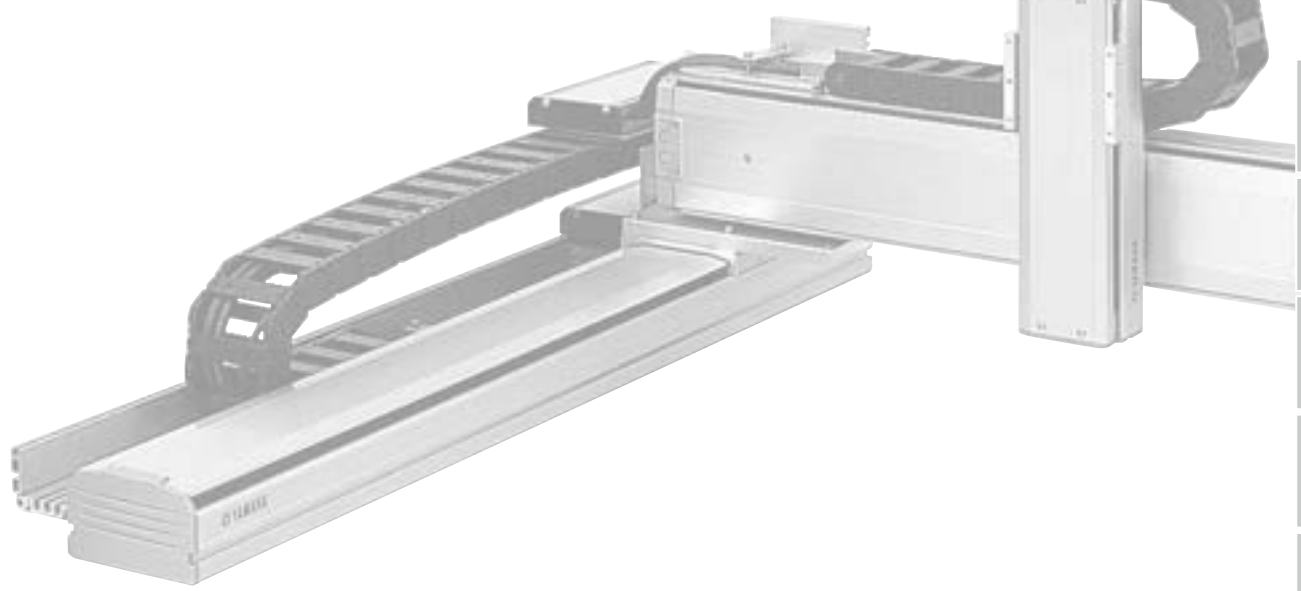




CARTESIAN ROBOTS

XY-X SERIES

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Single-axis robots	FLIP-X
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Pick & place robots	YP-X
CLEAN	
CONTROLLER	
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Moving arm type	
Pole type	
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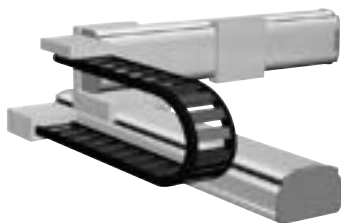
Arm & cable variations

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.534 to P.539 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, 0.3 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

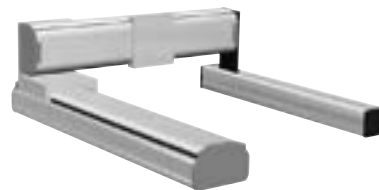
The type with moving Y-axis carriage.



P.388

Gantry type

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



P.456

Moving arm type

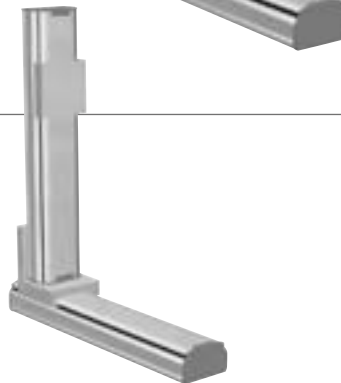
The type with a moving Y-axis arm.



P.472

Pole type

The type with vertically moving Y-axis carriage.



P.486

XZ type

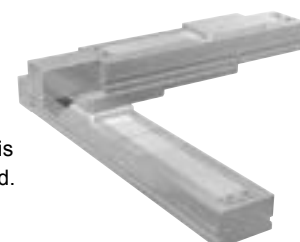
The type with combination of X-axis for horizontal movement and Z-axis for vertical movement.



P.494

Clean type

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



P.534

				Linear conveyor modules LCMR200	Linear conveyor modules LCM100	SCARA robots YK-X	Single-axis robots Robonity	Linear motor single-axis robots PHASER	Single-axis robots FLIP-X	Compact single-axis robots TRANSERO	Cartesian robots XY-X	Pick & place robots YP-X	CLEAN	CONTROLLER	INFORMATION	Arm type	Gantry type	Moving arm type	Pole type	XZ type																	
A1	A2	A3	A4																																		
G1	G2	G3	G4																																		
M1	M3																																				
P1	P2																																				
F1	F3																																				
T1	T3																																				

2-axis spec selection guide

Setting method

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

① Select the arm variation

Arm type

The type with moving Y-axis carriage.

antry type

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

Mo ing 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



antry type



Mo ing arm type



Pole type



XZ 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				

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

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

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

	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*	P388

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*	P390
Cable carrier	150 to 1050	1200 / 800	FXYx-C-A* (I/O)	P392
Cable carrier	150 to 2450	1875 / 1875	FXYBx-C-A*	P396
Whipover	150 to 950	1875 / 1875	FXYBx-S-A*	P398
Cable carrier	150 to 2450	1875 / 1875	FXYBx-C-A* (I/O)	P400
Cable carrier	150 to 1050	1200 / 1200	SXYx-C-A*	P402
Whipover	150 to 850	1200 / 1200	SXYx-S-A*	P404
Cable carrier	150 to 1050	1200 / 1200	SXYx-C-A* (I/O)	P406
Cable carrier	150 to 3050	1875 / 1875	SXYBx-C-A*	P420
Cable carrier	500 to 2000	1200 / 1200	NXY-C-A*	P428
Cable carrier	250 to 1250	1200 / 1200	MXYx-C-A*	P438
Whipover	250 to 850	1200 / 1200	MXYx-S-A*	P440
Cable carrier	250 to 1250	1200 / 1200	MXYx-C-A* (I/O)	P442
Cable carrier	250 to 1250	1200 / 1200	HXYx-C-A*	P448
Cable carrier	1150 to 2050	1200 / 1200	HXYLx-C-A*	P454

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*	P456
Cable carrier	250 to 1050	1200 / 1200	MXYx-C-G* (I/O)	P458
Cable carrier	250 to 1250	1200 / 1200	HXYx-C-G*	P464
Cable carrier	1150 to 2050	1200 / 1200	HXYLx-C-G*	P470

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*	P472
Cable carrier	250 to 1250	1200 / 1200	MXYx-C-M*	P478
Cable carrier	250 to 1250	1200 / 1200	HXYx-C-M*	P484

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*	P486
Cable carrier	250 to 1250	1200 / 600	MXYx-C-P*	P487
Whipover	250 to 950	1200 / 600	MXYx-S-P*	P488
Cable carrier	250 to 1250	1200 / 600	HXYx-C-P*	P490
Whipover	250 to 850	1200 / 600	HXYx-S-P*	P491

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)	P494
Whipover	150 to 850	1200 / 600	SXYx-S-F* (ZF)	P495
Cable carrier	150 to 1050	1200 / 1200	SXYx-C-F* (ZFL20)	P496
Cable carrier	150 to 1050	1200 / 1000	SXYx-C-F* (ZS12)	P497
Cable carrier	150 to 1050	1200 / 500	SXYx-C-F* (ZS6)	P497
Cable carrier	150 to 3050	1875 / 600	SXYBx-C-F* (ZF)	P498
Cable carrier	150 to 3050	1875 / 1200	SXYBx-C-F* (ZFL20)	P499
Cable carrier	150 to 1050	1200 / 600	MXYx-C-F* (ZFL10)	P500
Cable carrier	150 to 1050	1200 / 600	MXYx-C-F* (ZFH)	P501
Cable carrier	250 to 1250	1200 / 600	HXYx-C-F* (ZL)	P502
Cable carrier	250 to 1250	1200 / 300	HXYx-C-F* (ZH)	P503

Note 1. The figure entered at * inside the form, expresses the arm variation. See P. 378 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.

antry type

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

Moving arm type

The type with a moving Y-axis arm.

Pole type

The type with vertically moving Y-axis carriage.

①

Arm type

②

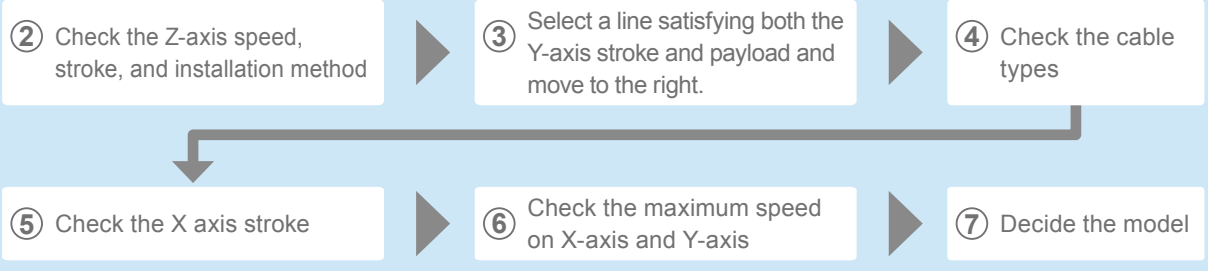
Z-axis

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

③

Y-axis stroke (mm)

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



④	⑤	⑥	⑦ Decide the model	
Cable type	X-axis stroke (mm)	Maximum speed (X-axis / Y-axis) (mm/sec)	Model ^(Note 1)	Detailed info page
Cable carrier	150 to 1050	1200 / 800	FXYx-C-A*-ZS12	P393
Cable carrier	150 to 1050	1200 / 1200	FXYx-C-A*-ZS6	P393
Whipover	150 to 850	1200 / 1200	FXYx-C-A*-ZT6L	P394
Cable carrier	150 to 1050	1200 / 1200	SXYx-C-A*-ZF	P408
Cable carrier	150 to 1050	1200 / 1200	SXYx-S-A*-ZF	P409
Cable carrier	150 to 1050	1200 / 1200	SXYx-C-A*-ZFL20	P410
Cable carrier	150 to 1050	1200 / 1200	SXYx-C-A*-ZFH	P411
Cable carrier	150 to 1050	1200 / 1200	SXYx-C-A*-ZS12	P412
Whipover	150 to 850		SXYx-S-A*-ZS12	P412
Cable carrier	150 to 1050		SXYx-C-A*-ZS6	P413
Whipover	150 to 850		SXYx-S-A*-ZS6	P413
Cable carrier	150 to 3050	1875 / 1875	SXYBx-C-A*-ZF	P422
Cable carrier	150 to 3050	1875 / 1875	SXYBx-C-A*-ZFL20	P423
Cable carrier	150 to 3050	1875 / 1875	SXYBx-C-A*-ZFH	P424
Cable carrier	150 to 3050	1875 / 1875	SXYBx-C-A*-ZS12	P425
Cable carrier	150 to 3050	1875 / 1875	SXYBx-C-A*-ZS6	P425
Cable carrier	500 to 2000	1200 / 1200	NXY-C-A*-ZFL20	P430
Cable carrier	500 to 2000	1200 / 1200	NXY-C-A*-ZFH	P432
Cable carrier	250 to 1250	1200 / 1200	MXYx-C-A*-ZFL10	P443
Cable carrier	250 to 1250	1200 / 1200	MXYx-C-A*-ZFL20	P443
Cable carrier	250 to 1250	1200 / 1200	MXYx-C-A*-ZFH	P444
Cable carrier	250 to 1250	1200 / 1200	HXYx-C-A*-ZL	P450
Cable carrier	250 to 1250	1200 / 1200	HXYx-C-A*-ZH	P451

Note 1: The figure entered at * inside the form, expresses the arm variation. See P.378 for more information.

