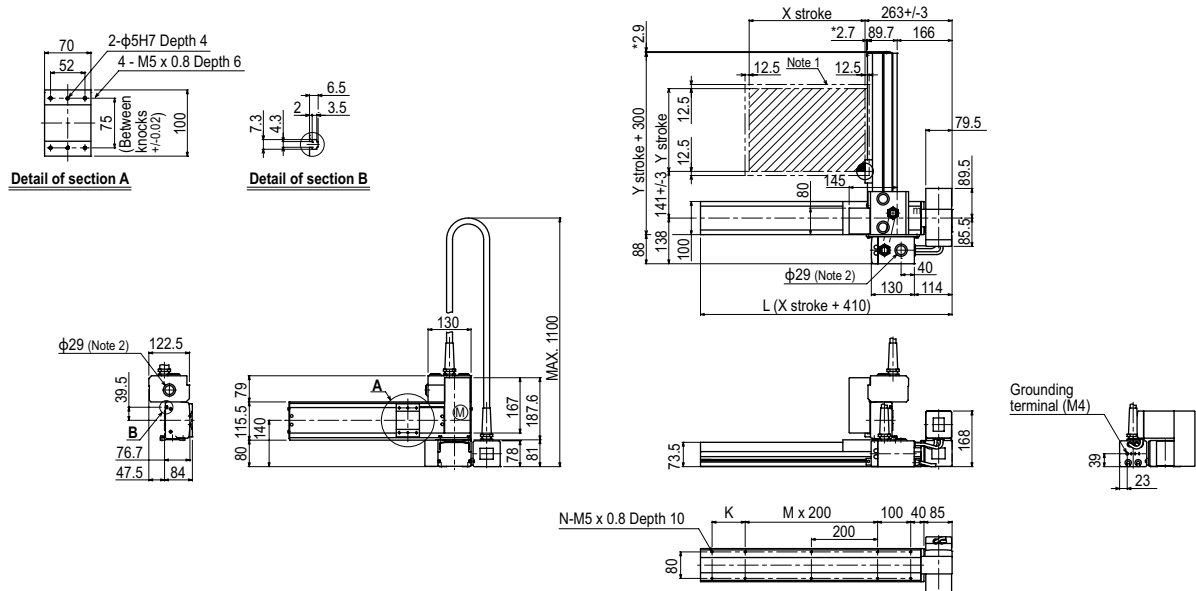
Note 2. User cable extraction port.

Note 3. The dimension marked with an asterisk (*) indicates the height of the screw.

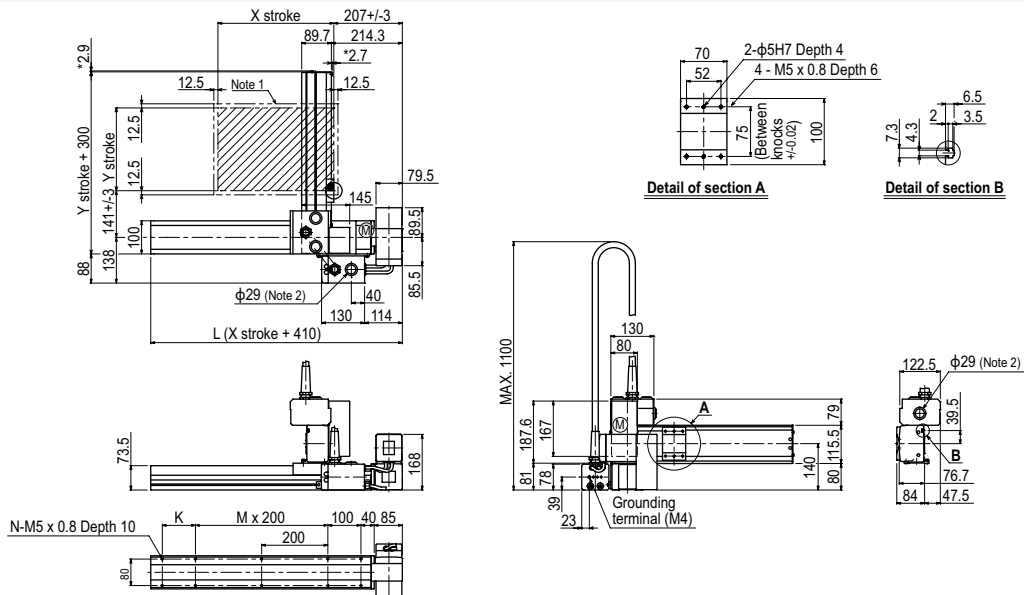
FXYBx 2 axes A2



FXYBx 2 axes A3



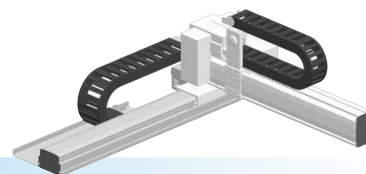
FXYBx 2 axes A4



FXyBx

2 axes / IO

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



Ordering method

Model	Cable	Combination	X-axis stroke	Y-axis stroke	ZR-axis	Cable	Controller	Usable for CE	Input/Output selection 1	Input/Output selection 2
FXyBx - C							RCX222			
		A1	15 to 245cm	15 to 55cm		3L: 3.5m		No entry: Standard	N: NPN ^{Note 1}	No entry: None
		A2				5L: 5m		E: CE marking	P: PNP	Nt: OPDIO24/16 (NPN) ^{Note 1}
		A3				10L: 10m			CC: CC-Link	Pt: OPDIO24/17 (PNP) ^{Note 1}
		A4							DN: DeviceNet™	EN: Ethernet ^{Note 3}
									PB: PROFIBUS	
									EN: Ethernet ^{Note 2}	
									YC: YC-Link ^{Note 2}	

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
Axis construction ^{Note 1}	B10	—
AC servo motor output (W)	100	100
Repeatability ^{Note 2} (mm)	+/-0.04	+/-0.04
Drive system	Timing belt	Timing belt
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	Equivalent to lead 25	Equivalent to lead 25
Maximum speed (mm/sec)	1875	1875
Moving range (mm)	150 to 2450	150 to 550
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.

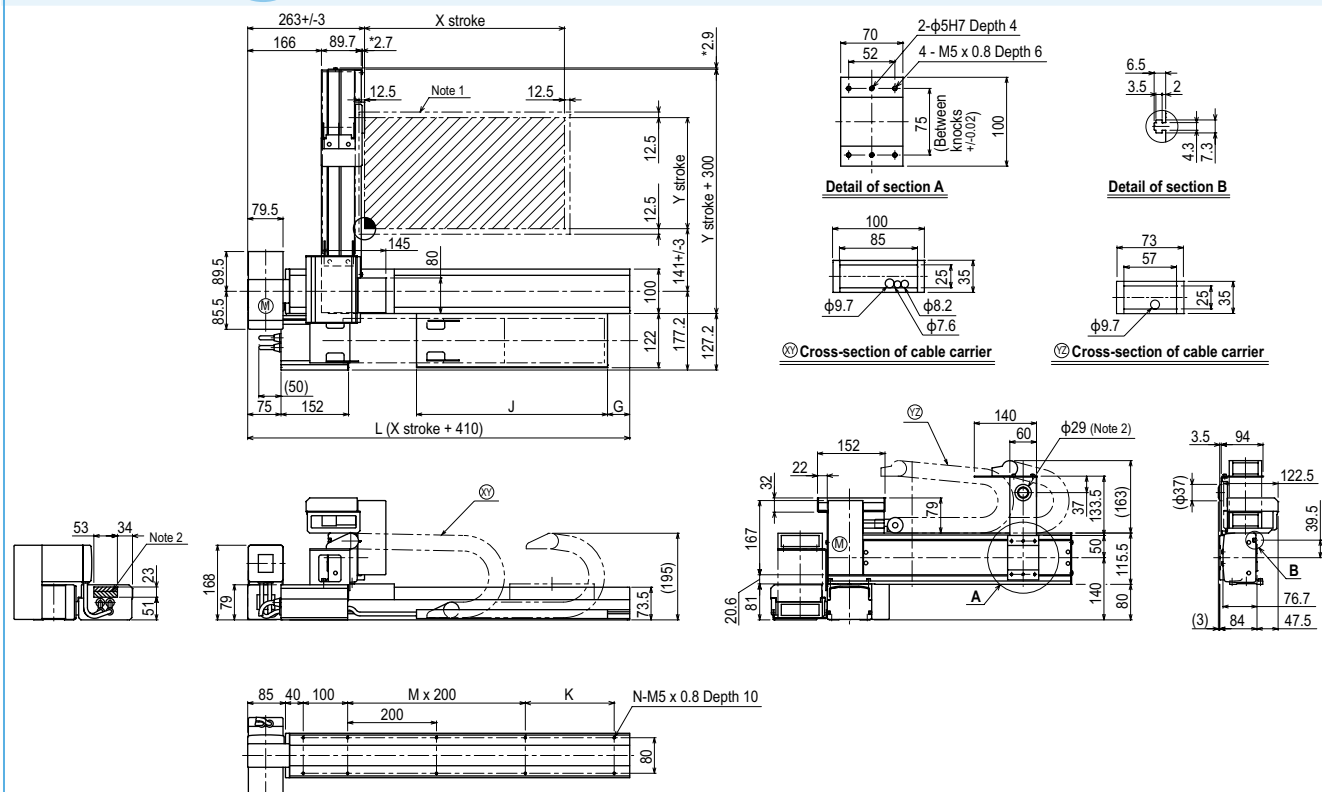
Maximum payload (kg)

Y stroke (mm)	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 2. The shaded position indicates a 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
L	560	660	760	860	960	1060	1160	1260	1360	1460	1560	1660	1760	1860	1960	2060	2160	2260	2360	2460	2560	2660	2760	2860
K	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200	100	200
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12
N	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30
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
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
Y stroke	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
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SXYx

2 axes

● Arm type ● Cable carrier



Ordering method

Model	Cable	Combination	X-axis stroke	Y-axis stroke	Cable	Controller	Usable for CE	Input/Output selection 1	Input/Output selection 2
SXYx - C						RCX222			
	A1		15 to 105cm	15 to 65cm	3L: 3.5m	RCX222	No entry: Standard	N: NPN ^{Note 1}	No entry: None
	A2				5L: 5m		E: CE marking	P: PNP	N1: OP.DIO24/16
	A3				10L: 10m			CC: CC-Link	(NPN) ^{Note 1}
	A4							DN: DeviceNet™	P1: OP.DIO24/17
								PB: PROFIBUS	(PNP)
								EN: Ethernet	EN: Ethernet ^{Note 3}
								YC: YC-Link ^{Note 2}	

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
Axis construction ^{Note 1}	F14H	F14
AC servo motor output (W)	200	100
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20
Maximum speed ^{Note 4} (mm/sec)	1200	1200
Moving range (mm)	150 to 1050	150 to 650
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.

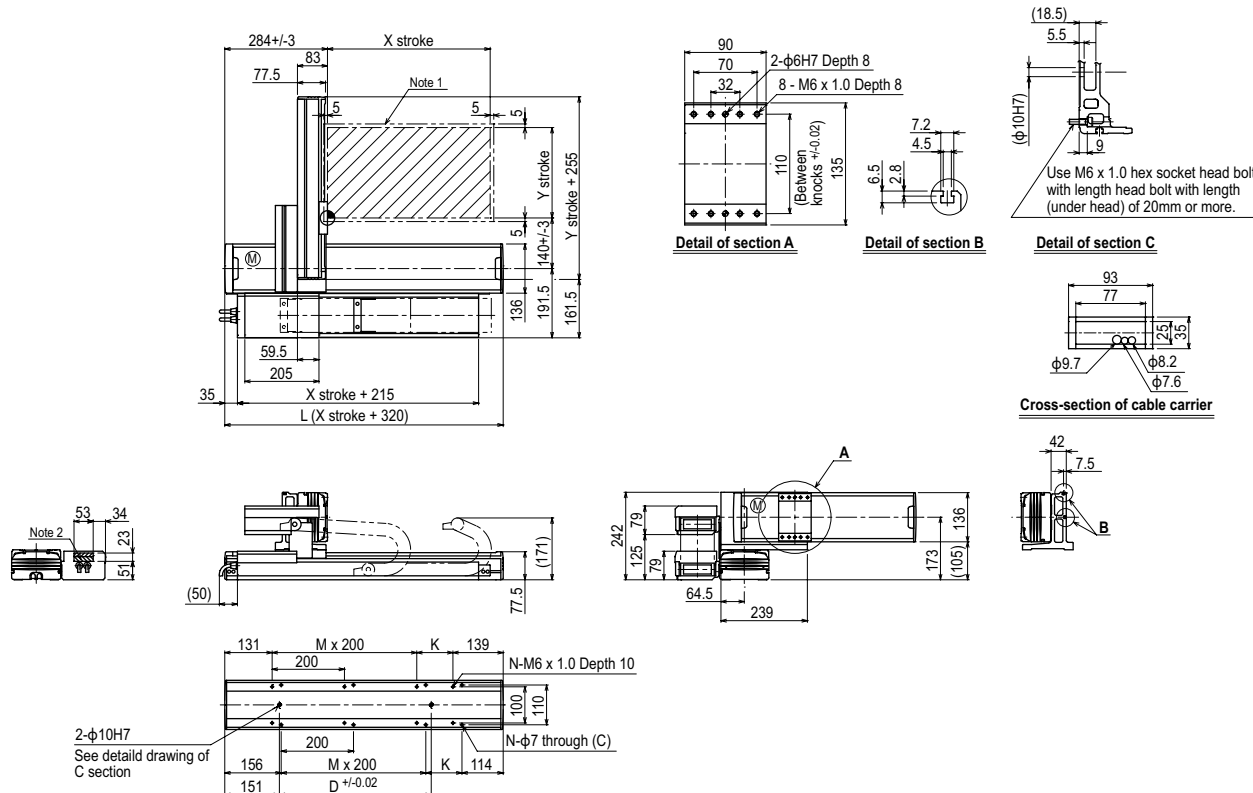
Maximum payload (kg)

Y stroke (mm)	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



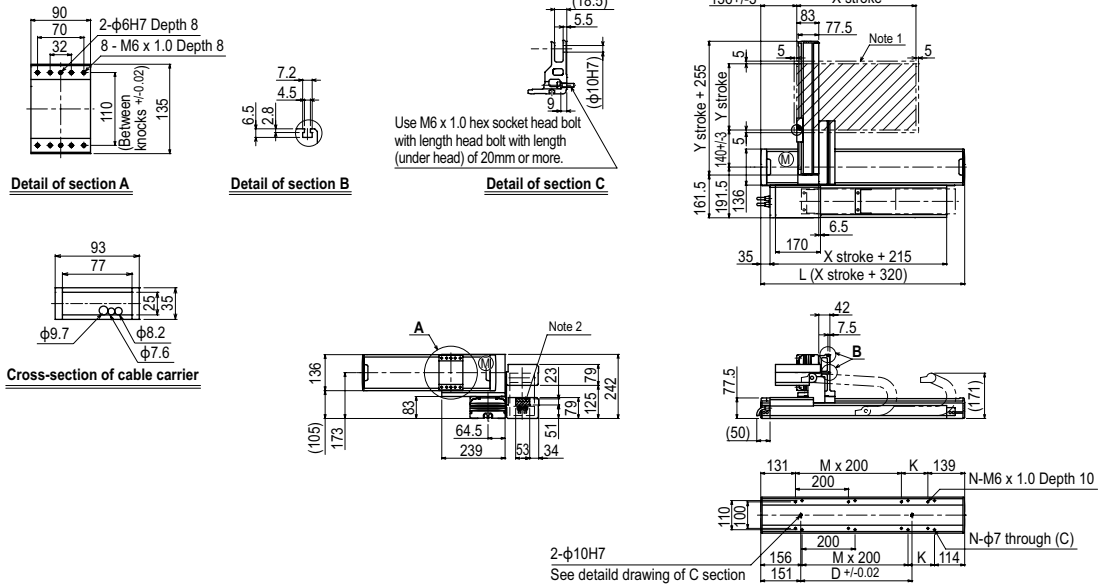
X stroke	150	250	350	450	550	650	750	850	950	1050
L	470	570	670	770	870	970	1070	1170	1270	1370
K	200	100	200	100	200	100	200	100	200	100
D	240	240	420	420	600	600	780	960	960	1140
M	0	1	1	2	2	3	3	4	4	5
N	4	6	6	8	8	10	10	12	12	14
Y stroke	150	250	350	450	550	650				
Maximum speed for each stroke (mm/sec) Note 3	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.

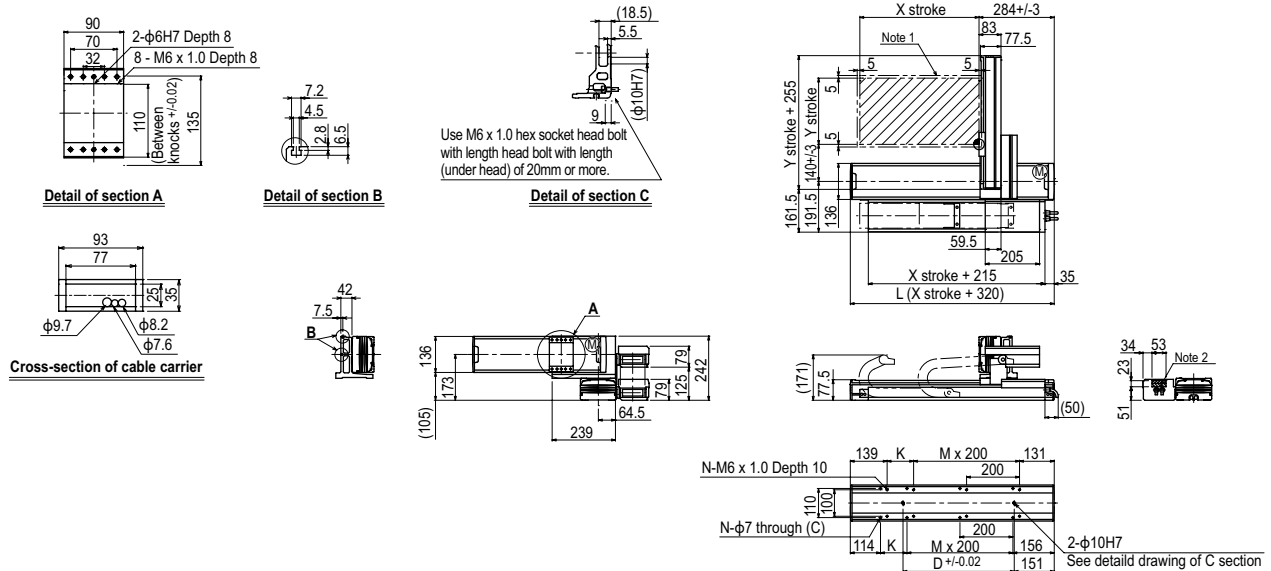
Note 2. The shaded position indicates an user cable extraction port.

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.

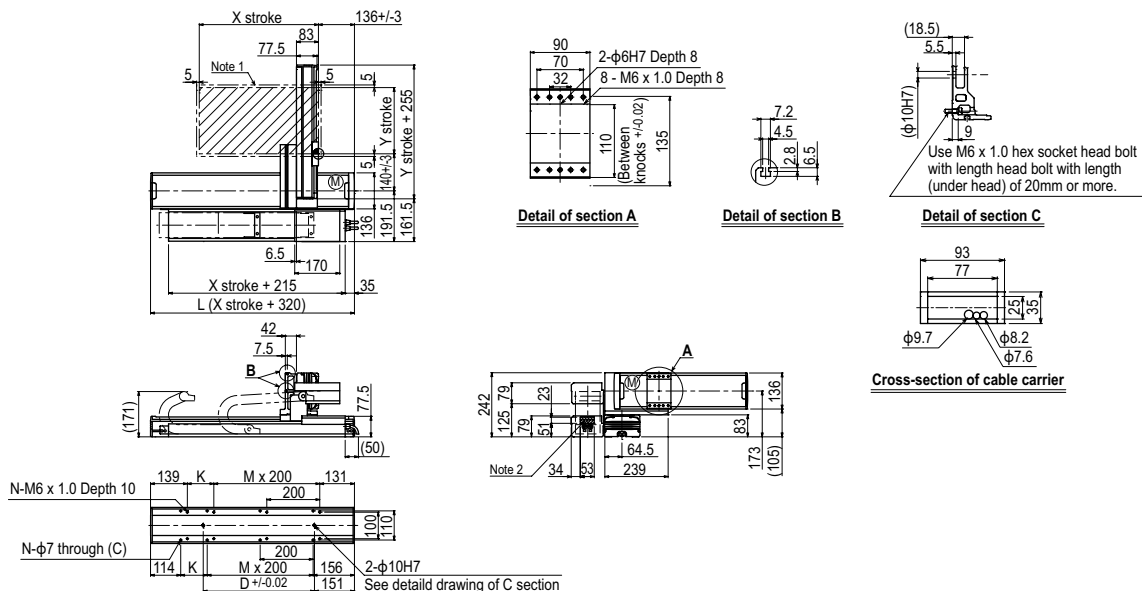
SXYx 2 axes **A2**



SXYx 2 axes **A3**



SXYx 2 axes **A4**



SXYx

2 axes

● Arm type ● Whipover

Ordering method

Model	Cable	Combination	X-axis stroke	Y-axis stroke	Cable	Controller	Usable for CE	Input/Output selection 1	Input/Output selection 2
SXYx - S						RCX222			
	A1		15 to 85cm	15 to 65cm	3L: 3.5m	RCX222	No entry: Standard	N: NPN ^{Note 1}	No entry: None
	A2				5L: 5m		E: CE marking	P: PNP	N1: OP.DIO24/16
	A3				10L: 10m			CC: CC-Link	(NPN) ^{Note 1}
	A4							DN: DeviceNet™	P1: OP.DIO24/17
								PB: PROFIBUS	(PNP)
								EN: Ethernet	EN: Ethernet ^{Note 3}
								YC: YC-Link ^{Note 2}	

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
Axis construction ^{Note 1}	F14H	F14
AC servo motor output (W)	200	100
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20
Maximum speed ^{Note 4} (mm/sec)	1200	1200
Moving range (mm)	150 to 850	150 to 650
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.

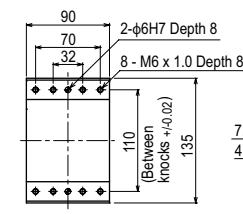
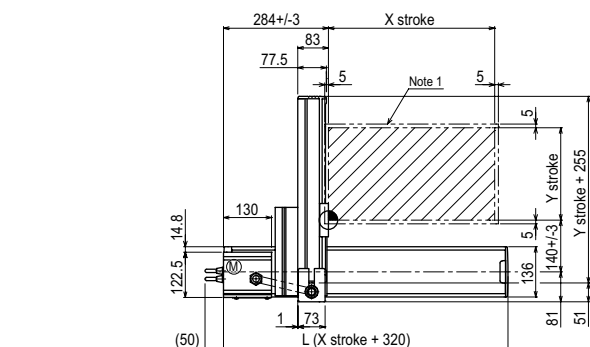
Maximum payload (kg)

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

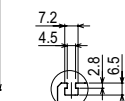
Controller

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

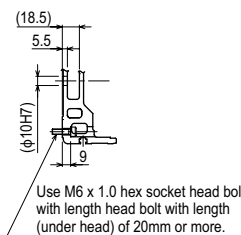
SXYx 2 axes A1



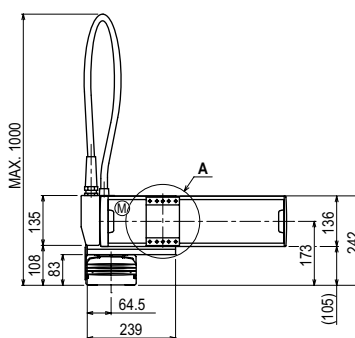
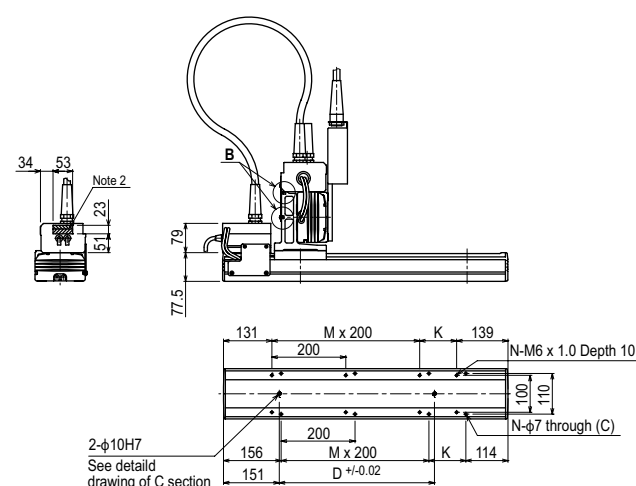
Detail of section A



Detail of section B



Detail of section C

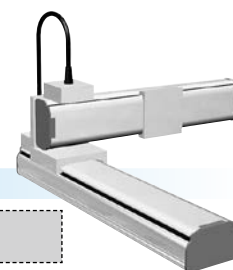


X stroke	150	250	350	450	550	650	750	850
L	470	570	670	770	870	970	1070	1170
K	200	100	200	100	200	100	200	100
D	240	240	420	420	600	600	780	960
M	0	1	1	2	2	3	3	4
N	4	6	6	8	8	10	10	12
Y stroke	150	250	350	450	550	650		
Maximum speed for each stroke (mm/sec)	1200			960			780	
Speed setting	-			80%			65%	

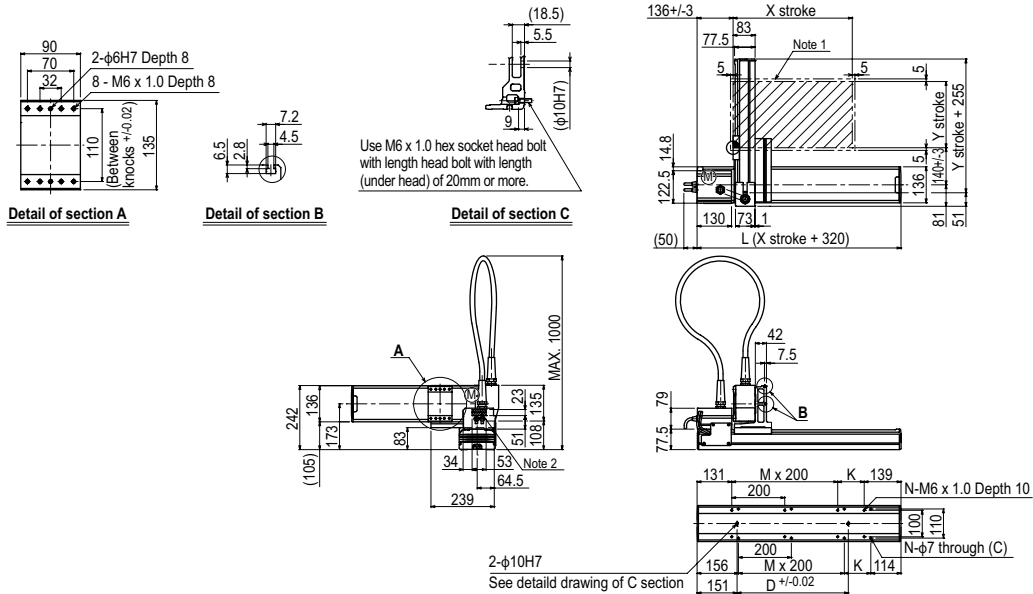
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

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

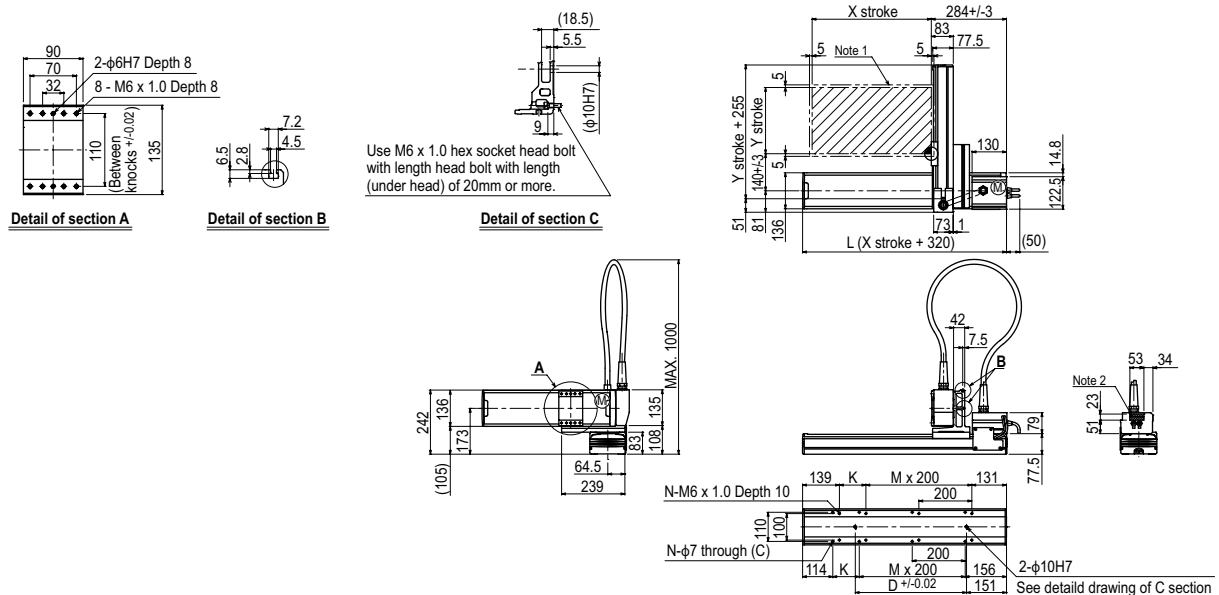
Note 3. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.



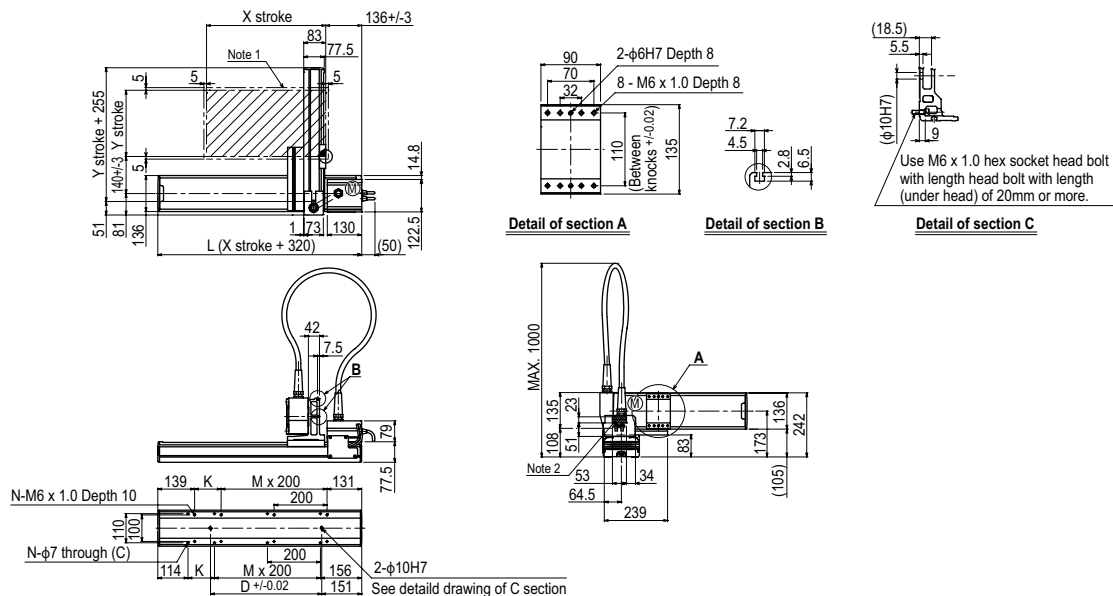
SXYx 2 axes **A2**



SXYx 2 axes **A3**

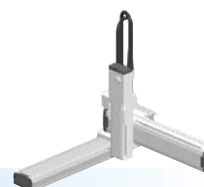


SXYx 2 axes **A4**



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
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Ordering method

SXYx-S - [] - [] - [] - **ZF** - [] - []

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

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

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

Specify various controller setting items. RCX340 ▶ P542

RCX240S - [] - [] - [] - [] - [] - [] - []

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

Specification

	X-axis	Y-axis	Z-axis
Axis construction ^{Note 1}	F14H	F14	F10-BK
AC servo motor output (W)	200	100	100
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20	10
Maximum speed ^{Note 4} (mm/sec)	1200	1200	600
Moving range (mm)	150 to 850	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.

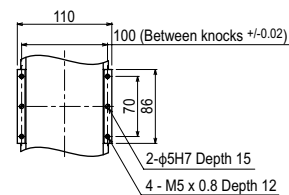
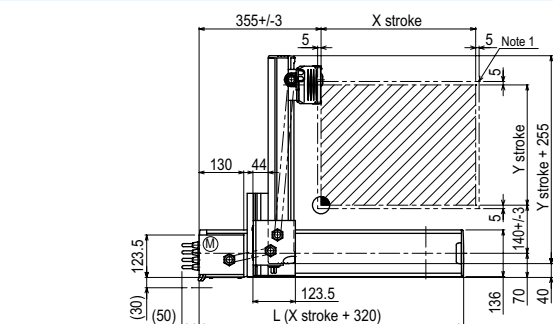
Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

■ **Maximum payload** (kg)

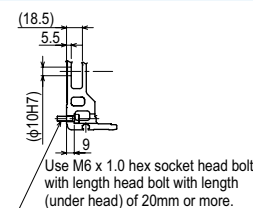
	Z stroke (mm)		
Y stroke (mm)	150	250	350
150	10	10	10
250	10	10	9
350	9	8	7
450	7	6	5
550	5	4	3
650	3	2	1

Controller

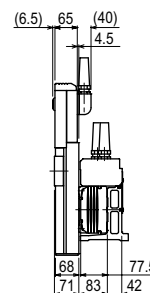
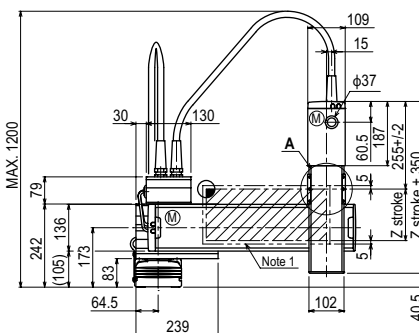
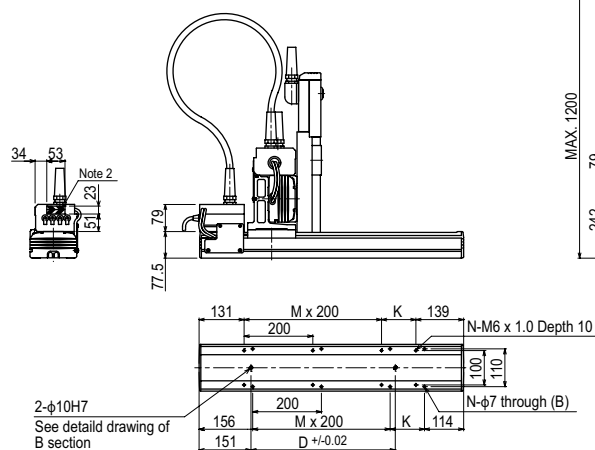
Controller	Operation method
RCX340 RCX240S	Programming / I/O point trace / Remote command / Operation using RS-232C communication

SXYx 3 axes / ZF **A1**

Detail of section A



Detail of section B

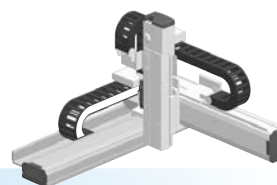


X stroke	150	250	350	450	550	650	750	850
L	470	570	670	770	870	970	1070	1170
K	200	100	200	100	200	100	200	100
D	240	240	420	420	600	600	780	960
M	0	1	1	2	2	3	3	4
N	4	6	6	8	8	10	10	12
Y stroke	150	250	350	450	550	650		
Z stroke	150	250	350					
Maximum speed for each stroke (mm/sec)	X-axis					960	780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



Ordering method

SXYx-C - [] - [] - [] - **ZFH** - [] - []

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

A1
A2
A3
A4

15 to 105cm
15 to 65cm
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 ▶ P542

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

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
Axis construction ^{Note 1}	F14H	F14	F10-BK equivalent guide-reinforced model
AC servo motor output (W)	200	100	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20	10
Maximum speed ^{Note 4} (mm/sec)	1200	1200	600
Moving range (mm)	150 to 1050	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.

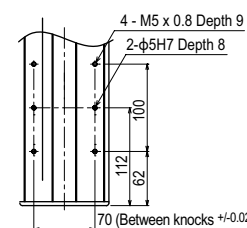
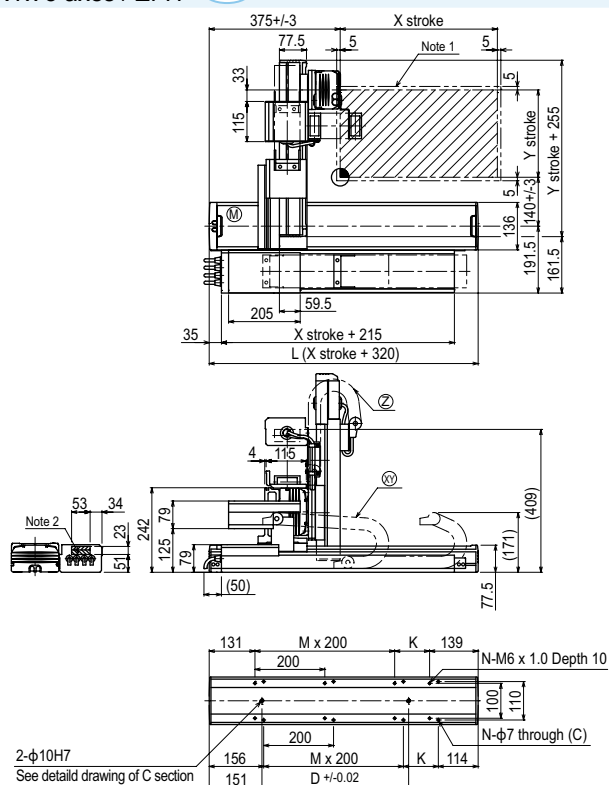
Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

■ **Maximum payload** (kg)

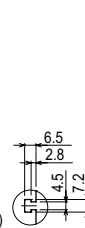
	Z stroke (mm)		
Y stroke (mm)	150	250	350
150	13	12	11
250	10	9	8
350	8	7	6
450	6	5	4
550	4	3	2
650	2	1	1

Controller

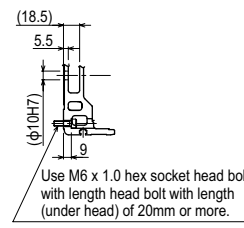
Controller	Operation method
RCX340 RCX240S-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

SXYx 3 axes / ZFH **A1**

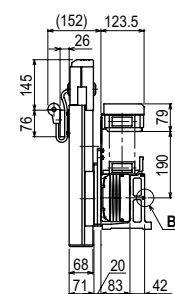
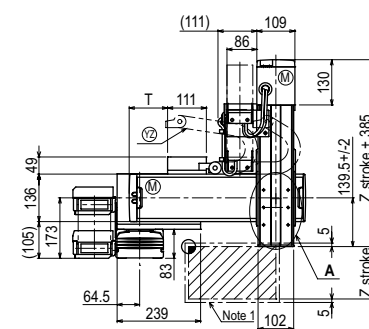
Detail of section A



Detail of section B



Detail of section C



ⓧ Cross-section of cable carrier

⑦ Cross-section of cable carrier

② Cross-section of cable carrier

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	250	350							
Maximum speed for each stroke (mm/sec) Note 3	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.

SXYx

3 axes / ZS
● Arm type ● Cable carrier ● Z-axis shaft vertical type


Ordering method

SXYx - C **15** **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
A1			15 to 105cm	15 to 65cm	ZS12		3L: 3.5m 5L: 5m 10L: 10m	Specify various controller setting items. RCX340 ▶ P542							
A2					ZS6										
A3															
A4															

RCX240S

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

Specification

	X-axis	Y-axis	Z-axis ZS12	Z-axis ZS6
Axis construction ^{Note 1}	F14H	F14	—	
AC servo motor output (W)	200	100	60	
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.02	
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C10)	
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20	12	6
Maximum speed ^{Note 4} (mm/sec)	1200	1200	1000	500
Moving range (mm)	150 to 1050	150 to 650	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.