3-axis spec selection guide

① Entry type

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

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									

② 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						

③ 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									
	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.459
Cable carrier	250 to 1050	1200 / 1200	MXYx-C-G*-ZFL20	P.459
Cable carrier	250 to 1050	1200 / 1200	MXYx-C-G*-ZFH	P.460
Cable carrier	250 to 1250	1200 / 1200	HXYx-C-G*-ZL	P.466
Cable carrier	250 to 1250	1200 / 1200	HXYx-C-G*-ZH	P.467

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.474
Whipover	150 to 850	1200 / 1200	SXYx-S-M*-ZFL20	P.475
Whipover	150 to 850	1200 / 1200	SXYx-S-M*-ZFH	P.476
Whipover	150 to 850	1200 / 1200	SXYx-S-M*-ZS12	P.477
Whipover	150 to 850	1200 / 1200	SXYx-S-M*-ZS6	P.477
Cable carrier	250 to 1250	1200 / 1200	MXYx-C-M*-ZFL10	P.480
Cable carrier	250 to 1250	1200 / 1200	MXYx-C-M*-ZFL20	P.480
Cable carrier	250 to 1250	1200 / 1200	MXYx-C-M*-ZFH	P.481
Cable carrier	250 to 1250	1200 / 1200	HXYx-C-M*-ZH	P.484

Note 1. The figure entered at * inside the form, expresses the arm variation. See P.378 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.489
Cable carrier	250 to 1250	1200 / 600	HXYx-C-P2-ZPH	P.492
Whipover	250 to 850	1200 / 600	HXYx-S-P1-ZPH	P.493

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 ▶ RCX320

● Ordering method

FXYx-C-A1-45-35-3L-RCX320

Mechanical section

Controller section

To find detailed controller information see the controller page. **RCX320 ▶ P.626**

① Model	② Cable	③ Combination Note 1	④ X-axis stroke	⑤ Y-axis stroke	⑧ Cable	⑨ 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.378.

[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 ▶ RCX340

● Ordering method

SXYx-S-M3-85-15-ZFH-15-5L-RCX340

Mechanical section

Controller section

To find detailed controller information see the controller page. **RCX340 ▶ P.636**

									RCX340
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		

Robot ordering method terminology

① Model	Enter the robot unit model.
② Cable	Cable specs can be selected. To find detailed information see P.378. 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.378.
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. [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 RCX320. 3 / 4-axis specifications: Select the RCX340.

Linear conveyor modules
LCMR200

Single-axis robots
GX

Linear conveyor modules
LCM100

SCARA robots
YK-X

Single-axis robots
Robonity

Linear motor single-axis robots
PHASER

Single-axis robots
FLIP-X

Compact single-axis robots
TRANSERO

Cartesian robots
XY-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

PXYx - C						RCX320 2					
Model	Cable	Combination	X-axis stroke	Y-axis stroke	Cable	Controller / Number of controllable axes	Safety standard	Option A (O.P.A)	Option B (O.P.B)	Vision System	Absolute battery
		A1	15 to 65cm	5 to 30cm	3L: 3.5m						
		A2			5L: 5m						
		A3			10L: 10m						
		A4									

Specify various controller setting items. RCX320 ▶ **P.626**

Specify various controller setting items. RCX320 ▶ **P626**

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 φ12	Ball screw φ8
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.

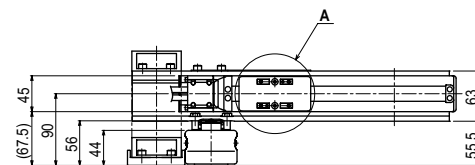
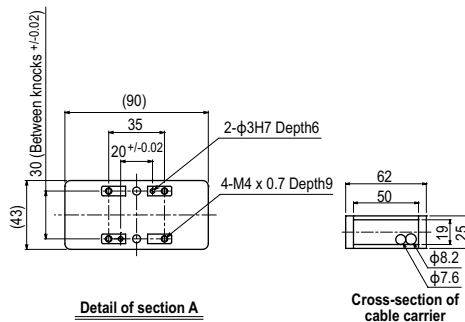
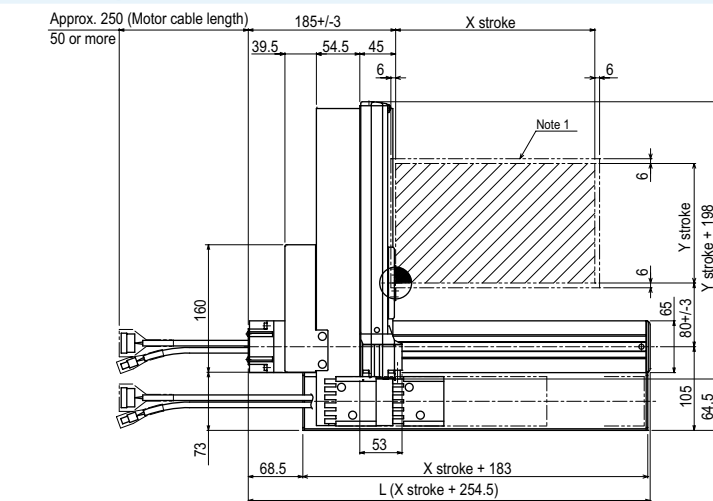
Maximum payload (kg)

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

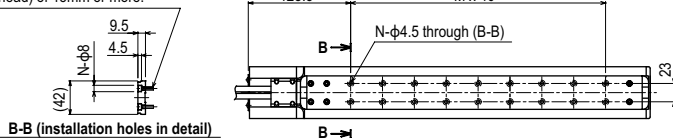
Controller

Controller	Operation method
RCX320	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.

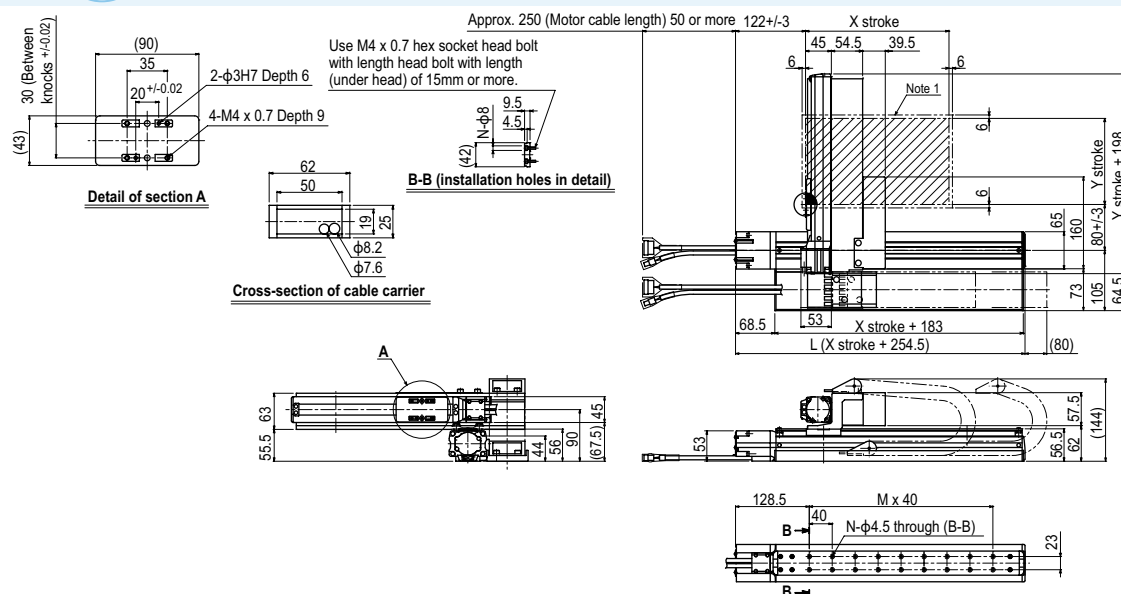


X stroke	150	250	350	450	550	650
L	404.5	504.5	604.5	704.5	804.5	904.5
M	5	8	10	13	15	18
N	12	18	22	28	32	38
Y stroke	50	100	150	200	250	300
Maximum speed for each stroke (mm/sec) ^{Note 2}	720					600
Speed setting	—					83%

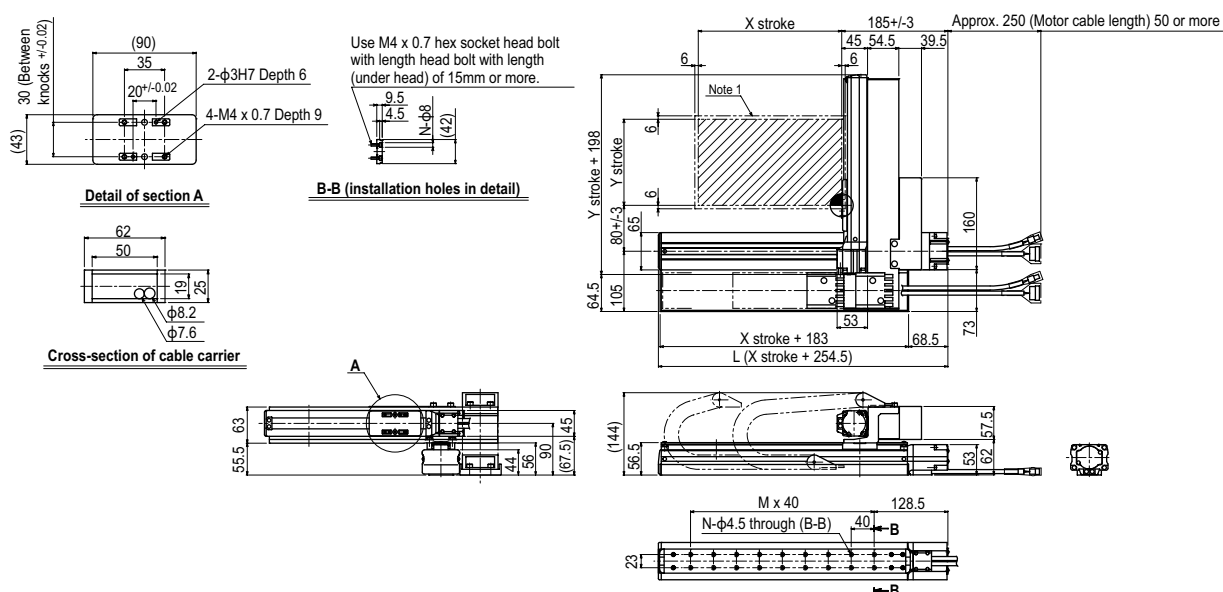
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

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.

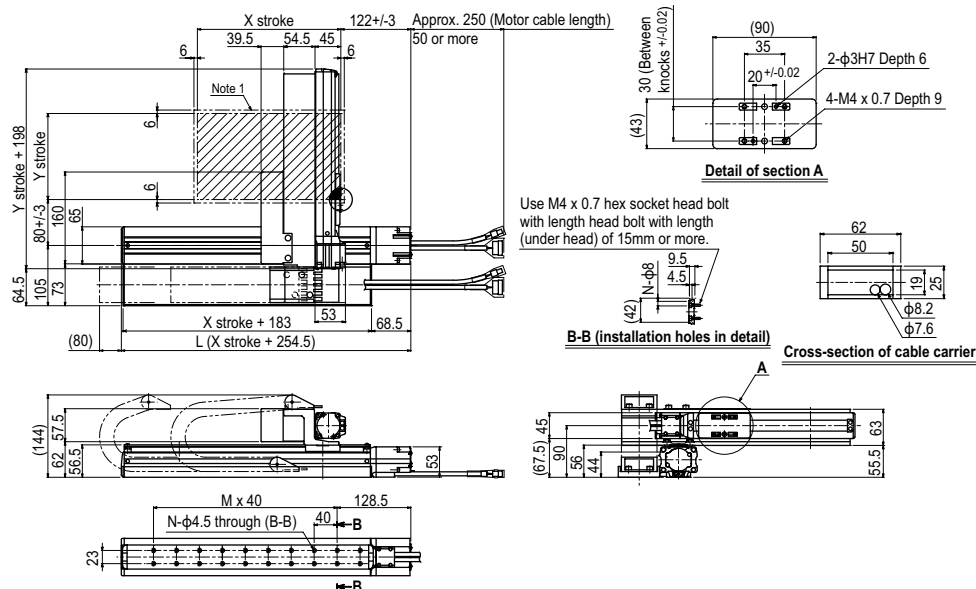
A2



A3



A4

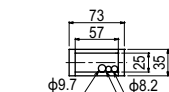




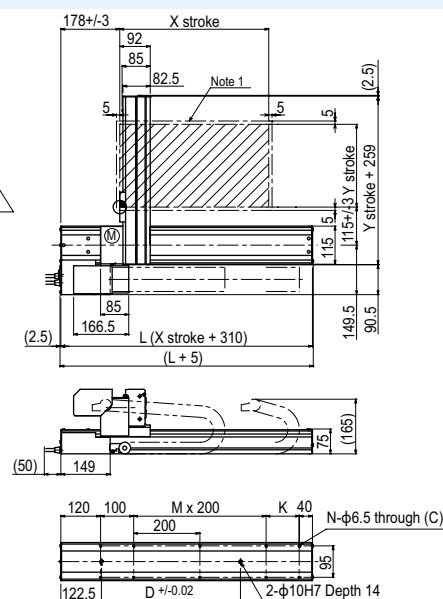
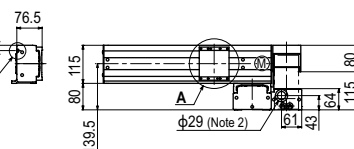
Technical drawing of a 2x2 panel assembly. The front view shows a square panel with a central square opening. Dimensions include: 90 (total width), 80 (inner width), 36 (inner height), 20 (Between knobs ± 0.02), 90 (total height), 20 (Between knobs ± 0.02), and 2- ϕ 5H7 Depth 6 (two circular holes). The side view shows a cross-section with dimensions: 7.3 (total thickness), 4.3 (inner thickness), 2 (flange thickness), 6.5 (total height), and 3.5 (inner height). A callout (14) points to a detail of a hex socket head bolt with a length of 35mm or more, used with an M6 x 1.0 hex socket head bolt.

Detail of section B

Detail of section C



Cross-section of cable carrier



8 - M5 x 0.8 Depth 8

90
60
36
20 (Between knooks +/-0.02)
90
2-φ5H7 Depth 6

Detail of section A

6.5
3.5
2
7.3
4.3

Detail of section B

14
24

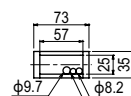
Use M6 x 1.0 hex socket head bolt with length head bolt with length (under head) of 35mm or more.

Detail of section C

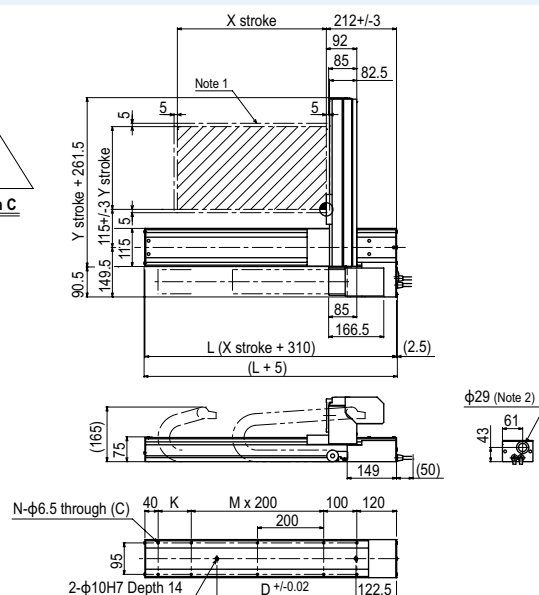
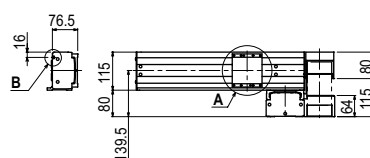
Detail of section A

Detail of section B

Detail of section C



Cross-section of cable carrier



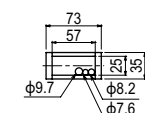
The drawing includes the following views and details:

- Main Assembly View (Top Left):** Shows the cable carrier with dimensions: X stroke, 178 $\pm$ 1.3, 92, 85, 82.5, 5, 5, 5, 115, 5, 90.5, Y stroke + 259, 115 $\pm$ 1.3 Y stroke, 149.5, L (X stroke + 310), (L + 5), 85, 166.5, (2.5).
- Detail of section A:** Shows a cross-section with dimensions: 90, 80, 36, 20 (Between knocks $\pm$ 0.02), 90, 2- ϕ 5H7 Depth 6, 8 - M5 x 0.8 Depth 8.
- Detail of section B:** Shows a cross-section with dimensions: 6.5, 3.5, 2, 4.3, 7.3.
- Detail of section C:** Shows a cross-section with dimensions: (14), 24, 2.
- Cross-section of cable carrier:** Shows a cross-section with dimensions: 73, 57, 76.5, 16, 115, 80, 139.5, 64, 43, 61, ϕ 29 (Note 2), 40, K, M x 200, 100, 120, 95, 2- ϕ 10H7 Depth 14, D $\pm$ 0.02, 122.5.
- Notes:**
 - Note 1: Points to a specific feature in the main assembly view.
 - Note 2: Points to a specific feature in the cross-section of cable carrier.

Detail of section A

Detail of section E

Detail of section C

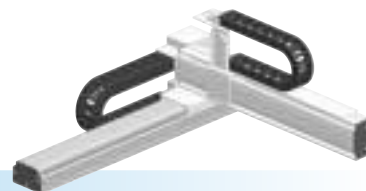


Cross-section of cable carrier

FXYx

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 / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Vision System	Absolute battery
FXYx - C							IO	RCX320 2				
	A1		15 to 105cm	15 to 55cm		3L: 3.5m						
	A2					5L: 5m						
	A3					10L: 10m						
	A4											

Specify various controller setting items. RCX320 ▶ [P.626](#)

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 $\phi 15$	Ball screw $\phi 12$
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.

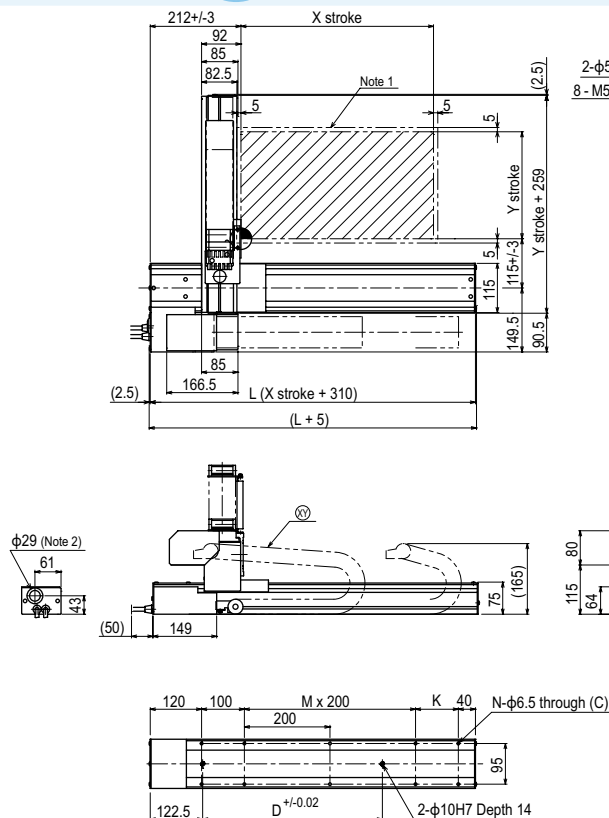
Maximum payload (kg)

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

Controller

Controller	Operation method
RCX320	Programming / I/O point trace / Remote command / Operation using RS-232C communication

FXYx 2 axes / IO A1

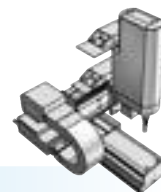


X stroke	150	250	350	450	550	650	750	850	950	1050
L	460	560	660	760	860	960	1060	1160	1260	1360
K	200	100	200	100	200	100	200	100	200	100
D	240	240	420	420	600	600	780	960	960	1140
M	0	1	1	2	2	3	3	4	4	5
N	6	8	8	10	10	12	12	14	14	16
Y stroke	150	250	350	450	550					
Maximum speed for each stroke (mm/sec)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



Ordering method

Model	Cable	Combination	X-axis stroke	Y-axis stroke	ZR-axis	ZS12	ZS6	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
FXYx - C		A1 A2 A3 A4	15 to 105cm	15 to 55cm	ZS12 ZS6			3L: 3.5m 5L: 5m 10L: 10m	RCX340 3							

Specify various controller setting items. RCX340 ▶ **P636**

Specification

	X-axis	Y-axis	Z-axis: ZS12	Z-axis: ZS6
Axis construction	—	—	—	—
AC servo motor output (W)	100	60	60	60
Repeatability ^{Note 1} (mm)	+/-0.01	+/-0.02	+/-0.02	+/-0.02
Drive system	Ball screw φ15	Ball screw φ12	Ball screw φ12	Ball screw φ12
Ball screw lead ^{Note 2} (Deceleration ratio) (mm)	20	12	12	6
Maximum speed ^{Note 3} (mm/sec)	1200	800	1000	500
Moving range (mm)	150 to 1050	150 to 550	150	150
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.

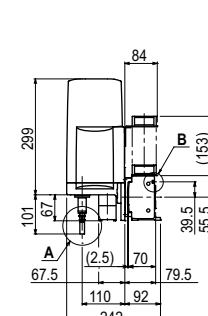
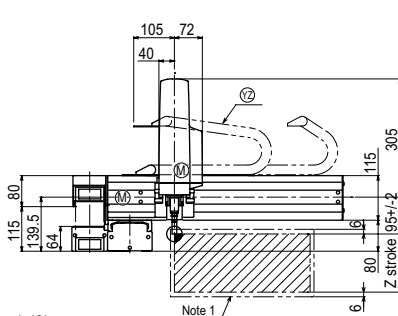
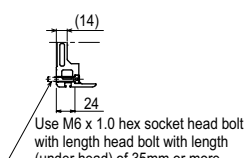
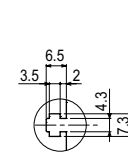
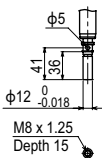
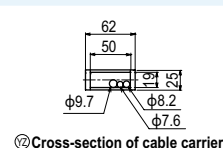
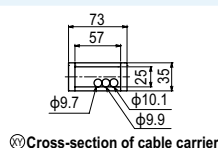
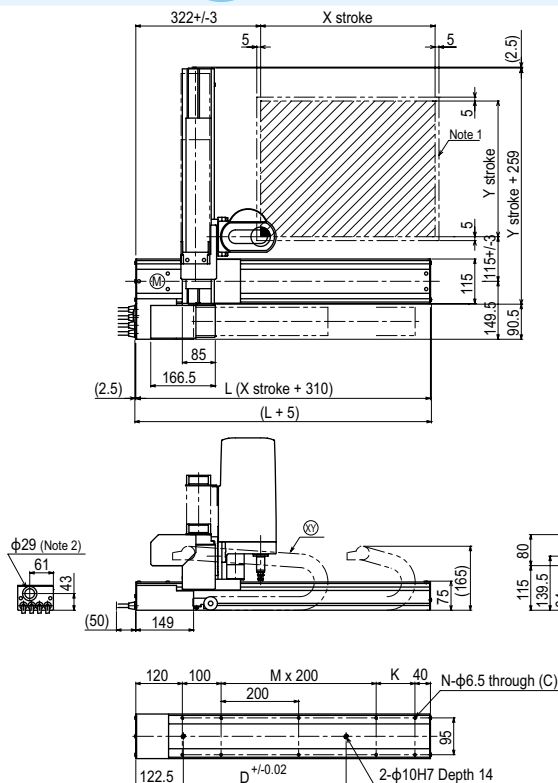
Maximum payload

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

Controller

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

FXYx 3 axes / ZS (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	150									
Maximum speed for each stroke (mm/sec) ^{Note 3}										
X-axis	1200									
Speed setting	—									
							960	780	600	540
							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.

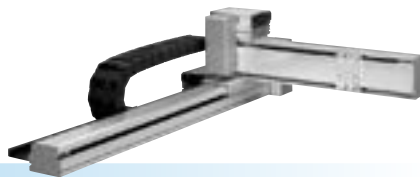
Note 3. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

Linear conveyor modules	LCMR200
Single-axis robots	GX
Linear conveyor modules	LCM100
SCARA robots	YK-X
Single-axis robots	Robonity
Linear motor single-axis robots	PHASER
Single-axis robots	FLIP-X
Compact single-axis robots	TRANSERVO
Cartesian robots	XY-X
Pick & place robots	YP-X
	CLEAN
	CONTROLLER
	INFORMATION
Arm type	
Gantry type	
Moving arm type	
Pole type	
XZ type	

FXBYBx

2 axes

● Arm type ● Cable carrier



Ordering method

FXBYBx - C						RCX320 2					
Model	Cable	Combination	X-axis stroke	Y-axis stroke	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Vision System	Absolute battery
A1			15 to 245cm	15 to 55cm	3L: 3.5m	Specify various controller setting items. RCX320 ▶ P.626					
A2					5L: 5m						
A3					10L: 10m						
A4											

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.