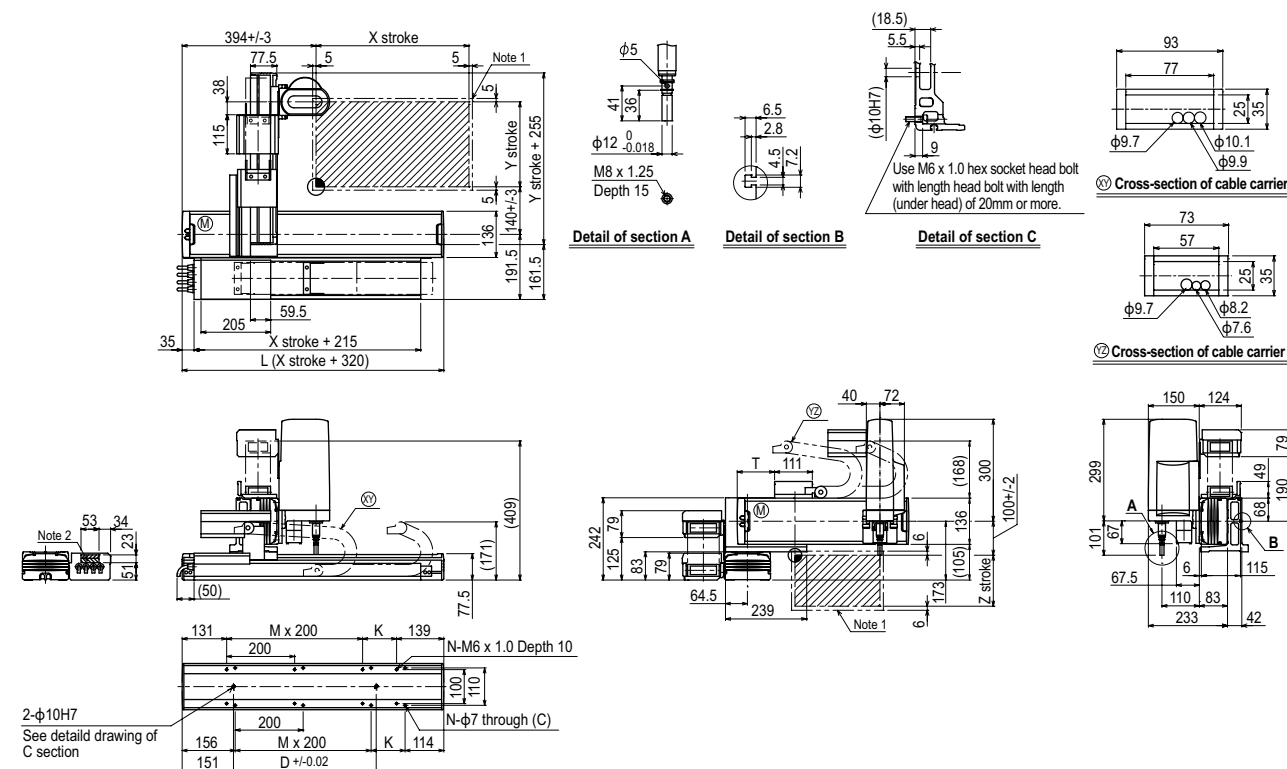
Maximum payload (kg)

Y stroke (mm)	ZS12	ZS6
150 to 650	3	5

Controller

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

SXYx 3 axes / ZS (A1)

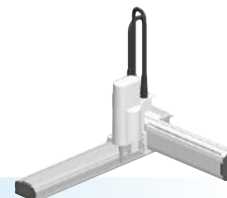


X stroke	150	250	350	450	550	650	750	850	950	1050
L	470	570	670	770	870	970	1070	1170	1270	1370
K	200	100	200	100	200	100	200	100	200	100
D	240	240	420	420	600	600	780	960	960	1140
M	0	1	1	2	2	3	3	4	4	5
N	4	6	6	8	8	10	10	12	12	14
Y stroke	150	250	350	450	550	650				
T	55	110	165	215	270	325				
Z stroke	150									
Maximum speed for each stroke (mm/sec) Note 3	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 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.



Ordering method

SXYx - S

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

ZS12

ZS6

SL: 3.5m

SL: 5m

10L: 10m

15

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

RCX240S

Controller

CE Marking

Expansion I/O

Network option

IVY System

Gripper

Battery

Specification

	X-axis	Y-axis	Z-axis: ZS12	Z-axis: ZS6
Axis construction ^{Note 1}	F14H	F14	—	
AC servo motor output (W)	200	100	60	
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.02	
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C10)	
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20	12	6
Maximum speed ^{Note 4} (mm/sec)	1200	1200	1000	500
Moving range (mm)	150 to 850	150 to 650	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.

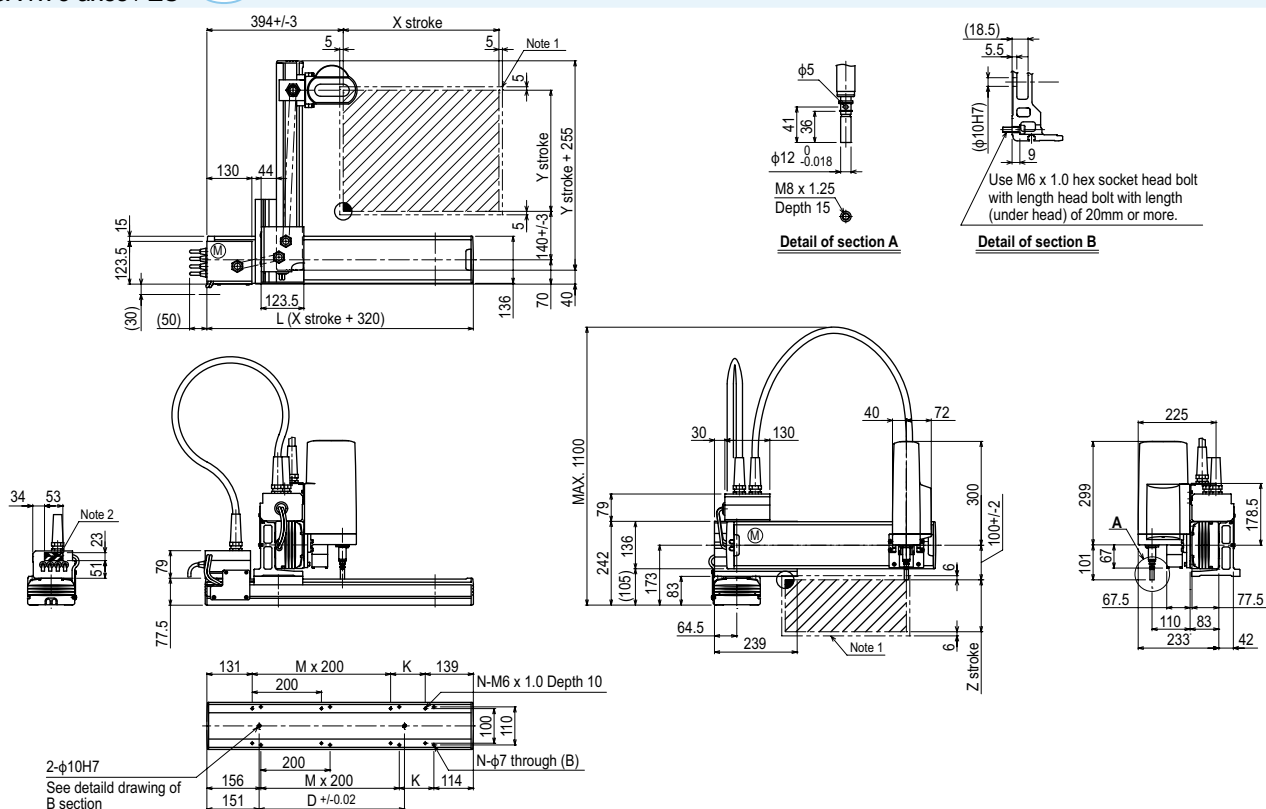
Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

■ **Maximum payload**

Y stroke (mm)	ZS12	ZS6
150 to 650	3	5

Controller

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

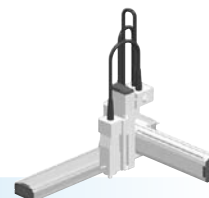
SXYx 3 axes / ZS **A1**

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
Y stroke	150	250	350	450	550	650		
Z stroke	150							
Maximum speed for each stroke (mm/sec) Note 3	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. 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.



Ordering method

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
SXYx - S					ZRF			RCX340-4							
		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
		A1	15 to 85cm	15 to 65cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	Specify various controller setting items. RCX340 ▶							
		A2						RCX240S							
		A3													
		A4													
								Controller	CE Marking	Expansion I/O	Network option	ivY System	Gripper	Battery	

■ Specification

	X-axis	Y-axis	Z-axis	R-axis
Axis construction ^{Note 1}	F14H	F14	F10-BK	R5
AC servo motor output (W)	200	100	100	50
Repeatability ^{Note 2} (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 ^{Note 3} (Deceleration ratio) (mm)	20	20	10	(1/50)
Maximum speed ^{Note 4} (XYZ: mm/sec) (R: °/sec)	1200	1200	600	360
Moving range (XYZ: mm) (R: °)	150 to 850	150 to 650	150 to 350	360
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.

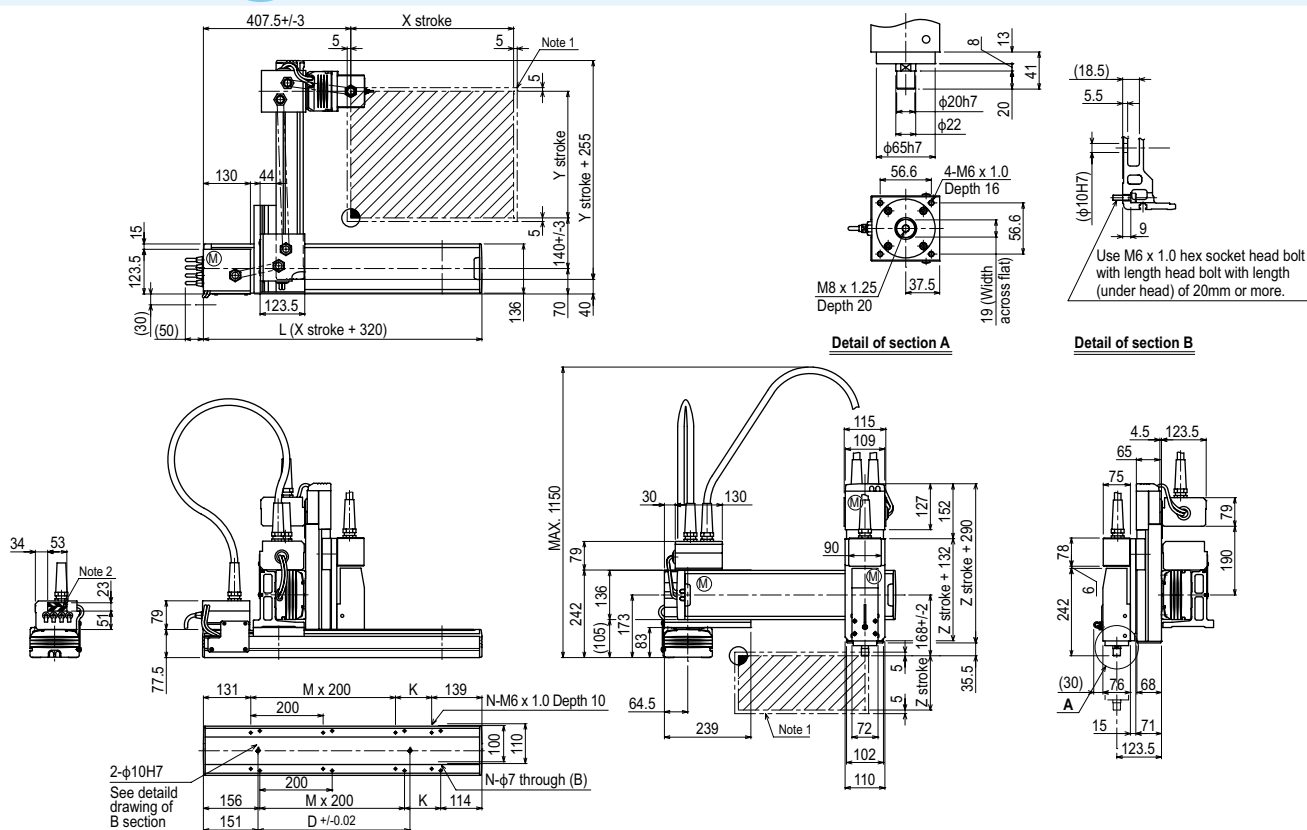
Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

■ **Maximum payload**

	Z stroke (mm)		
Y stroke (mm)	150	250	350
150	6	6	6
250	6	5	4
350	4	3	2
450	3	2	1
550	2	1	—
650	1	—	—

Controller

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

SXYx 4 axes / ZRF **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
Y stroke	150	250	350	450	550	650		
Z stroke	150	250	350					
Maximum speed for each stroke (mm/sec) ^{Note 3}	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. 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

4 axes / ZRS

● Arm type ● Cable carrier ● ZR axis integrated type



Ordering method

SXYx - C Model Cable Combi-
nation
A1
A2
A3
A4 X-axis
stroke
15 to 105cm Y-axis
stroke
15 to 65cm ZR-axis
ZRS12
ZRS6 Z-axis
stroke
15 Cable
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

RCX240S Controller CE Marking 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: ZRS12	Z-axis: ZRS6	R-axis
Axis construction ^{Note 1}	F14H	F14	—	—	—
AC servo motor output (W)	200	100	60	100	—
Repeatability ^{Note 2} (XYZ: mm) (R: °)	+/-0.01	+/-0.01	+/-0.02	+/-0.005	—
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C10)	Harmonic gear	—
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20	12	6	(1/50)
Maximum speed ^{Note 4} (XYZ: mm/sec) (R: °/sec)	1200	1200	1000	500	1020
Moving range (XYZ: mm) (R: °)	150 to 1050	150 to 650	150	360	—
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.

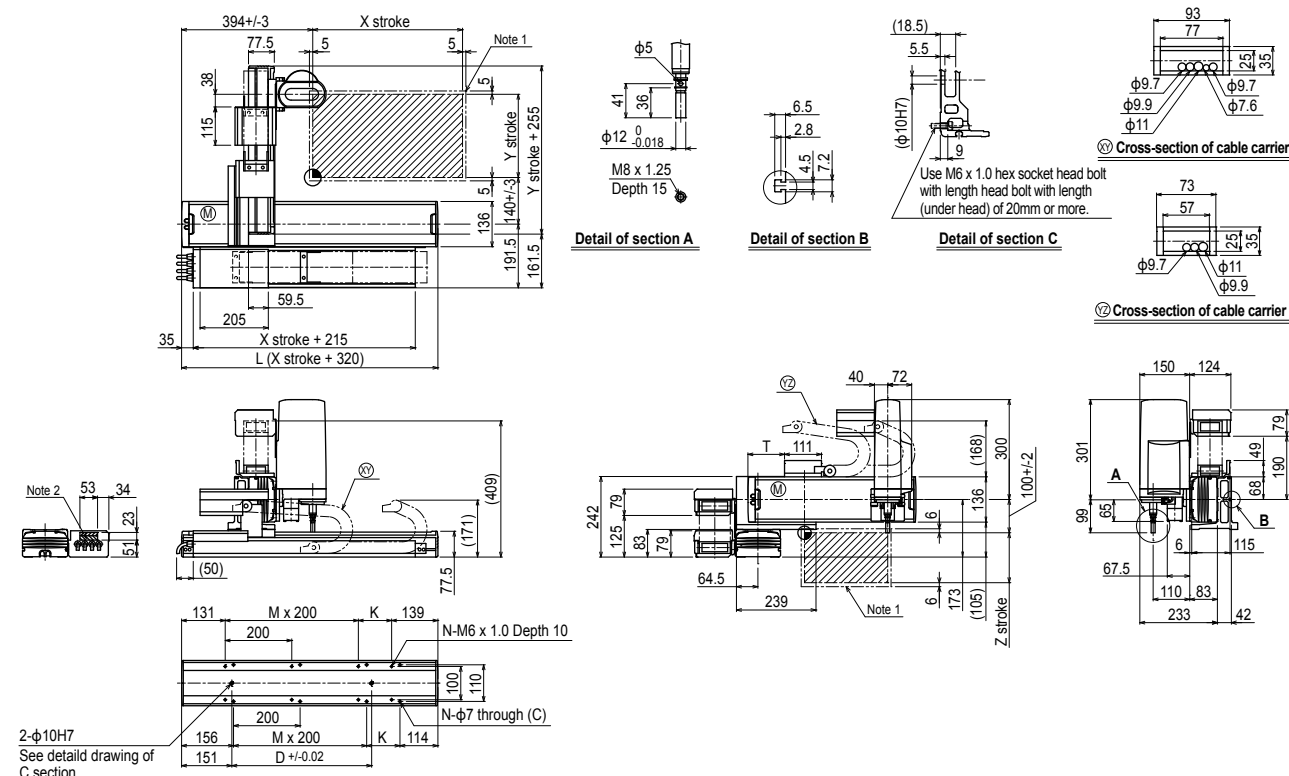
Maximum payload (kg)

Y stroke (mm)	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 RCX240S	Programming / I/O point trace / Remote command / Operation using RS-232C communication

SXYx 4 axes / ZRS **A1**

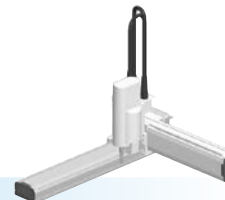


X stroke	150	250	350	450	550	650	750	850	950	1050
L	470	570	670	770	870	970	1070	1170	1270	1370
K	200	100	200	100	200	100	200	100	200	100
D	240	240	420	420	600	600	780	960	960	1140
M	0	1	1	2	2	3	3	4	4	5
N	4	6	6	8	8	10	10	12	12	14
Y stroke	150	250	350	450	550	650				
T	55	110	165	220	275	330				
Z stroke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



Ordering method

XYX-S **15**

Model	Cable	Combination	X-axis stroke	Y-axis stroke	ZR-axis	Z-axis stroke
		A1 A2 A3 A4	15 to 85cm	15 to 65cm	ZRS12 ZRS6	3L: 3.5m 5L: 5m 10L: 10m

RCX340-4 Controller / Number of controllable axes: 4

RCX240S Controller / Number of controllable axes: 2

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

Controller	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
RCX340-4	CE Marking						
RCX240S	CE Marking	Expansion I/O	Network option	IVY System	Gripper	Battery	

■ Specification

	X-axis	Y-axis	Z-axis: ZRS12	Z-axis: ZRS6	R-axis
Axis construction ^{Note 1}	F14H	F14	—	—	
AC servo motor output (W)	200	100	60		100
Repeatability ^{Note 2} (XYZ: mm) (R: °)	+/-0.01	+/-0.01	+/-0.02		+/-0.005
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C10)		Harmonic gear
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20	12	6	(1/50)
Maximum speed ^{Note 4} (XYZ: mm/sec) (R: °/sec)	1200	1200	1000	500	1020
Moving range (XYZ: mm) (R: °)	150 to 850	150 to 650	150		360
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.

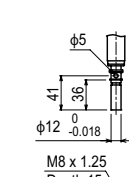
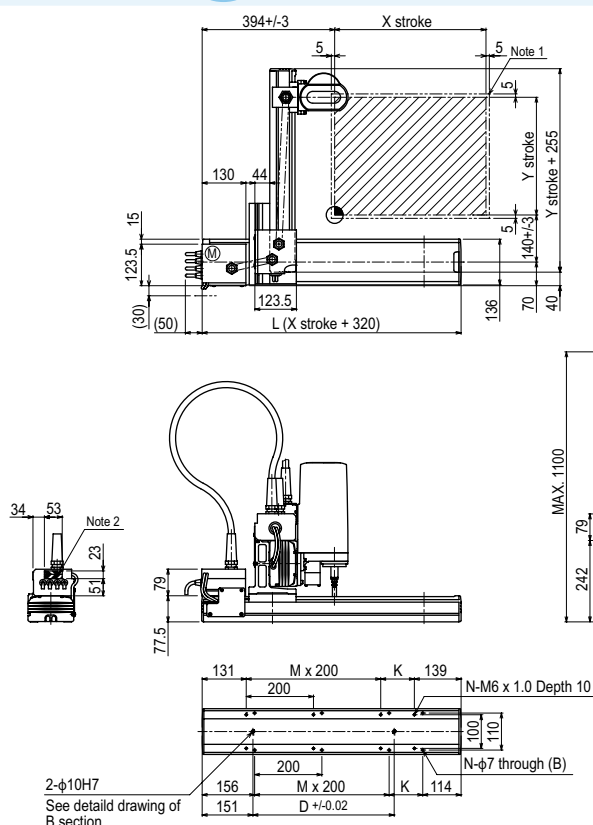
Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

Maximum payload (kg)

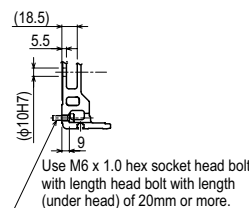
Y stroke (mm)	ZRS12	ZRS6
150	3	5
250	3	5
350	3	5
450	3	5
550	3	5
650	3	4

Controller

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

SXYx 4 axes / ZRS **A1**

Detail of section A



Detail of section B

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
Y stroke	150	250	350	450	550	650		
Z stroke	150							
Maximum speed for each stroke (mm/sec) Note 3	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. 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

Model	Cable	Combination	X-axis stroke	Y-axis stroke	Cable	Controller	Usable for CE	Regenerative unit	Input/Output selection 1	Input/Output selection 2
SXYBx - C						RCX222				
	A1		15 to 305cm	15 to 55cm	3L: 3.5m	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 NT: OP.DIO24/16 (NPN) PT: OP.DIO24/17 (PNP) EN: Ethernet
	A2				5L: 5m					
	A3				10L: 10m					
	A4									

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
Axis construction	B14H	B14
AC servo motor output (W)	200	100
Repeatability (mm)	+/-0.04	+/-0.04
Drive system	Timing belt	Timing belt
Ball screw lead (Deceleration ratio) (mm)	Equivalent to lead 25	Equivalent to lead 25
Maximum speed (mm/sec)	1875	1875
Moving range (mm)	150 to 3050	150 to 550
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)

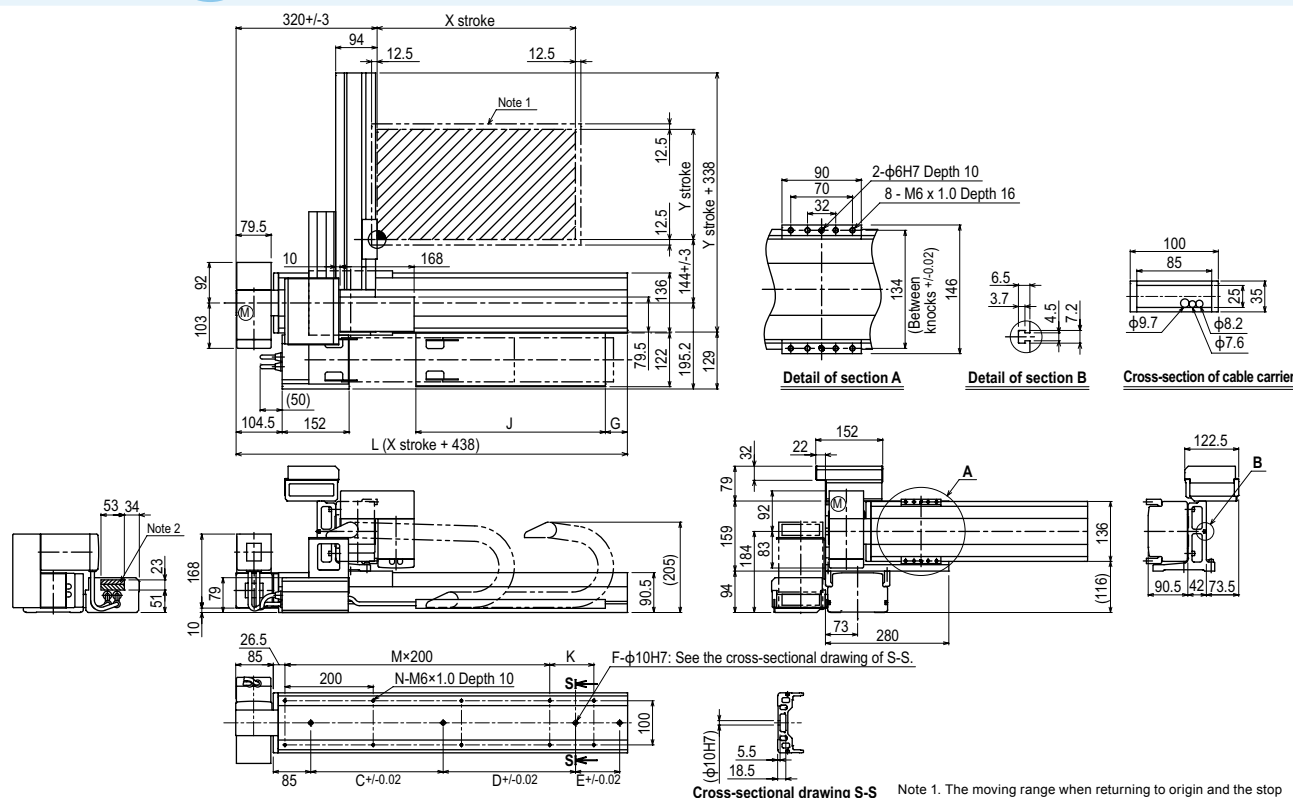
Y stroke (mm)	XY 2 axes
150	14
250	12
350	10
450	8
550	7

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.

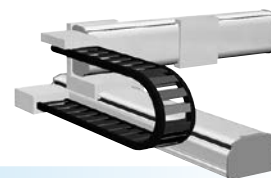
SXYBx 2 axes A1



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.

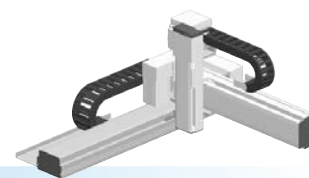
X stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050
L	588	688	788	888	988	1088	1188	1288	1388	1488	1588	1688	1788	1888	1988	2088	2188	2288	2388	2488	2588	2688	2788	2888	2988	3088	3188	3288	3388	3488
K	200	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
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	240	240	420	420	600	600	780	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
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	550																									



SXYBx

3 axes / ZF

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



Ordering method

SXYBx - C **ZF** **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
A1			15 to 305cm	15 to 55cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX340-3							
A2								Specify various controller setting items. RCX340 ▶ P542							
A3								RCX240S		R					
A4								Specify various controller setting items. RCX240/RCX240S ▶ P532							

Specification

	X-axis	Y-axis	Z-axis
Axis construction ^{Note 1}	B14H	B14	F10-BK
AC servo motor output (W)	200	100	100
Repeatability ^{Note 2} (mm)	+/-0.04	+/-0.04	+/-0.01
Drive system	Timing belt	Timing belt	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	Equivalent to lead 25	Equivalent to lead 25	10
Maximum speed (mm/sec)	1875	1875	600
Moving range (mm)	150 to 3050	150 to 550	150 to 350
Robot cable length (m)	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.

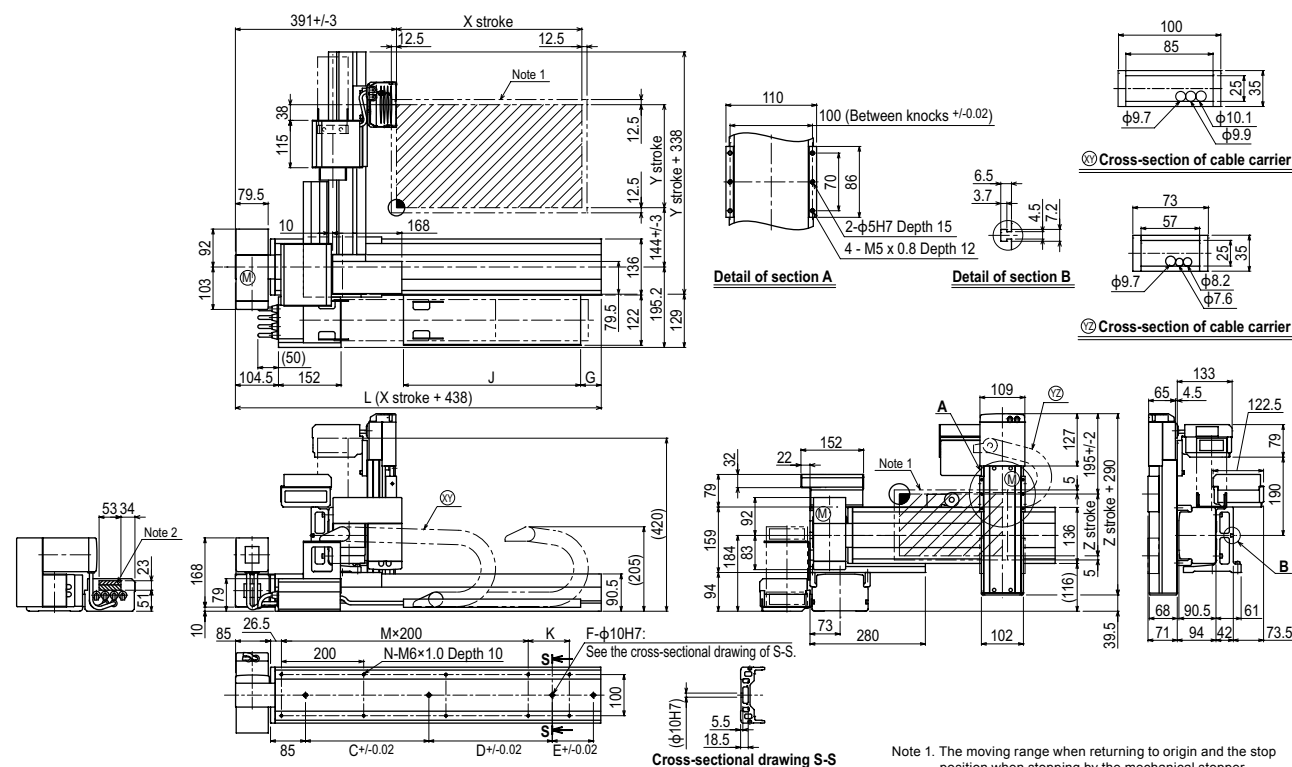
Maximum payload (kg)

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

Controller

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

SXYBx 3 axes / ZF (A1)



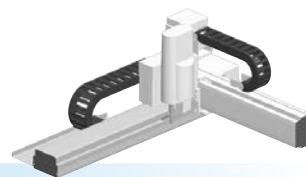
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

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
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	240	240	420	420	600	600	780	960
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	550																									
Z stroke	150	250	350																											

SXYBx 3 axes / ZS

● Arm type ● Cable carrier ● Z-axis shaft vertical type



Ordering method

SXYBx - C **ZS - 15** **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
		A1 A2 A3 A4	15 to 305cm	15 to 55cm	ZS12 ZS6		3L: 3.5m 5L: 5m 10L: 10m	Specify various controller setting items. RCX340 ▶ P542							

RCX240S **R**

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

Specification

	X-axis	Y-axis	Z-axis: ZS12	Z-axis: ZS6
Axis construction ^{Note 1}	B14H	B14	—	
AC servo motor output (W)	200	100	60	
Repeatability ^{Note 2} (mm)	+/-0.04	+/-0.04	+/-0.02	
Drive system	Timing belt	Timing belt	Ball screw (Class C10)	
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	Equivalent to lead 25	Equivalent to lead 25	12	6
Maximum speed (mm/sec)	1875	1875	1000	500
Moving range (mm)	150 to 3050	150 to 550	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.

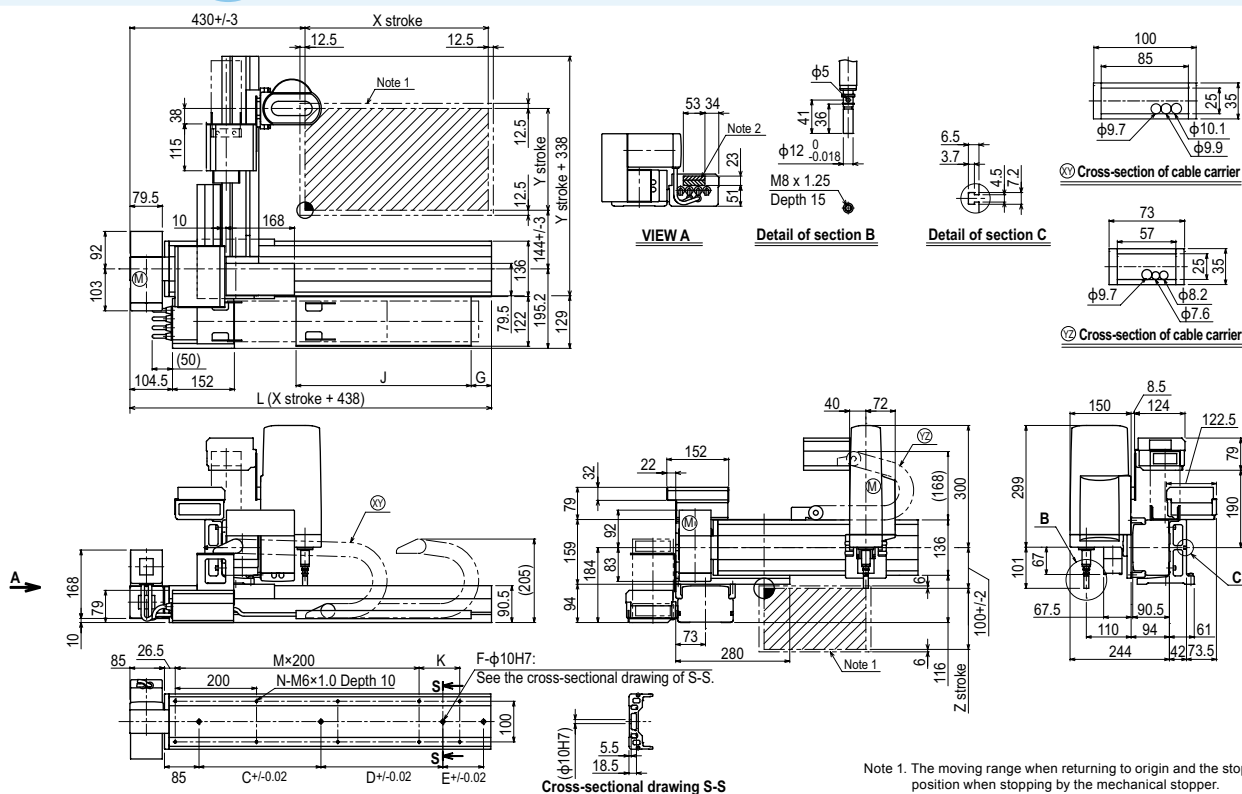
Maximum payload (kg)

Y stroke (mm)	ZS12	ZS6
150	3	5
250	3	5
350	3	5
450	3	4
550	3	3

Controller

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

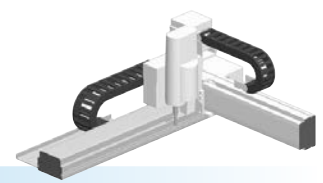
SXYBx 3 axes / ZS A1



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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	240	240	420	420	600	600	780	960
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	550																									
Z stroke	150																													

Controller

RCX340 ▶ 542 RCX240S ▶ 532



● Arm type ● Cable carrier ● ZR axis integrated type

Ordering method

Model	Cable	Combination	X-axis stroke	Y-axis stroke	ZR-axis	Z-axis stroke	Cable
SXYBx - C		A1	15 to 305cm	15 to 55cm	ZRS12		3L: 3.5m
		A2			ZRS6		5L: 5m
		A3					10L: 10m
		A4					

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
RCX340-4							

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

Controller	CE Marking	Regenerative unit	Expansion I/O	Network option	IVY System	Gripper	Battery
RCX240S							

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

Specification

	X-axis	Y-axis	Z-axis: ZRS12	Z-axis: ZRS6	R-axis
Axis construction ^{Note 1}	B14H	B14	—	—	—
AC servo motor output (W)	200	100	60	100	100
Repeatability ^{Note 2} (XYZ: mm)(R: °)	+/-0.04	+/-0.04	+/-0.02	+/-0.005	+/-0.005
Drive system	Timing belt	Timing belt	Ball screw (Class C10)	Harmonic gear	Harmonic gear
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	Equivalent to lead 25	Equivalent to lead 25	12	6	(1/50)
Maximum speed (XYZ: mm/sec)(R: °/sec)	1875	1875	1000	500	1020
Moving range (XYZ: mm)(R: °)	150 to 3050	150 to 550	150	360	360
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.

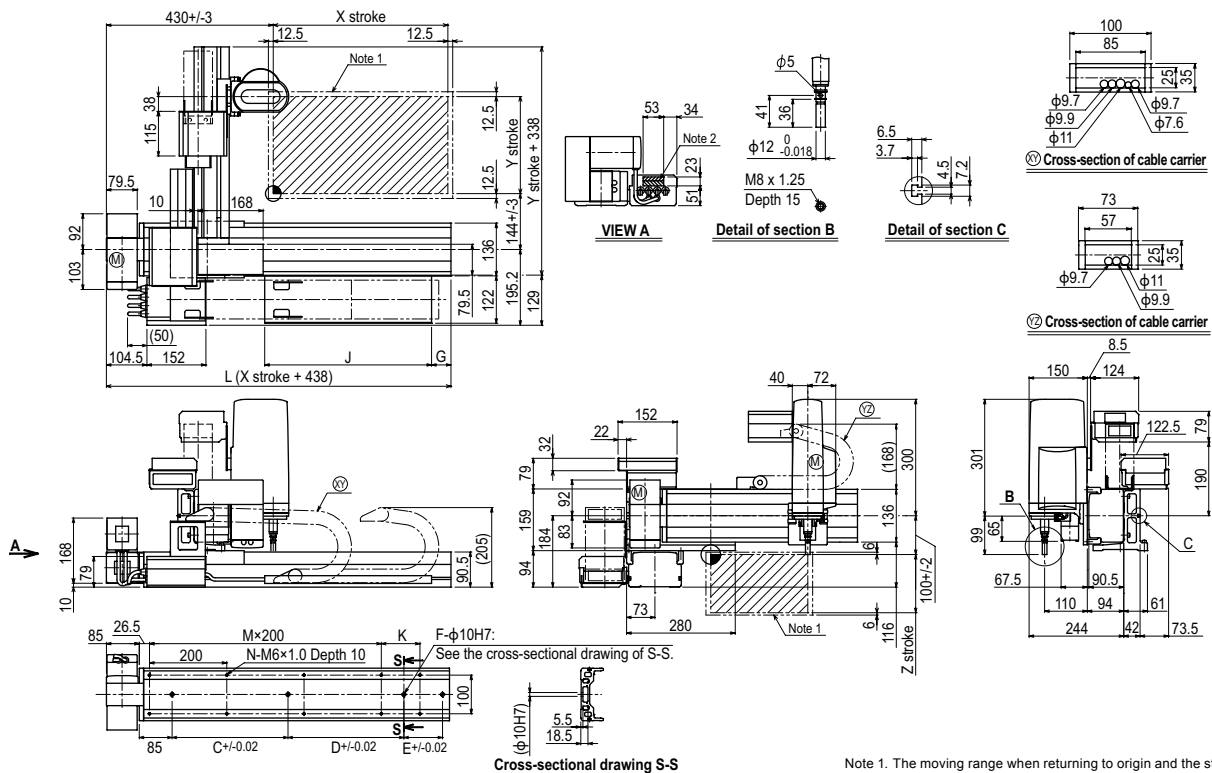
Maximum payload (kg)

Y stroke (mm)	ZRS12	ZRS6
150	3	5
250	3	5
350	3	5
450	3	3
550	2	2

Controller

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

SXYBx 4 axes / ZRS 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
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	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
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																									
Z stroke	150																													

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
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NXY

2 axes

● Arm type ● Cable carrier



Ordering method

NXY	C					RCX222		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
	A1 A3	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 ^{Note 1} P: PNP CC: CC-Link DN: DeviceNet TM PB: PROFIBUS EN: Ethernet ^{Note 2} YC: YC-Link ^{Note 2}	No entry: None N1: OPDIO24/16 (NPN) ^{Note 1} P1: OPDIO24/17 (PNP) EN: Ethernet ^{Note 3}

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
Axis construction ^{Note 1}	N15	F14
AC servo motor output (W)	400	100
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7) $\phi 15$	Ball screw (Class C7) $\phi 15$
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20
Maximum speed (mm/sec)	1200	1200
Moving range (mm)	500 to 2000	150 to 650
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.

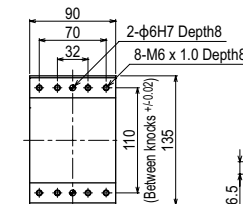
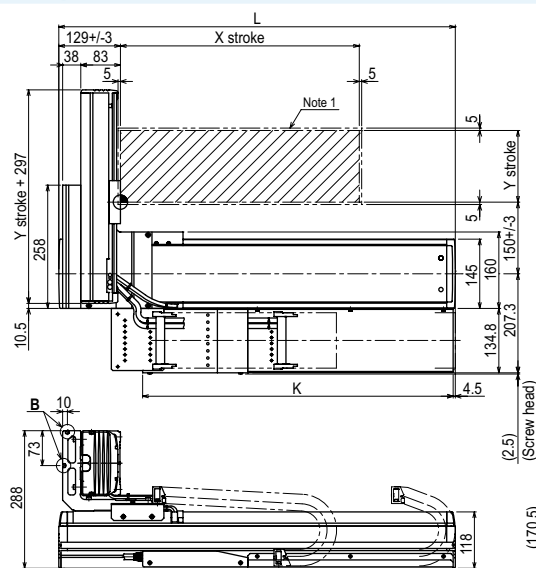
Maximum payload (kg)

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

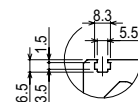
Controller

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

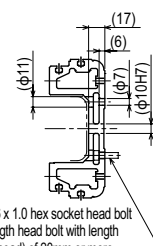
NXY 2 axes A1



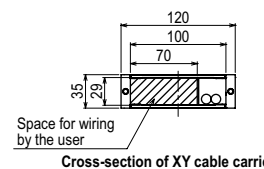
Detail of section A



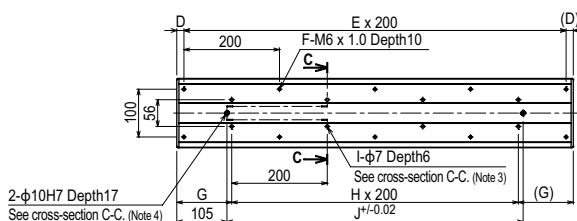
Detail of section B



Cross-section C-C



Cross-section of XY cable carrier



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.

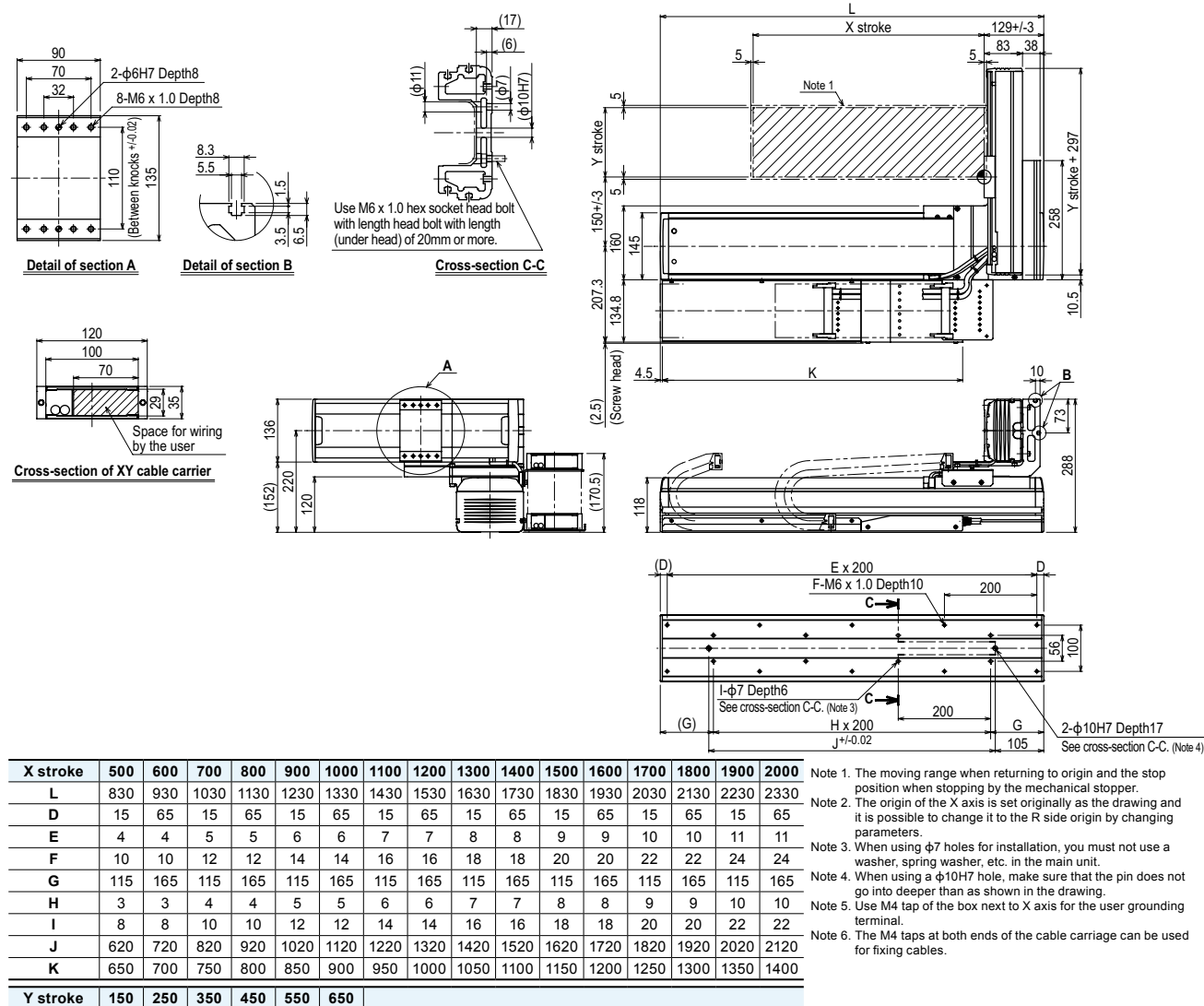
Note 3. When using $\phi 7$ holes for installation, you must not use a washer, spring washer, etc. in the main unit.

Note 4. When using a $\phi 10H7$ hole, make sure that the pin does not go into deeper than as shown in the drawing.

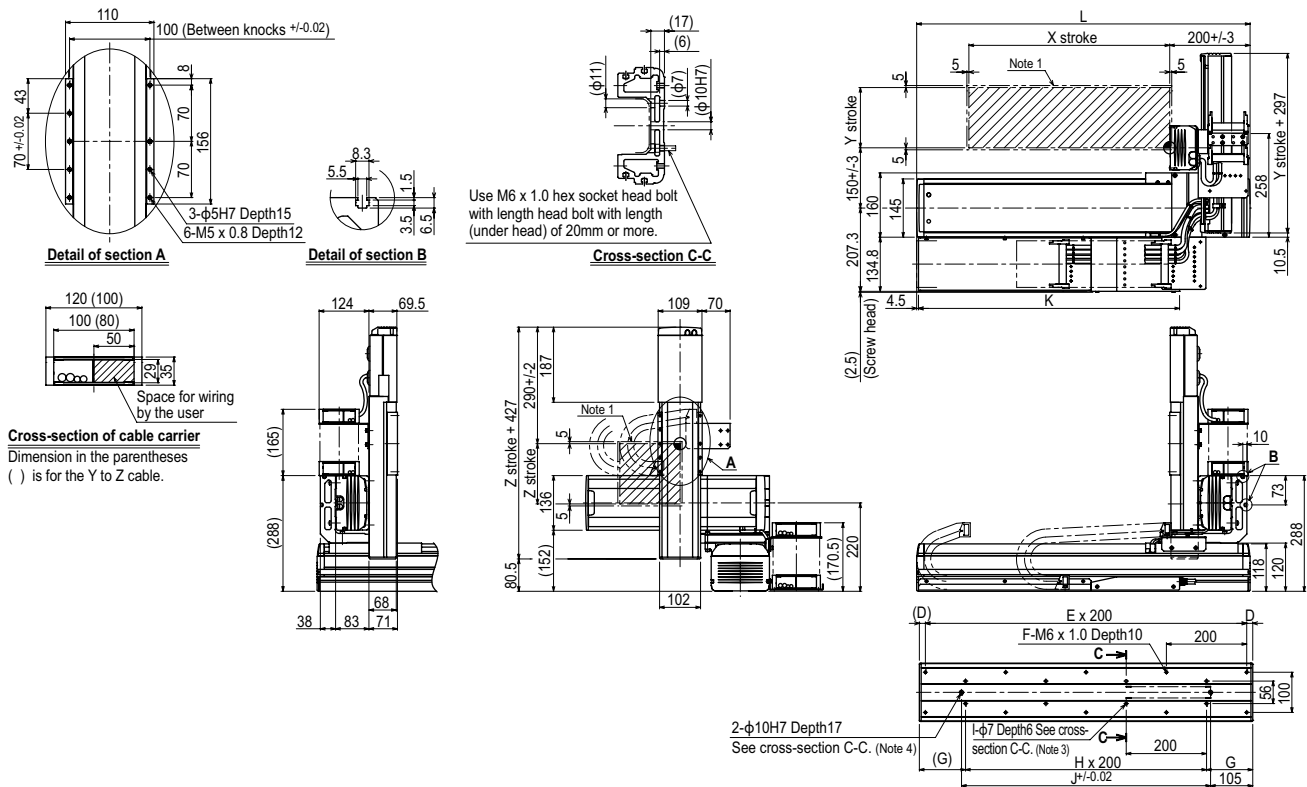
Note 5. Use M4 tap of the box next to X axis for the user grounding terminal.

Note 6. The M4 taps at both ends of the cable carriage can be used for fixing cables.

NXY 2 axes A3



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													

NXY

3 axes / ZFH



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

Ordering method

NXY - C				ZFH			RCX340-3									
Model	Cable	Combination A1 A3	X-axis stroke 50 to 200cm	Y-axis stroke 15 to 65cm	ZR-axis	Z-axis stroke 15 to 35cm	Cable 3L: 3.5m 5L: 5m 10L: 10m	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	

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

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

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 ▶ **P.532**

Specification

	X-axis	Y-axis	Z-axis
Axis construction ^{Note 1}	N15	F14	F10-BK equivalent guide-reinforced model
AC servo motor output (W)	400	100	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7) ϕ 15	Ball screw (Class C7) ϕ 15	Ball screw (Class C7) ϕ 15
Ball screw lead ^{Note 3} (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.

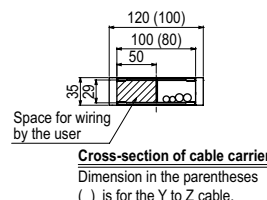
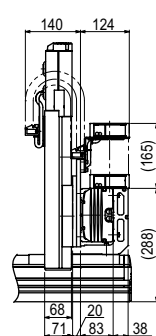
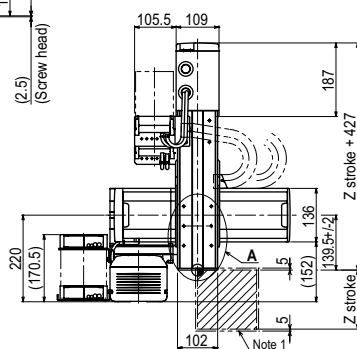
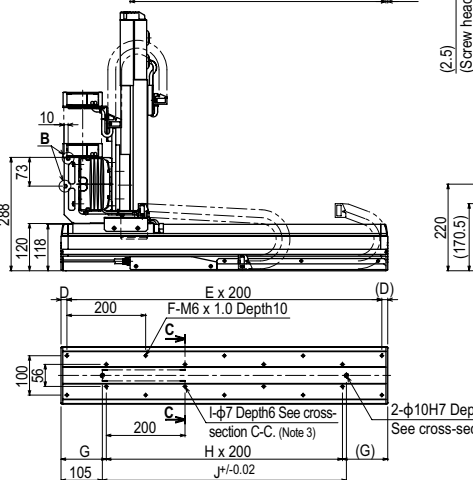
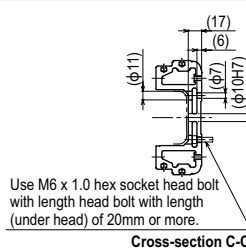
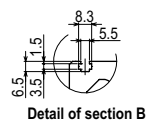
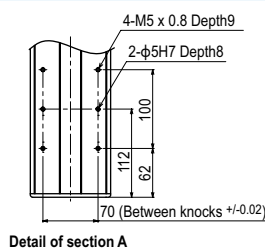
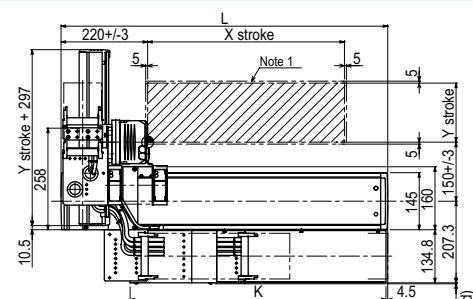
Maximum payload (kg)

	Z stroke (mm)		
Y 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 RCX240-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.

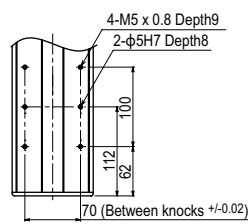
Note 3. When using ϕ 7 holes for installation, you must not use a washer, spring washer, etc. in the main unit.

Note 4. When using a ϕ 10H7 hole, make sure that the pin does not go into deeper than as shown in the drawing.

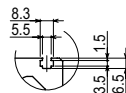
Note 5. Use M4 tap of the box next to X axis for the user grounding terminal.

Note 6. The M4 taps at both ends of the cable carriage can be used for fixing cables.

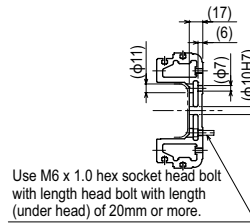
NXY 3 axes / ZFH A3



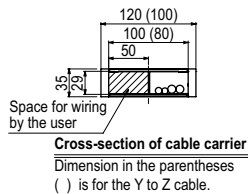
Detail of section A



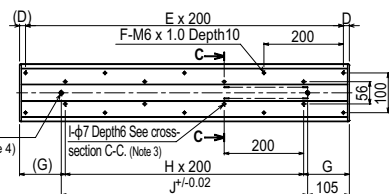
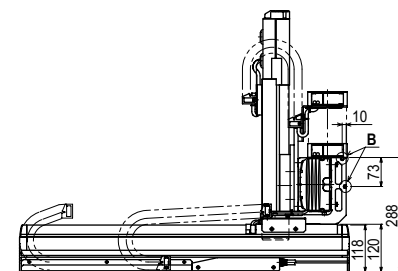
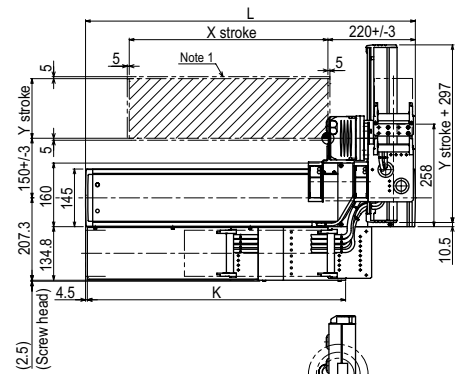
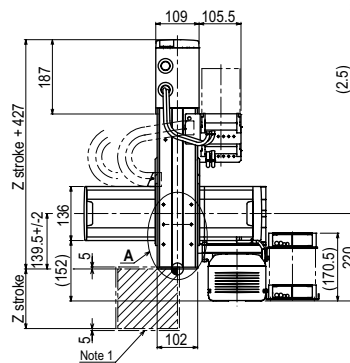
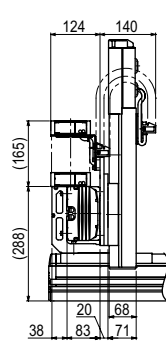
Detail of section B



Cross-section C-C



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



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

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

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

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 ▶ **P.532**

Specification

	X-axis	Y-axis
Axis construction	N15D	F14
AC servo motor output (W)	400	100
Repeatability (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7) $\phi 15$	Ball screw (Class C7) $\phi 15$
Ball screw lead (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.

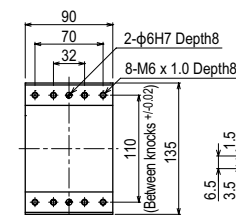
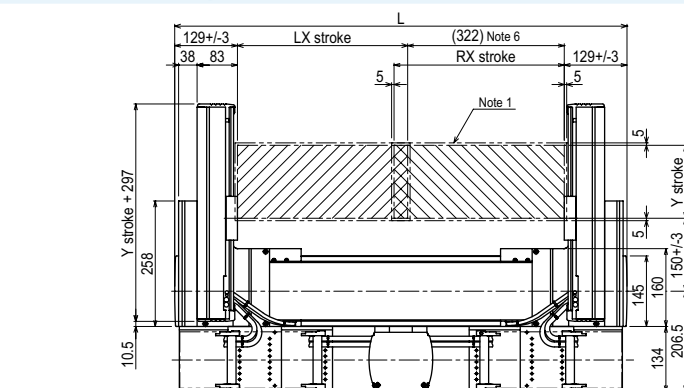
Maximum payload (kg)

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

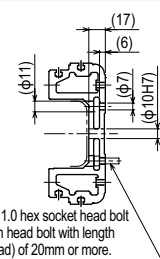
Controller

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

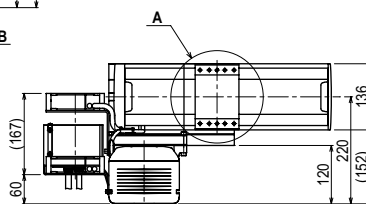
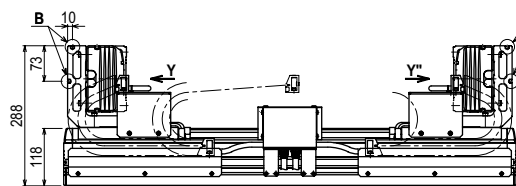
NXY-W 4 axes WA1



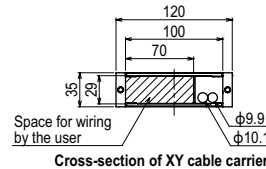
Detail of section B



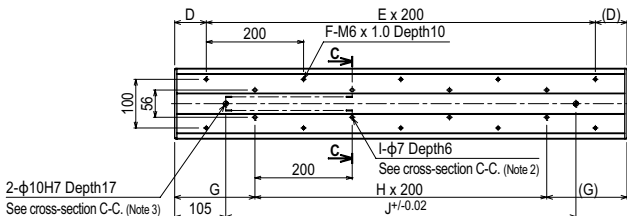
Cross-section C-C



VIEW Y (Y is symmetrical with this drawing.)



Cross-section of XY cable carrier



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.

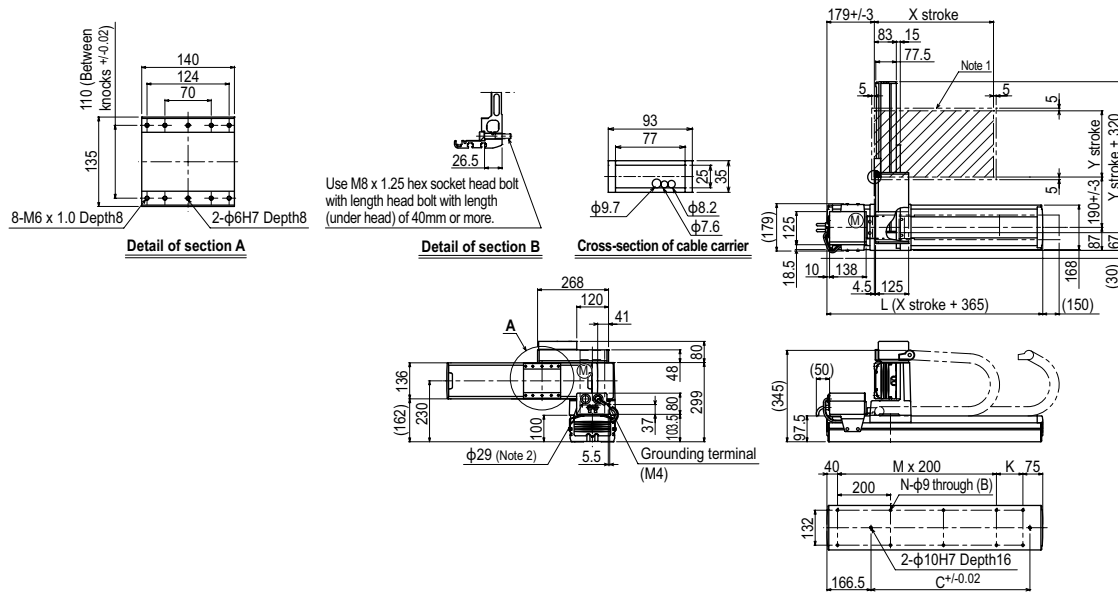
Note 4. Use M4 tap of the box next to X axis for the user grounding terminal.

Note 5. The M4 taps at both ends of the cable carriage can be used for fixing cables.

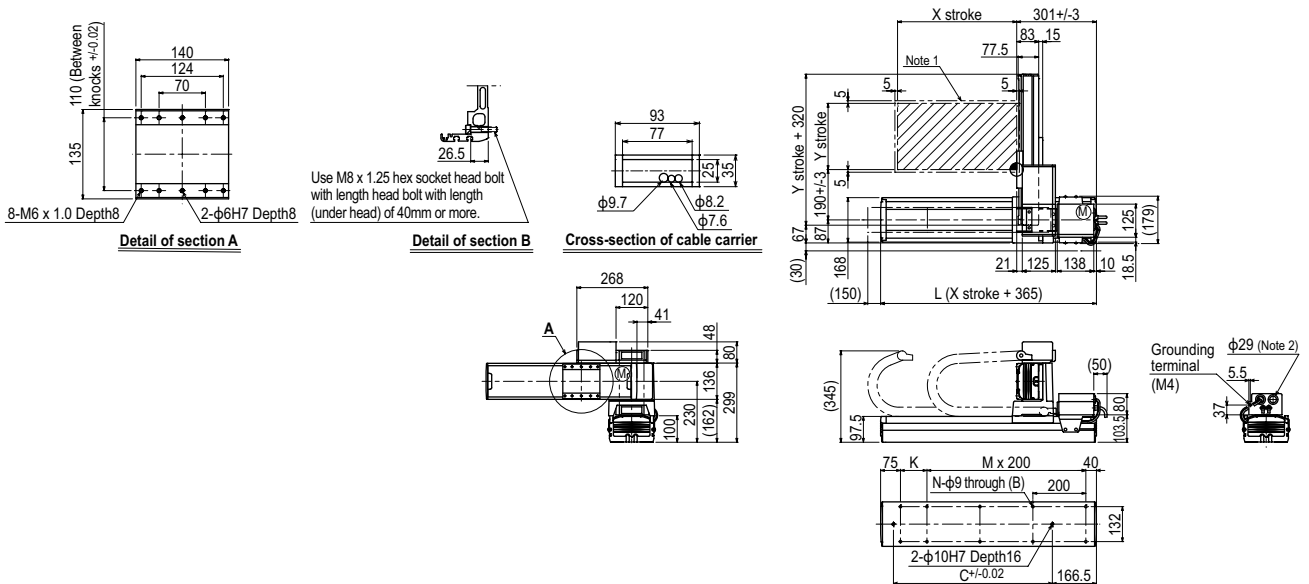
Note 6. Minimum dimension between LX and RX sliders.

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
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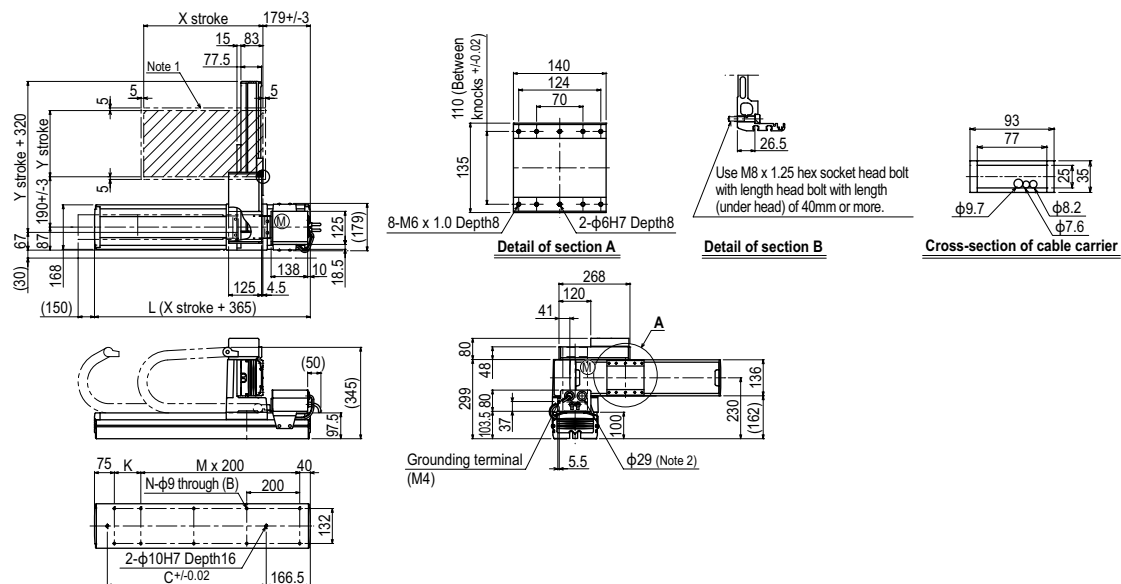
MXYx 2 axes **A2**



MXYx 2 axes **A3**



MXYx 2 axes **A4**



MXYx 2 axes

● Arm type
● Whipover

Ordering method

MXYx - S					RCX222			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
	A1		25 to 85cm	15 to 65cm	3L: 3.5m	RCX222	No entry: Standard	R: RG2	N: NPN ^{Note 1}	No entry: None
	A2				5L: 5m		E: CE marking		P: PNP	N1: OPDIO24/16 (NPN) ^{Note 1}
	A3				10L: 10m				CC: CC-Link	P1: OPDIO24/17 (PNP) ^{Note 1}
	A4								DN: DeviceNet™	EN: Ethernet ^{Note 2}
									PB: PROFIBUS	YC: YC-Link ^{Note 2}
									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	Y-axis
Axis construction ^{Note 1}	F17	F14H
AC servo motor output (W)	400	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20
Maximum speed ^{Note 4} (mm/sec)	1200	1200
Moving range (mm)	250 to 850	150 to 650
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 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.

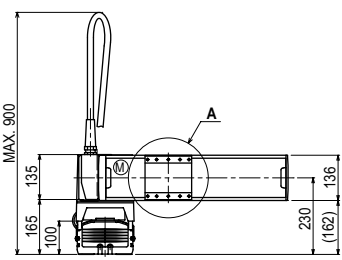
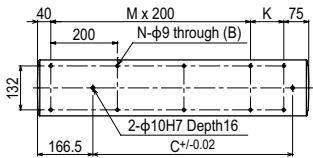
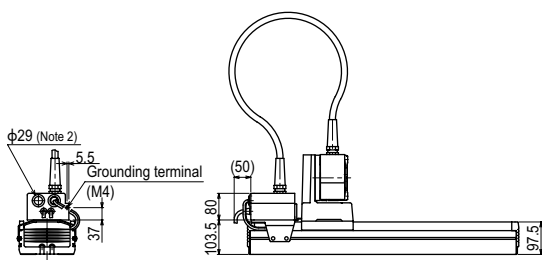
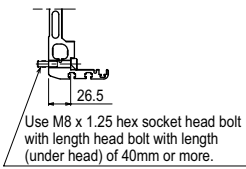
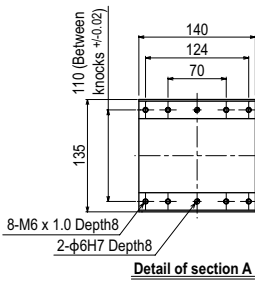
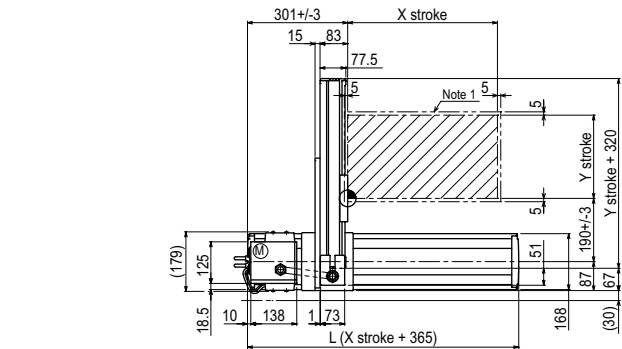
Maximum payload (kg)

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

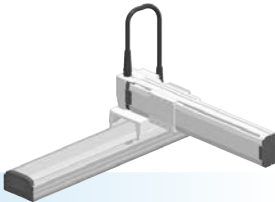
MXYx 2 axes A1



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

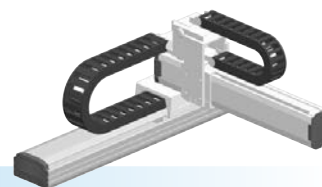


Articulated robots
YA
Linear conveyor modules
LCM100
Compact
TRANSEVO
Single-axis robots
FLIP-X
Linear motor
PHASER
Cartesian robots
XY-X
SCARA robots
YK-X
Pick & place robots
YP-X
CLEAN
CONTROLLER INFORMATION
Arm type
Gantry type
Moving arm type
Pole type
XZ type

MXYx

2 axes / IO

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



Ordering method

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
MXYx - C							RCX222				
	A1 A2 A3 A4		25 to 125cm	15 to 65cm		3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	R: RG2	N: NPN P: PNP CC: CC-Link DN: DeviceNet PB: PROFIBUS EN: Ethernet YC: YC-Link	No entry: None Nt: OPDIO24/16 (NPN) Pt: OPDIO24/17 (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	Y-axis
Axis construction	F17	F14H
AC servo motor output (W)	400	200
Repeatability (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead (Deceleration ratio) (mm)	20	20
Maximum speed (mm/sec)	1200	1200
Moving range (mm)	250 to 1250	150 to 650
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 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.

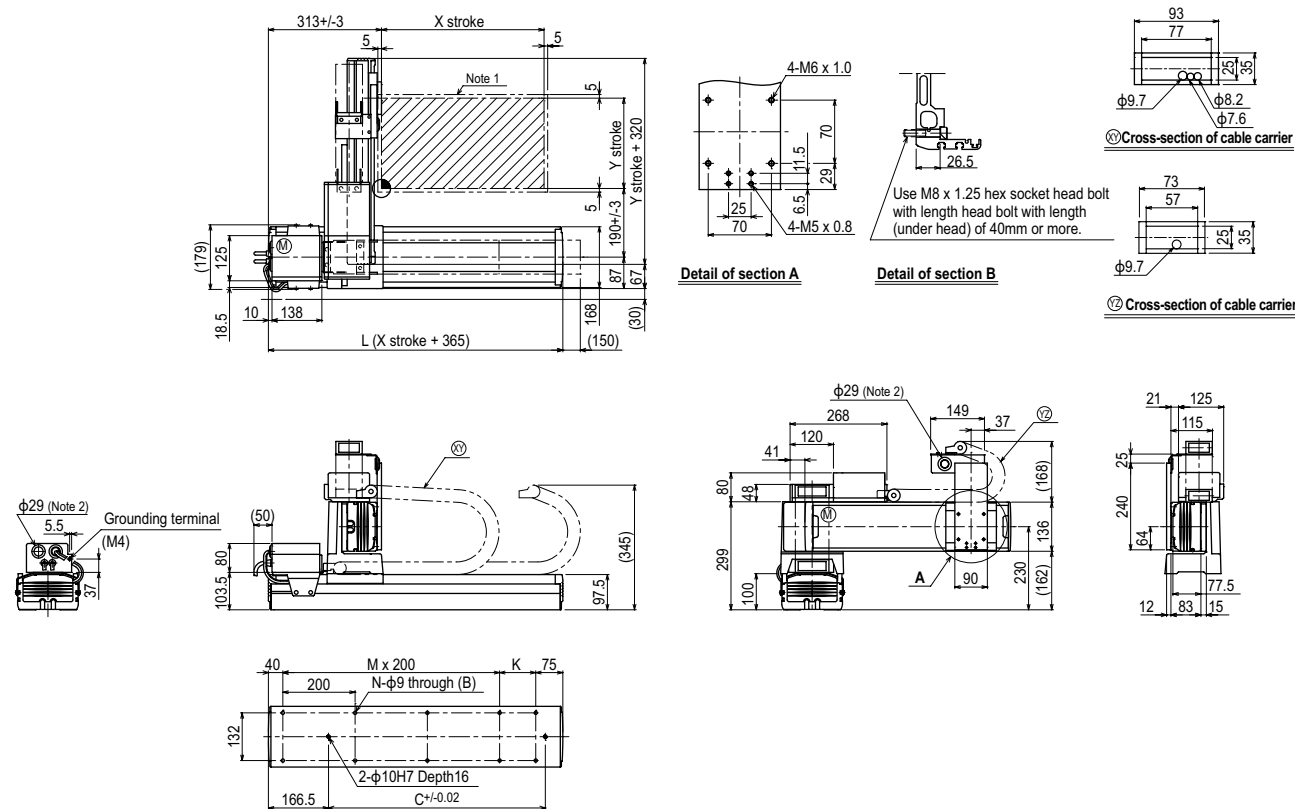
Maximum payload (kg)

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

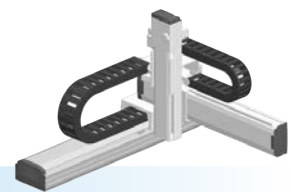
MXYx 2 axes / IO A1



X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
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	780	780	960	960	1140	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	150	250	350	450	550	650					
Maximum speed for each stroke (mm/sec)	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.



Ordering method

MXYx - C

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
		A1 A2 A3 A4	25 to 125cm	15 to 65cm	ZFL20 ZFL10	15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX340-3							

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 ^{Note 1}	F17	F14H	F10-BK equivalent guide-reinforced model	
AC servo motor output (W)	400	200	200	
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01	
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)	
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20	20	10
Maximum speed ^{Note 4} (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

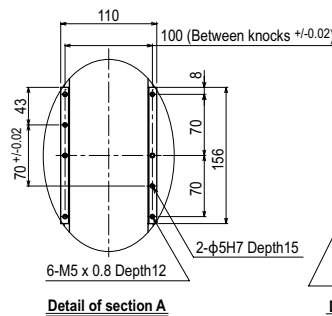
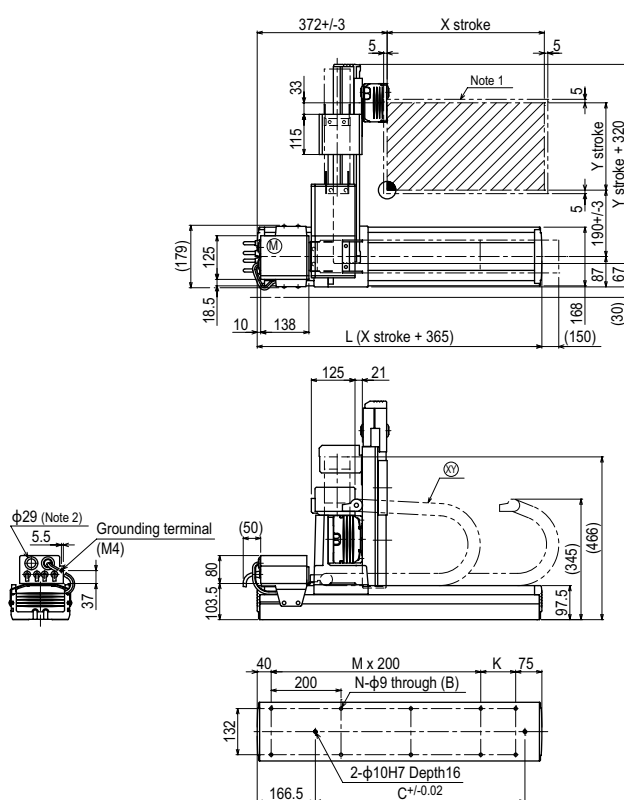
	Z stroke (mm)					
	ZFL20			ZFL10		
	150	250	350	150	250	350
150	8	8	8	15	15	15
250	8	8	8	15	15	15
350	8	8	8	15	15	15
450	8	8	8	12	11	10
550	8	8	8	12	11	10
650	8	7	6	8	7	6

Controller

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

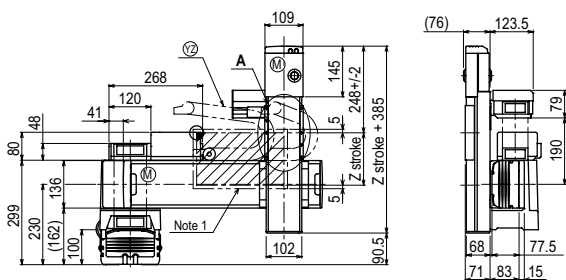
MXYx 3 axes / ZFL20/10

A1



Detail of section A

Detail of section B



⑩ Cross-section of cable carrier

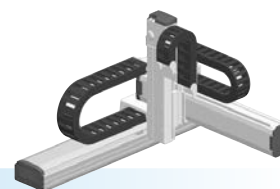
⑪ Cross-section of cable carrier

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) ^{Note 3}	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.

MXYx**3 axes / ZFH**
● Arm type
● Cable carrier
● Z-axis: clamped table / moving base type (200W)
**Ordering method**

MXYx - C				ZFH			RCX340-3								
Model	Cable	Combination	X-axis stroke	Y-axis stroke	ZR-axis	Z-axis stroke	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	
		A1 A2 A3 A4	25 to 125cm	15 to 65cm		15 to 35cm									
							Specify various controller setting items. RCX340 ▶ P542								
							RCX240		R						
							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
Axis construction ^{Note 1}	F17	F14H	F10-BK equivalent guide-reinforced model
AC servo motor output (W)	400	200	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20	10
Maximum speed ^{Note 4} (mm/sec)	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 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.

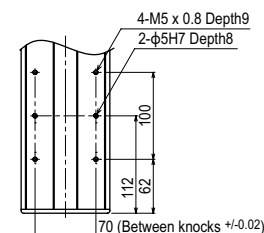
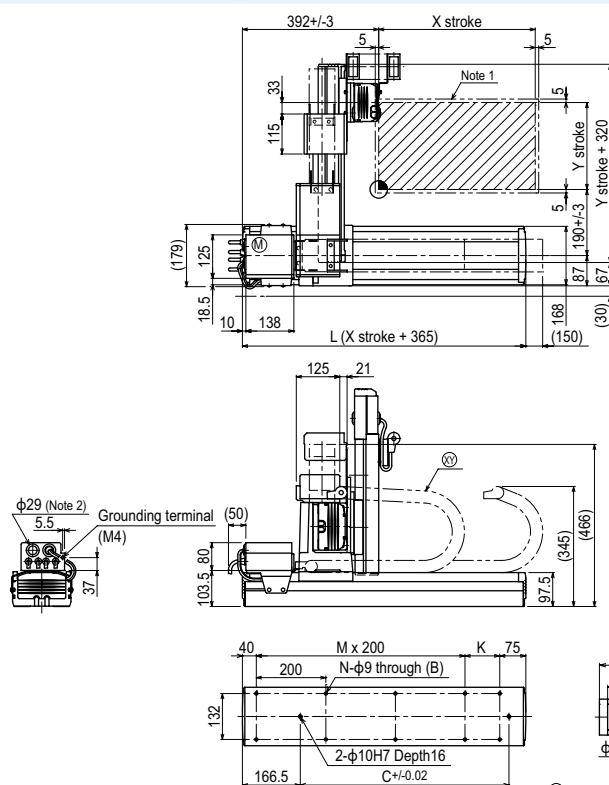
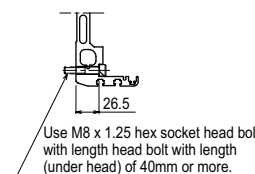
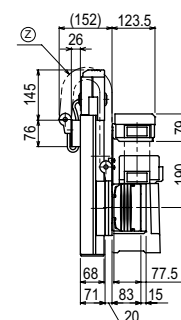
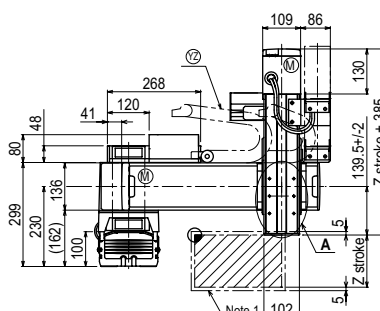
Note 4. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

Maximum payload (kg)

	Z stroke (mm)		
Y stroke (mm)	150	250	350
150	14	13	12
250	14	13	12
350	14	13	12
450	12	11	10
550	12	11	10
650	8	7	6

Controller

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

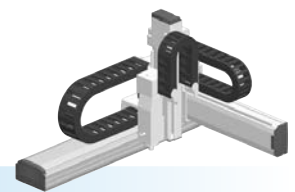
MXYx 3 axes / ZFH A1**Detail of section A****Detail of section B****① Cross-section of cable carrier****② Cross-section of cable carrier****③ Cross-section of cable carrier**

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) ^{Note 1}	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.



Ordering method

MXy_x - 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
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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: ZRFL20	Z-axis: ZRFL10	R-axis
Axis construction ^{Note 1}	F17	F14H	F10-BK equivalent guide-reinforced model		R5
AC servo motor output (W)	400	200	200		50
Repeatability ^{Note 2} (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 ^{Note 3} (Deceleration ratio) (mm)	20	20	20	10	(1/50)
Maximum speed ^{Note 4} (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.

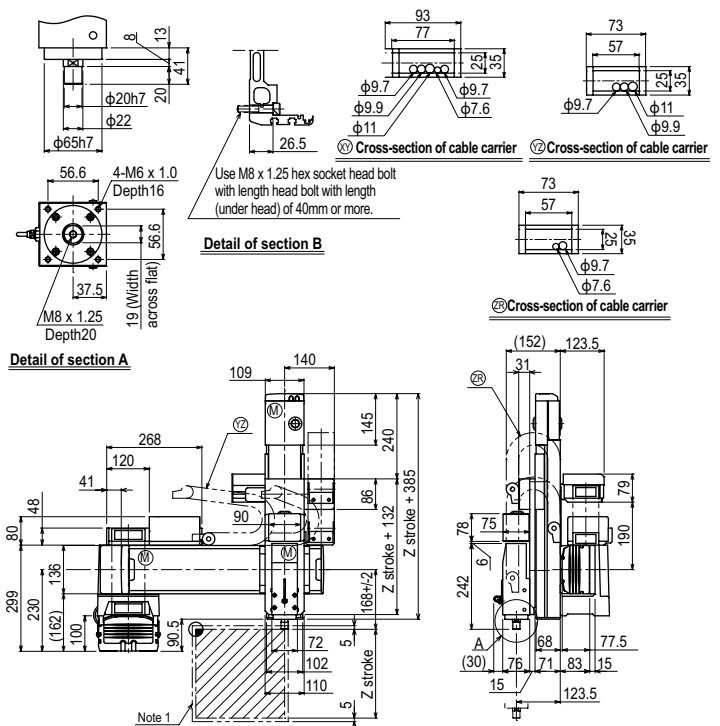
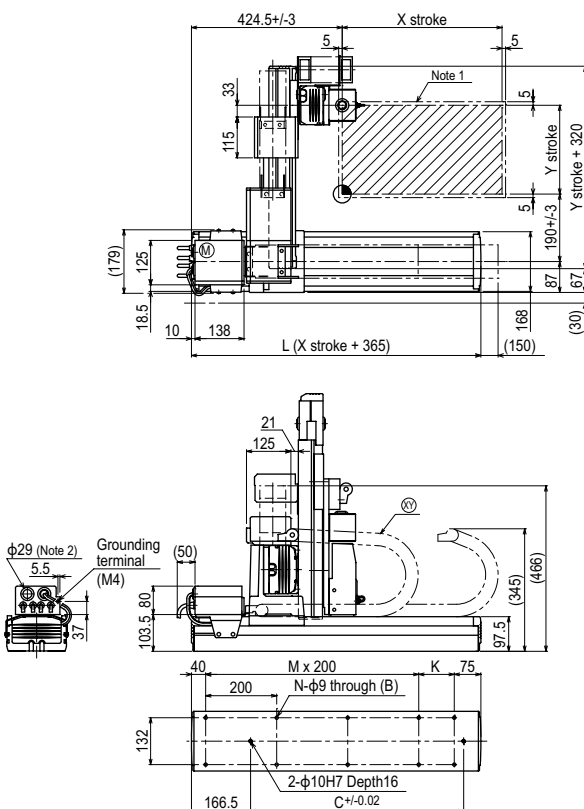
Maximum payload

Y stroke (mm)	Z stroke (mm)					
	ZRFL20			ZRFL10		
	150	250	350	150	250	350
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	Programming / I/O point trace / Remote command / Operation using RS-232C communication
RCX240-R	

MXy4 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) ^{Note 1}	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
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

4 axes / ZRFH

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

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

15 to 35cm

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

ZRFH

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

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
Axis construction ^{Note 1}	F17	F14H	F10-BK equivalent guide-reinforced model	R5
AC servo motor output (W)	400	200	200	50
Repeatability ^{Note 2} (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 ^{Note 3} (Deceleration ratio) (mm)	20	20	10	(1/50)
Maximum speed ^{Note 4} (XYZ: mm/sec) (R: °/sec)	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 ZRFH with higher rigidity as compared with ZRF types which are conventional standard types. When you need the ZRF type, please consult YAMAH.