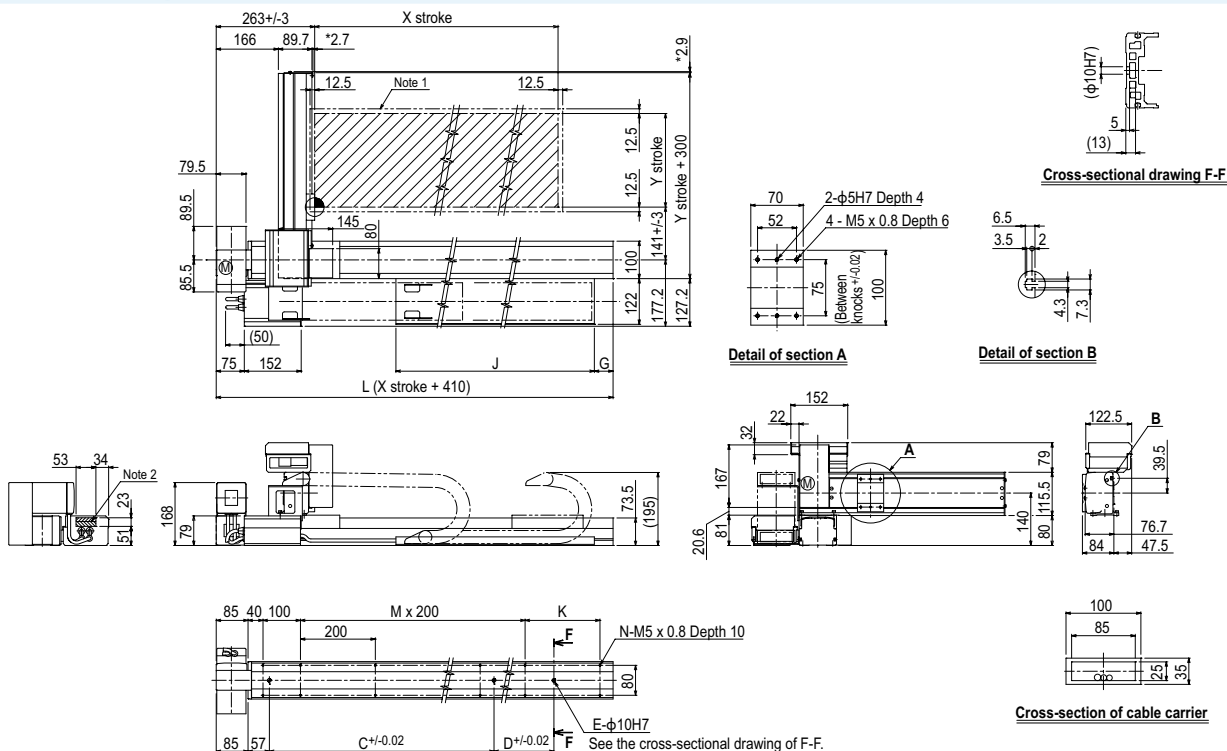
Maximum payload (kg)

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

Controller

Controller	Operation method
RCX320	Programming / I/O point trace / Remote command / Operation using RS-232C communication

FXBYBx 2 axes A1

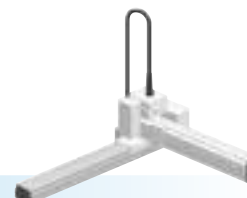


Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.
Note 2. The shaded position indicates an user cable extraction port.
Note 3. The dimension marked with an asterisk (*) indicates the height of the screw.

X stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450
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
C	240	420	600	600	780	780	960	960	1140	1140	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320
D	—	—	—	—	—	—	—	—	—	—	—	240	240	420	420	600	600	780	780	960	960	1140	1140	1320
E	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3
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
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
Y stroke	150	250	350	450	550																			

FXYBx **2 axes**

● Arm type ● Whipover



Ordering method

FXYBx - S					RCX320 2						
Model	Cable	Combination	X-axis stroke	Y-axis stroke	Cable	Controller / Number of controllable axes	Safety standard	Option A (O.P.A)	Option B (O.P.B)	Vision System	Absolute battery
		A1 A2 A3 A4	15 to 95cm	15 to 55cm	3L: 3.5m 5L: 5m 10L: 10m	Specify various controller setting items. RCX320 ▶ P.626					

■ 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.

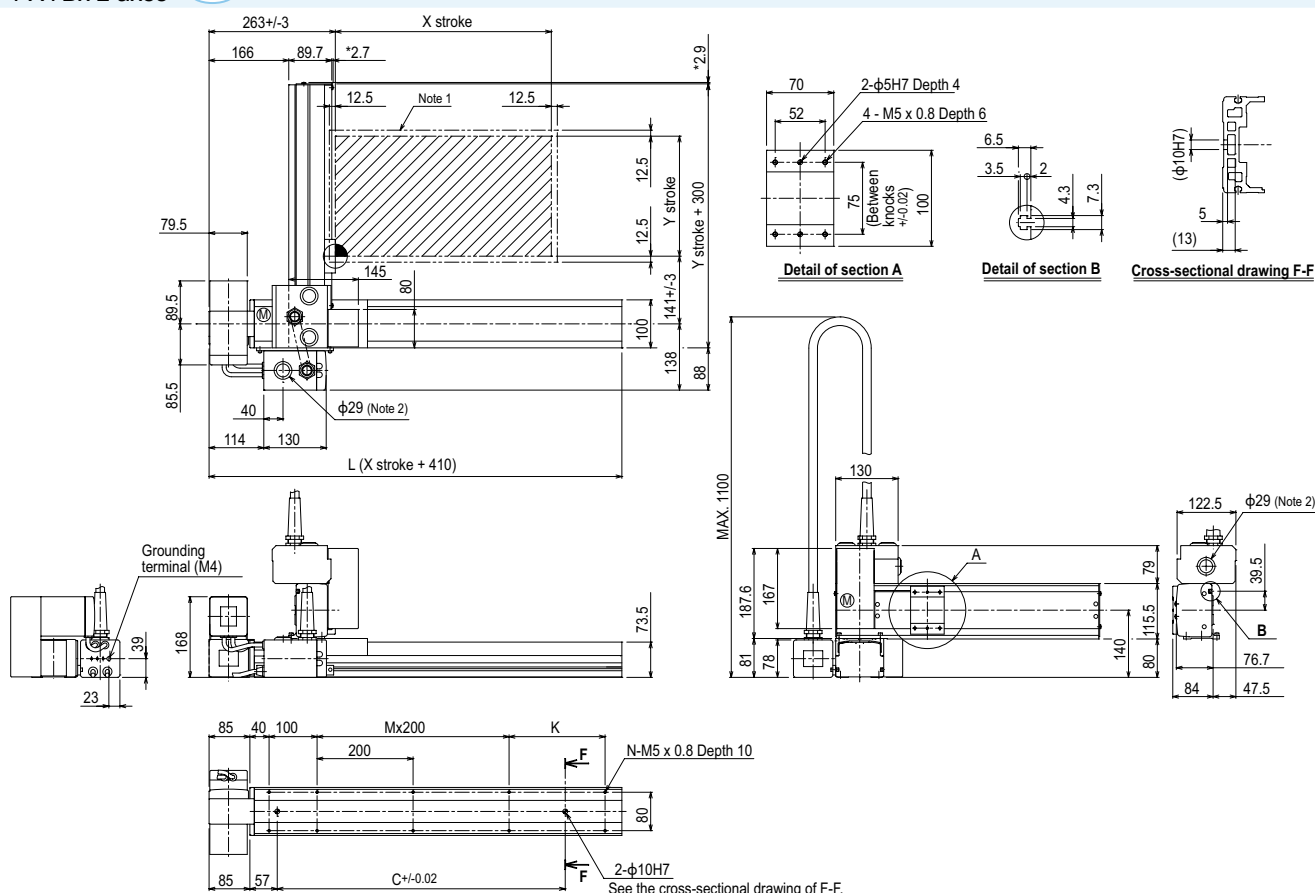
Note 3. Leads not listed in the catalog are also available. Contact us for details.

■ **Maximum payload** (kg)

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

Controller

Controller	Operation method
RCX320	Programming / I/O point trace / Remote command / Operation using RS-232C communication

FXYBx 2 axes **A1**

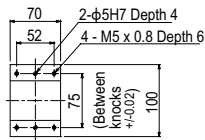
X stroke	150	250	350	450	550	650	750	850	950
L	560	660	760	860	960	1060	1160	1260	1360
C	240	420	600	600	780	780	960	960	1140
K	100	200	100	200	100	200	100	200	100
M	1	1	2	2	3	3	4	4	5
N	8	8	10	10	12	12	14	14	16
Y stroke	150	250	350	450	550				

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

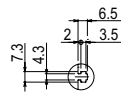
Note 2. User cable extraction port.

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

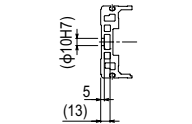
FXyBx 2 axes A2



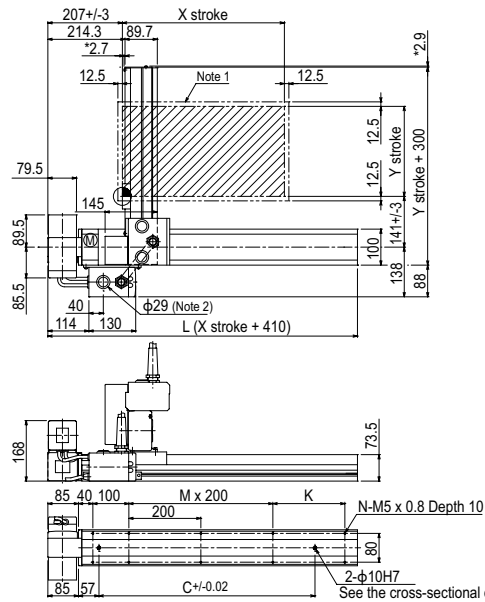
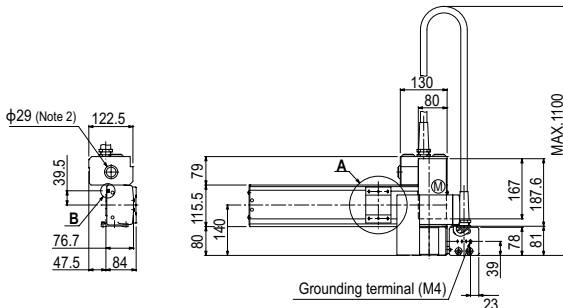
Detail of section A



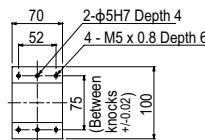
Detail of section B



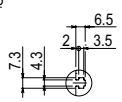
Cross-sectional drawing F-F



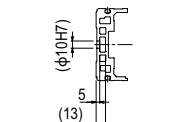
FXyBx 2 axes A3



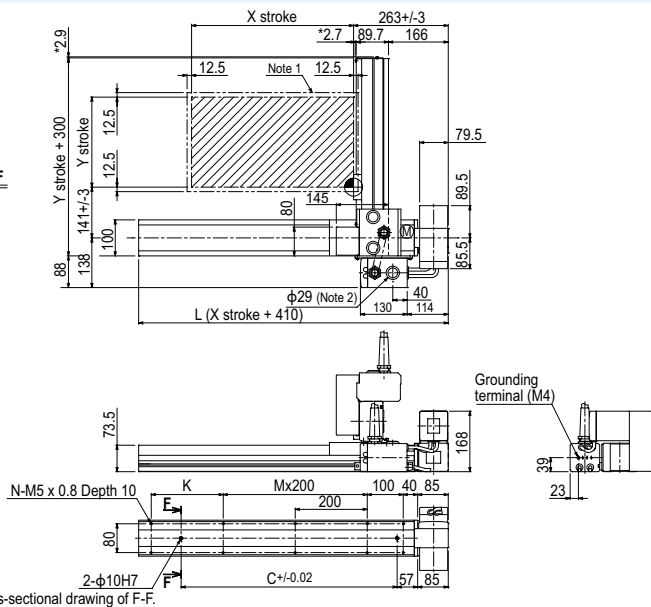
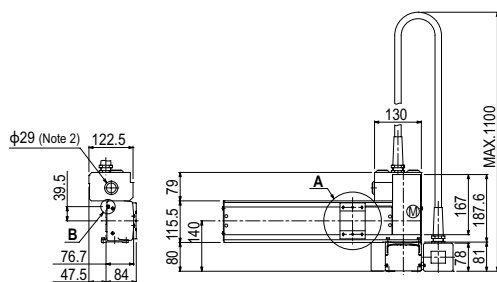
Detail of section A