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.

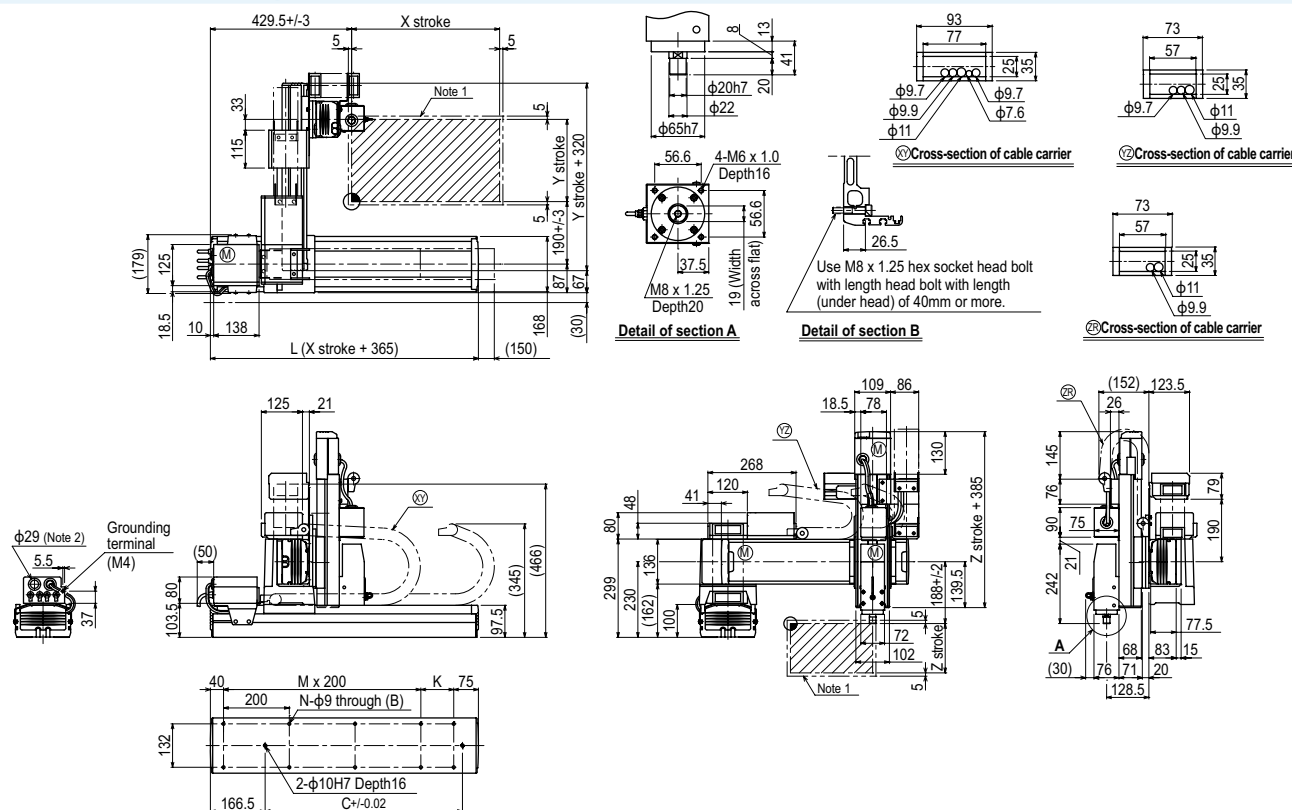
Maximum payload (kg)

	Z stroke (mm)		
Y stroke (mm)	150	250	350
150	11	9	8
250	11	9	8
350	11	9	8
450	8	7	6
550	8	7	6
650	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 / ZRFH (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) ^{Note 3}	X-axis	1200					960	840	720	600	480
	Speed setting	—					80%	70%	60%	50%	40%

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
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HXYx

2 axes

● Arm type ● Cable carrier



Ordering method

HXYx - 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
	A1 A2 A3 A4		25 to 125cm	25 to 65cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222HP	No entry: Standard E: CE marking	R: RG2	N: NPN ^{Note 1} P: PNP CC: CC-Link DN: DeviceNet TM PB: PROFIBUS EN: Ethernet ^{Note 2} YC: YC-Link ^{Note 2}	No entry: None Nt: OPDIO24/16 (NPN) ^{Note 1} Pt: OPDIO24/17 (PNP) EN: Ethernet ^{Note 3}

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
Axis construction ^{Note 1}	F20	F17
AC servo motor output (W)	600	400
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20
Maximum speed ^{Note 4} (mm/sec)	1200	1200
Moving range (mm)	250 to 1250	250 to 650
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 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.

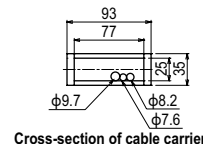
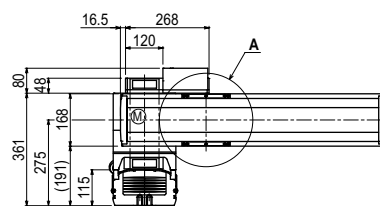
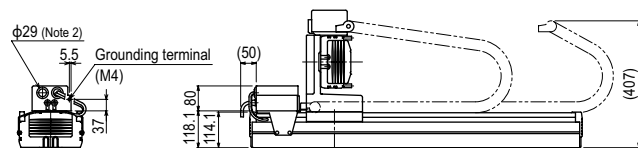
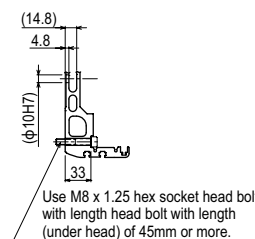
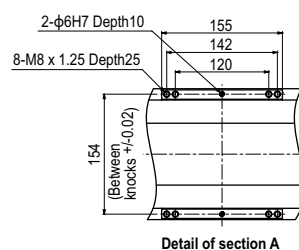
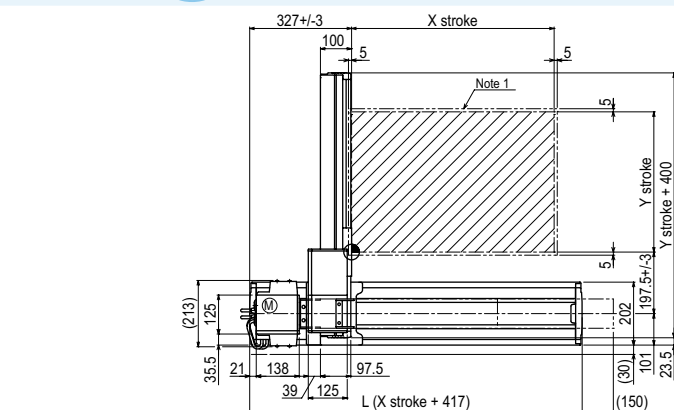
Maximum payload (kg)

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

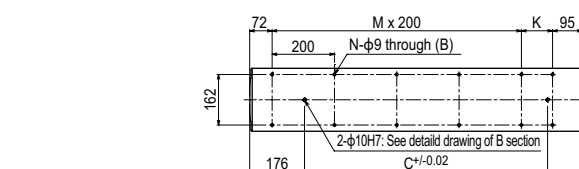
Controller

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

HXYx 2 axes A1



Cross-section of cable carrier

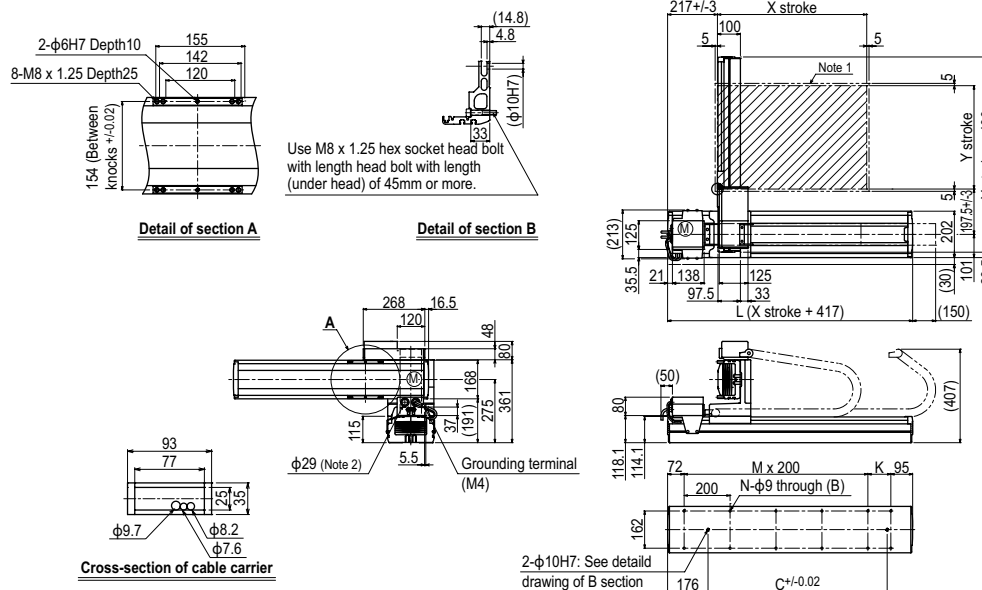
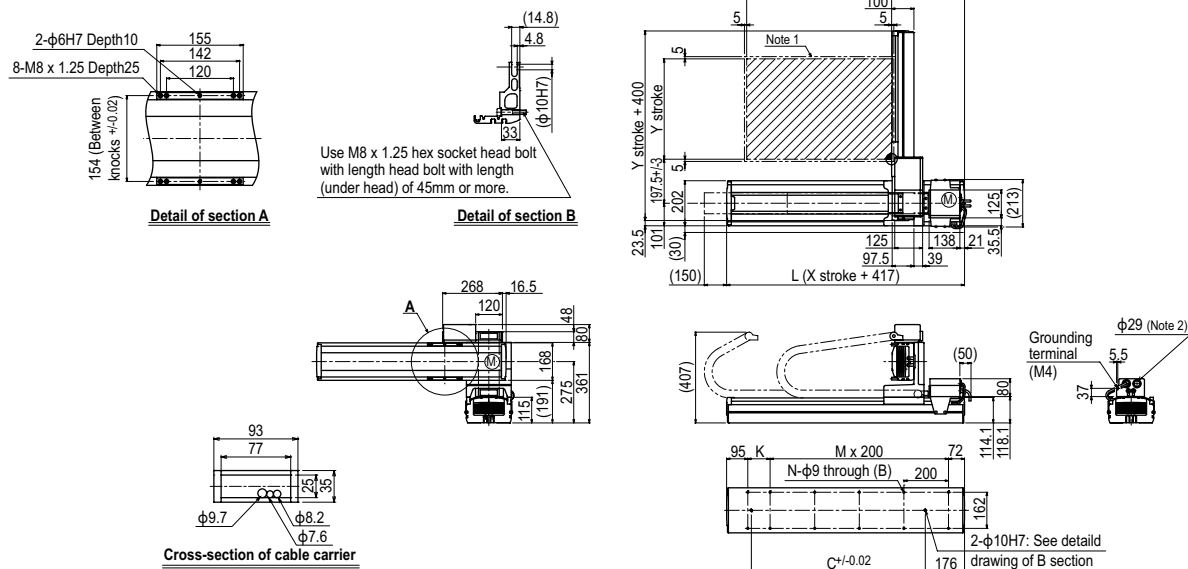
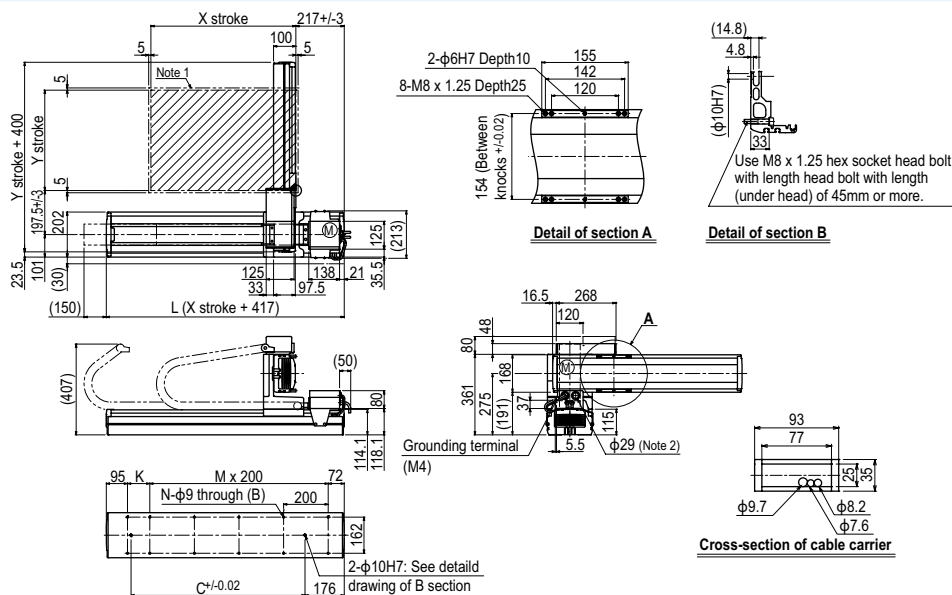


X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
L	667	767	867	967	1067	1167	1267	1367	1467	1567	1667
K	100	200	100	200	100	200	100	200	100	200	100
C	420	420	600	600	780	780	960	960	1140	1320	1320
M	2	2	3	3	4	4	5	5	6	6	7
N	8	8	10	10	12	12	14	14	16	16	18
Y stroke	250	350	450	550	650						
Maximum speed for each stroke (mm/sec) ^{Note 3}	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.

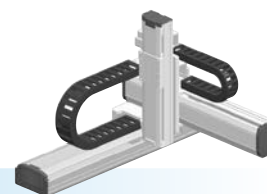
Note 3. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

HXYx 2 axes **A2**

HXYx 2 axes **A3**

HXYx 2 axes **A4**


HXYx

3 axes / ZL

● Arm 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	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					
A1		A1	25 to 125cm	25 to 65cm		25 to 55cm	3L: 3.5m 5L: 5m 10L: 10m	Specify various controller setting items. RCX340 ▶ P542												
A2		A2						RCX240		R										
A3		A3						Controller	CE Marking	Regenerative unit	Expansion I/O	Network option	IVY System	Gripper	Battery					
A4		A4						Specify various controller setting items. RCX240/RCX240S ▶ P532												

Specification

	X-axis	Y-axis	Z-axis
Axis construction ^{Note 1}	F20	F17	F14H-BK
AC servo motor output (W)	600	400	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20	10
Maximum speed ^{Note 4} (mm/sec)	1200	1200	600
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 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.

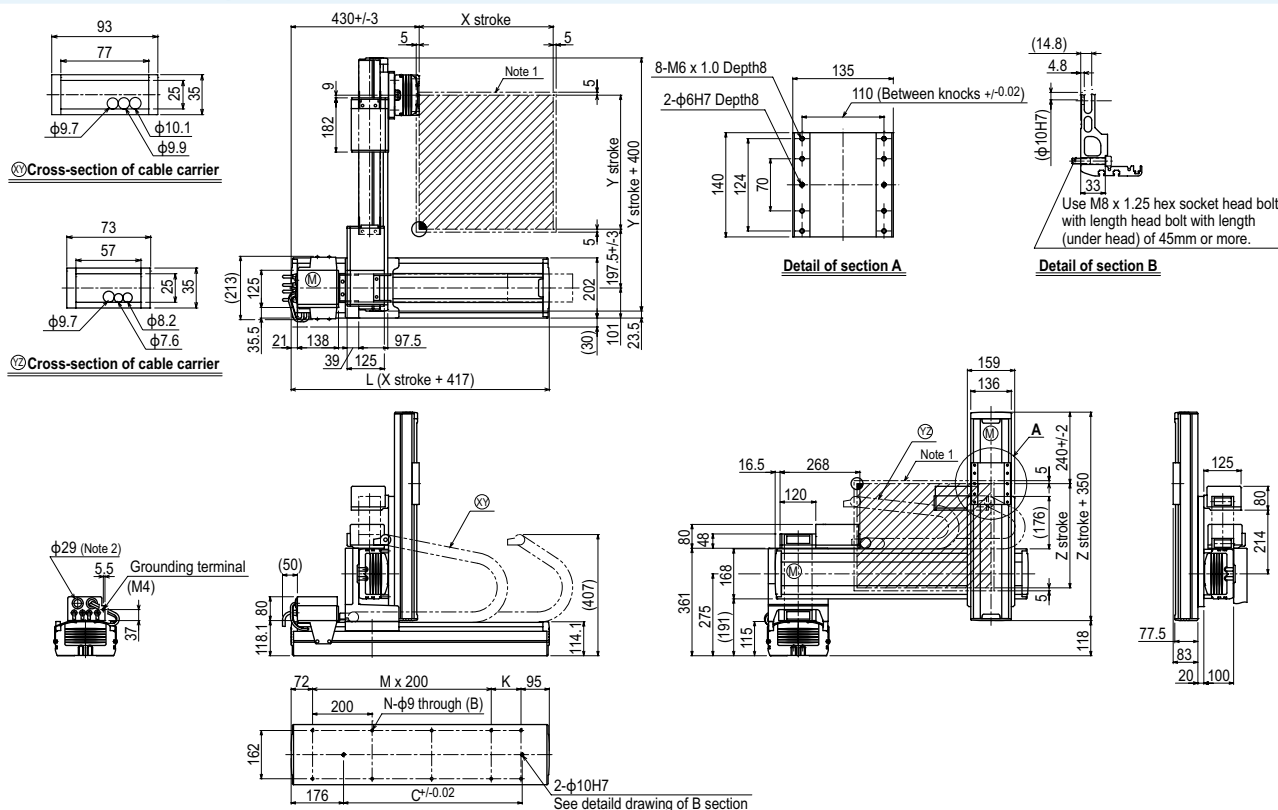
Note 4. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

Maximum payload (kg)

	Z stroke (mm)				
Y stroke (mm)	250	350	450	550	
250	20	20	20	20	20
350	20	20	20	20	20
450	20	20	19	18	
550	18	17	16	15	
650	18	17	16	15	

Controller

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

HXYx 3 axes / ZL (A1)

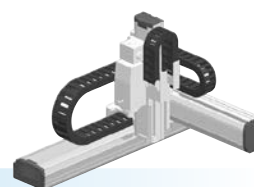
X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
L	667	767	867	967	1067	1167	1267	1367	1467	1567	1667
K	100	200	100	200	100	200	100	200	100	200	100
C	420	420	600	600	780	780	960	960	1140	1320	1320
M	2	2	3	3	4	4	5	5	6	6	7
N	8	8	10	10	12	12	14	14	16	16	18
Y stroke	250	350	450	550	650						
Z stroke	250	350	450	550							
Maximum speed for each stroke (mm/sec) Note 3	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

4 axes / ZRL

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

Ordering method

HXYx - C				ZRL			RCX340-4								
Model	Cable	Combination	X-axis stroke	Y-axis stroke	ZR-axis	Z-axis stroke	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	
		A1 A2 A3 A4	25 to 125cm	25 to 65cm		25 to 55cm	Specify various controller setting items. RCX340 ▶ P542								
						3L: 3.5m 5L: 5m 10L: 10m	RCX240		R						
							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	R-axis
Axis construction ^{Note 1}	F20	F17	F14H-BK	R20
AC servo motor output (W)	600	400	200	200
Repeatability ^{Note 2} (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 ^{Note 3} (Deceleration ratio) (mm)	20	20	10	(1/50)
Maximum speed ^{Note 4} (XYZ: mm/sec) (R: °/sec)	1200	1200	600	360
Moving range (XYZ: mm) (R: °)	250 to 1250	250 to 650	250 to 550	360
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.

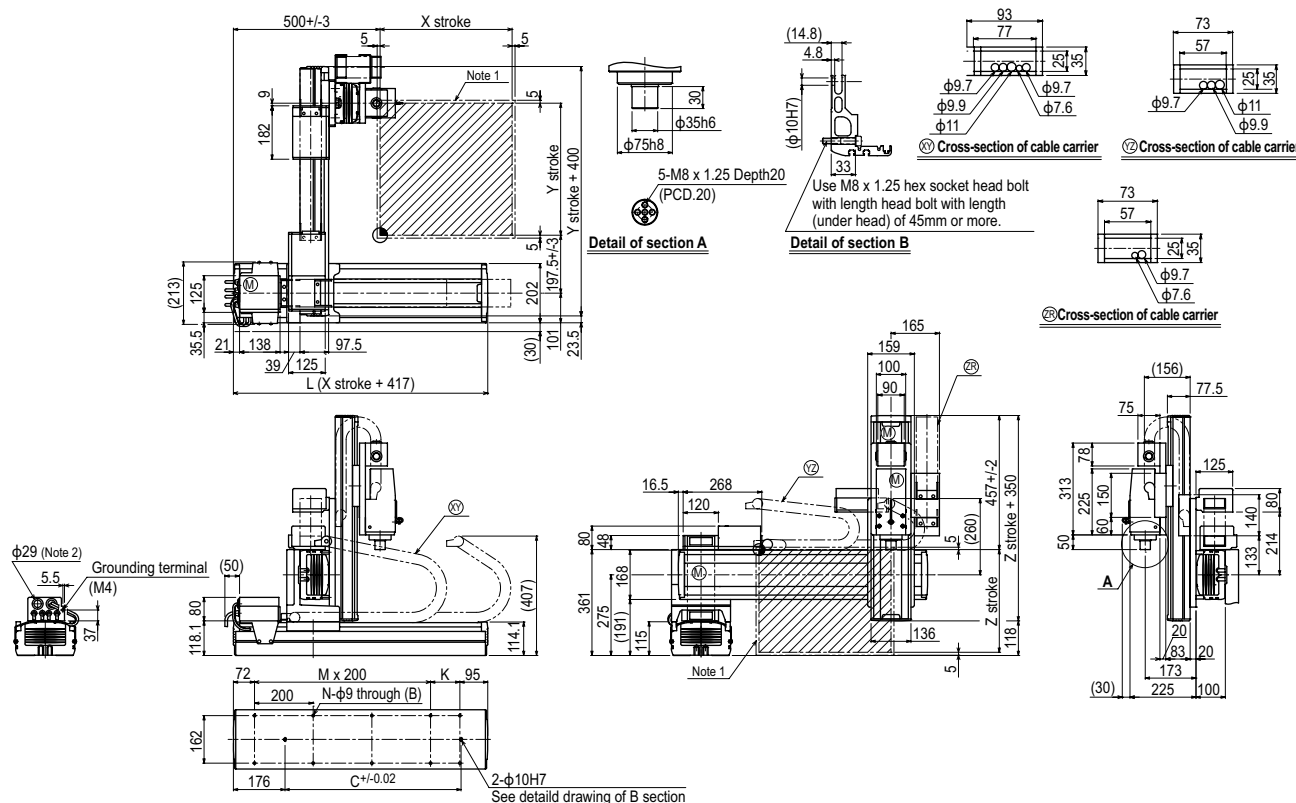
Note 4. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

Maximum payload (kg)

	Z stroke (mm)				
Y stroke (mm)	250	350	450	550	
250	12	12	12	12	
350	12	12	12	12	
450	12	12	12	11	
550	10	9	8	7	
650	10	9	8	7	

Controller

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

HXYx 4 axes / ZRL (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
Y stroke	250	350	450	550	650						
Z stroke	250	350	450	550							
Maximum speed for each stroke (mm/sec) Note 1	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.

HXYLx

2 axes

● Arm 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
		A1	115 to 205cm	25 to 65cm	3L: 3.5m	RCX222HP	No entry: Standard	R: RG2	N: NPN ^{Note 1}	No entry: None
		A2			5L: 5m		E: CE marking		P: PNP	N1: OPDIO24/16 (NPN) ^{Note 1}
		A3			10L: 10m				CC: CC-Link	P1: OPDIO24/17 (PNP) ^{Note 1}
		A4							DN: DeviceNet™	EN: Ethernet ^{Note 3}
									PB: PROFIBUS	
									EN: Ethernet ^{Note 3}	
									YC: YC-Link ^{Note 2}	

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
Axis construction ^{Note 1}	F20N	F17
AC servo motor output (W)	400	400
Repeatability ^{Note 2} (mm)	+/-0.04	+/-0.01
Drive system	Ball screw (Class C10)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20
Maximum speed (mm/sec)	1200	1200
Moving range (mm)	1150 to 2050	250 to 650
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.

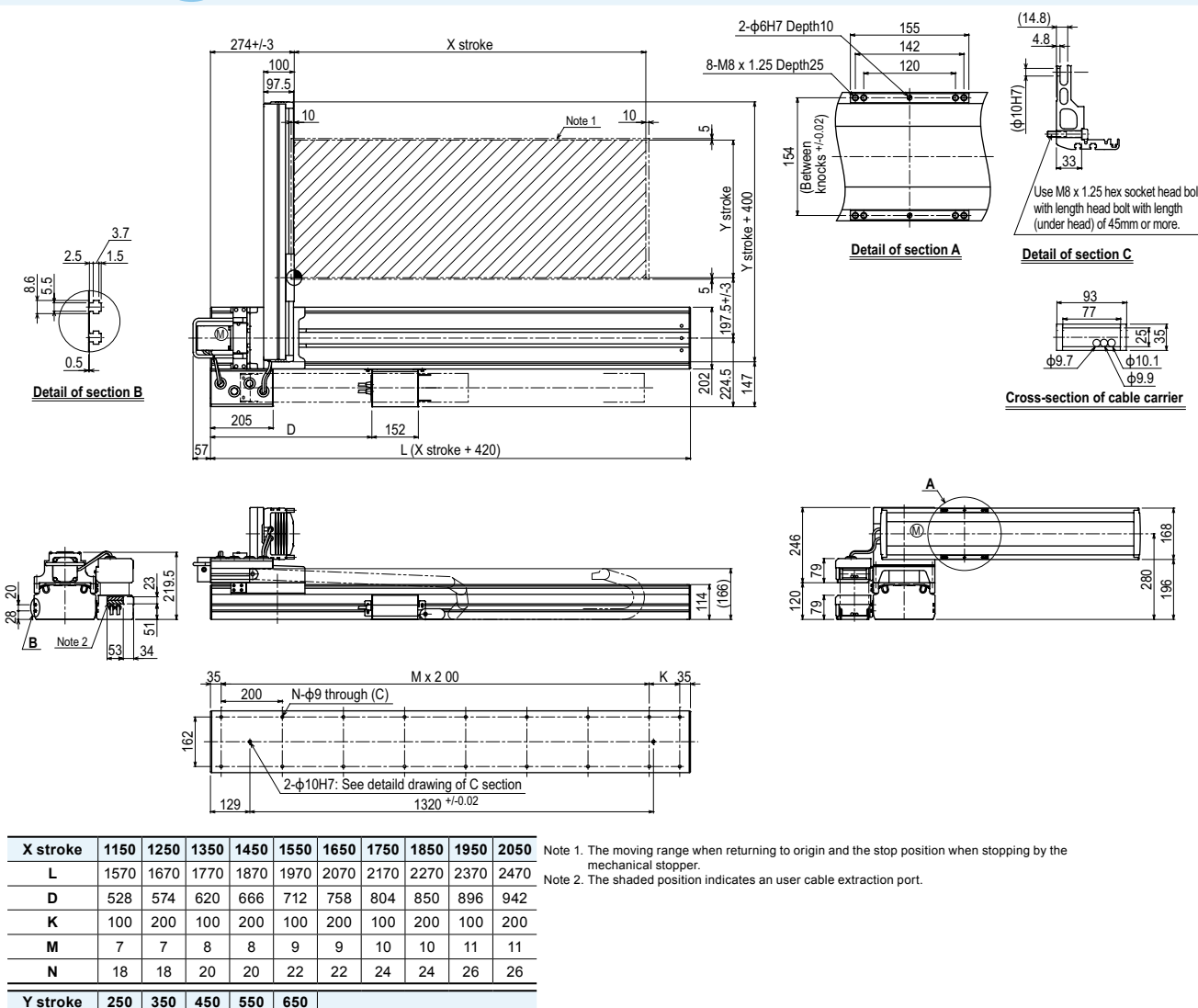
Maximum payload (kg)

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

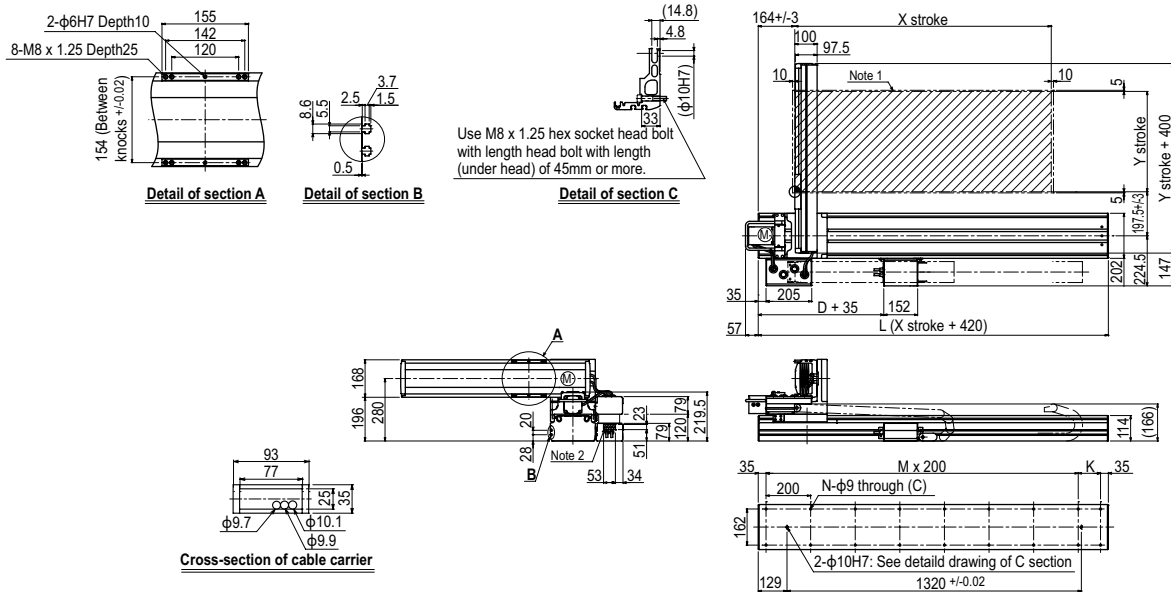
Controller

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

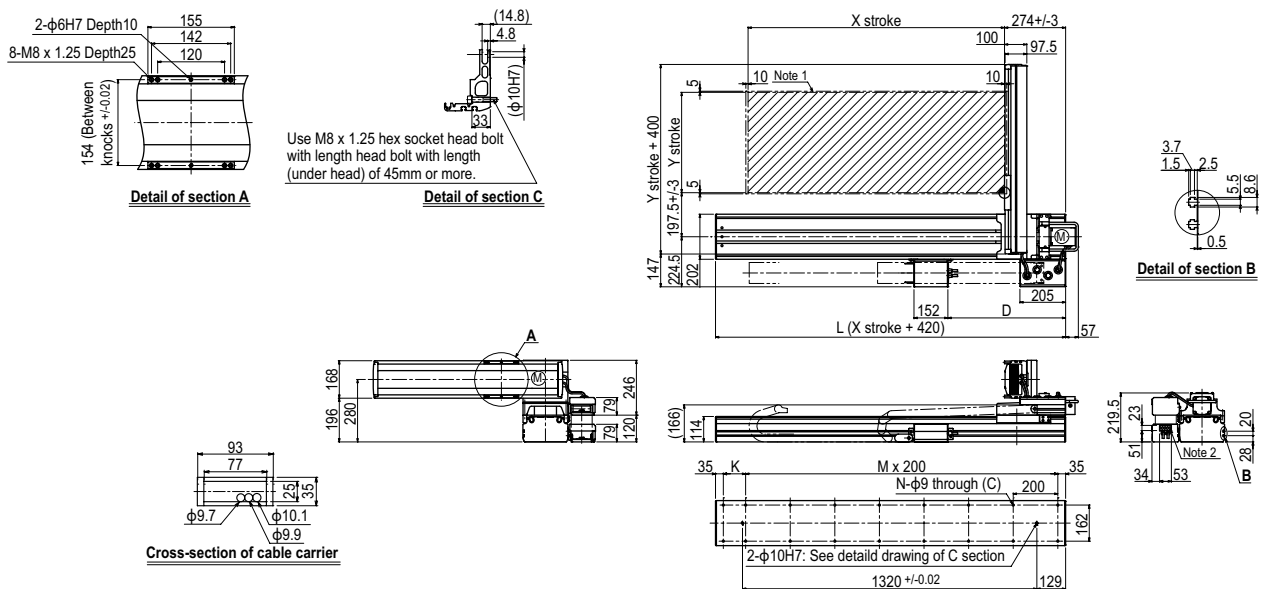
HXYLx 2 axes A1



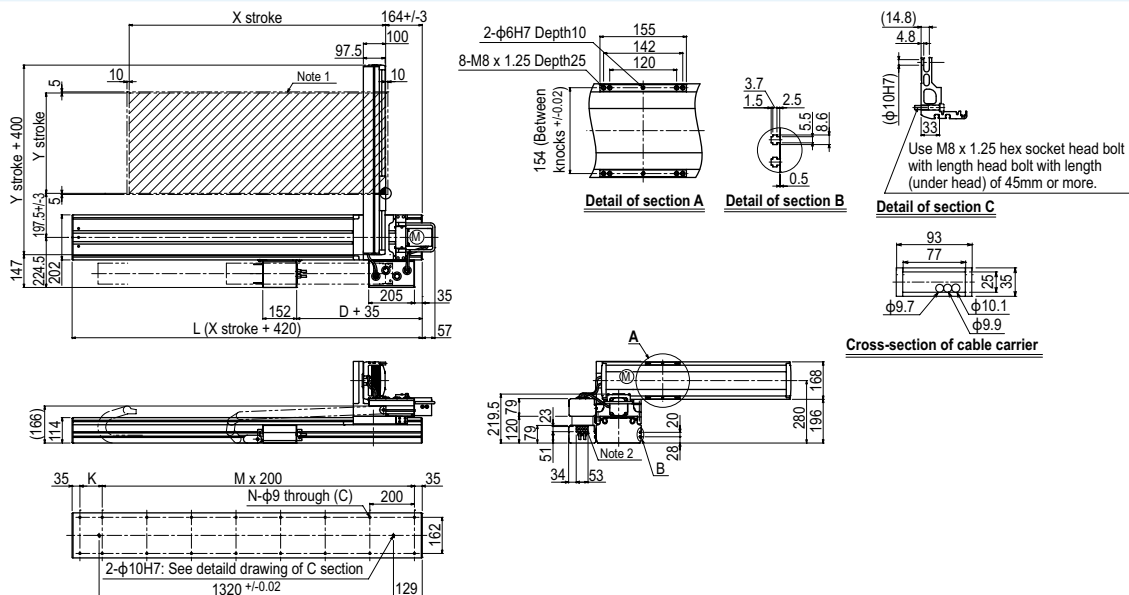
HXYLx 2 axes A2



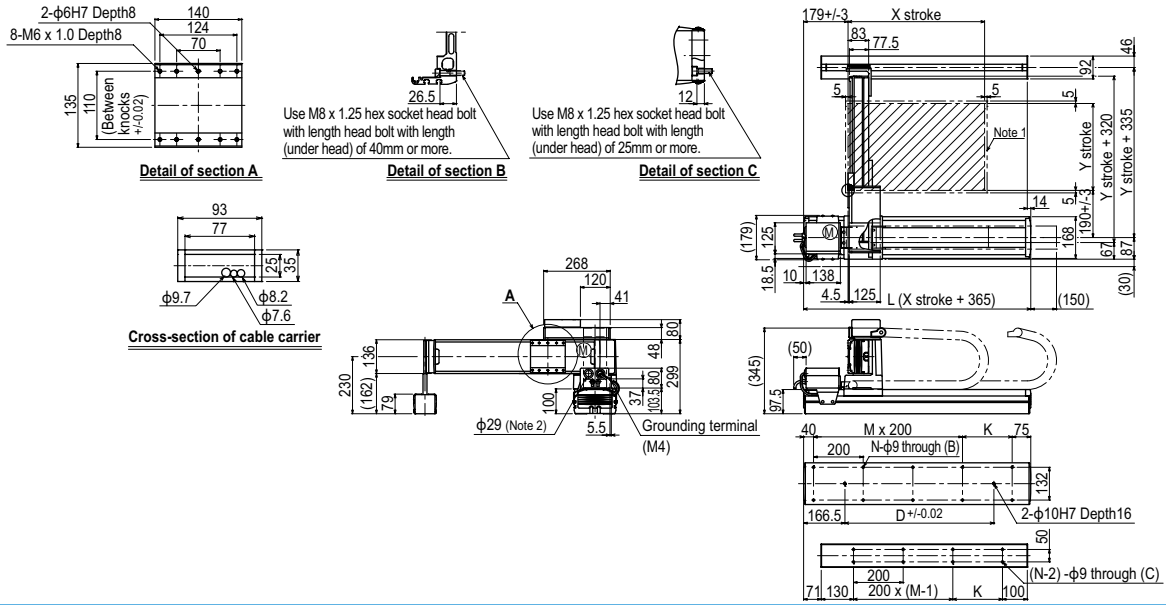
HXYLx 2 axes A3



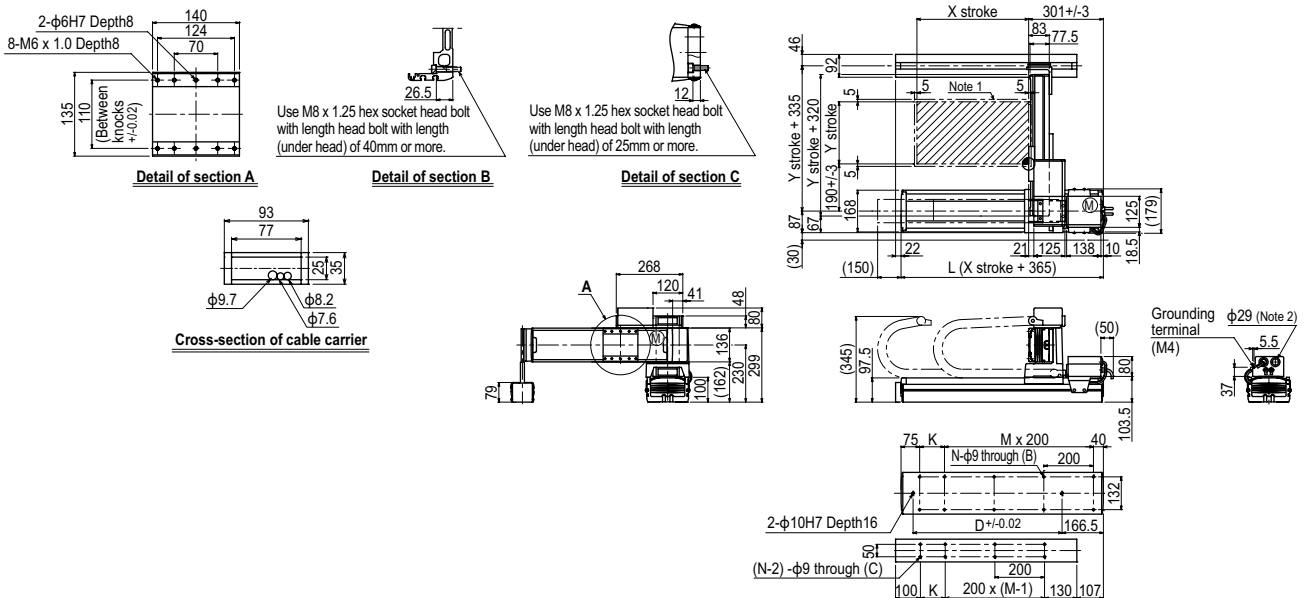
HXYLx 2 axes A4



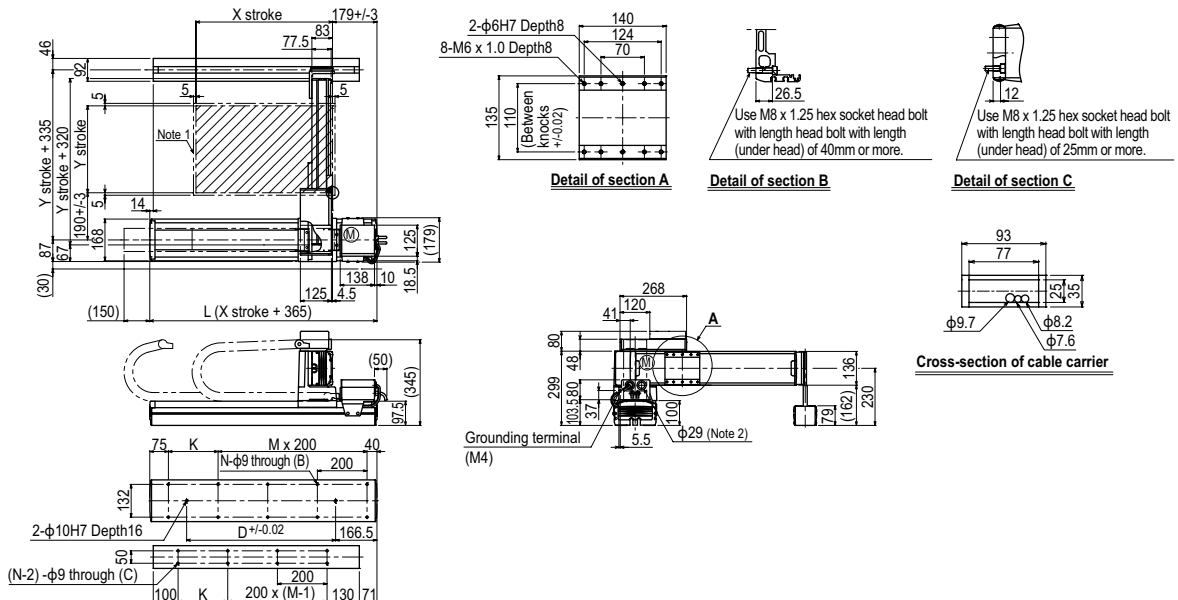
MXyX 2 axes G2



MXyX 2 axes G3



MXyX 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
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 / IO

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

Ordering method

MXYx - C					IO		RCX222			R		
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	
	G1 G2 G3 G4	25 to 125cm 15 to 85cm				3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	R: RG2	N: NPN ^{Note 1} P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet ^{Note 2} YC: YC-Link ^{Note 2}	No entry: None Nt: OP.DIO24/16 (NPN) ^{Note 1} Pt: OP.DIO24/17 (PNP) EN: Ethernet ^{Note 3}	

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 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
Axis construction ^{Note 1}	F17	F14H
AC servo motor output (W)	400	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20
Maximum speed ^{Note 4} (mm/sec)	1200	1200
Moving range (mm)	250 to 1250	150 to 850
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 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.