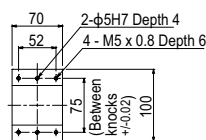
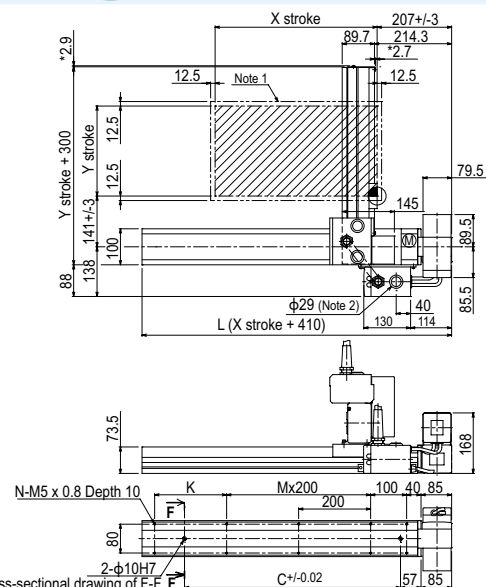
Detail of section B



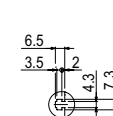
Cross-sectional drawing F-F



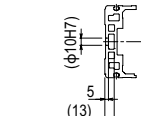
FXyBx 2 axes A4



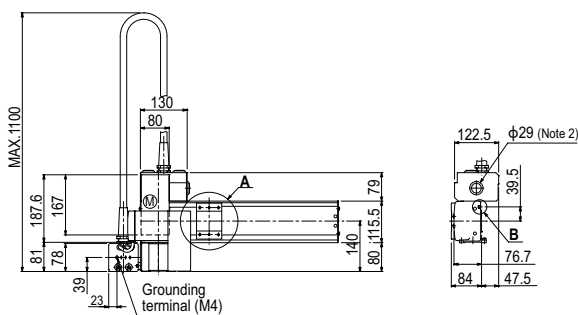
Detail of section A



Detail of section B



Cross-sectional drawing F-F

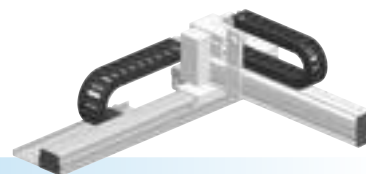


See the cross-sectional drawing of F-F.

FXYBx

2 axes / IO

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



Ordering method

FXYBx - C						IO		RCX320 2						
Model	Cable	Combination	X-axis stroke	Y-axis stroke	ZR-axis	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Vision System	Absolute battery	Specify various controller setting items. RCX320 ▶ P.626	
		A1 A2 A3 A4	15 to 245cm	15 to 55cm		3L: 3.5m 5L: 5m 10L: 10m								

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.

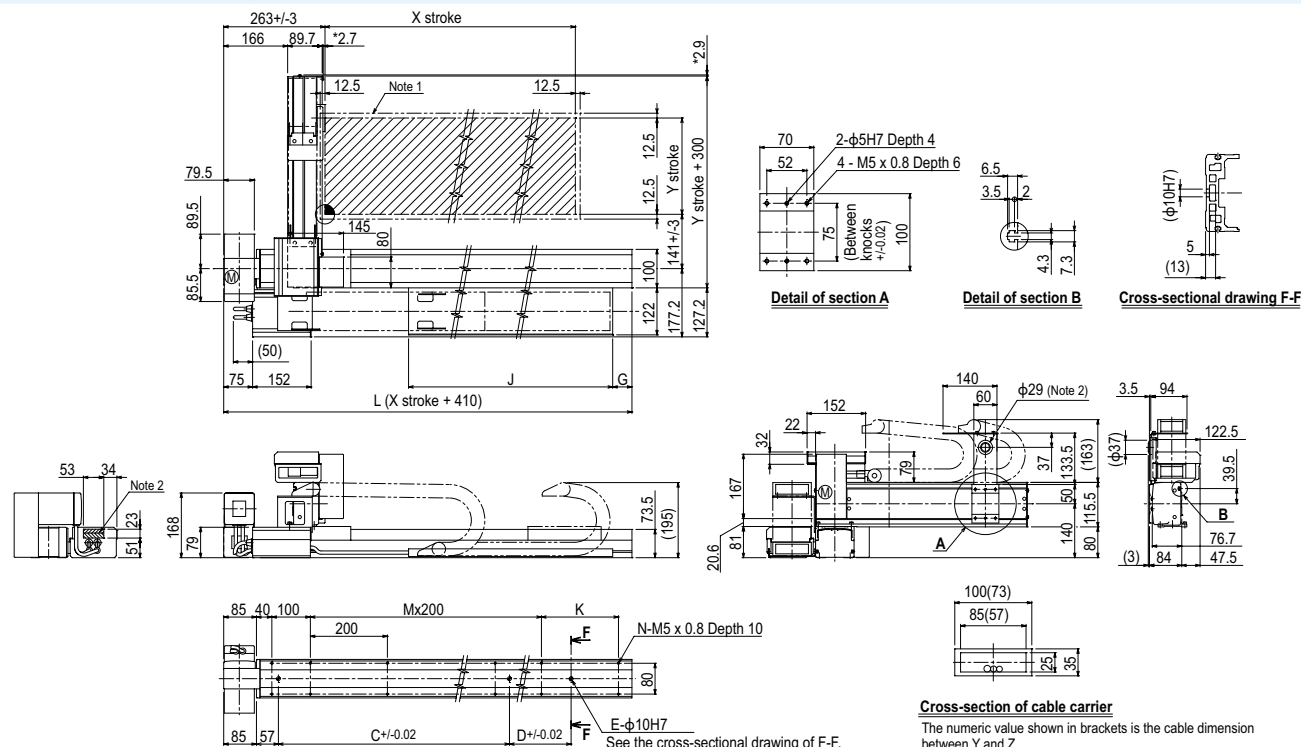
Maximum payload (kg)

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

Controller

Controller	Operation method
RCX320	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 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
C	240	420	600	600	780	780	960	960	1140	1140	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320
D	—	—	—	—	—	—	—	—	—	—	—	240	240	240	420	420	600	780	780	960	960	1140	1140	1320
E	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3
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
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
Y stroke	150	250	350	450	550																			

Linear conveyor modules	LCMR200
Single-axis robots	GX
Linear conveyor modules	LCM100
SCARA robots	YK-X
Single-axis robots	Robonity
Linear motor single-axis robots	PHASER
Single-axis robots	FLIP-X
Compact single-axis robots	TRANSERO
Cartesian robots	XY-X
Pick & place robots	YP-X
	CLEAN
	CONTROLLER
	INFORMATION
Arm type	
Gantry type	
Moving arm type	
Pole type	
XZ type	

SXYx

2 axes

● Arm type

● Cable carrier

Ordering method

SXYx - C

Model	Cable	Combination	X-axis stroke	Y-axis stroke	Cable
		A1	15 to 105cm	15 to 65cm	3L: 3.5m
		A2			5L: 5m
		A3			10L: 10m
		A4			

RCX320 2

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Vision System	Absolute battery
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Specify various controller setting items. RCX320 ▶ [P.626](#)



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 φ15	Ball screw φ15
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 flange machining (installation holes, tap holes) differs from single-axis robots.
Note 2. Positioning repeatability in one direction.
Note 3. Leads not listed in the catalog are also available. Contact us for details.
Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

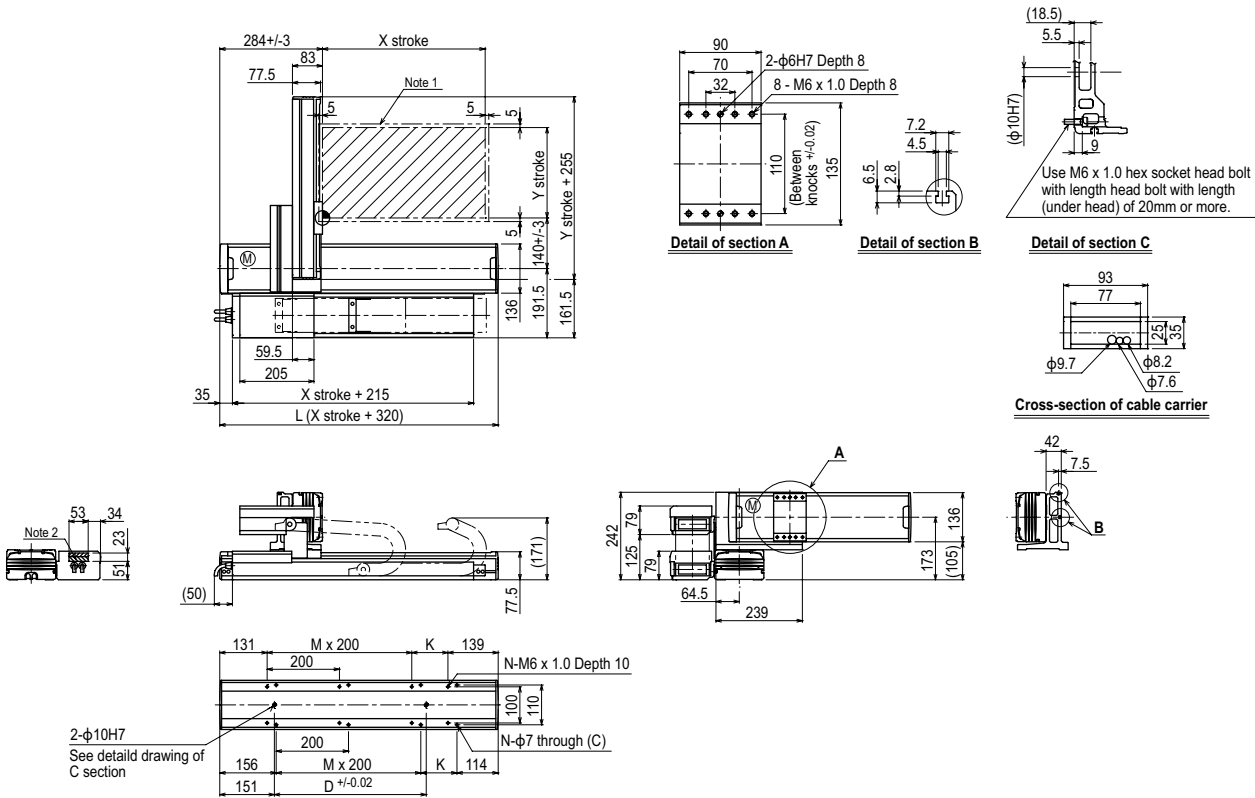
Maximum payload (kg)

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

Controller

Controller	Operation method
RCX320	Programming / I/O point trace / Remote command / Operation using RS-232C communication

SXYx 2 axes A1

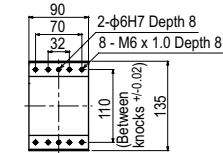


X stroke	150	250	350	450	550	650	750	850	950	1050
L	470	570	670	770	870	970	1070	1170	1270	1370
K	200	100	200	100	200	100	200	100	200	100
D	240	240	420	420	600	600	780	960	960	1140
M	0	1	1	2	2	3	3	4	4	5
N	4	6	6	8	8	10	10	12	12	14
Y stroke	150	250	350	450	550	650				
Maximum speed for each stroke (mm/sec)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

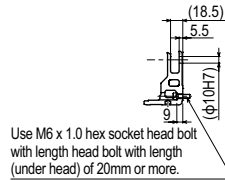
SXYx 2 axes **A2**



Detail of section A



Detail of section B



Detail of section C

SXYx

2 axes

● Arm type

● Whipover

Ordering method

SXYx - S

Model

Cable

Combination

X-axis stroke

Y-axis stroke

Cable

RCX320 2

Controller / Number of controllable axes

Safety standard

Option A (OP.A)

Option B (OP.B)

Vision System

Absolute battery

A1

A2

A3

A4

15 to 85cm

15 to 65cm

3L: 3.5m

5L: 5m

10L: 10m

Specify various controller setting items. RCX320 ▶ **P.626**

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 φ15	Ball screw φ15
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
RCX320	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
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

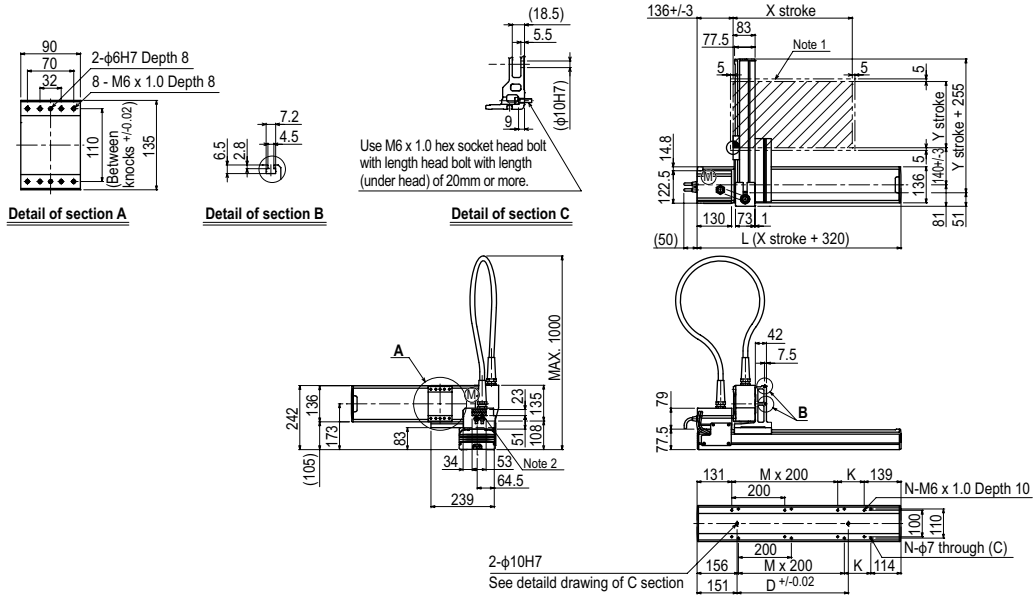
Y stroke	150	250	350	450	550	650
Maximum speed for each stroke (mm/sec) ^{Note 3}						
X-axis	1200			960	780	
Speed setting	-			80%	65%	

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

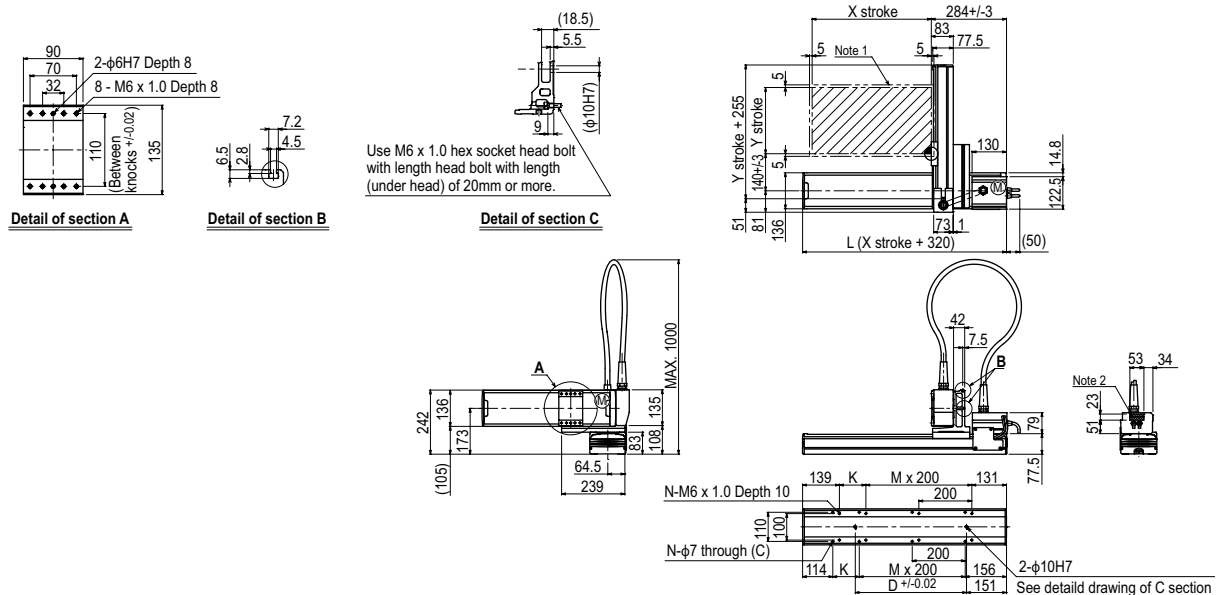
Note 2. The shaded position indicates an user cable extraction port.

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.

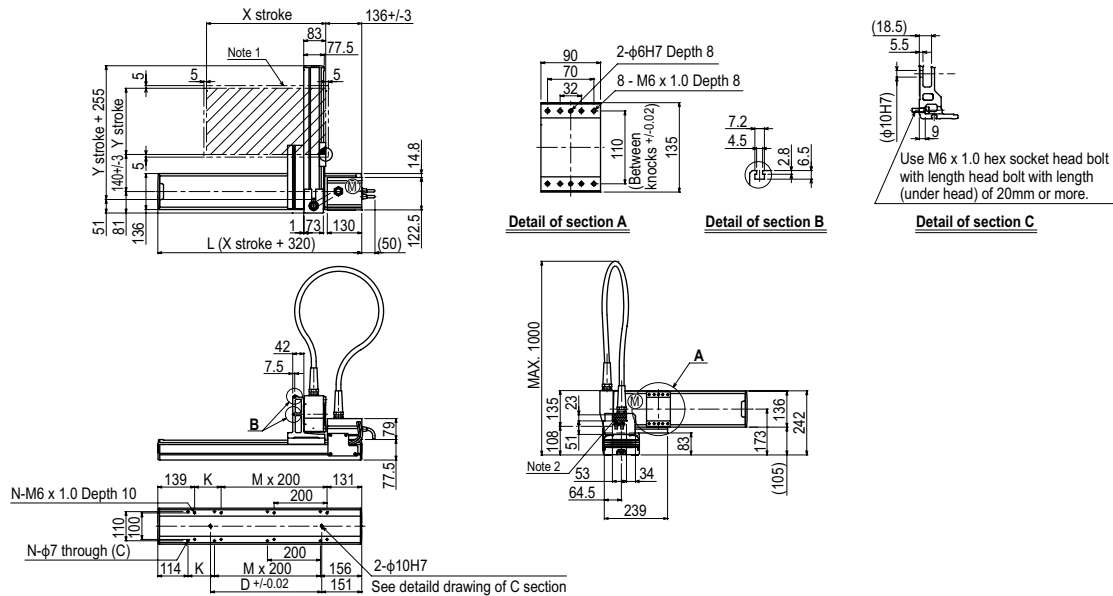
SXYx 2 axes **A2**



SXYx 2 axes **A3**



SXYx 2 axes **A4**



Linear conveyor modules	LCMR200
Single-axis robots	GX
Linear conveyor modules	LCM100
SCARA robots	YK-X
Single-axis robots	Robonity
Linear motor single-axis robots	PHASER
Single-axis robots	FLIP-X
Compact single-axis robots	TRANSERO
Cartesian robots	XY-X
Pick & place robots	YP-X
	CLEAN
	CONTROLLER
	INFORMATION
Arm type	
Gantry type	
Moving arm type	
Pole type	
XZ type	



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		A1 A2 A3 A4	15 to 85cm	15 to 65cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX340 3							

Specify various controller setting items. RCX340 ▶ **P.636**

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 φ15	Ball screw φ15	Ball screw φ15
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.

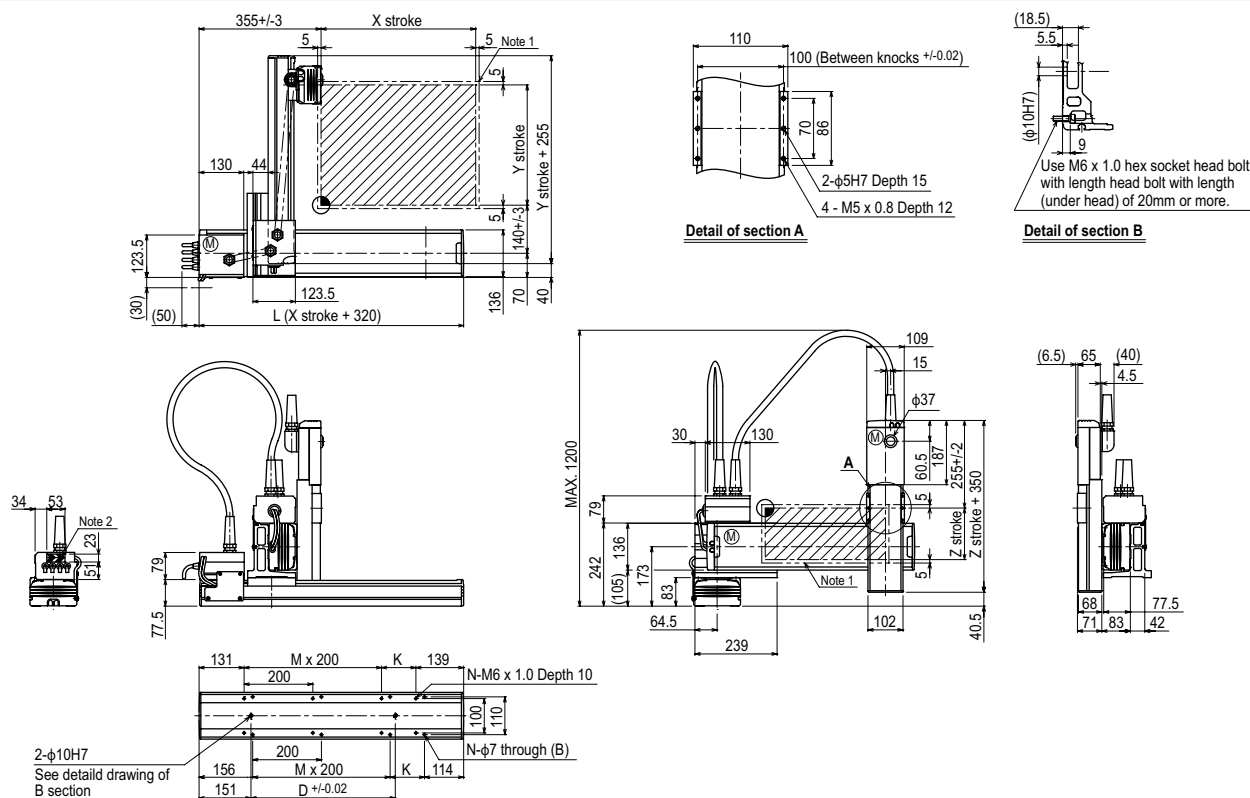
Maximum payload (kg)

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

Controller

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

SXYx 3 axes / ZF (A1)



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

3 axes / ZFL20

● 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
SXYx-C		A1 A2 A3 A4	15 to 105cm	15 to 65cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX340 3							

Specify various controller setting items. RCX340 ▶ **P.636**

Specification

	X-axis	Y-axis	Z-axis
Axis construction ^{Note 1}	F14H	F14	F10H-BK
AC servo motor output (W)	200	100	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw φ15	Ball screw φ15	Ball screw φ15
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 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.

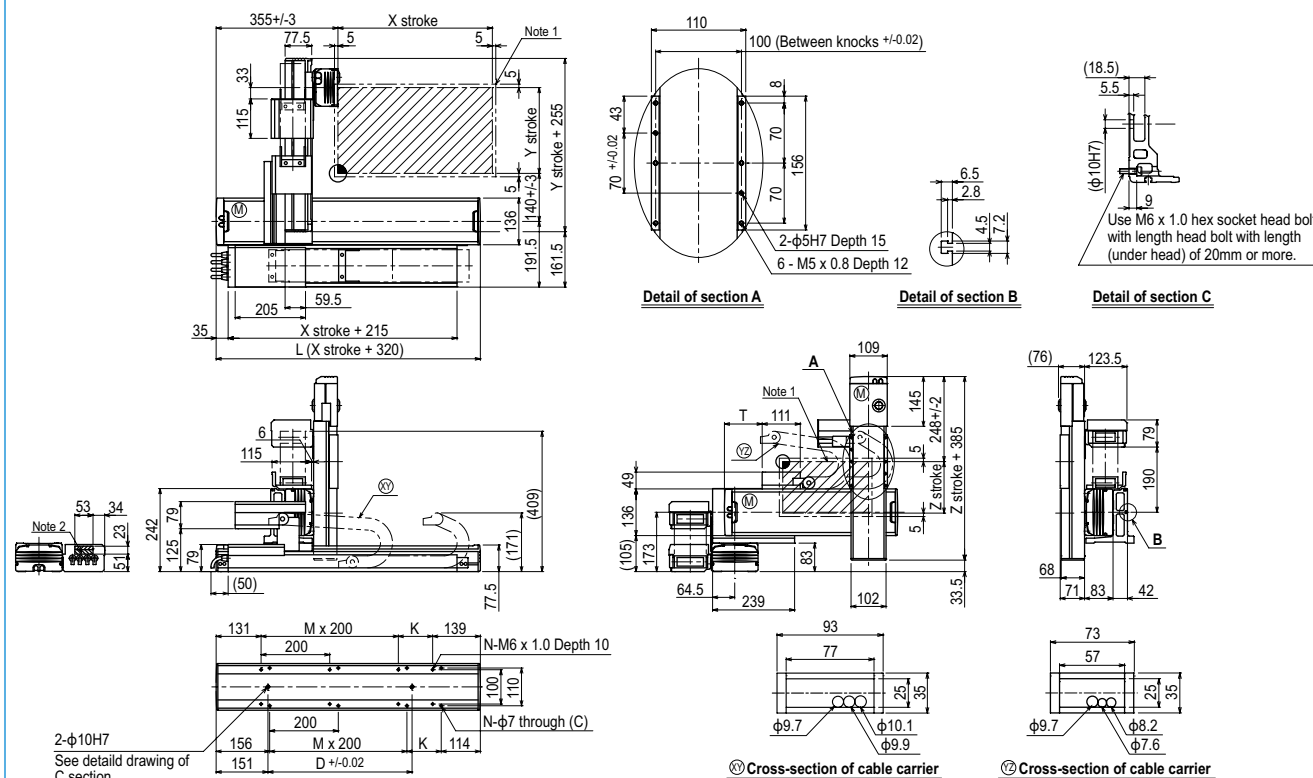
Maximum payload (kg)

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

Controller

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

SXYx 3 axes / ZFL20 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	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.