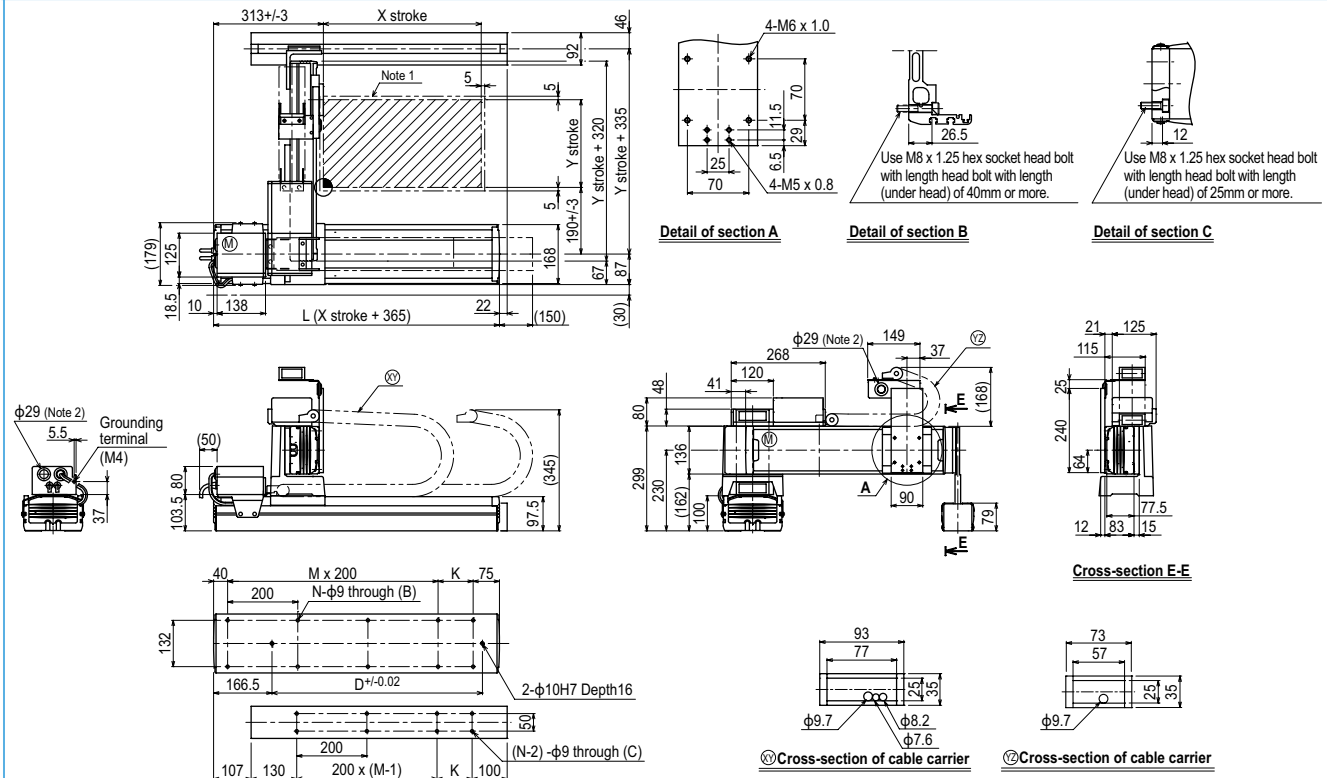
Maximum payload (kg)

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

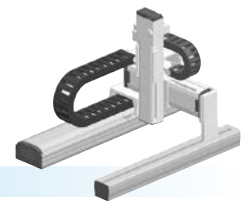
MXYx 2 axes / IO G1



X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
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			
Maximum speed for each stroke (mm/sec) ^{Note 3}	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.



Ordering method

MXy_x-C

Model	Cable	Combination	X-axis stroke	Y-axis stroke	ZR-axis	Z-axis stroke	Cable
		G1 G2 G3 G4	25 to 125cm	15 to 85cm	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 ▶ **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 ^{Note 1}	F17	F14H-BK	F10-BK equivalent guide-reinforced model	
AC servo motor output (W)	400	200	200	
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01	
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)	
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20	20	10
Maximum speed ^{Note 4} (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.

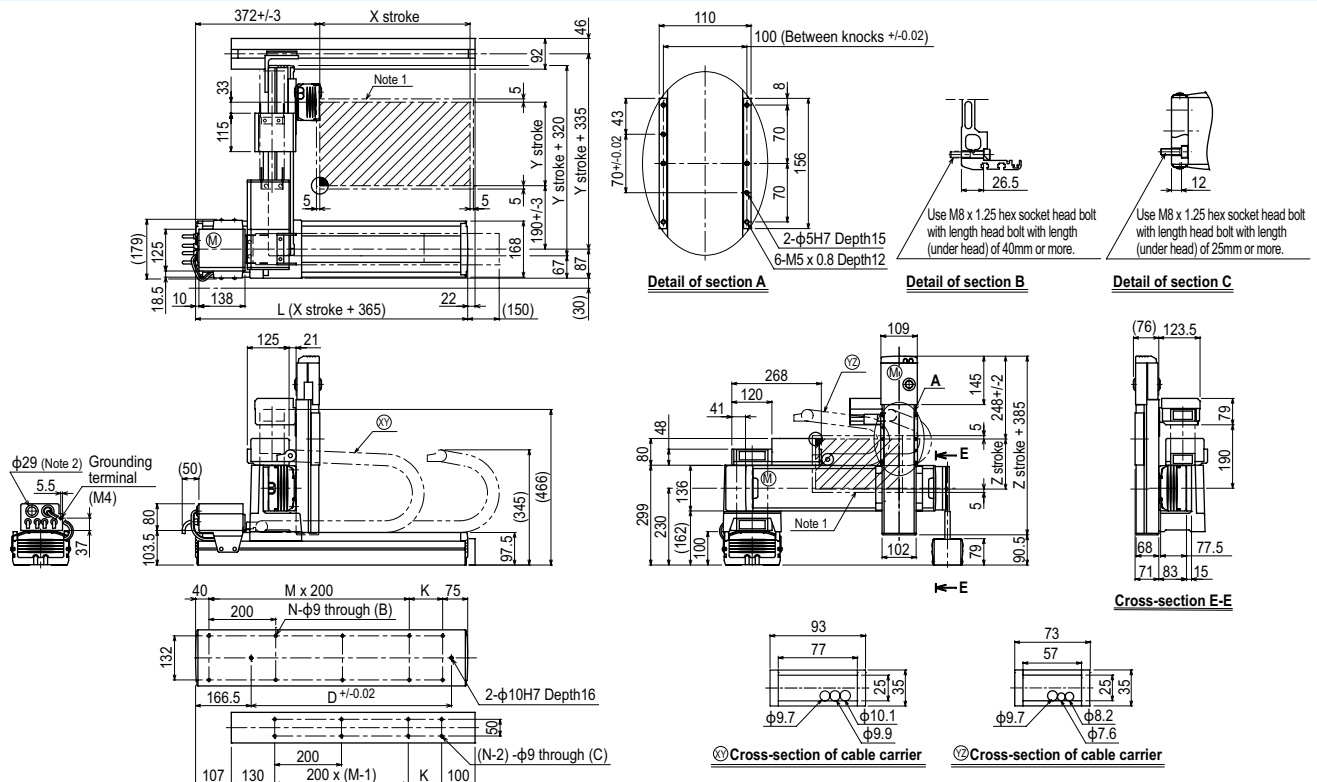
Maximum payload

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_x 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) Note 3	X-axis	1200					960	840	720	600	480
	Speed setting	—					80%	70%	60%	50%	40%
	Y-axis	1200					960	780			
	Speed setting	—					80%	65%			

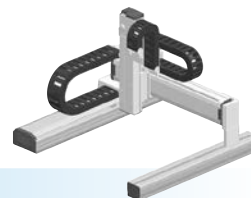
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.
 Note 2. User cable extraction port.

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.

MXyX

3 axes / ZFH

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



Ordering method

MXyX - C **ZFH** **RCX340-3**

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

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

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

RCX240 **R**

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

Specification

	X-axis	Y-axis	Z-axis
Axis construction ^{Note 1}	F17	F14H	F10-BK equivalent guide-reinforced model
AC servo motor output (W)	400	200	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20	10
Maximum speed ^{Note 4} (mm/sec)	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 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 (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.

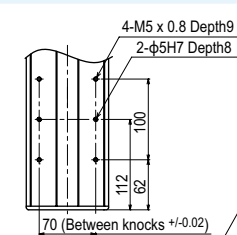
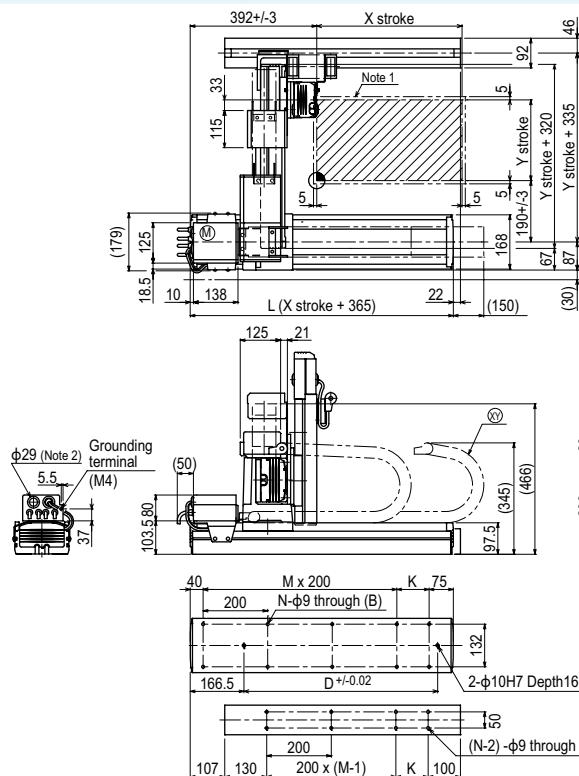
Maximum payload (kg)

	Z stroke (mm)		
Y stroke (mm)	150	250	350
150	14	13	12
250	14	13	12
350	14	13	12
450	14	13	12
550	14	13	12
650	14	13	12
750	14	13	12
850	12	11	10

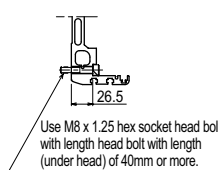
Controller

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

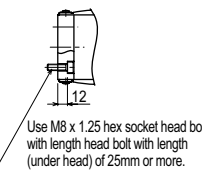
MXyX 3 axes / ZFH G1



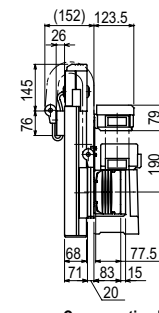
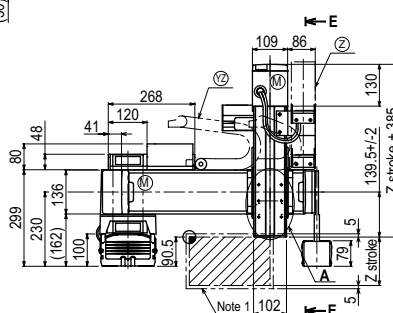
Detail of section A



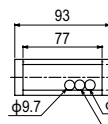
Detail of section B



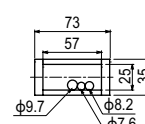
Detail of section C



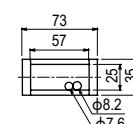
Cross-section E-E



① Cross-section of cable carrier



② Cross-section of cable carrier



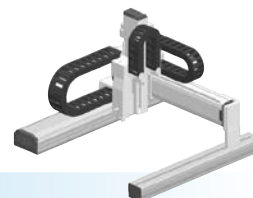
③ Cross-section of cable carrier

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) Note 3	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.



Ordering method

MXYx - 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
		G2			ZRFL10		5L: 5m
		G3					10L: 10m
		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
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Specify various controller setting items. RCX340 ▶ **P.542**

RCX240

R

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 ▶ **P.532**

Specification

	X-axis	Y-axis	Z-axis: ZRFL20	Z-axis: ZRFL10	R-axis
Axis construction ^{Note 1}	F17	F14H	F10-BK equivalent guide-reinforced model		R5
AC servo motor output (W)	400	200	200		50
Repeatability ^{Note 2} (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 ^{Note 3} (Deceleration ratio) (mm)	20	20	20	10	(1/50)
Maximum speed ^{Note 4} (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.

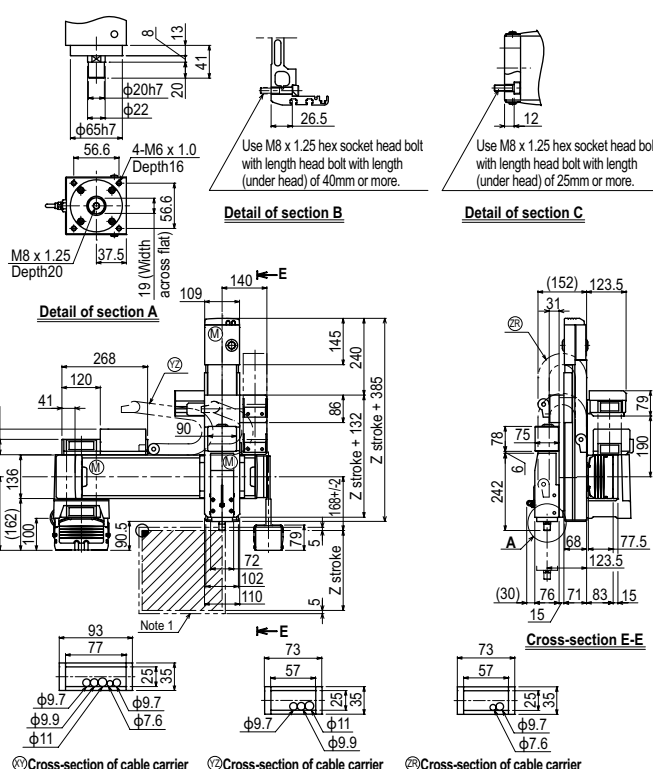
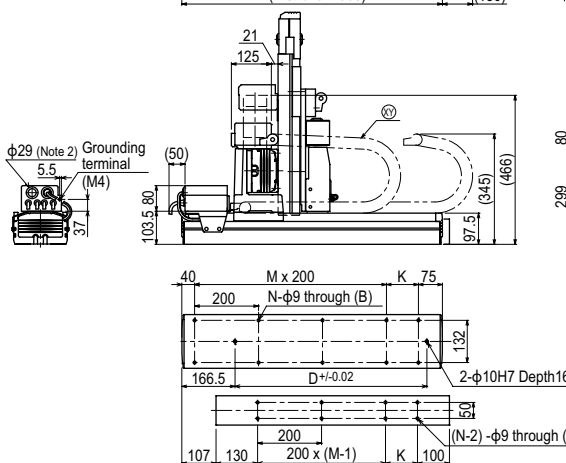
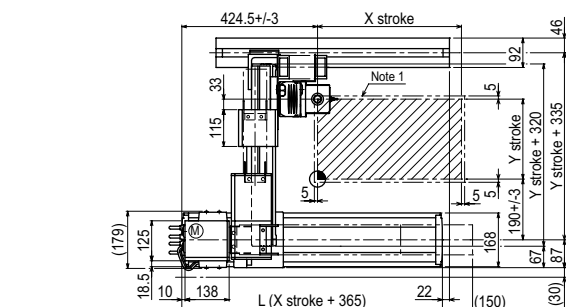
Maximum payload

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

MXYx 4 axes / ZRFL20/10 (G1)



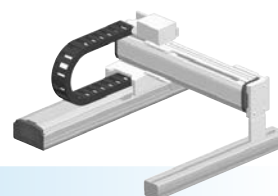
X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
L	615	715	815	915	1015	1115	1215	1315	1415	1515	1615
K	100	200	100	200	100	200	100	200	100	200	100
D	240	420	600	600	780	780	960	960	1140	1140	1320
M	2	2	3	3	4	4	5	5	6	6	7
N	8	8	10	10	12	12	14	14	16	16	18
Y stroke	150	250	350	450	550	650	750	850			
Z stroke	150	250	350								
Maximum speed for each stroke (mm/sec) Note 3	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
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HXYx

2 axes
● Gantry type ● Cable carrier


Ordering method

HXYx - C					RCX222HP		R		
Model	Cable	Combination	X-axis stroke	Y-axis stroke	Cable	Controller	Usable for CE	Regenerative unit	Input/Output selection 1
	G1		25 to 125cm	25 to 105cm	3L: 3.5m	RCX222HP	No entry: Standard	R: RG2	N: NPN ^{Note 1}
	G2				5L: 5m		E: CE marking		P: PNP
	G3				10L: 10m				CC: CC-Link
	G4								DN: DeviceNet™
									PB: PROFIBUS
									EN: Ethernet ^{Note 2}
									YC: YC-Link ^{Note 2}
									Input/Output selection 2
									No entry: None
									Nt: OPDIO24/16 (NPN) ^{Note 1}
									Pt: OPDIO24/17 (PNP)
									EN: Ethernet ^{Note 3}

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
Axis construction ^{Note 1}	F20	F17
AC servo motor output (W)	600	400
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20
Maximum speed ^{Note 4} (mm/sec)	1200	1200
Moving range (mm)	250 to 1250	250 to 1050
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/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.

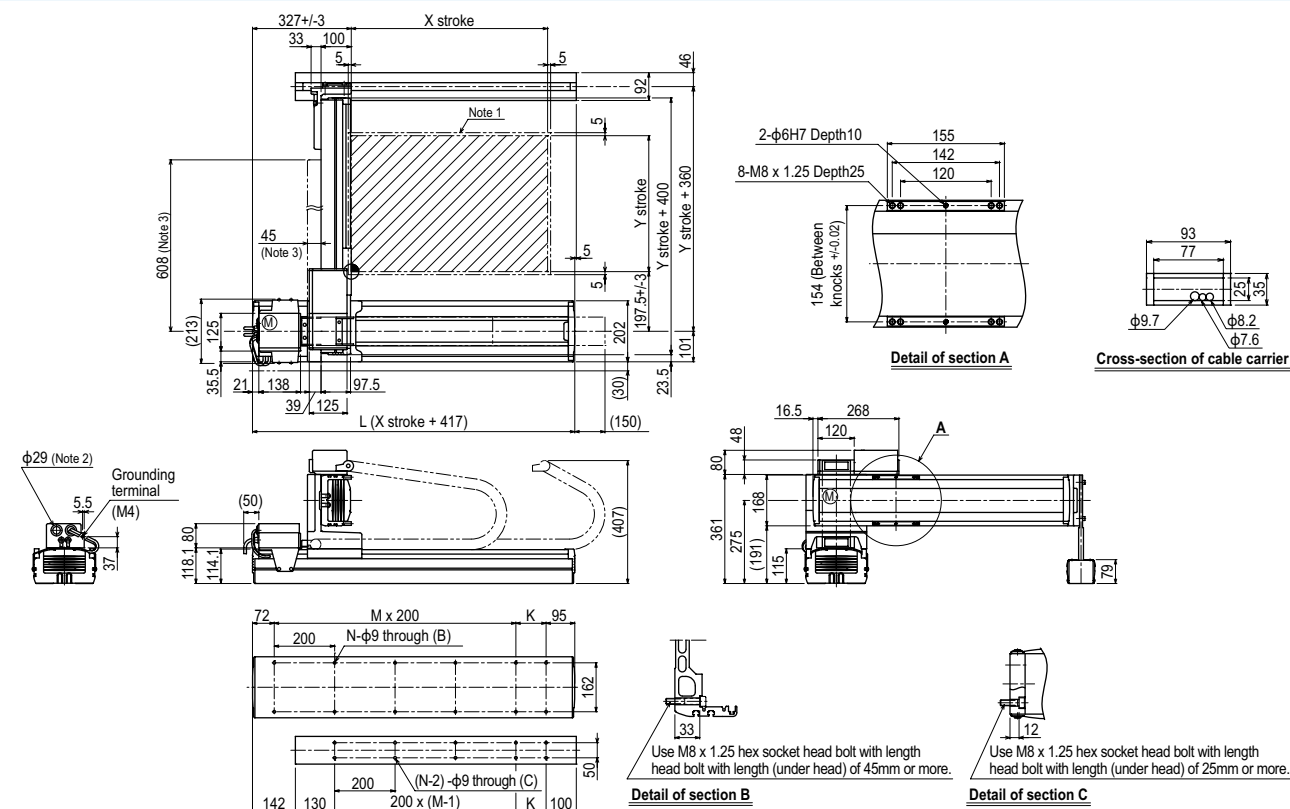
Maximum payload (kg)

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



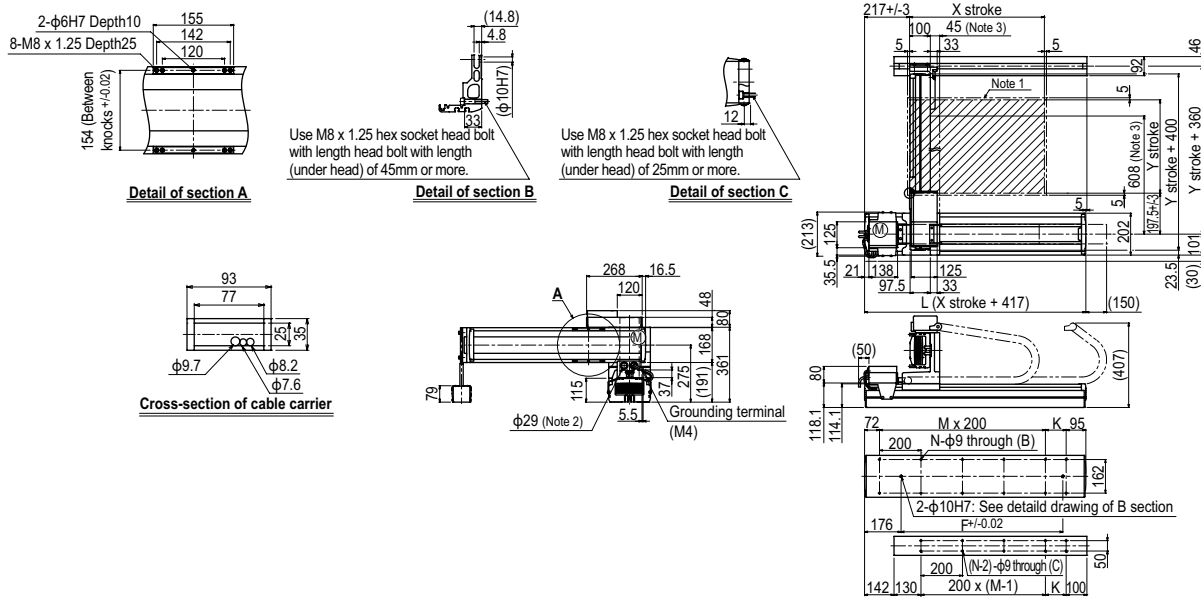
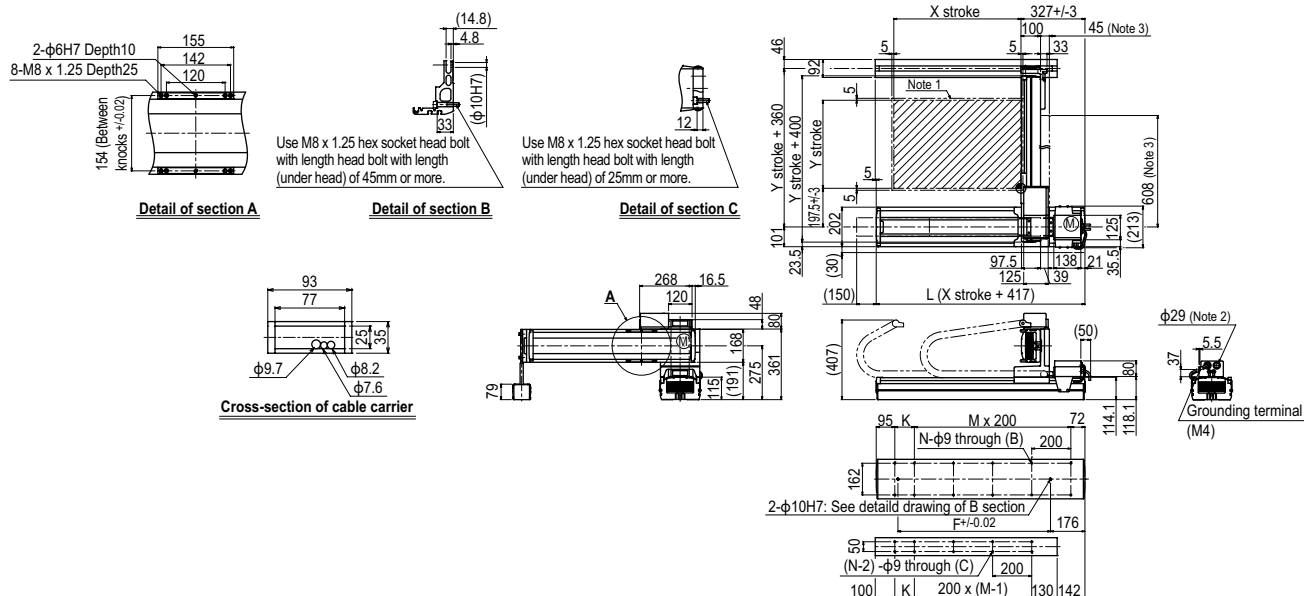
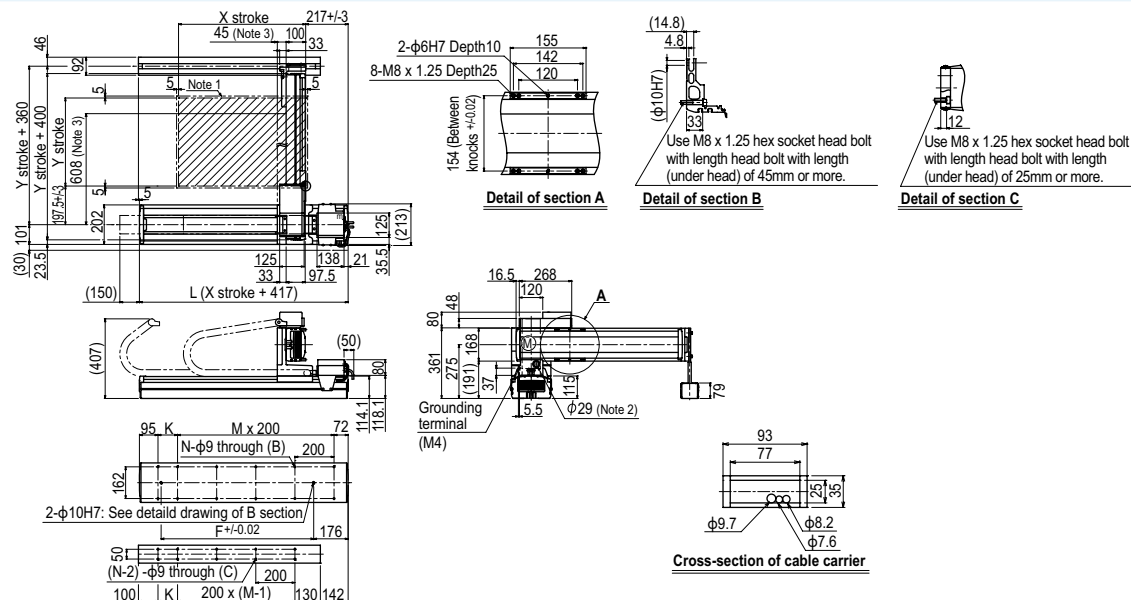
X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
L	667	767	867	967	1067	1167	1267	1367	1467	1567	1667
K	100	200	100	200	100	200	100	200	100	200	100
F	420	420	600	600	780	780	960	960	1140	1320	1320
M	2	2	3	3	4	4	5	5	6	6	7
N	8	8	10	10	12	12	14	14	16	16	18
Y stroke	250	350	450	550	650	750	850	950	1050		
Maximum speed for each stroke (mm/sec) ^{Note 4}	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.

HXYx 2 axes **G2**

HXYx 2 axes **G3**

HXYx 2 axes **G4**


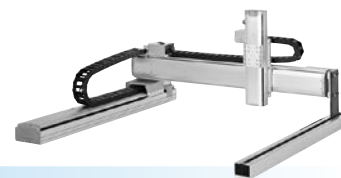
HXYx

3 axes / ZL

● Gantry type

● Cable carrier

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



Ordering method

HXYx - C **ZL**

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
Axis construction ^{Note 1}	F20	F17	F14H-BK
AC servo motor output (W)	600	400	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20	10
Maximum speed ^{Note 4} (mm/sec)	1200	1200	600
Moving range (mm)	250 to 1250	250 to 1050	250 to 550
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/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.

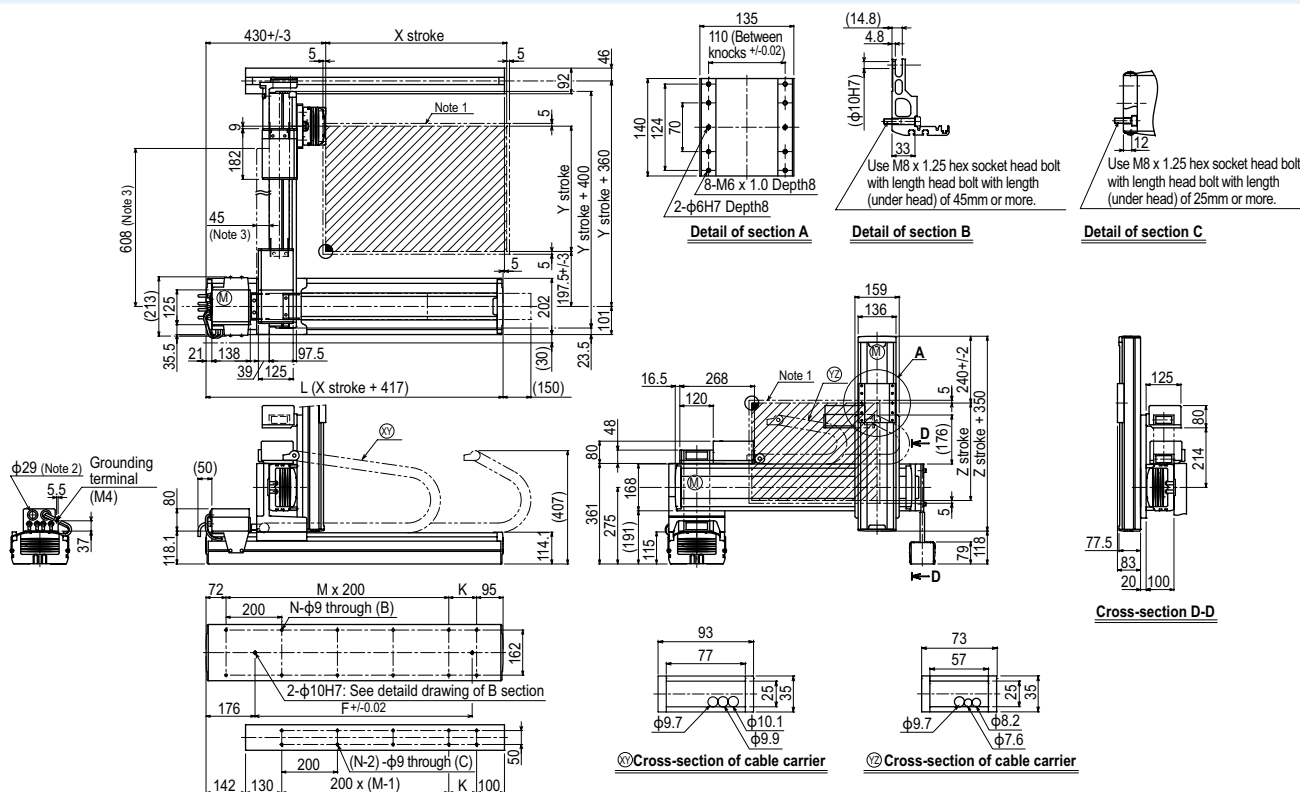
Maximum payload (kg)

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

Controller

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

HXYx 3 axes / ZL (G1)



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
F	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	750	850	950	1050		
Z stroke	250	350	450	550							
Maximum speed for each stroke (mm/sec) ^{Note 4}	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.

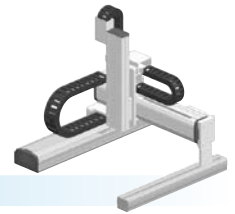
Note 2. User cable extraction port.

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.

HXYx 3 axes / ZH

● Gantry 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

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

RCX240 **R**

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

Specification

	X-axis	Y-axis	Z-axis
Axis construction ^{Note 1}	F20	F17	F14H-BK
AC servo motor output (W)	600	400	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20	5
Maximum speed ^{Note 4} (mm/sec)	1200	1200	300
Moving range (mm)	250 to 1250	250 to 1050	250 to 550
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/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.

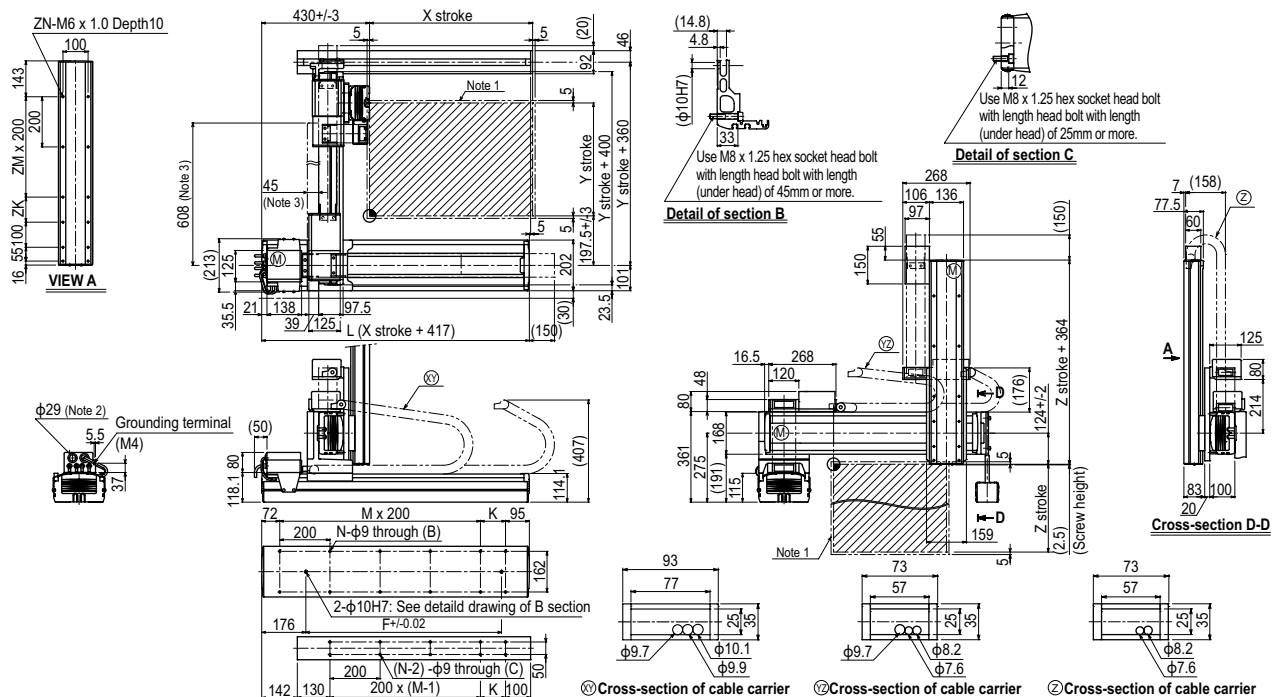
Maximum payload

	(kg)
Y stroke (mm)	250 to 1050
Z stroke (mm)	30

Controller

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

HXYx 3 axes / ZH G1

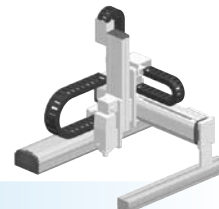


X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
L	667	767	867	967	1067	1167	1267	1367	1467	1567	1667
K	100	200	100	200	100	200	100	200	100	200	100
F	420	420	600	600	780	780	960	960	1140	1320	1320
M	2	2	3	3	4	4	5	5	6	6	7
N	8	8	10	10	12	12	14	14	16	16	18
Y stroke	250	350	450	550	650	750	850	950	1050		
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) ^{Note 4}	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.

Controller

RCX340 ▶ 542 **RCX240 ▶ 532**



Ordering method

HXY_x-C

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					

RCX340-4

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

RCX240

Controller	CE Marking	Regenerativne unit	Expansion I/O	Network option	iVY System	Gripper	Batter
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Specify various controller setting items. RCX240/RCX240S ▶ P.532

■ Specification

	X-axis	Y-axis	Z-axis	R-axis
Axis construction ^{Note 1}	F20	F17	F14H	R20
AC servo motor output (W)	600	400	200	200
Repeatability ^{Note 2} (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 ^{Note 3} (Deceleration ratio) (mm)	20	20	5	(1/50)
Maximum speed ^{Note 4} (XYZ: mm/sec) (R: °/sec)	1200	1200	300	360
Moving range (XYZ: mm) (R: °)	250 to 1250	250 to 1050	250 to 550	360
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.

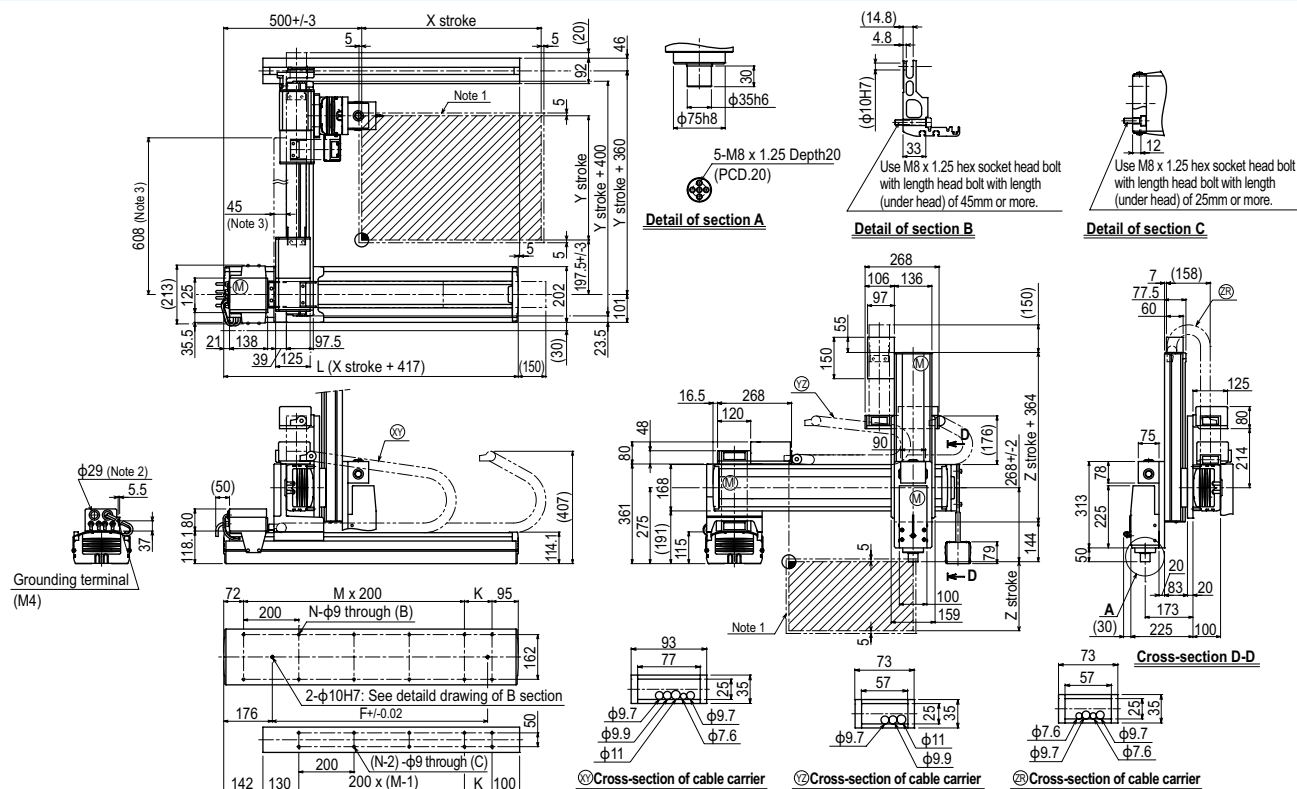
Note 4. When the X-axis/Y-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

■ **Maximum payload**

	Z stroke (mm)
Y stroke (mm)	250 to 550
250 to 1050	20

Controller

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

HXYx 4 axes / ZRH **G1**

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
F	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	750	850	950	1050		
Z stroke	250	350	450	550							
Maximum speed for each stroke (mm/sec) Note 4	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.

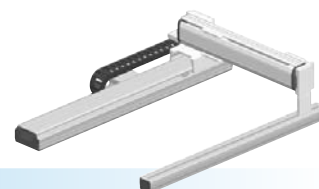
Note 3. Dimension of reinforced bracket (To be installed when the Y stroke is 750mm or longer)

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	R: RG2	N: NPN ^{Note 1}	No entry: None
	G2				5L: 5m		E: CE marking		P: PNP	N1: OPDIO24/16
	G3				10L: 10m				CC: CC-Link	(NPN) ^{Note 1}
	G4								DN: DeviceNet™	P1: OPDIO24/17
									PB: PROFIBUS	(PNP)
									EN: Ethernet	EN: Ethernet ^{Note 3}
									YC: YC-Link ^{Note 2}	

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
Axis construction ^{Note 1}	F20N	F17
AC servo motor output (W)	400	400
Repeatability ^{Note 2} (mm)	+/-0.04	+/-0.01
Drive system	Ball screw (Class C10)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20
Maximum speed ^{Note 4} (mm/sec)	1200	1200
Moving range (mm)	1150 to 2050	250 to 1050
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 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.