Ordering method

SXYx - 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	15 to 105cm	15 to 65cm		15 to 35cm	3L: 3.5m							
		A2					5L: 5m							
		A3					10L: 10m							
		A4												

Specify various controller setting items. RCX340 ▶ **P636**

■ Specification

	X-axis	Y-axis	Z-axis
Axis construction ^{Note 1}	F14H	F14	F10H-BK
AC servo motor output (W)	200	100	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw φ15	Ball screw φ15	Ball screw φ15
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.

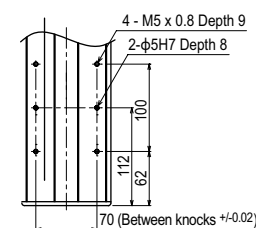
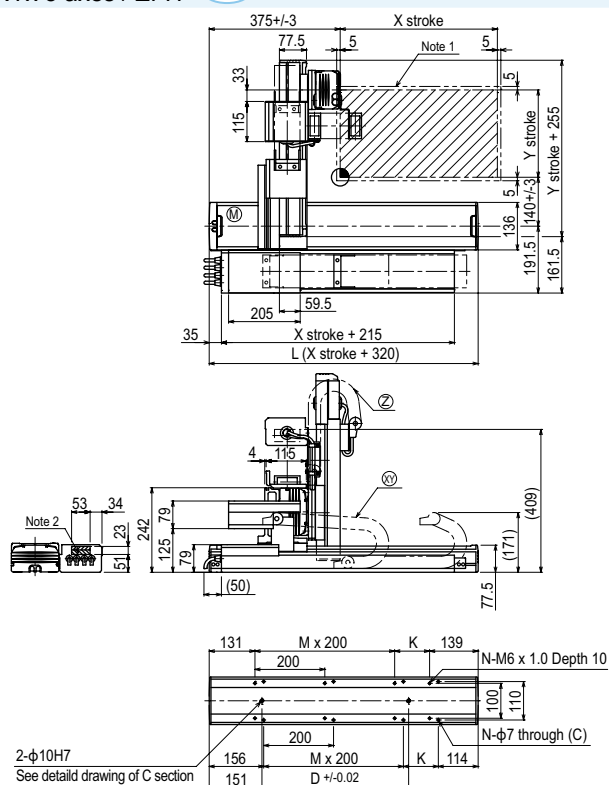
Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

Maximum payload (kg)

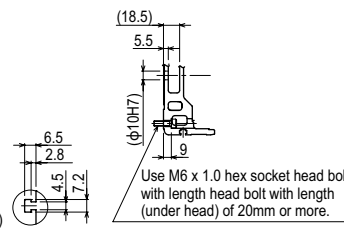
	Z stroke (mm)		
Y stroke (mm)	150	250	350
150	13	12	11
250	10	9	8
350	8	7	6
450	6	5	4
550	4	3	2
650	2	1	1

Controller

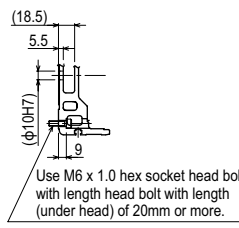
Controller	Operation method
RCX340	Programming / I/O point trace / Remote command / Operation using RS-232C communication

SXYx 3 axes / ZFH **A1**

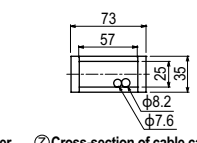
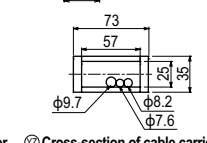
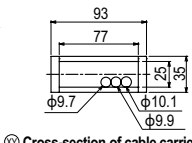
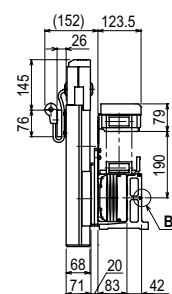
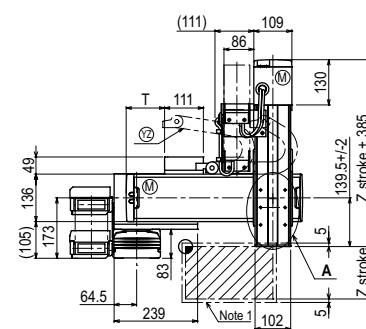
Detail of section A



Detail of section B



Detail of section C



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

Model

Cable

Combination

X-axis stroke

Y-axis stroke

ZR-axis

Z-axis stroke

Cable

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

A1

A2

A3

A4

15 to 105cm

15 to 65cm

ZS12

ZS6

3L: 3.5m

5L: 5m

10L: 10m

Specify various controller setting items. RCX340 ▶ **P.636**

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 φ15	Ball screw φ15	Ball screw φ12	
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	Programming / I/O point trace / Remote command / Operation using RS-232C communication

SXYx 3 axes / ZS A1

394+/-3

X stroke

77.5

5

Note 1

5

38

115

5

Y stroke + 255

136

140+/-3

191.5

161.5

59.5

X stroke + 215

L (X stroke + 320)

35

φ5

41

36

φ12 0 -0.018

M8 x 1.25

Depth 15

6.5

2.8

4.5

7/2

(18.5)

5.5

(φ10H7)

9

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

93

77

25

35

φ9.7

φ10.1

φ9.9

73

57

25

35

φ9.7

φ8.2

φ7.6

77.5

(171)

409

77.5

(50)

Note 2

53

34

23

51

131

200

K

139

N-M6 x 1.0 Depth 10

100

110

200

M x 200

K

114

156

151

D +/-0.02

2-φ10H7

See detaild drawing of C section

Detail of section A

Detail of section B

Detail of section C

40

72

111

T

111

242

79

83

79

64.5

239

Note 1

6

173

105

136

168

300

100H+/-2

Z stroke

150

124

299

101

67

67.5

6

110

83

233

42

115

68

149

190

79

A

B

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.

412

Controller

RCX340 ▶ 636



Ordering method

SXYx - S					15		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		A1	15 to 85cm	15 to 65cm	ZS12		3L: 3.5m								
A2		A2			ZS6		5L: 5m								
A3		A3					10L: 10m								
A4		A4													

Specify various controller setting items. RCX340 ▶ **P636**

Specify various controller setting items. RCX340 ▶ **P.636**

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 φ15	Ball screw φ15	Ball screw φ12	
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.

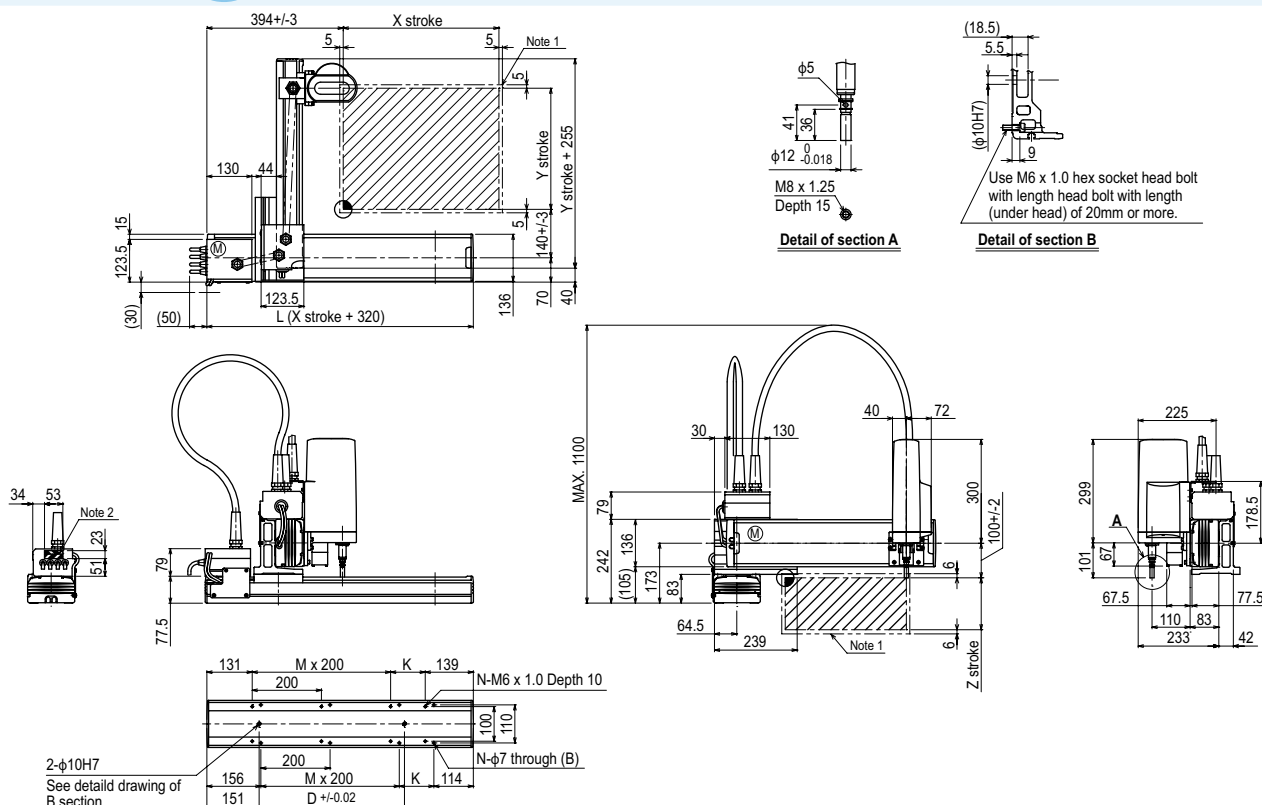
Maximum payload (kg)

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

Controller

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

SXYx 3 axes / ZS (A1)

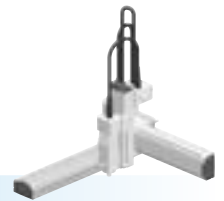


X stroke	150	250	350	450	550	650	750	850
L	470	570	670	770	870	970	1070	1170
K	200	100	200	100	200	100	200	100
D	240	240	420	420	600	600	780	960
M	0	1	1	2	2	3	3	4
N	4	6	6	8	8	10	10	12
Y stroke	150	250	350	450	550	650		
Z stroke	150							
Maximum speed for each stroke (mm/sec) Note 3	X-axis	1200					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		A1 A2 A3 A4	15 to 85cm	15 to 65cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX340 4							

Specify various controller setting items. RCX340 ▶ **P636**

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 φ15	Ball screw φ15	Ball screw φ15	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.