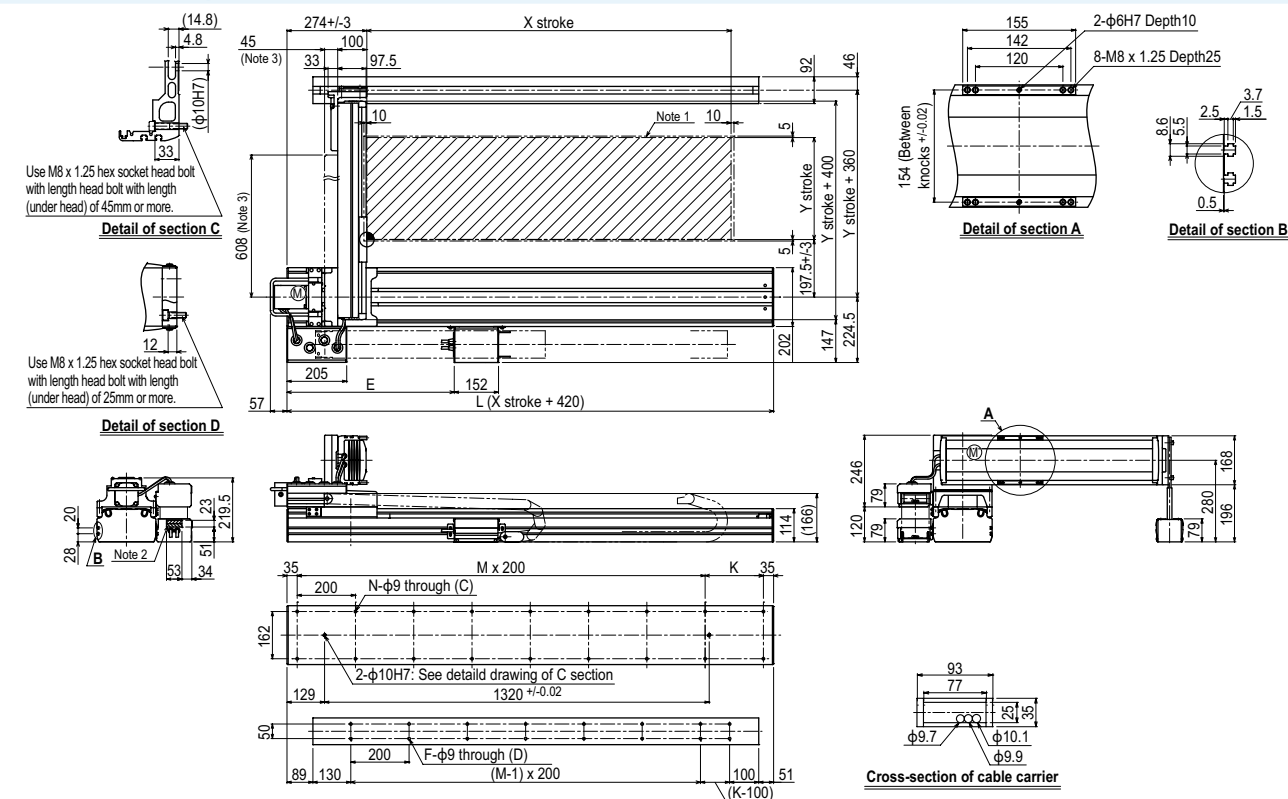
Maximum payload (kg)

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
L	1570	1670	1770	1870	1970	2070	2170	2270	2370	2470
E	528	574	620	666	712	758	804	850	896	942
K	100	200	100	200	100	200	100	200	100	200
M	7	7	8	8	9	9	10	10	11	11
N	18	18	20	20	22	22	24	24	26	26
F	14	16	16	18	18	20	20	22	22	24
Y stroke	250	350	450	550	650	750	850	950	1050	
Maximum speed for each stroke (mm/sec) ^{Note 4}	Y-axis		1200		960		840		720	
Speed setting			—		80%		70%		60%	

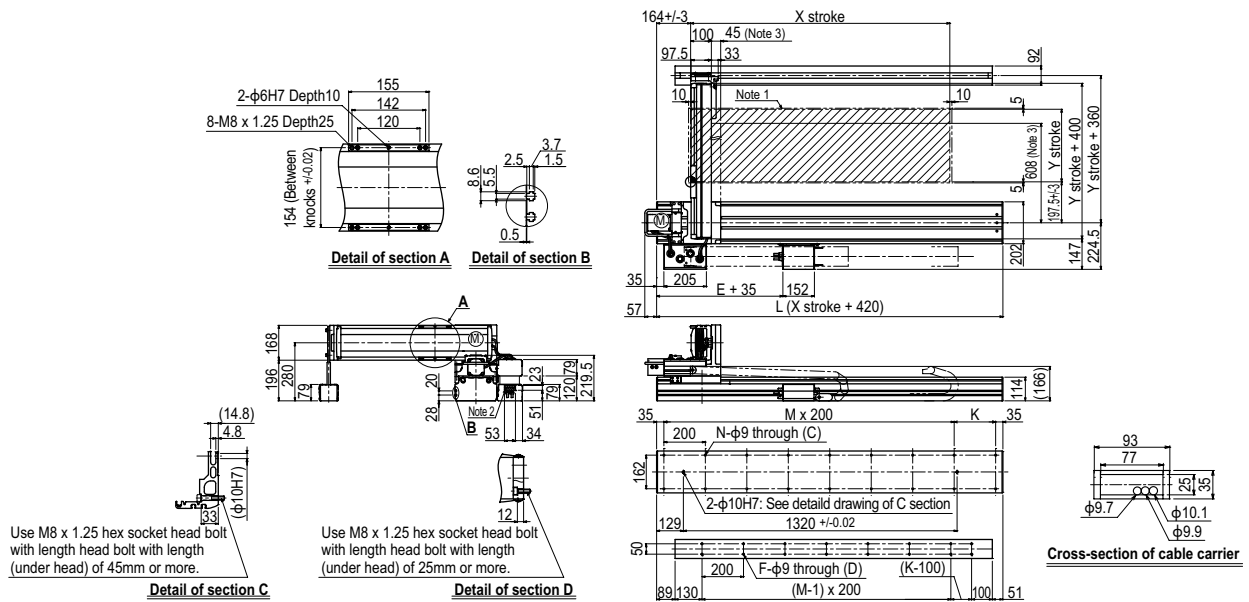
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

Note 2. User cable extraction port.

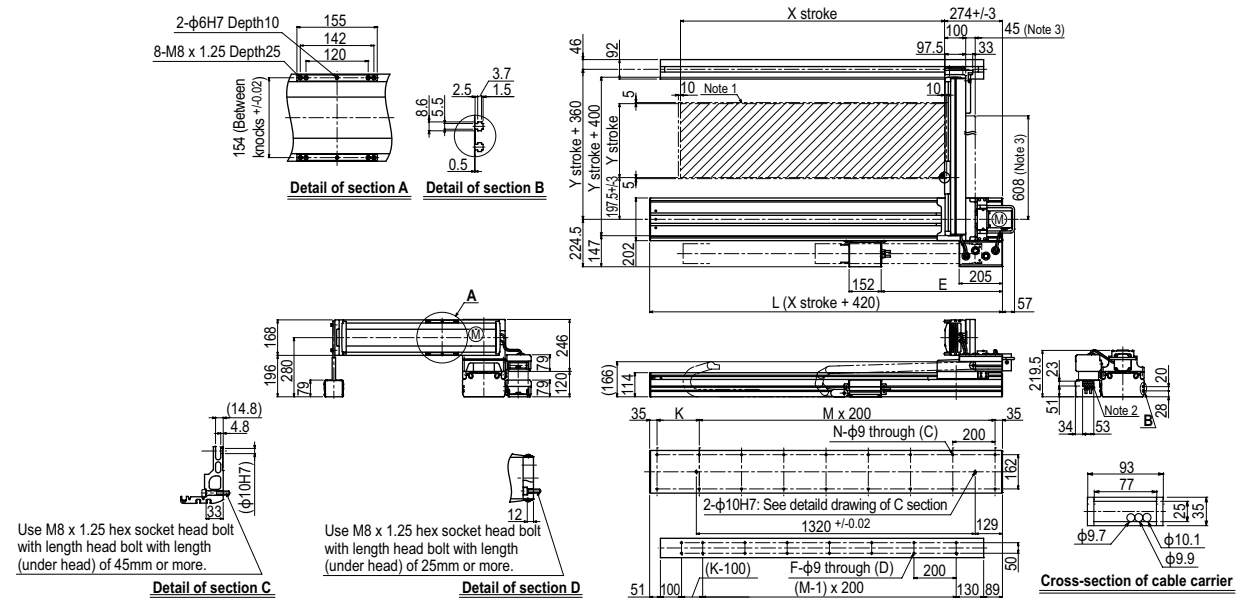
Note 3. Dimension of reinforced bracket (To be installed when the Y stroke is 750mm or longer)

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.

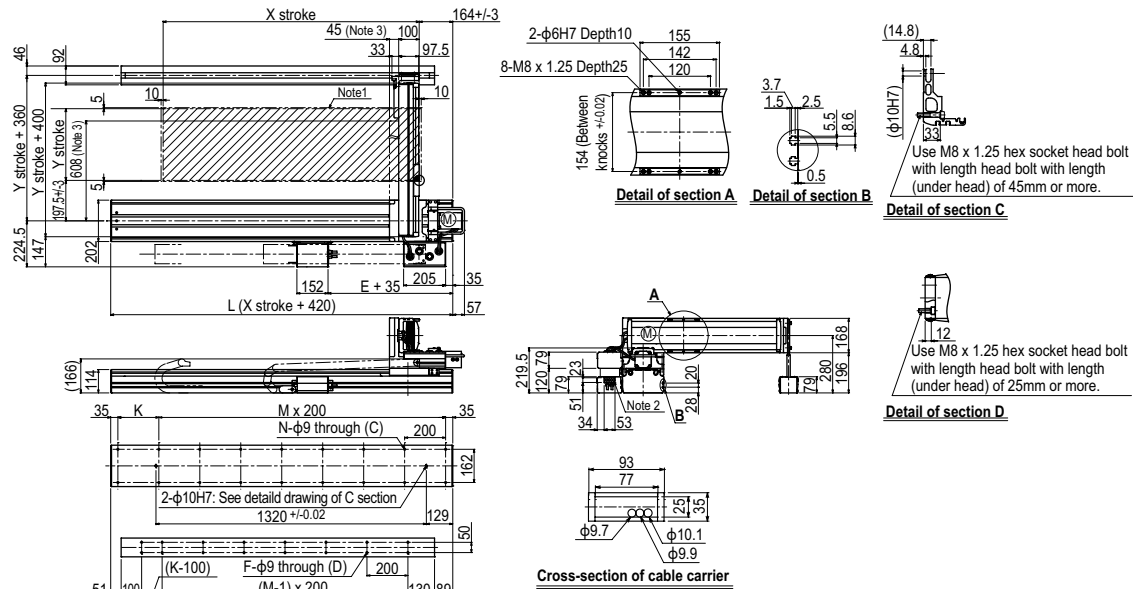
HXYLx 2 axes G2



HXYLx 2 axes G3



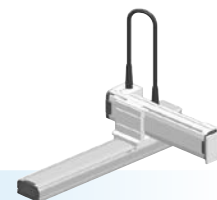
HXYLx 2 axes G4



SXYx

2 axes

● Moving arm type ● Whipover



Ordering method

Model	Cable	Combination	X-axis stroke ^{Note 1}	Y-axis stroke ^{Note 1}	Cable	Controller	Usable for CE	Input/Output selection 1	Input/Output selection 2
SXYx - S		M1 M3	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 ^{Note 3} YC: YC-Link ^{Note 3}	No entry: None N1: OPDIO24/16 (NPN) ^{Note 2} P1: OPDIO24/17 (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
Axis construction ^{Note 1}	F14H	F14
AC servo motor output (W)	200	100
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20
Maximum speed ^{Note 4} (mm/sec)	1200	1200
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 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.

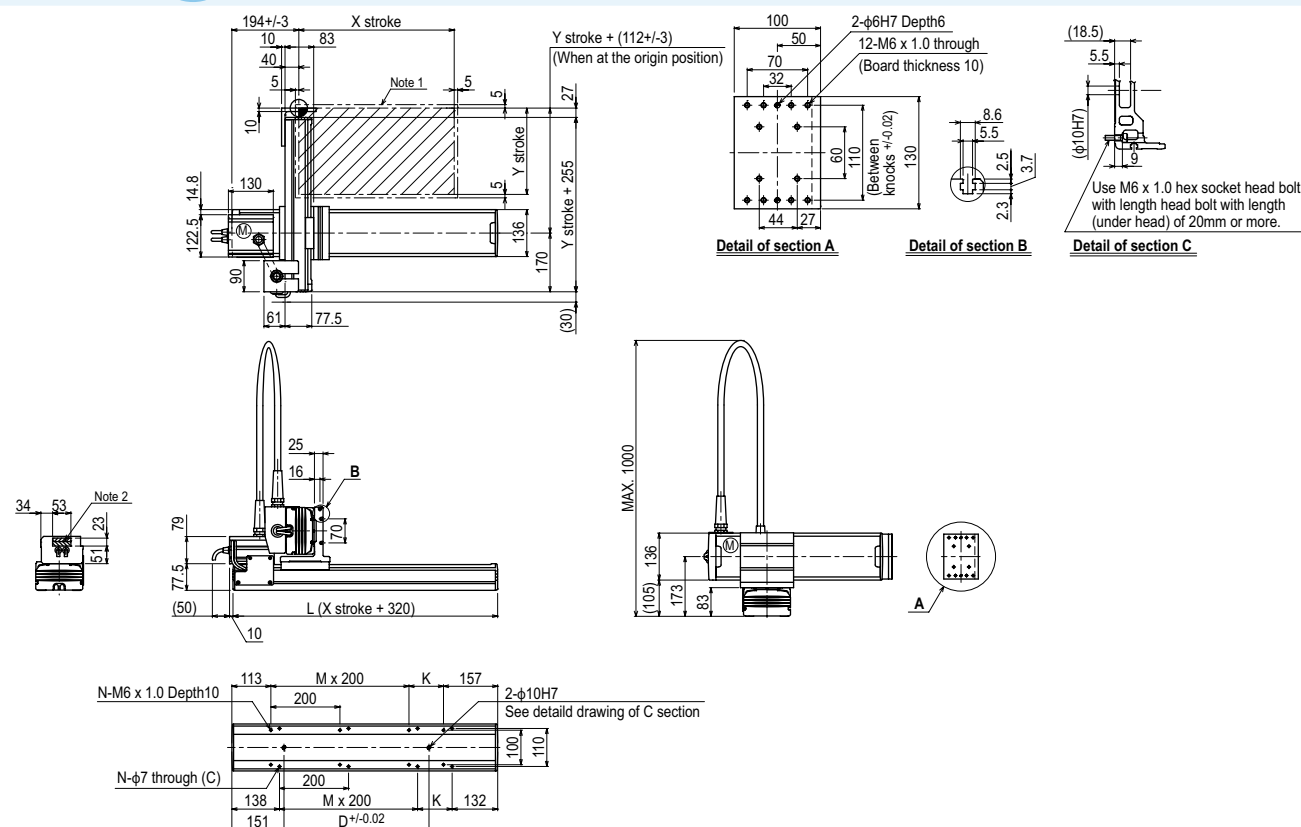
Maximum payload (kg)

Y stroke (mm)	XY 2 axes
150	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 ^{Note 3}	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 ^{Note 3}	150	250	350					
Maximum speed for each stroke (mm/sec) ^{Note 4}					1200	960	780	
Speed setting					-	80%	65%	

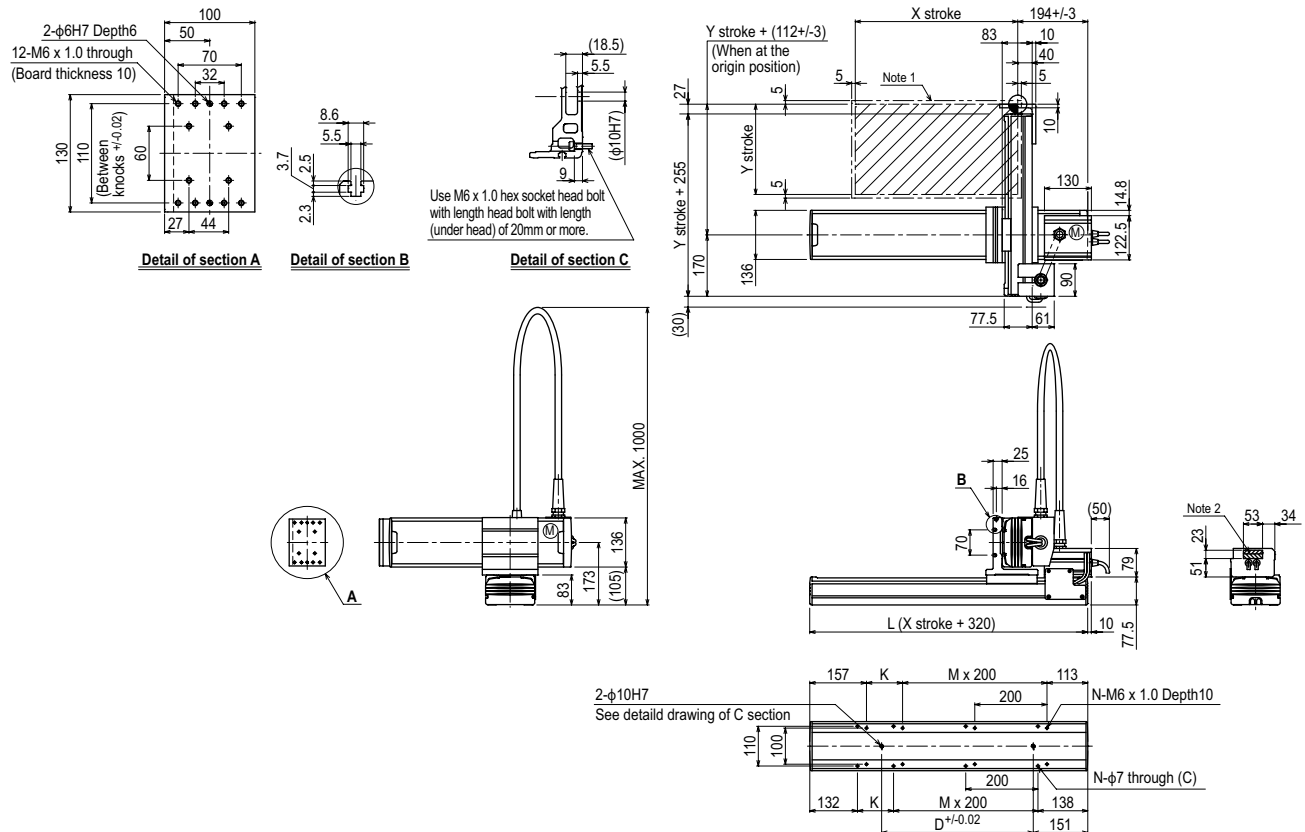
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

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

Note 3. 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 ^{Note 3}	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 ^{Note 3}	150	250	350					
Maximum speed for each stroke (mm/sec) ^{Note 4}				1200		960	780	
Speed setting				-		80%	65%	

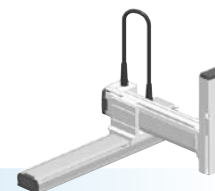
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

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 / ZF
● Moving arm type ● Whipover ● Z-axis: clamped base / moving table type (100W)


Ordering method

SXYx - S								ZF		RCX340-3						
Model	Cable	Combination M1 M3	X-axis stroke NOTE 1 15 to 85cm	Y-axis stroke NOTE 1 15 to 35cm	ZR-axis	Z-axis stroke 15 to 35cm	Cable 3L: 3.5m 5L: 5m 10L: 10m	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. RCX340 ▶ **P542**

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

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

Specification

	X-axis	Y-axis	Z-axis
Axis construction ^{Note 1}	F14H	F14	F10-BK
AC servo motor output (W)	200	100	100
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20	10
Maximum speed ^{Note 4} (mm/sec)	1200	1200	600
Moving range (mm)	150 to 850	150 to 350	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.

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.

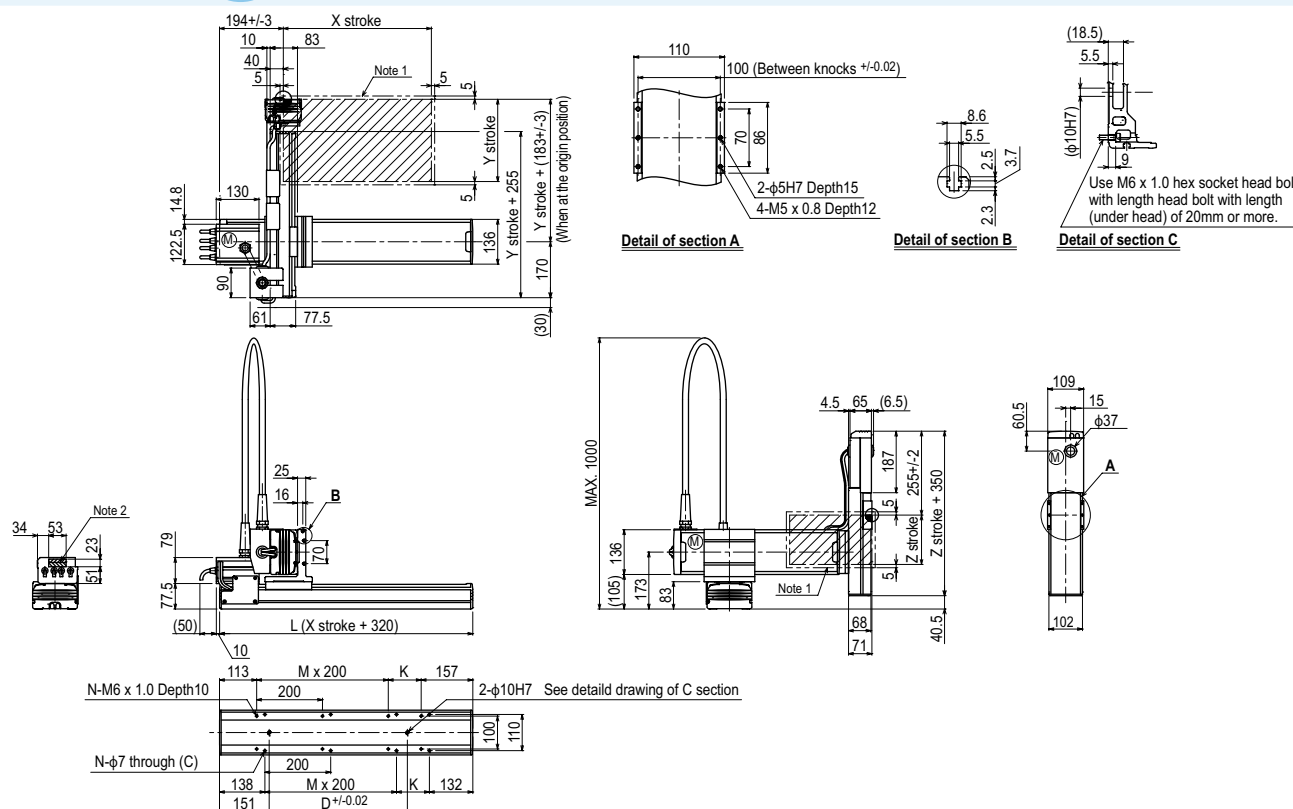
Maximum payload (kg)

	Z stroke (mm)		
Y stroke (mm)	150	250	350
150	9	8	7
250	8	7	6
350	7	6	5

Controller

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

SXYx 3 axes / ZF M1



X stroke ^{Note 3}	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	600	600	600	780	960
M	0	1	1	2	2	3	3	4
N	4	6	6	8	8	10	10	12
Y stroke ^{Note 3}	150	250	350					
Z stroke	150	250	350					
Maximum speed for each stroke (mm/sec) ^{Note 4}	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. 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.

Ordering method

SXYx - S - - - - **ZFL20** - - - **RCX340-3** - - - - - - - - -

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

M1 M3 15 to 85cm 15 to 35cm 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

RCX240S - **R** - - - - - - -

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

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

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

Specification

	X-axis	Y-axis	Z-axis
Axis construction ^{Note 1}	F14H	F14	F10-BK equivalent guide-reinforced model
AC servo motor output (W)	200	100	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20	20
Maximum speed ^{Note 4} (mm/sec)	1200	1200	1200
Moving range (mm)	150 to 850	150 to 350	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.

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.

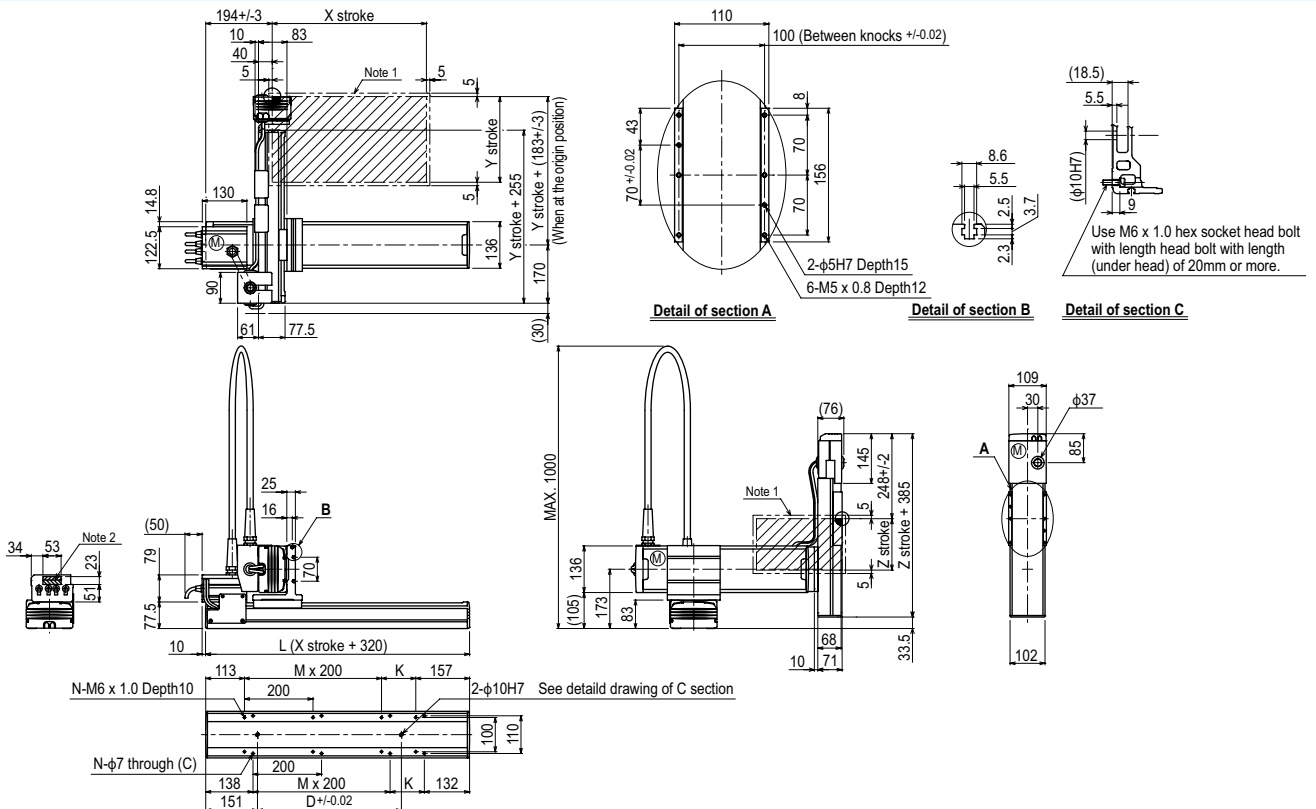
Maximum payload

	Z stroke (mm)		
Y stroke (mm)	150	250	350
150	8	8	7
250	8	7	6
350	7	6	5

Controller

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

SXYx 3 axes / ZFL20 M1



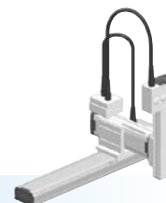
X stroke	150	250	350	450	550	650	750	850
L	470	570	670	770	870	970	1070	1170
A	200	100	200	100	200	100	200	100
D	240	240	420	420	600	600	780	960
M	0	1	1	2	2	3	3	4
N	4	6	6	8	8	10	10	12
Y stroke	150	250	350					
Z stroke	150	250	350					
Maximum speed for each stroke (mm/sec)	X-axis		1200		960		780	
Speed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



Ordering method

SXYx - S
Model
Cable
Combi-
nation
X-axis stroke^{Note 1}
Y-axis stroke^{Note 1}
ZR-axis
Z-axis stroke
Cable

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

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

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

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 ^{Note 1}	F14H	F14	—	—
AC servo motor output (W)	200	100	60	—
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.02	—
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C10)	—
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20	12	6
Maximum speed ^{Note 4} (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.

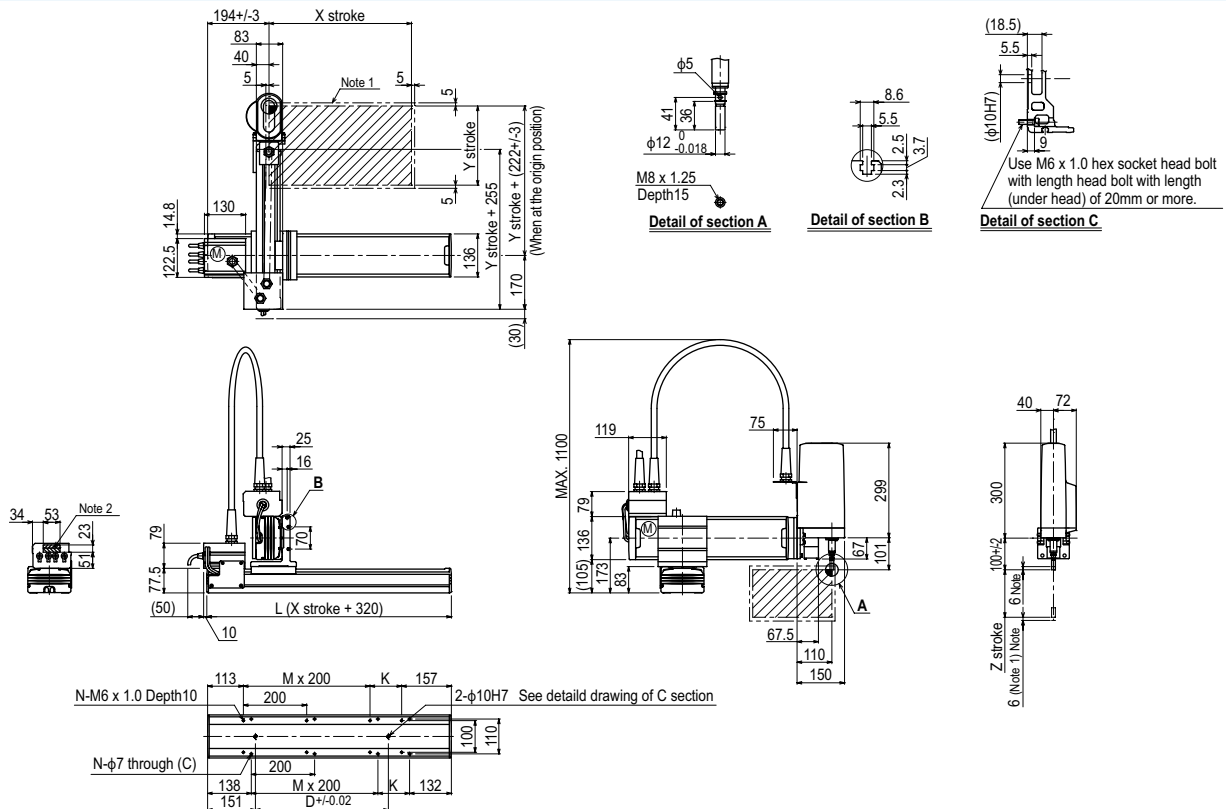
Maximum payload

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)



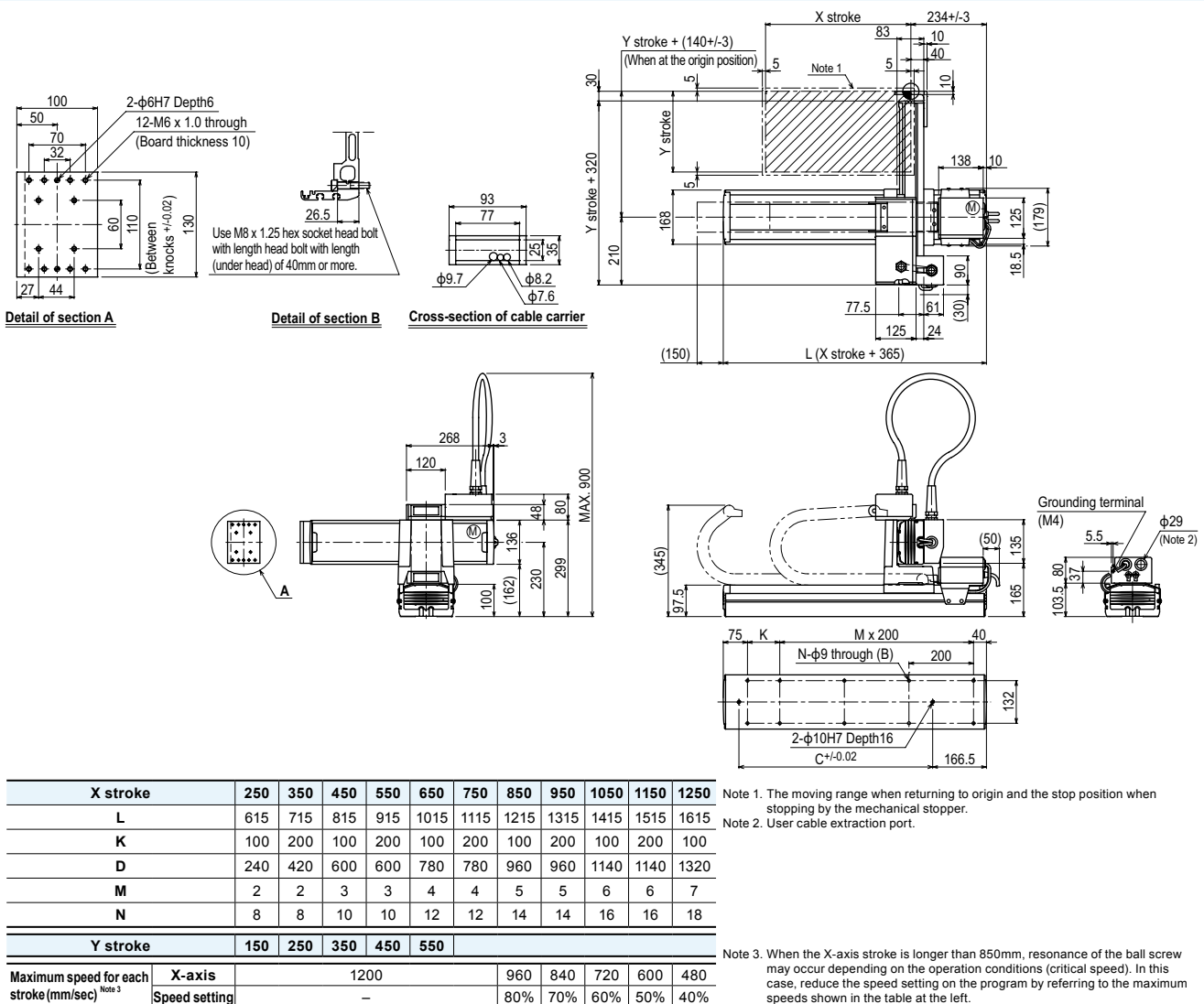
X stroke ^{Note 3}	150	250	350	450	550	650	750	850
L	470	570	670	770	870	970	1070	1170
K	200	100	200	100	200	100	200	100
D	240	240	420	420	600	600	780	960
M	0	1	1	2	2	3	3	4
N	4	6	6	8	8	10	10	12
Y stroke ^{Note 3}	150	250	350					
Z stroke	150							
Maximum speed for each stroke (mm/sec) ^{Note 4}	X-axis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

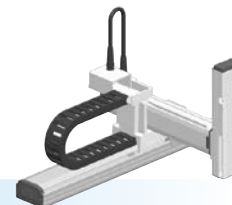
Note 2. The shaded position indicates an user cable extraction port.

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.

MXYx 2 axes **M3**


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



Ordering method

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
MXYx - C		M1	25 to 125cm	15 to 55cm	ZFL20	15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX340-3							
		M3			ZFL10			RCX240		R					
									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: ZFL20	Z-axis: ZFL10
Axis construction ^{Note 1}	F17	F14H	F10-BK equivalent guide-reinforced model	
AC servo motor output (W)	400	200	200	
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01	
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)	
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20	20	10
Maximum speed ^{Note 4} (mm/sec)	1200	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 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.

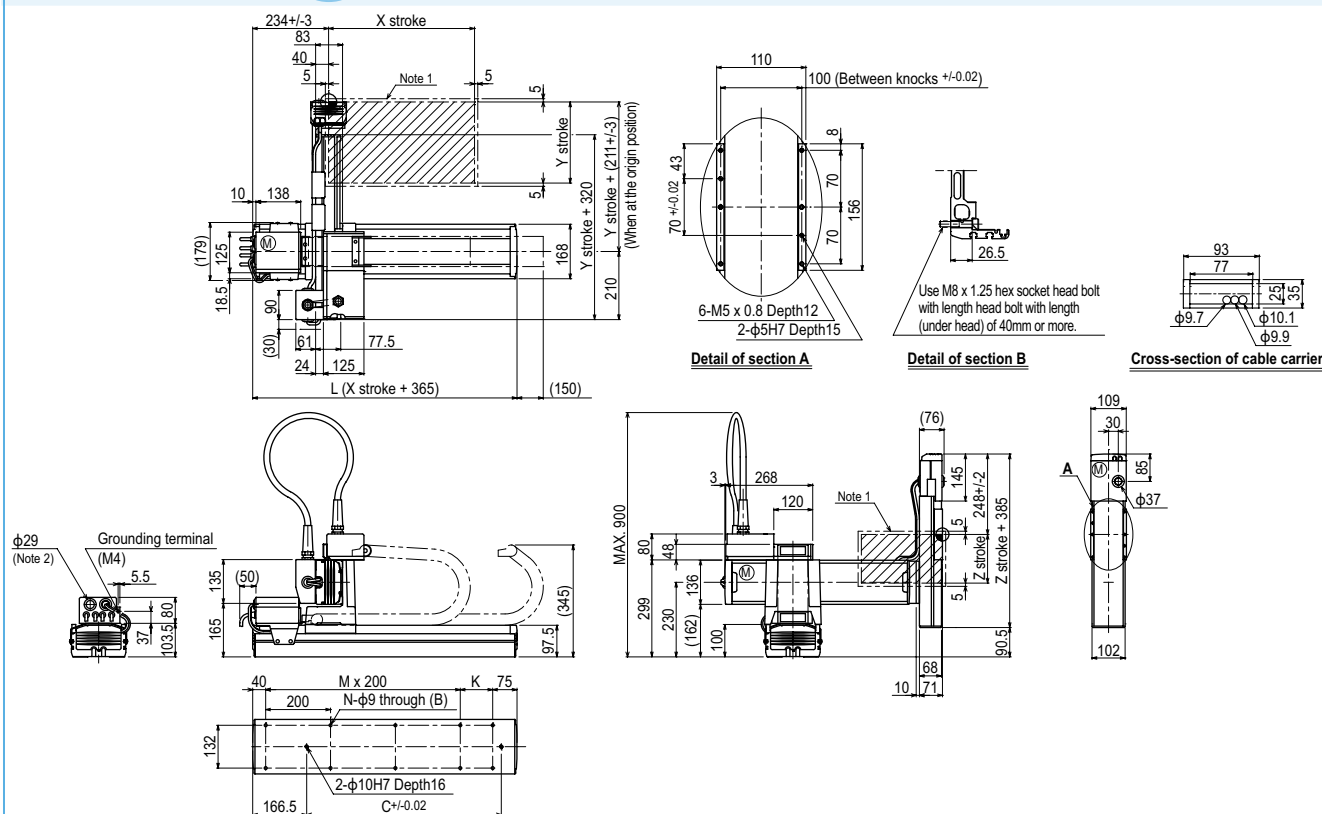
Maximum payload (kg)

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

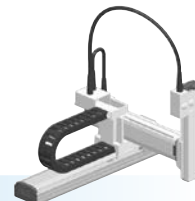


X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
L	615	715	815	915	1015	1115	1215	1315	1415	1515	1615
K	100	200	100	200	100	200	100	200	100	200	100
C	240	420	600	600	780	780	960	960	1140	1140	1320
M	2	2	3	3	4	4	5	5	6	6	7
N	8	8	10	10	12	12	14	14	16	16	18
Y stroke	150	250	350	450	550						
Z stroke	150	250	350								
Maximum speed for each stroke (mm/sec) Note 3	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.



Ordering method

MXy - **C** - **Combination** - **X-axis stroke** - **Y-axis stroke** - **ZFH** - **ZR-axis** - **Z-axis stroke** - **Cable**

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

MI - **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 ▶ 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
Axis construction ^{Note 1}	F17	F14H	F10-BK equivalent guide-reinforced model
AC servo motor output (W)	400	200	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20	10
Maximum speed ^{Note 4} (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.

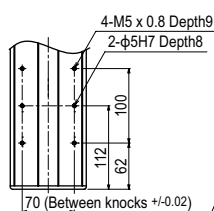
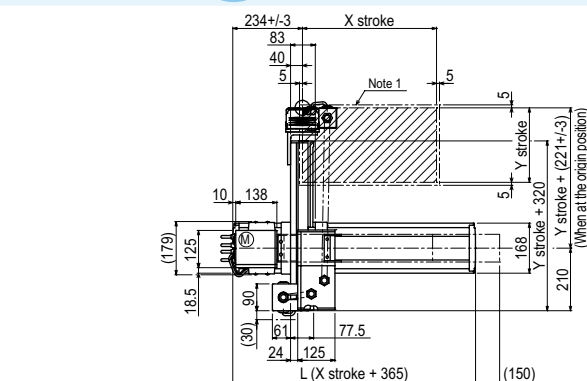
■ **Maximum payload** (kg)

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

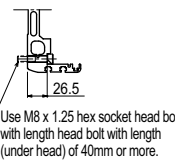
Controller

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

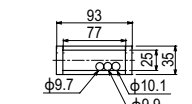
MX_Yx 3 axes / ZFH **M1**



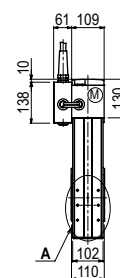
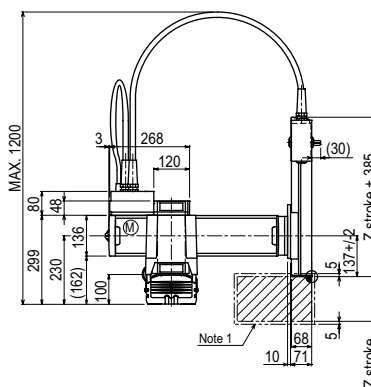
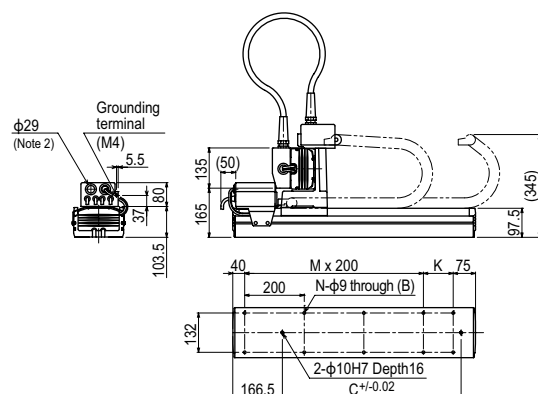
Detail of section A



Detail of section B



Cross-section of cable carrier



X stroke ^{Note 3}	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 ^{Note 3}	150	250	350	450	550						
Z stroke	150	250	350								
Maximum speed for each stroke (mm/sec) ^{Note 4}	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 at the left.

HXYx 2 axes

● Moving arm type ● Cable carrier

Ordering method

HXYx - 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
	M1 M3		25 to 125cm	25 to 65cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222HP	No entry: Standard E: CE marking	R: RG2	N: NPN ^{Note 1} P: PNP CC: CC-Link DN: DeviceNet TM PB: PROFIBUS EN: Ethernet ^{Note 2} YC: YC-Link ^{Note 2}	No entry: None N1: OPDIO24/16 (NPN) ^{Note 1} P1: OPDIO24/17 (PNP) EN: Ethernet ^{Note 3}

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
Axis construction ^{Note 1}	F20	F17
AC servo motor output (W)	600	400
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20
Maximum speed ^{Note 4} (mm/sec)	1200	1200
Moving range (mm)	250 to 1250	250 to 650
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 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.

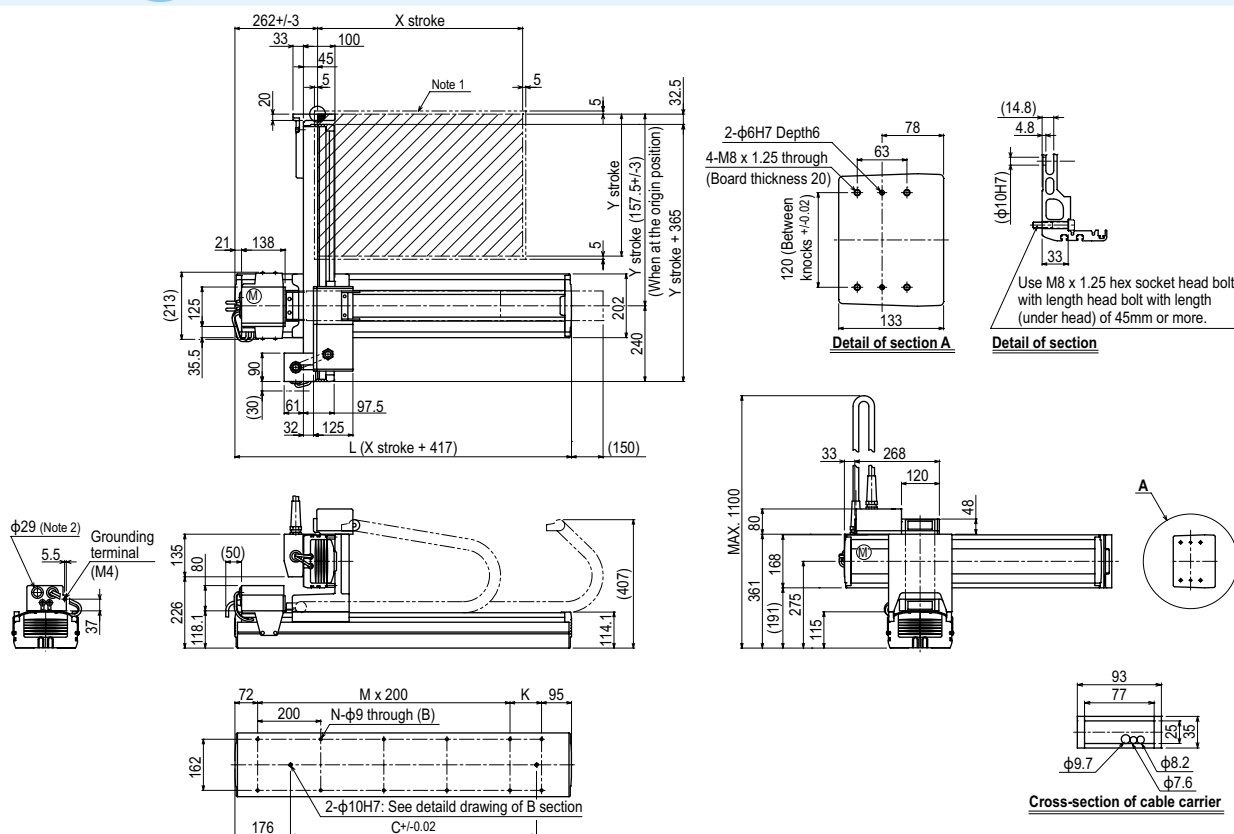
Maximum payload (kg)

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



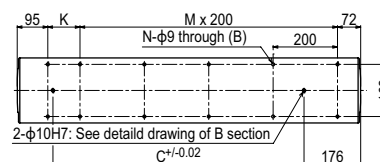
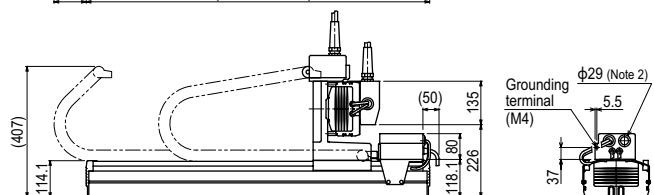
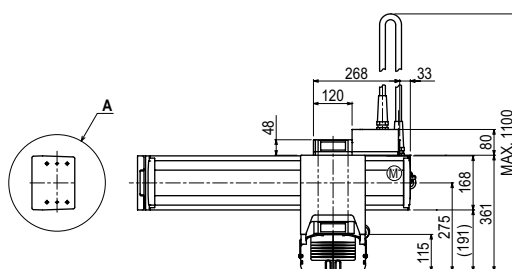
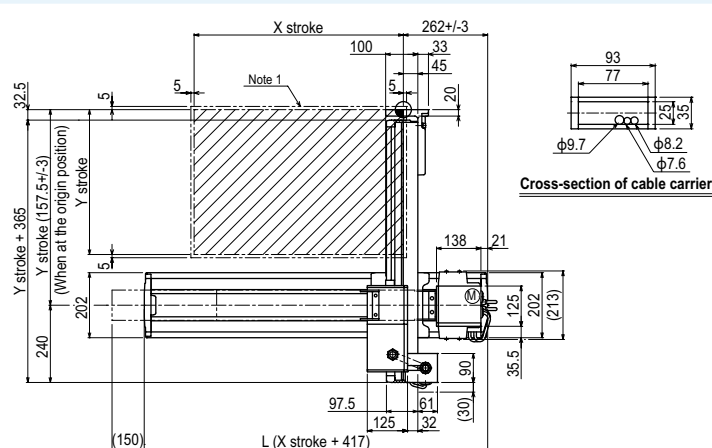
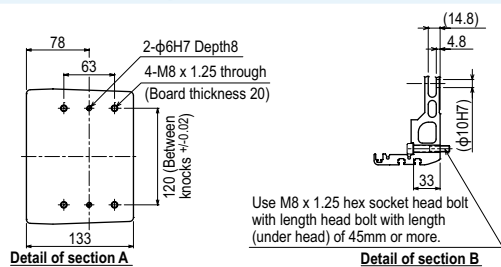
X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
L	667	767	867	967	1067	1167	1267	1367	1467	1567	1667
K	100	200	100	200	100	200	100	200	100	200	100
C	420	420	600	600	780	780	960	960	1140	1320	1320
M	2	2	3	3	4	4	5	5	6	6	7
N	8	8	10	10	12	12	14	14	16	16	18
Y stroke	250	350	450	550	650						
Maximum speed for each stroke (mm/sec) ^{Note 3}	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 2 axes M3



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) ^{Note 3}	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
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SXYx

2 axes

● Pole type ● Whipover

Ordering method

SXYx - S - P1				RCX222			
Model	Cable	Combination	X-axis stroke ^{Note 1}	Y-axis stroke ^{Note 1}	Cable	Controller	Usable for CE
			15 to 85cm	15 to 55cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking

Input/Output selection 1	Input/Output selection 2
N: NPN ^{Note 2} P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link ^{Note 3}	No entry: None N1: OPDIO24/16 (NPN) ^{Note 2} P1: OPDIO24/17 (PNP) EN: Ethernet ^{Note 4}

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 ^{Note 1}	F14H	F14-BK
AC servo motor output (W)	200	100
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	10
Maximum speed ^{Note 4} (mm/sec)	1200	600
Moving range (mm)	150 to 850	150 to 550
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.

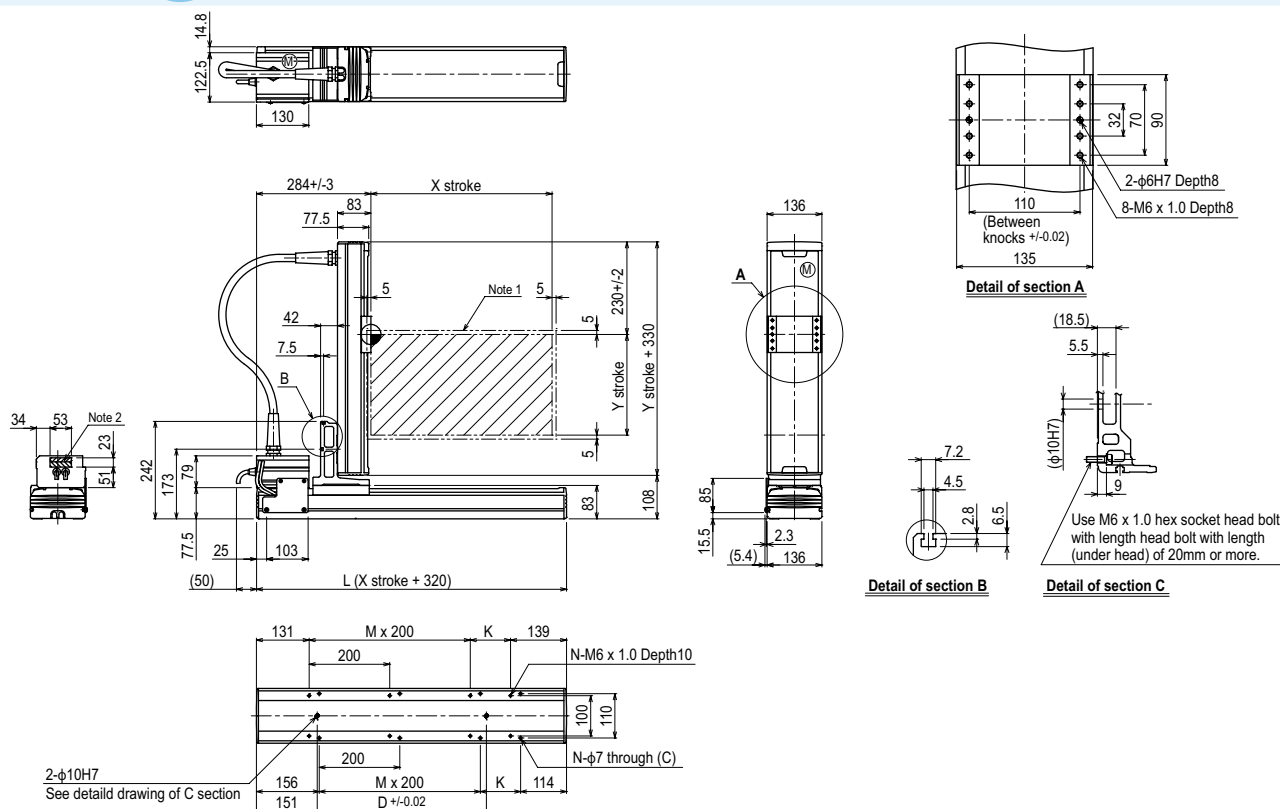
Maximum payload (kg)

Y stroke (mm)	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



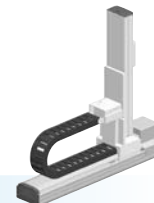
X stroke ^{Note 3}	150	250	350	450	550	650	750	850
L	470	570	670	770	870	970	1070	1170
K	200	100	200	100	200	100	200	100
D	240	240	420	420	600	600	780	780
M	0	1	1	2	2	3	3	4
N	4	6	6	8	8	10	10	12
Y stroke ^{Note 3}	150	250	350	450	550			
Maximum speed for each stroke (mm/sec) ^{Note 4}	1200					960	780	
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 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.



Ordering method

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

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
Axis construction ^{Note 1}	F17	F14H-BK
AC servo motor output (W)	400	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	10
Maximum speed ^{Note 4} (mm/sec)	1200	600
Moving range (mm)	250 to 1250	150 to 650
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.

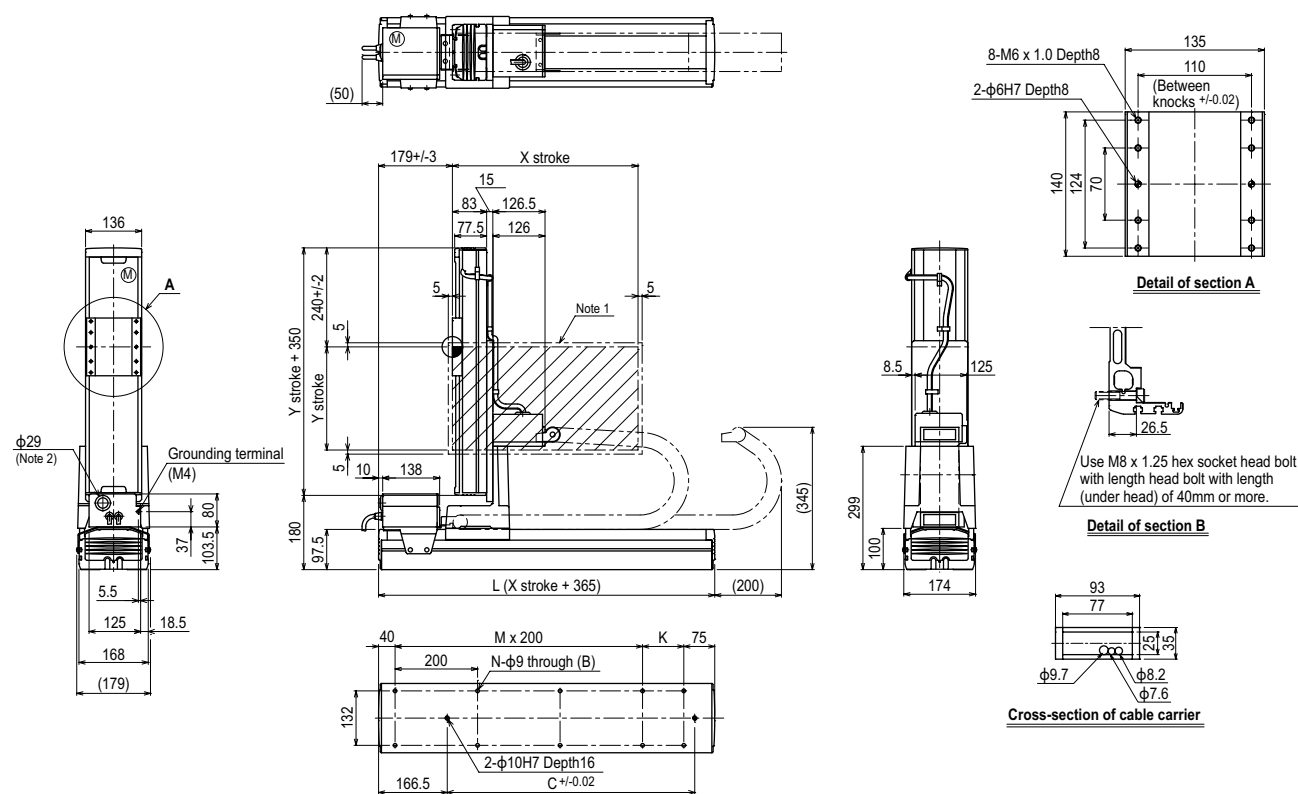
Maximum payload (kg)

Y stroke (mm)	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
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					
Maximum speed for each stroke (mm/sec) ^{Note 3}	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.

MXYx 2 axes

● Pole type ● Whipover

Ordering method

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

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 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	F17	F14H-BK
AC servo motor output (W)	400	200
Repeatability	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead (Deceleration ratio) (mm)	20	10
Maximum speed (mm/sec)	1200	600
Moving range (mm)	250 to 950	150 to 650
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 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.

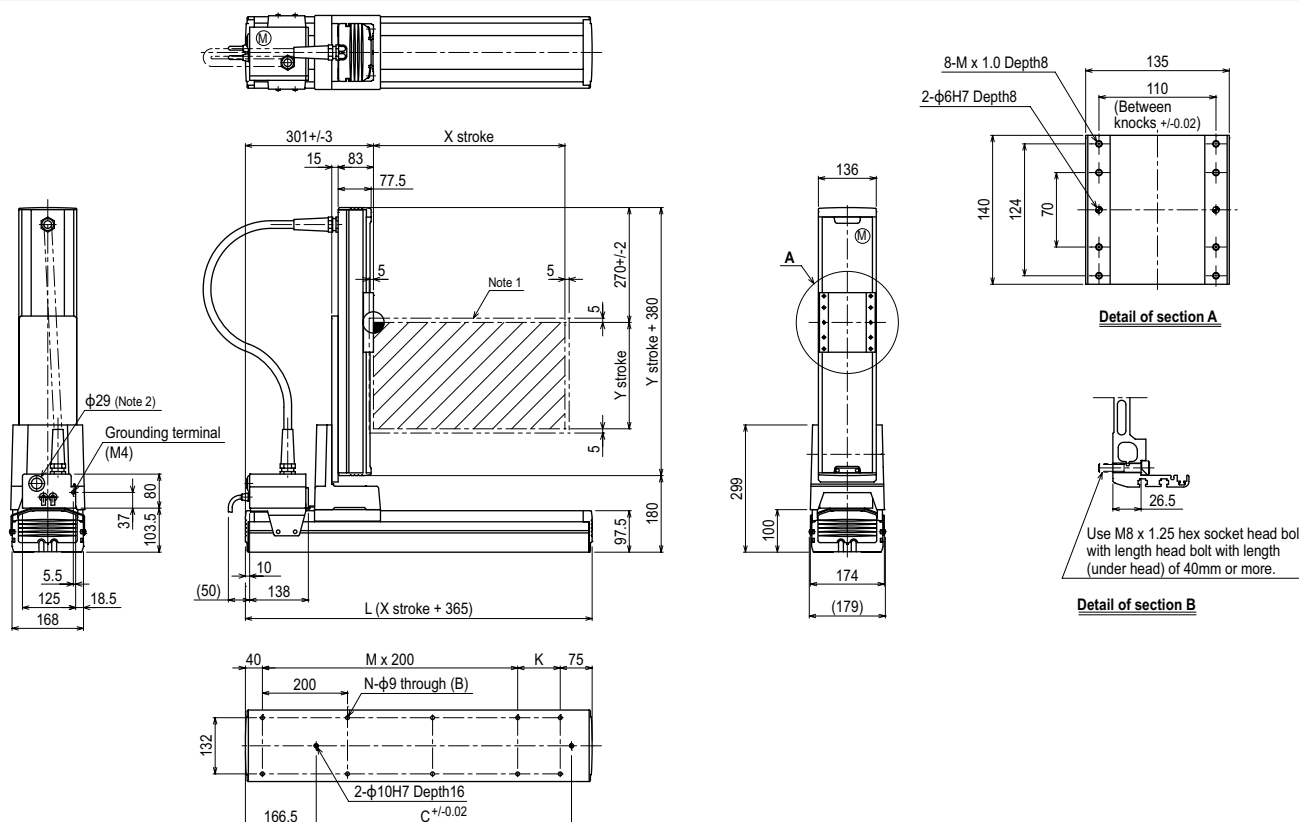
Maximum payload (kg)

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



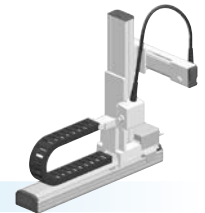
X stroke	250	350	450	550	650	750	850	950
L	615	715	815	915	1015	1115	1215	1315
K	100	200	100	200	100	200	100	200
C	240	420	600	600	780	780	960	960
M	2	2	3	3	4	4	5	5
N	8	8	10	10	12	12	14	14
Y stroke	150	250	350	450	550	650		
Maximum speed for each stroke (mm/sec)	1200		960		840			
Speed setting	-		80%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



Ordering method

MXYx - C - P2

Model	Cable	Combination	X-axis stroke 25 to 125cm	Y-axis stroke 15 to 65cm	ZR-axis ZPMHL ZPMHR	Z-axis stroke 15 to 35cm	Cable 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 ▶ **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
Axis construction ^{Note 1}	F17	F14H-BK	F10-BK equivalent guide-reinforced model
AC servo motor output (W)	400	200	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	10	20
Maximum speed ^{Note 4} (mm/sec)	1200	600	1200
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 ZPMH with higher rigidity as compared with ZPM types which are conventional standard types. When you need the ZPM type, please consult YAMAHIA.

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.

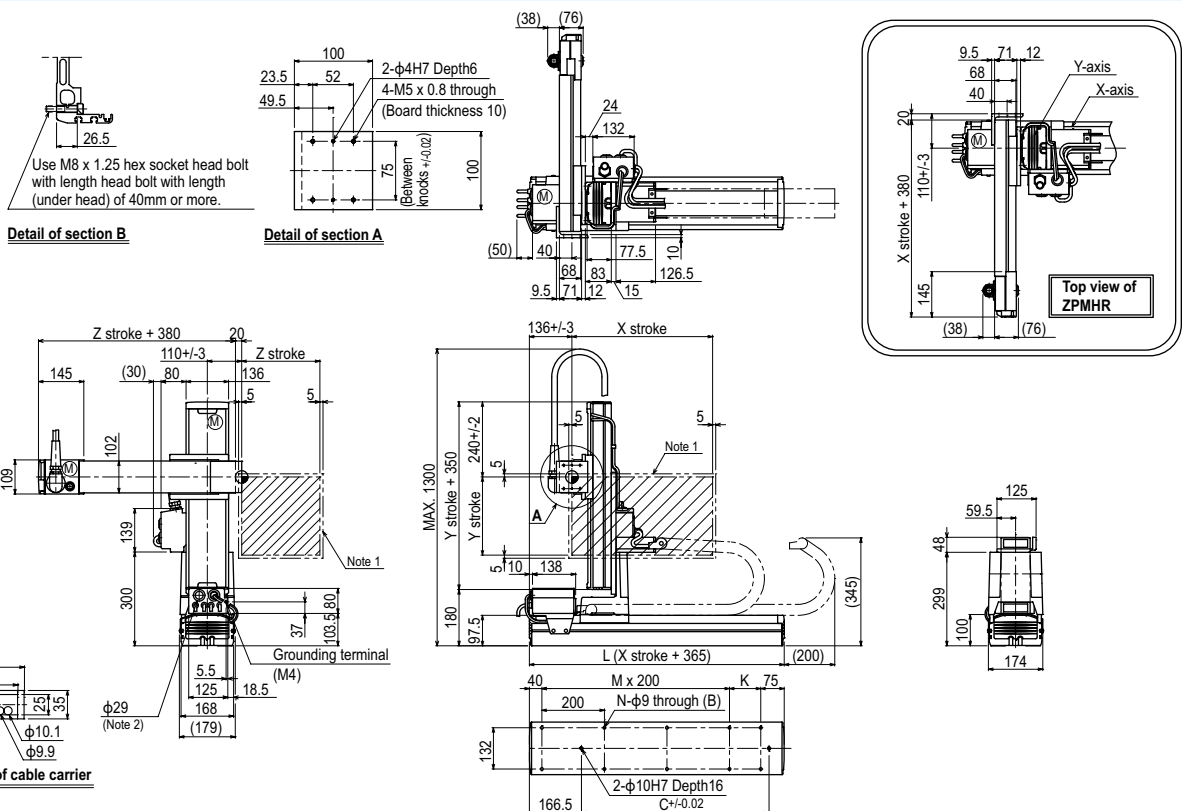
Maximum payload (kg)

	Z stroke (mm)		
Y stroke (mm)	150	250	350
150 to 650	10	9	8

Controller

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

MXYx 3 axes / ZPMHL (P2)



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) Note 1	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.

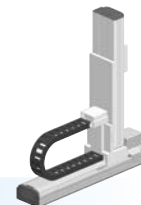
Note 2. User cable extraction port.

Note 3. This figure shows the combination for ZPMHL. For the combination for ZPMHR, see the top view in the figure.

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 ^{Note 1} P: PNP CC: CC-Link DN: DeviceNet TM PB: PROFIBUS EN: Ethernet ^{Note 2} YC: YC-Link ^{Note 2}	No entry: None Nt: OPDIO24/16 (NPN) ^{Note 1} Pt: OPDIO24/17 (PNP) EN: Ethernet ^{Note 3}	

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
Axis construction ^{Note 1}	F20	F20-BK
AC servo motor output (W)	600	600
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	10
Maximum speed ^{Note 4} (mm/sec)	1200	600
Moving range (mm)	250 to 1250	250 to 1050
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/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.

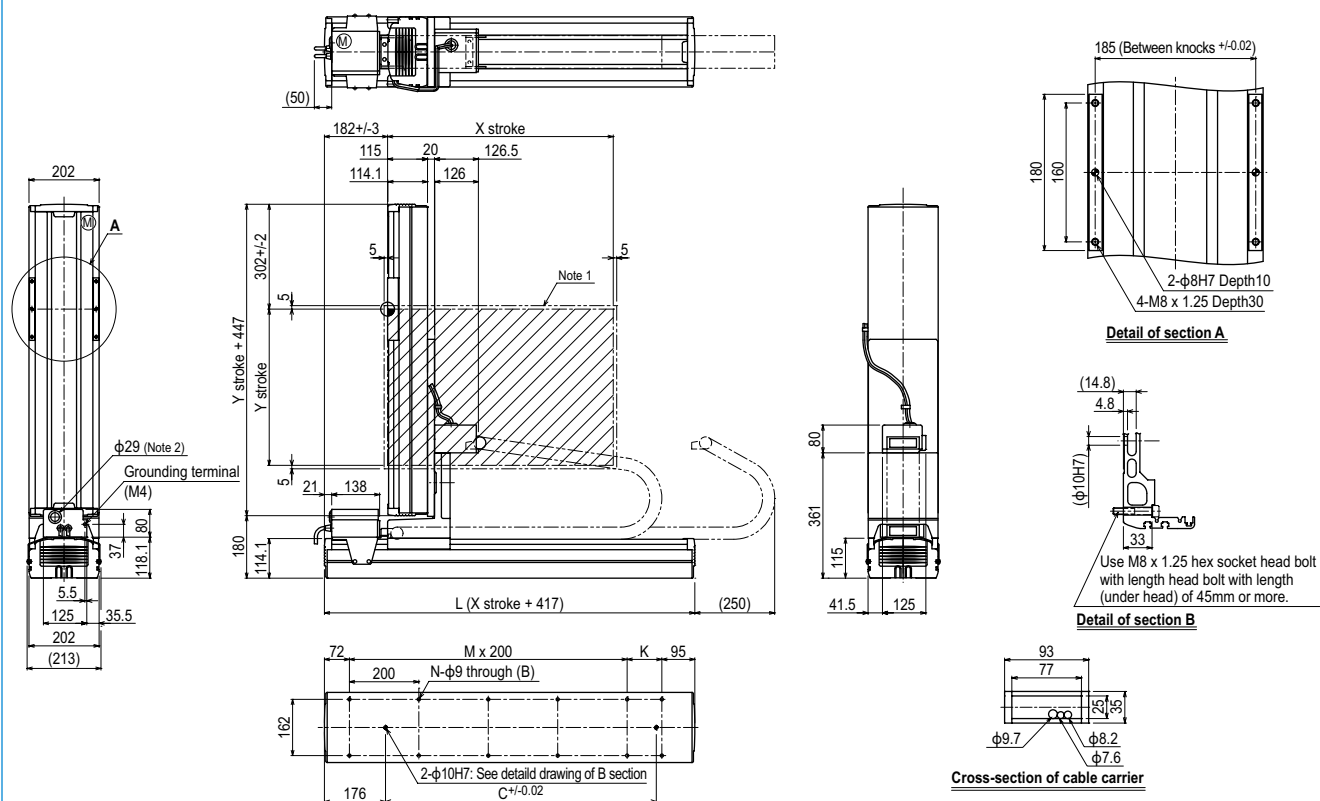
Maximum payload (kg)

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
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	708	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	750	850	950	1050		
Maximum speed for each stroke (mm/sec) ^{Note 3}	X-axis	1200					960	840	720	600	480
	Y-axis	600					480	420	360		
	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/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

HXYx	S	P1				RCX222HP		R		
Model	Cable	Combination	X-axis stroke ^{Note 1}	Y-axis stroke ^{Note 1}	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 ^{Note 2} P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet ^{Note 3} YC: YC-Link ^{Note 3}	No entry: None Nt: OPDIO24/16 (NPN) ^{Note 2} Pt: OPDIO24/17 (PNP) EN: Ethernet ^{Note 4}

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 ^{Note 1}	F20	F20-BK
AC servo motor output (W)	600	600
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	10
Maximum speed ^{Note 4} (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.

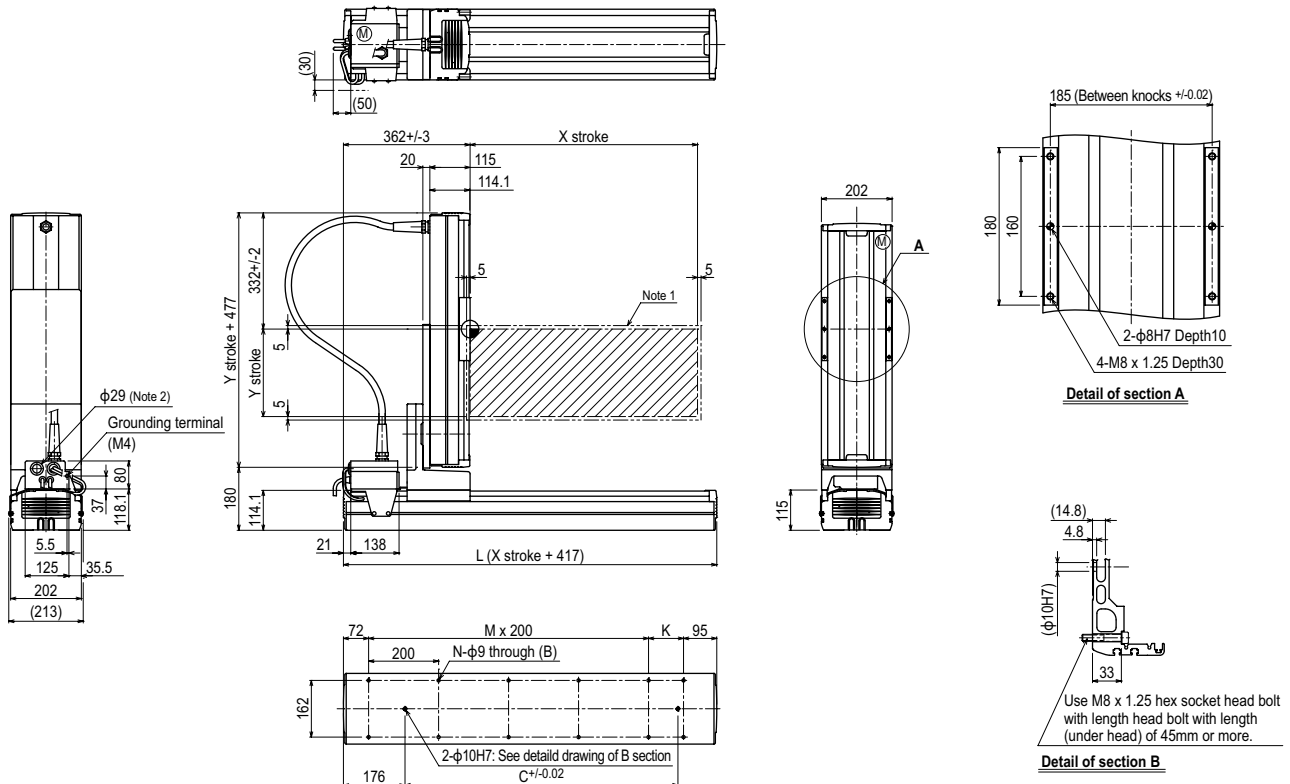
Maximum payload (kg)

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 ^{Note 3}	250	350	450	550	650	750	850
L	667	767	867	967	1067	1167	1267
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 ^{Note 3}	250	350	450	550	650	750	850
Maximum speed for each stroke (mm/sec) ^{Note 4}	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.

Controller

RCX222 ▶ 524

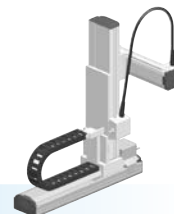
HXYx

3 axes / ZPH

● Pole type

● Cable carrier

● Z-axis: Clamped table / moving base type (200W) for Pole type

**Ordering method****HXYx - C - P2**

Model	Cable	Combination	X-axis stroke ^{Note 1}	Y-axis stroke ^{Note 1}	ZR-axis	Z-axis stroke	Cable
			25 to 125cm	25 to 95cm	ZPHL ZPHR	25 to 65cm	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**

Note 1. The total of the Y and Z strokes should be 1200mm or less.

Specification

	X-axis	Y-axis	Z-axis
Axis construction ^{Note 1}	F20	F20-BK	F14H
AC servo motor output (W)	600	600	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	10	20
Maximum speed ^{Note 4} (mm/sec)	1200	600	1200
Moving range (mm)	250 to 1250	250 to 950	250 to 650
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/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.

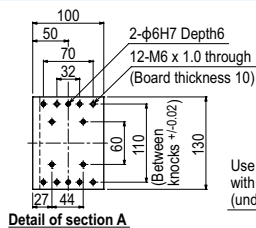
Maximum payload

(kg)

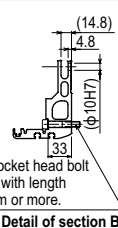
Y stroke (mm)	Z stroke (mm)
250 to 950	250 to 650
	15

Controller

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

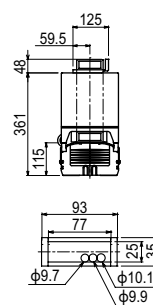
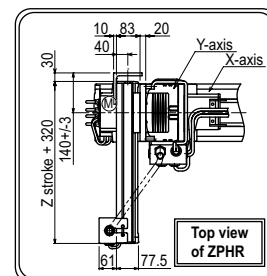
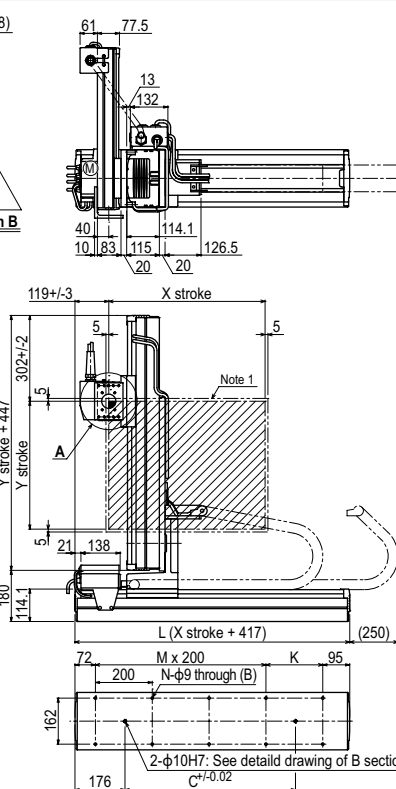
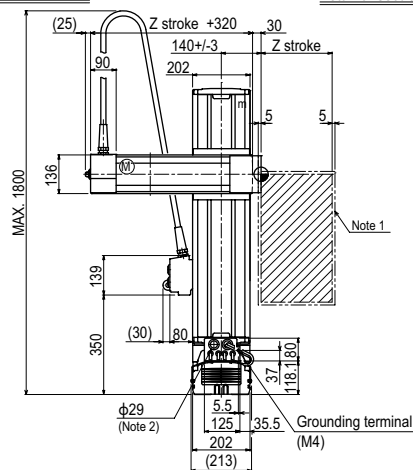
HXYx 3 axes / ZPHL (P2)

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.



X stroke ^{Note 4}	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 ^{Note 4}	250	350	450	550	650	750	850	950			
Z stroke	250	350	450	550	650						
Maximum speed for each stroke (mm/sec) ^{Note 5}	X-axis	1200					960	840	720	600	480
	Y-axis	600					480	420			
	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. This figure shows the combination for ZPHL. For the combination for ZPHR, see the top view in the figure.

Note 4. The total of the Y and Z strokes should be 1200mm or less.

Note 5. 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.



Ordering method

HXYx-S-P1

Model	Cable	Combination	X-axis stroke ^{※1}	Y-axis stroke ^{※1}	ZR-axis	Z-axis stroke	Cable
			25 to 85cm	25 to 85cm	ZPHL ZPHR	25 to 65cm	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 ▶ **P.542**

RCX240

Controller – **CE Marking** – **Regenerativne unit** – **Expansion I/O** – **Network option** – **iVY System** – **Gripper** – **Batter**

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

Note 1. The total of the X and Y strokes should be 1100mm or less and that of the Y and Z strokes should be 1200mm or less.

■ Specification

	X-axis	Y-axis	Z-axis
Axis construction ^{Note 1}	F20	F20-BK	F14H
AC servo motor output (W)	600	600	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	10	20
Maximum speed ^{Note 4} (mm/sec)	1200	600	1200
Moving range (mm)	250 to 850	250 to 850	250 to 650
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.

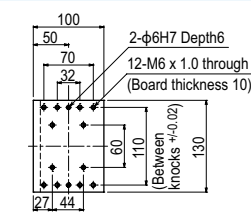
Note 4. When the X-axis/Y-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

■ **Maximum payload**

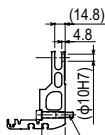
	Z stroke (mm)
Y stroke (mm)	250 to 650
250 to 850	15

Controller

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

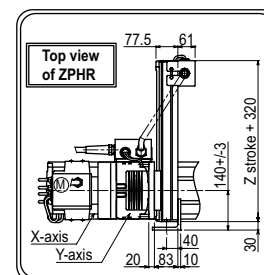
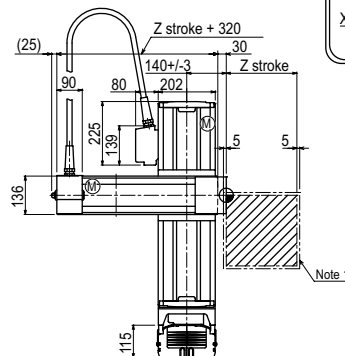
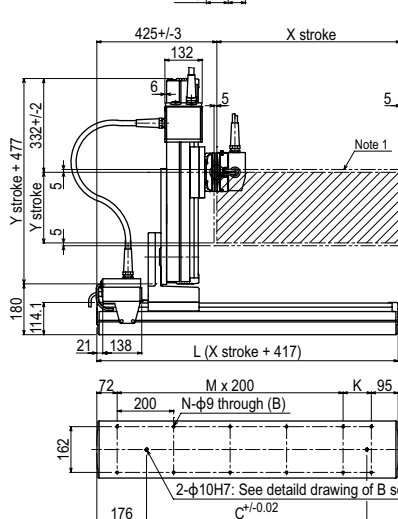
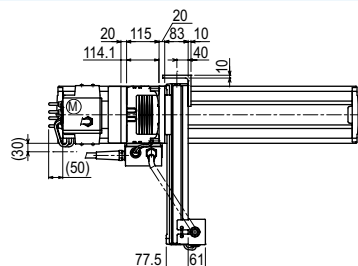
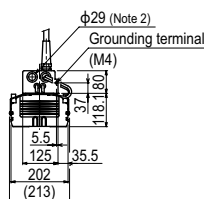
HXYx 3 axes / ZPHL **P1**

Detail of section A



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

Detail of section B



X stroke ^{Note 4}		250	350	450	550	650	750	850
	L	667	767	867	967	1067	1167	1267
	K	100	200	100	200	100	200	100
	D	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 ^{Note 4}		250	350	450	550	650	750	850
Z stroke		250	350	450	550	650		
Maximum speed for each stroke (mm/sec) ^{Note 5}	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. This figure shows the combination for ZPHL. For the combination for ZPHR, see the top view in the figure.

Note 4. The total of the X and Y strokes should be 1100mm or less and that of the Y and Z strokes should be 1200mm or less.

Note 5. 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

Model	Cable	Combination	X-axis stroke	ZR-axis	Z-axis stroke	Cable	Controller	Usable for CE	Input/Output selection 1	Input/Output selection 2
SXYx - C							RCX222	No entry: Standard E: CE marking	N: NPN ^{Note 1} P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet ^{Note 2} YC: YC-Link ^{Note 2}	No entry: None Nt: OP.DIO24/16 (NPN) ^{Note 1} Pt: OP.DIO24/17 (PNP) EN: Ethernet ^{Note 3}
	F1		15 to 105cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m				
	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
Axis construction ^{Note 1}	F14	F10-BK
AC servo motor output (W)	100	100
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	10
Maximum speed ^{Note 4} (mm/sec)	1200	600
Moving range (mm)	150 to 1050	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.

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.

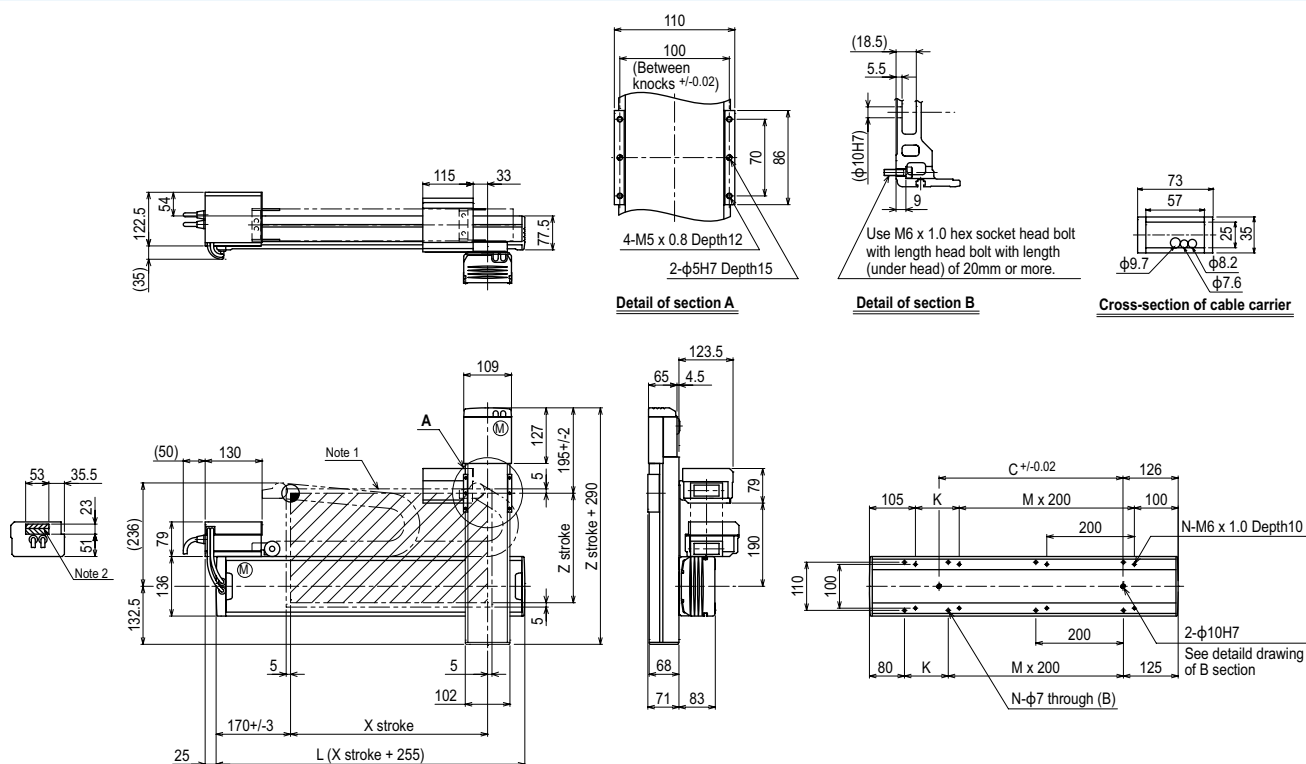
Maximum payload (kg)

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)

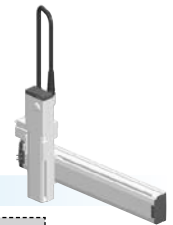


X stroke	150	250	350	450	550	650	750	850	950	1050
L	405	505	605	705	805	905	1005	1105	1205	1305
K	200	100	200	100	200	100	200	100	200	100
C	240	240	420	420	600	600	780	780	960	960
M	0	1	1	2	2	3	3	4	4	5
N	4	6	6	8	8	10	10	12	12	14
Z stroke	150	250	350							
Maximum speed for each stroke (mm/sec) ^{Note 3}	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 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.



Ordering method

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

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 ^{Note 1}	F14	F10-BK
AC servo motor output (W)	100	100
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	10
Maximum speed ^{Note 4} (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 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.

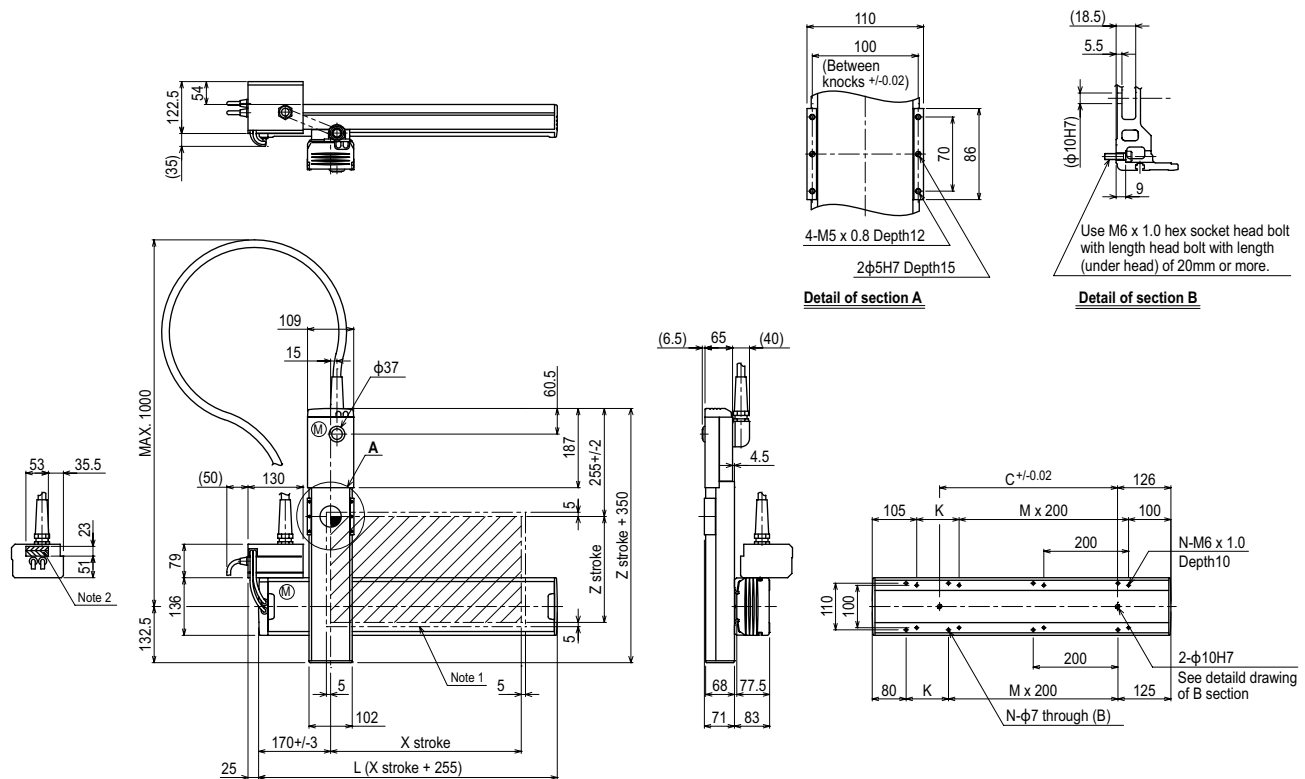
Maximum payload (kg)

X stroke (mm)	Z stroke (mm)
150 to 850	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) ^{Note 3}	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.

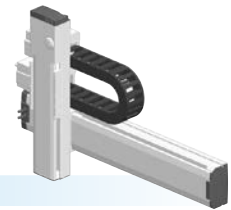
Note 2. The shaded position indicates an user cable extraction port.

Note 3. 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 / ZFL20

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



Ordering method

SXYx - C				ZFL20			RCX222			R		
Model	Cable	Combination	X-axis stroke	ZR-axis	Z-axis stroke	Cable	Controller	Usable for CE	Regenerative unit ^{Note 1}	Input/Output selection 1	Input/Output selection 2	
		F1	15 to 105cm		15 to 35cm	3L: 3.5m	RCX222	No entry: Standard	R: RG2	N: NPN ^{Note 2}	No entry: None	
		F3				5L: 5m		E: CE marking		P: PNP	Nt: OPDIO24/16 (NPN) ^{Note 2}	
						10L: 10m				CC: CC-Link	Pt: OPDIO24/17 (PNP)	
										DN: DeviceNet™	EN: Ethernet ^{Note 4}	
										PB: PROFIBUS		
										EN: Ethernet		
										YC: YC-Link ^{Note 3}		

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 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
Axis construction	F14	F10-BK equivalent guide-reinforced model
AC servo motor output (W)	100	200
Repeatability (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead (Deceleration ratio) (mm)	20	20
Maximum speed (mm/sec)	1200	1200
Moving range (mm)	150 to 1050	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.
 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.

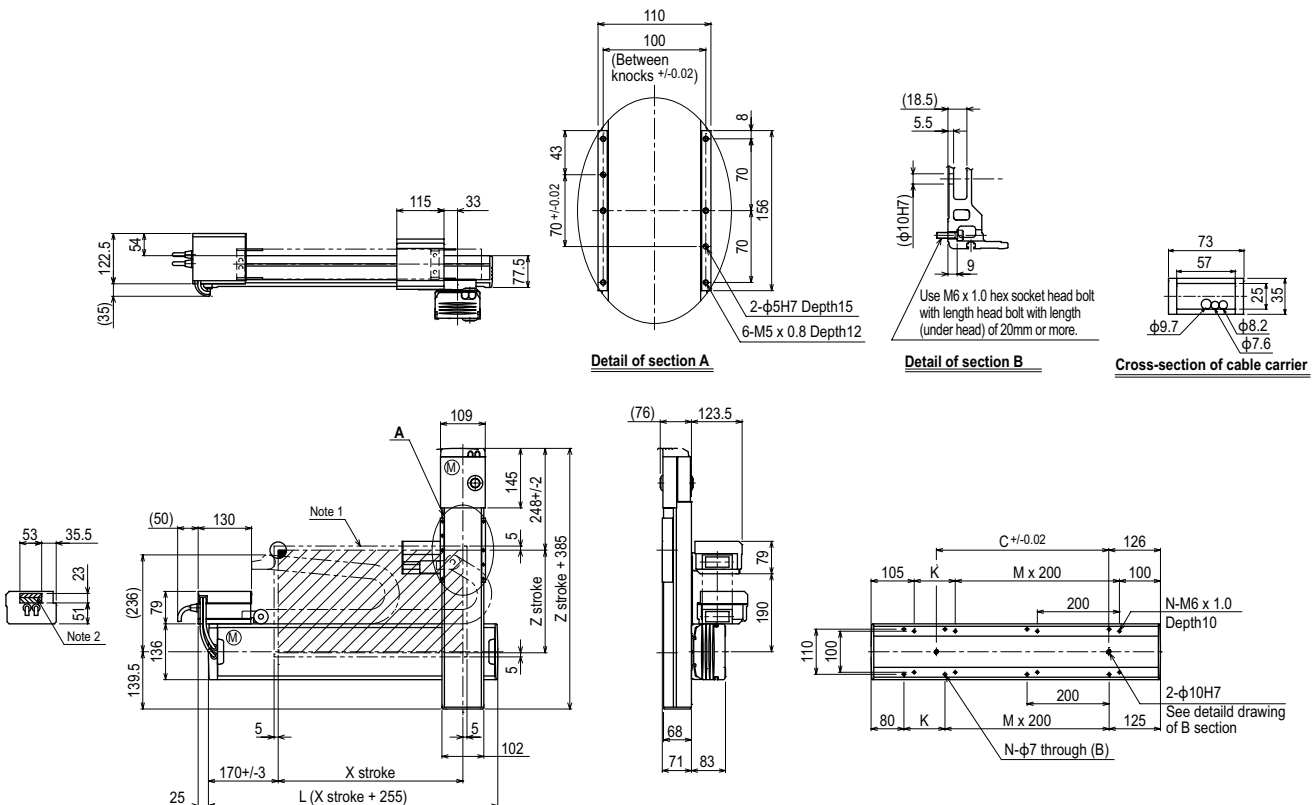
Maximum payload (kg)

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

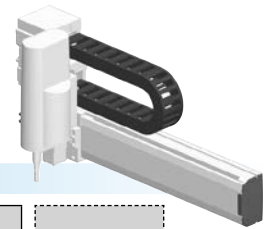
SXYx 2 axes / ZFL20 (F1)



X stroke	150	250	350	450	550	650	750	850	950	1050
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	250	350							
Maximum speed for each stroke (mm/sec)	1200									
Speed setting	-									

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.



Ordering method

SXYx - C				15		RCX222			
Model	Cable	Combination	X-axis stroke	ZR-axis	Z-axis stroke	Cable	Controller	Usable for CE	Input/Output selection 1
		F1	15 to 105cm	ZS12		3L: 3.5m	RCX222	No entry: Standard	N: NPN
		F3		ZS6		5L: 5m		E: CE marking	P: PNP
						10L: 10m			CC: CC-Link
									DN: DeviceNet™
									PB: PROFIBUS
									EN: Ethernet
									YC: YC-Link

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.

Input/Output selection 2
No entry: None
Nt: OP.DIO24/16 (NPN)
Pt: OP.DIO24/17 (PNP)
EN: Ethernet
YC: YC-Link

Specification

	X-axis	Z-axis: ZS12	Z-axis: ZS6
Axis construction ^{Note 1}	F14	—	
AC servo motor output (W)	100	60	
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.02	
Drive system	Ball screw (Class C7)	Ball screw (Class C10)	
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	12	6
Maximum speed ^{Note 4} (mm/sec)	During RCX240 use	1000	500
	During DRCX use	900	450
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.

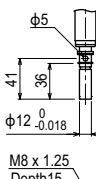
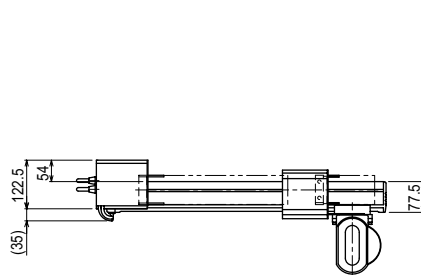
Maximum payload

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

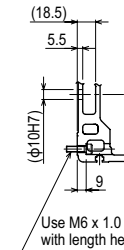
Controller

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

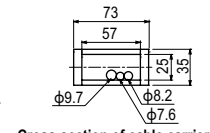
SXYx 2 axes / ZS (F1)



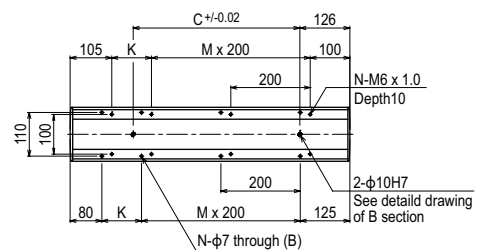
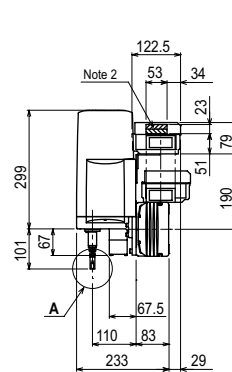
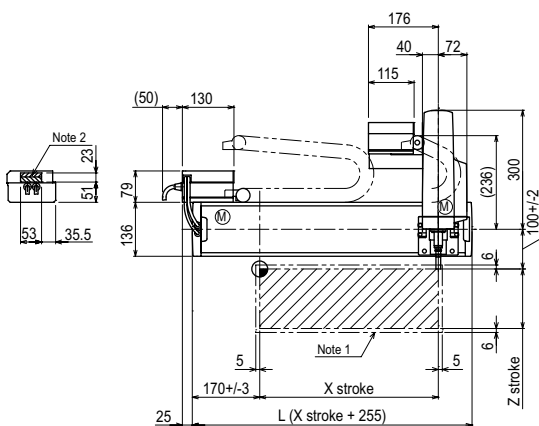
Detail of section A



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									
Speed setting	-									

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.

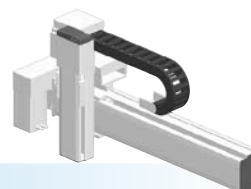
SXYBx

2 axes / ZF

● XZ type

● Cable carrier

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



Ordering method

SXYBx - C				ZF				RCX222				
Model	Cable	Combination	X-axis stroke	ZR-axis	Z-axis stroke	Cable	Controller	Usable for CE	Regenerative unit ^{Note 1}	Input/Output selection 1	Input/Output selection 2	
	F1 F3		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 ^{Note 2} P: PNP CC: CC-Link	No entry: None Nt: OPDIO24/16 (NPN) ^{Note 2}	

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
Axis construction ^{Note 1}	B14H	F10-BK
AC servo motor output (W)	200	100
Repeatability ^{Note 2} (mm)	+/-0.04	+/-0.01
Drive system	Timing belt	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	Equivalent to lead 25	10
Maximum speed (mm/sec)	1875	600
Moving range (mm)	150 to 3050	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)

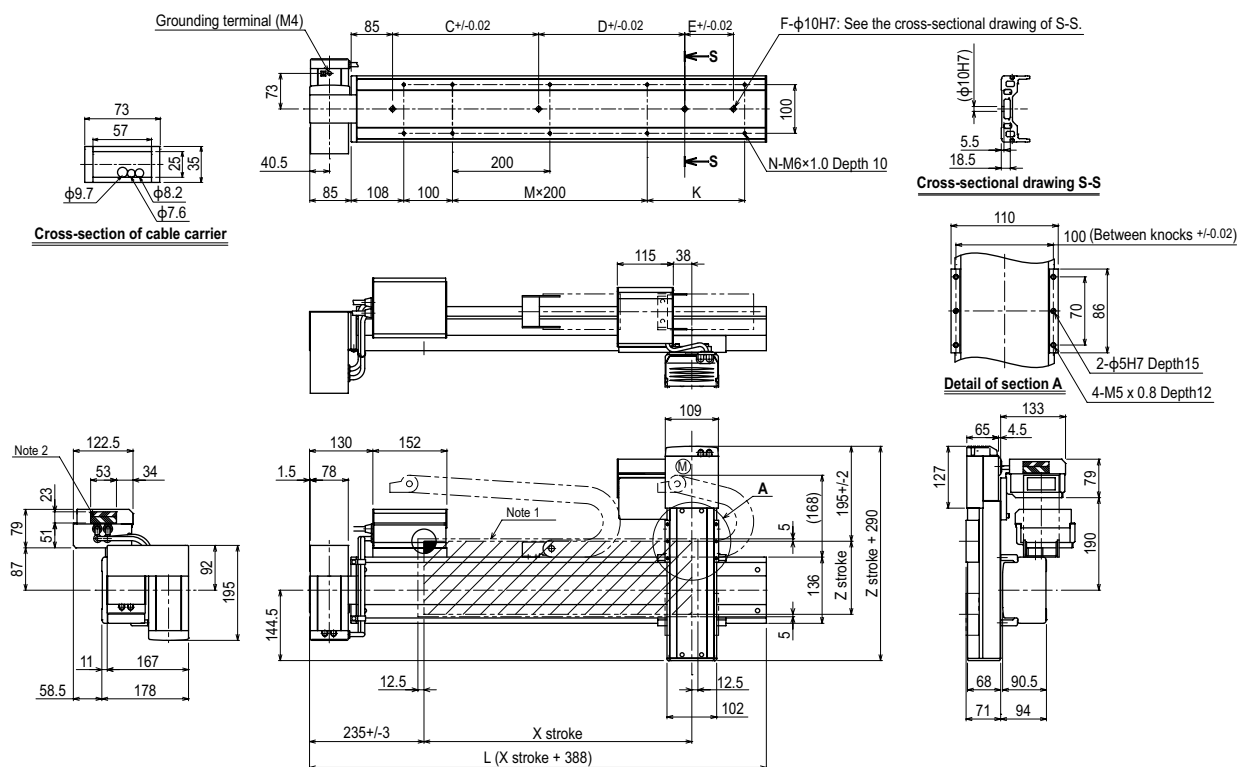
X stroke (mm)	Z stroke (mm)
150 to 3050	10

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)

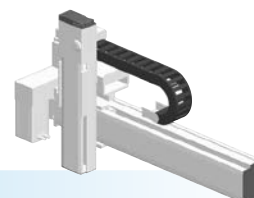


Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

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	
L	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	
K	-	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	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	
D	-	-	-	-	-	-	-	-	-	-	-	240	240	420	600	600	780	780	960	960	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	
E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	240	240	420	420	600	600	780	960
F	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	
M	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	
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	
Z stroke	150	250	350																												



Ordering method

SXYBx	C			ZFL20			RCX222		R		
Model	Cable	Combination	X-axis stroke	ZR-axis	Z-axis stroke	Cable	Controller	Usable for CE	Regenerative unit	Input/Output selection 1	Input/Output selection 2
		F1 F3	15 to 305cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	R: RG2	N: NPN ^{Note 1} P: PNP CC: CC-Link DN: DeviceNet TM PB: PROFIBUS EN: Ethernet YC: YCJ link ^{Note 2}	No entry: None N1: OPDIO24/16 (NPN) ^{Note 1} P1: OPDIO24/17 (PNP) EN: Ethernet ^{Note 3}

Note 1. NPN cannot be selected if using CE marking.
 Note 2. Selectable for the motor. Select 2 for details on XC-Link system.
 Note 3. Selectable for the motor. Select 2 for details on XC-Link system.

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 ^{Note 1}	B14H	F10-BK equivalent guide-reinforced model
AC servo motor output (W)	200	200
Repeatability ^{Note 2} (mm)	+/-0.04	+/-0.01
Drive system	Timing belt	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	Equivalent to lead 25	20
Maximum speed (mm/sec)	1875	1200
Moving range (mm)	150 to 3050	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.

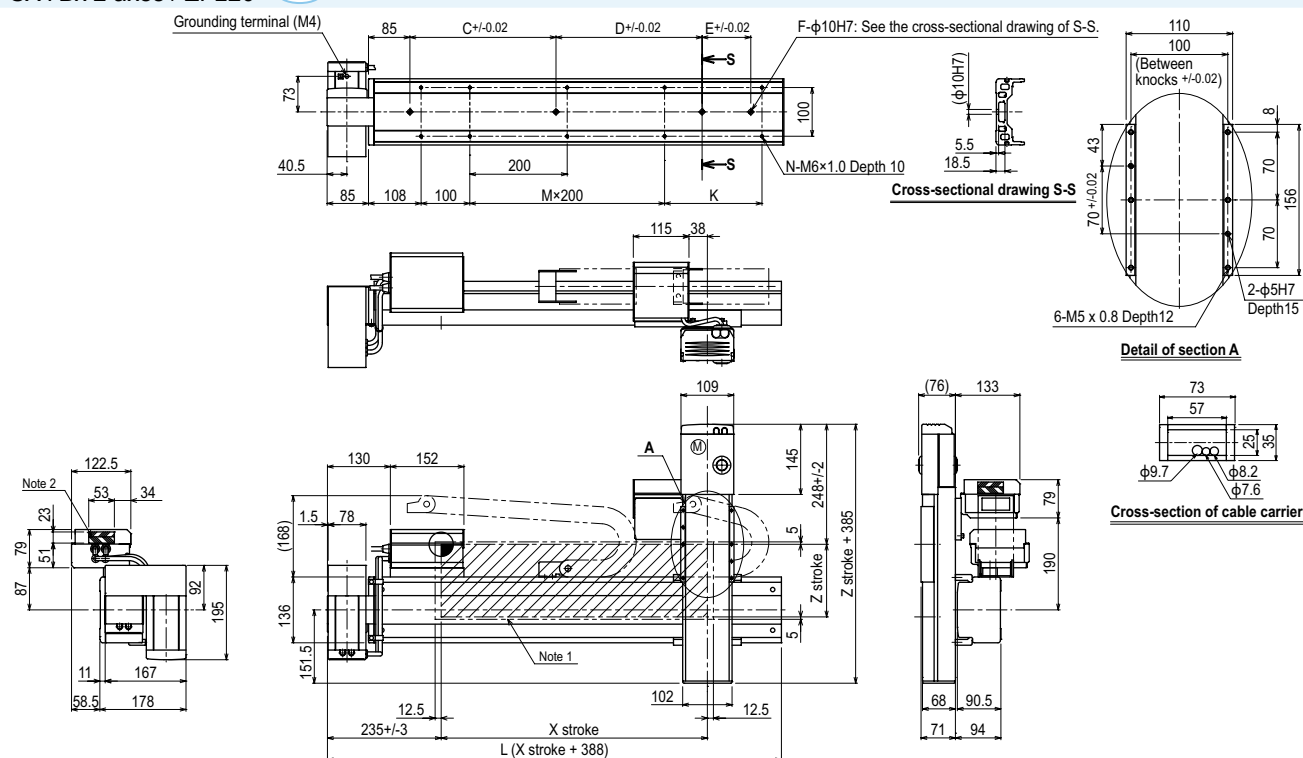
Note 3. Leads not listed in the catalog are also available. Contact us for details.

■ **Maximum payload** (kg)

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

[illegible]

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

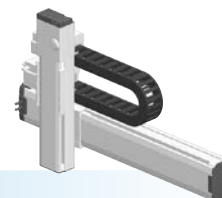
Pole type

XZ type

MXYx

2 axes / ZFL10

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



Ordering method

MXYx - C			ZFL10			RCX222		R		
Model	Cable	Combination	X-axis stroke	ZR-axis	Z-axis stroke	Cable	Controller	Usable for CE	Regenerative unit	Input/Output selection 1
		F1 F3	15 to 105cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	R: RG2	N: NPN ^{Note 1} P: PNP CC: CC-Link DN: DeviceNet TM PB: PROFIBUS EN: Ethernet YC: YC-Link ^{Note 2}

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 ^{Note 1}	F14H	F10-BK equivalent guide-reinforced model
AC servo motor output (W)	200	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	10
Maximum speed ^{Note 4} (mm/sec)	1200	600
Moving range (mm)	150 to 1050	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.
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.

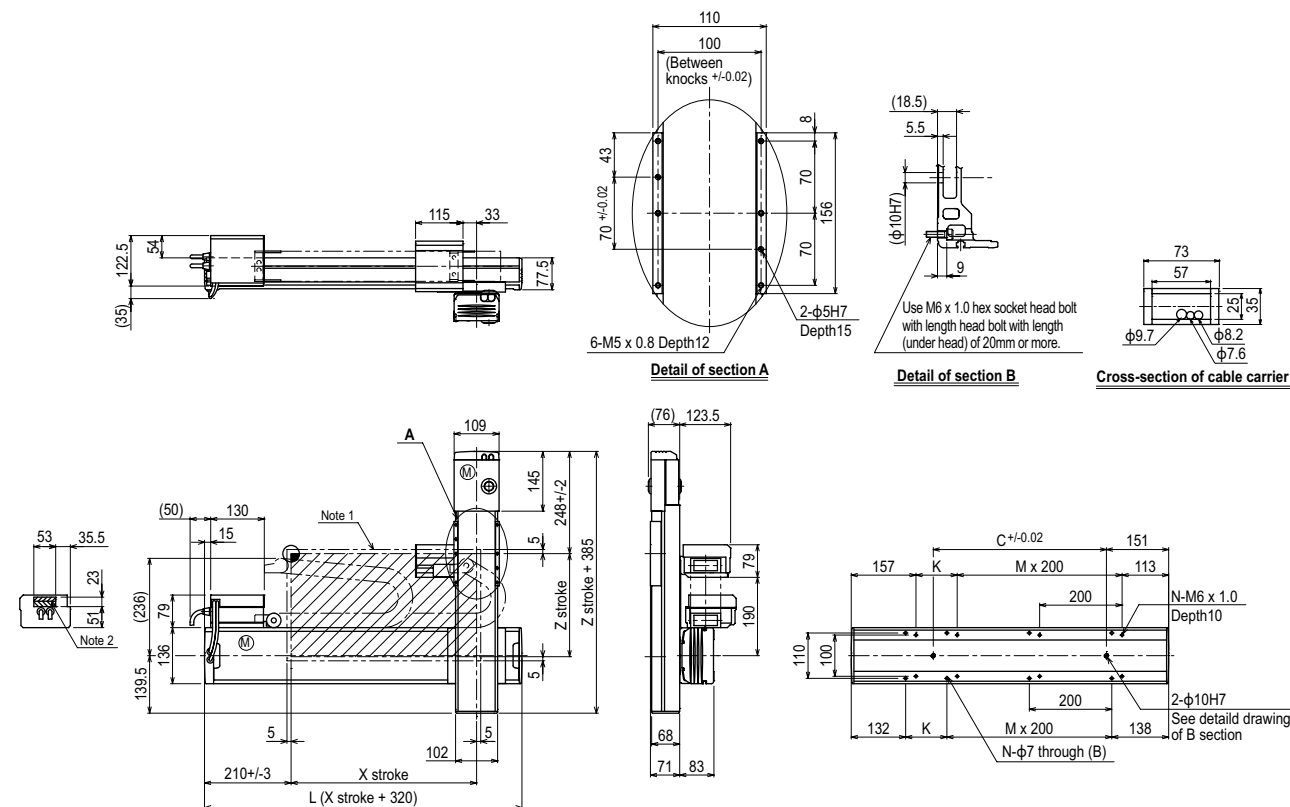
Maximum payload (kg)

X stroke (mm)	Z stroke (mm)
150 to 1050	150 to 350
	15

Controller

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

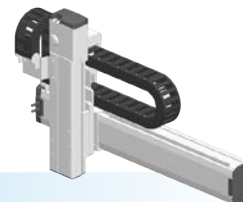
MXYx 2 axes / ZFL10 (F1)



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
C	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
Z stroke	150	250	350							
Maximum speed for each stroke (mm/sec) ^{Note 3}										
X-axis	1200									
Speed setting	—									

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.



Ordering method

MXYx	C			ZFH			RCX222		R		
Model	Cable	Combination	X-axis stroke	ZR-axis	Z-axis stroke	Cable	Controller	Usable for CE	Regenerative unit	Input/Output selection 1	Input/Output selection 2
		F1 F3	15 to 105cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	R: RG2	N: NPN Note 1 P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link Note 2	No entry: None N1: OPDIO24/16 (NPN) Note 1 P1: OPDIO24/17 (PNP) EN: Ethernet Note 3

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 Note 1	F14H	F10-BK equivalent guide-reinforced model
AC servo motor output (W)	200	200
Repeatability Note 2 (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead Note 3 (Deceleration ratio) (mm)	20	10
Maximum speed Note 4 (mm/sec)	1200	600
Moving range (mm)	150 to 1050	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.

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.

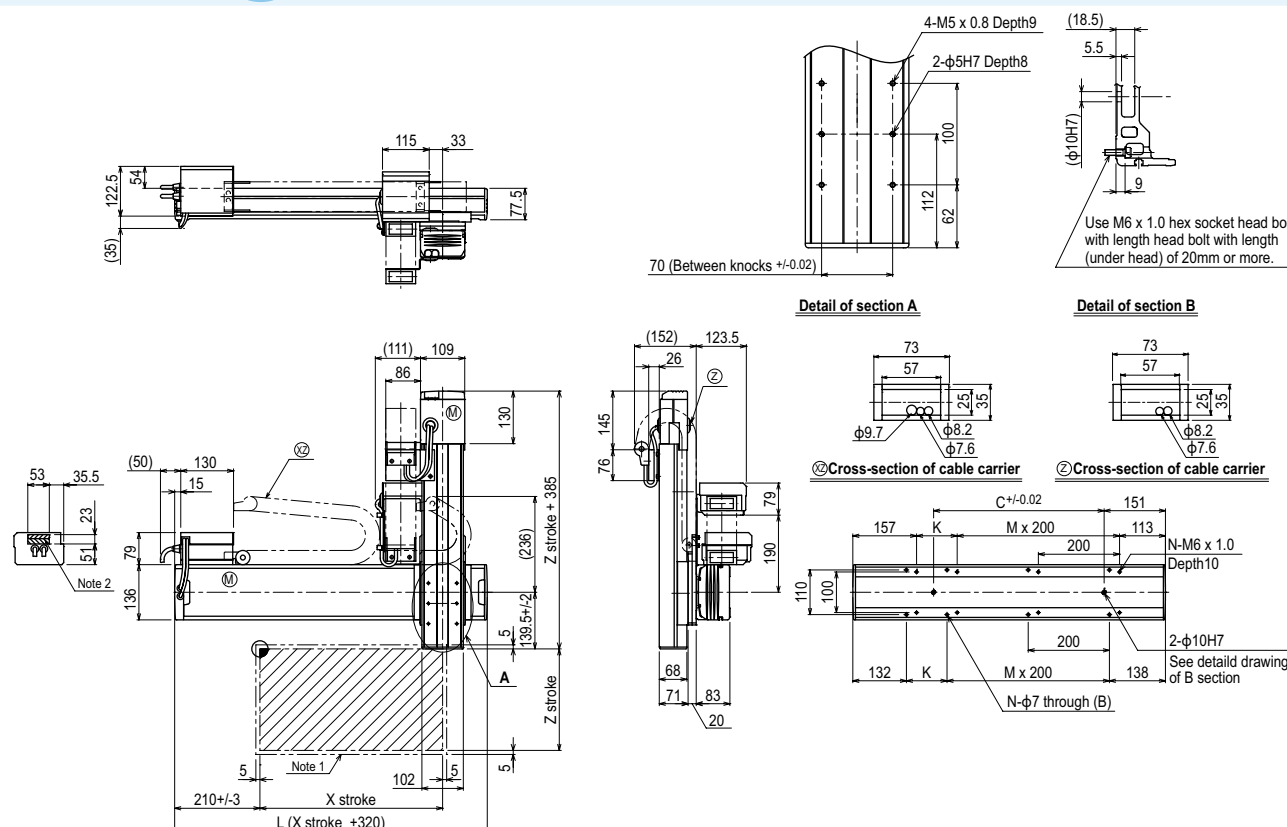
Maximum payload (kg)

	Z stroke (mm)		
X 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
L	470	570	670	770	870	970	1070	1170	1270	1370
K	200	100	200	100	200	100	200	100	200	100
C	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
Z stroke	150	250	350							
Maximum speed for each stroke (mm/sec) Note 3	1200									
Speed setting	—									

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.

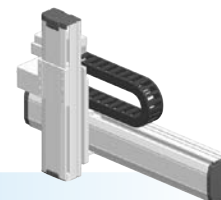
HXYx

2 axes / ZL

● XZ type

● Cable carrier

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



Ordering method

Model	Cable	Combination	X-axis stroke	ZR-axis	Z-axis stroke	Cable	Controller	Usable for CE	Regenerative unit	Input/Output selection 1	Input/Output selection 2
HXYx - C				ZL			RCX222		R		
		F1 F3	25 to 125cm		25 to 55cm	3L: 3.5m 5L: 5m 10L: 10m	RCX222	No entry: Standard E: CE marking	R: RG2	N: NPN Note 1 P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet YC: YC-Link Note 2	No entry: None N1: OP.DIO24/16 (NPN) Note 1 P1: OP.DIO24/17 (PNP) EN: Ethernet Note 3

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 Note 1	F17	F14H-BK
AC servo motor output (W)	400	200
Repeatability Note 2 (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead Note 3 (Deceleration ratio) (mm)	20	10
Maximum speed Note 4 (mm/sec)	1200	600
Moving range (mm)	250 to 1250	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.

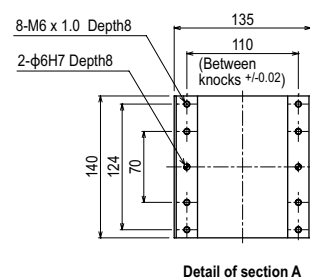
Maximum payload (kg)

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

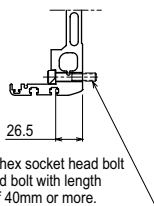
Controller

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

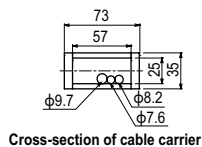
HXYx 2 axes / ZL (F1)



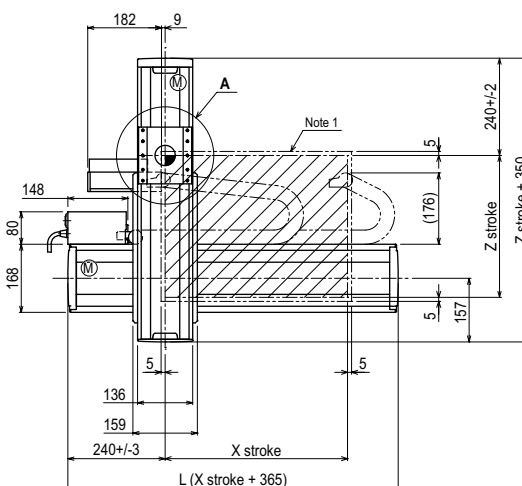
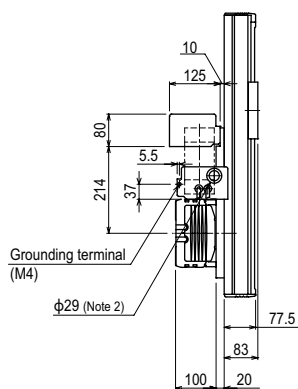
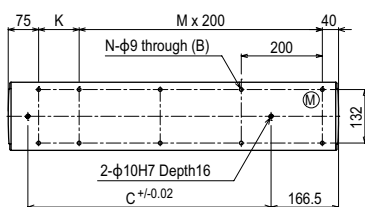
Detail of section A



Detail of section B



Cross-section of cable carrier



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
Z stroke	250	350	450	550							
Maximum speed for each stroke (mm/sec) Note 3	1200				960 840 720 600 480						
Speed setting	—				80% 70% 60% 50% 40%						

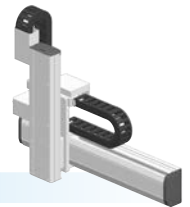
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

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 2 axes / ZH

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



Ordering method

Model	Cable	Combination	X-axis stroke	ZR-axis	Z-axis stroke	Cable	Controller	Usable for CE	Regenerative unit	Input/Output selection 1	Input/Output selection 2
HXYx - C		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 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. 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	F17	F14H-BK
AC servo motor output (W)	400	200
Repeatability (mm)	+/-0.01	+/-0.01
Drive system	Ball screw (Class C7)	Ball screw (Class C7)
Ball screw lead (Deceleration ratio) (mm)	20	5
Maximum speed (mm/sec)	1200	300
Moving range (mm)	250 to 1250	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.

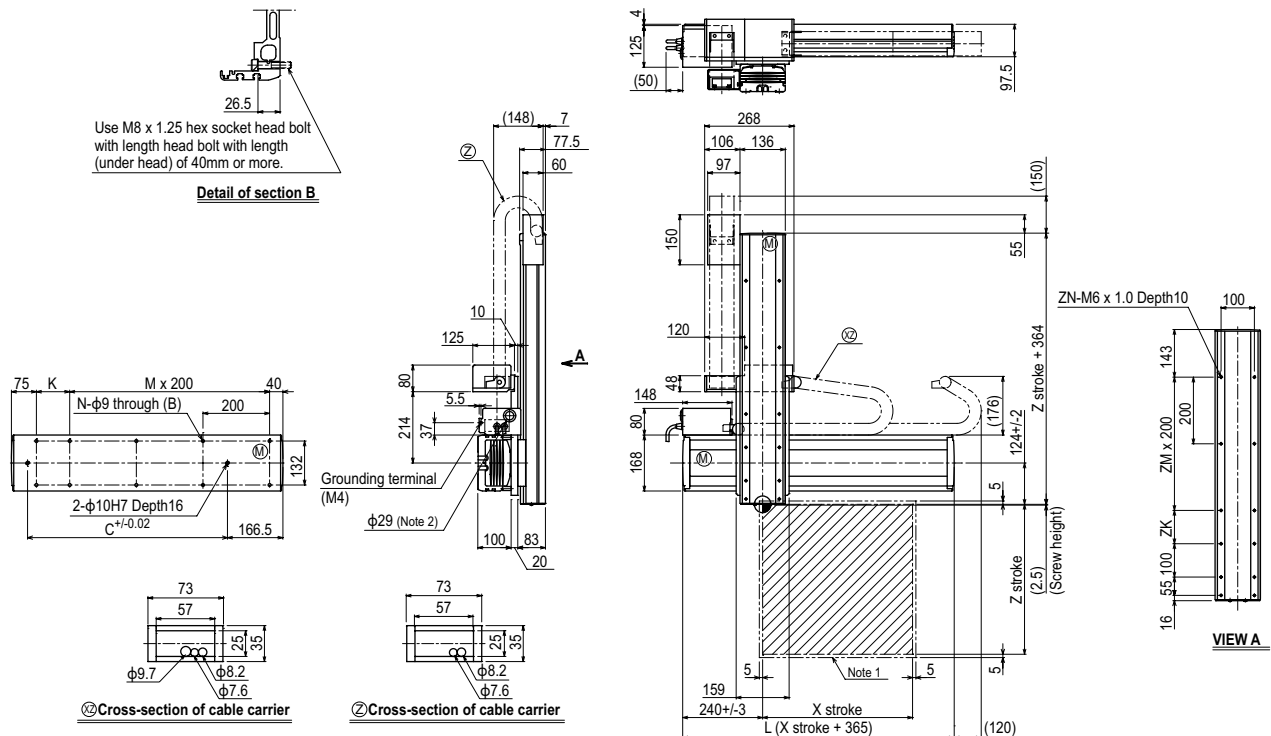
Maximum payload (kg)

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

Controller

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

HXYx 2 axes / ZH F1



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
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)	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 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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