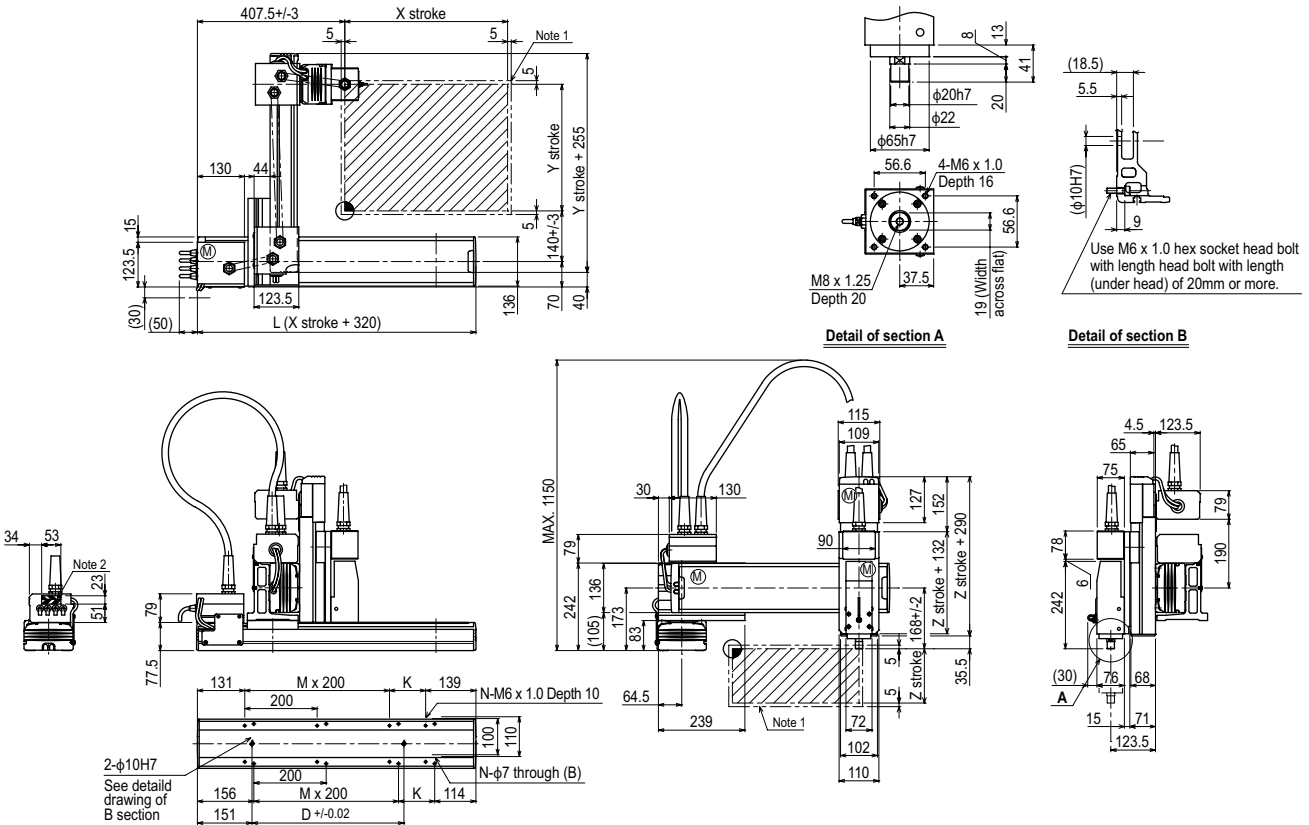
Maximum payload (kg)

	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	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

15

RCX340 4

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 105cm

15 to 65cm

ZRS12

ZRS6

3L: 3.5m

5L: 5m

10L: 10m

Specify various controller setting items. RCX340 ▶ **P.636**

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 φ15	Ball screw φ15	Ball screw φ12	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	Programming / I/O point trace / Remote command / Operation using RS-232C communication

SXYx 4 axes / ZRS

A1

394+/-3

X stroke

77.5

5

Note 1

5

115

38

191.5

140+/-3

Y stroke + 255

136

5

161.5

59.5

205

X stroke + 215

L (X stroke + 320)

35

φ5

41

36

φ12 $\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$

M8 x 1.25

Depth 15

6.5

2.8

4.5

7.2

Detail of section A

Detail of section B

Detail of section C

⑩ Cross-section of cable carrier

⑪ Cross-section of cable carrier

53

34

23

51

77.5

(409)

(171)

(50)

131

200

K

139

N-M6 x 1.0 Depth 10

100

110

200

M x 200

K

114

N-φ7 through (C)

156

151

D +/-0.02

2-φ10H7

See detail drawing of C section

242

79

125

83

79

64.5

239

40

72

111

6

136

(168)

300

100+/-2

173

(105)

Z stroke

Note 1

301

65

99

150

124

124

49

190

79

68

115

110

83

233

42

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)	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

SXY_x - S															15	RCX340 4							
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	15 to 85cm	15 to 65cm	ZRS12		3L: 3~5m																
A2		A2			ZRS6		5L: 5~m																
A3		A3					10L: 10~m																
								Specify various controller setting items. RCX340 ▶ P.636															

Specify various controller setting items. RCX340 ▶ **P.636**

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	100
Repeatability ^{Note 2} (XYZ: mm) (R: °)	+/-0.01	+/-0.01	+/-0.02	+/-0.005	+/-0.005
Drive system	Ball screw φ15	Ball screw φ15	Ball screw φ12	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.

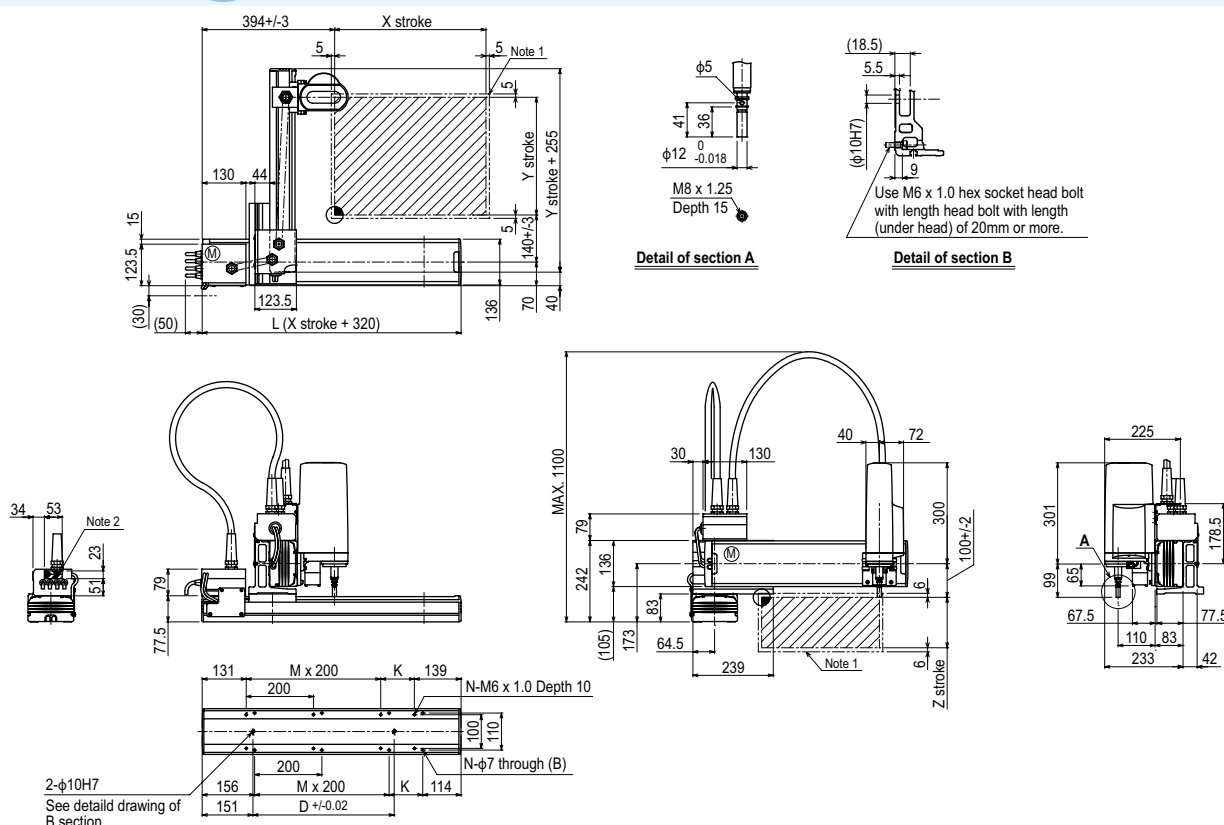
Maximum payload (kg)

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	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
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			
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

SXYBx - C						RCX320 2					
Model	Cable	Combination	X-axis stroke	Y-axis stroke	Cable	Controller / Number of controllable axes	Safety standard	Regenerative unit	Option A (OP.A)	Option B (OP.B)	Vision System
A1			15 to 305cm	15 to 55cm	3L: 3.5m	Specify various controller setting items. RCX320 ▶ P.626					
A2					5L: 5m						
A3					10L: 10m						
A4											
						Absolute battery					

Note 1. A regenerative unit is required when the maximum speed exceeds 1250mm/sec.

Specification

	X-axis	Y-axis
Axis construction ^{Note 1}	B14H	B14
AC servo motor output (W)	200	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 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)

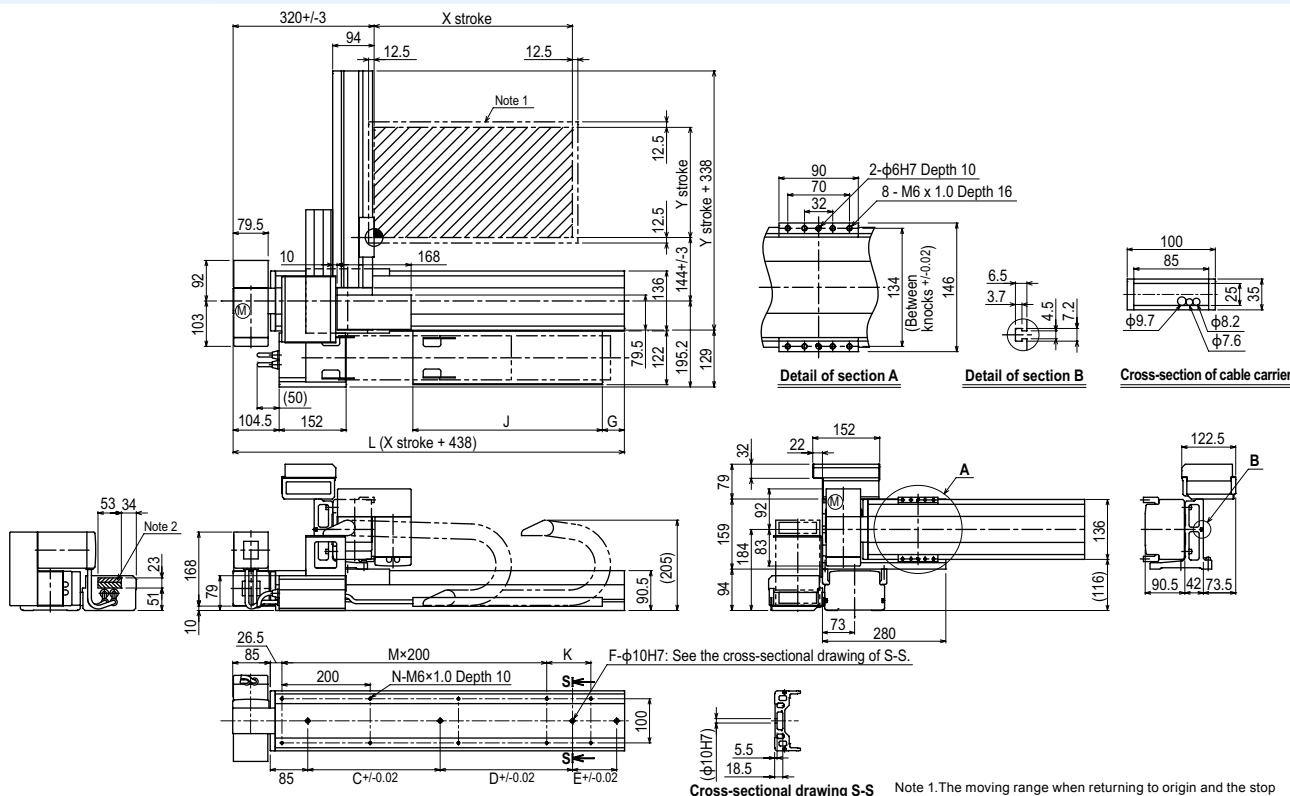
Y stroke (mm)	XY 2 axes
150	14
250	12
350	10
450	8
550	7

Controller

Controller	Operation method
RCX320	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 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	3	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																									

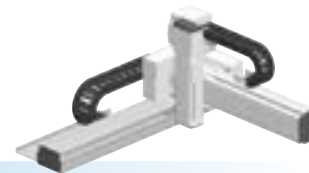
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

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

SXYBx

3 axes / ZF

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



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
SXYBx - C		A1 A2 A3 A4	15 to 305cm	15 to 55cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX340 3							

Specify various controller setting items. RCX340 ▶ [P.636](#)

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 φ15
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 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.

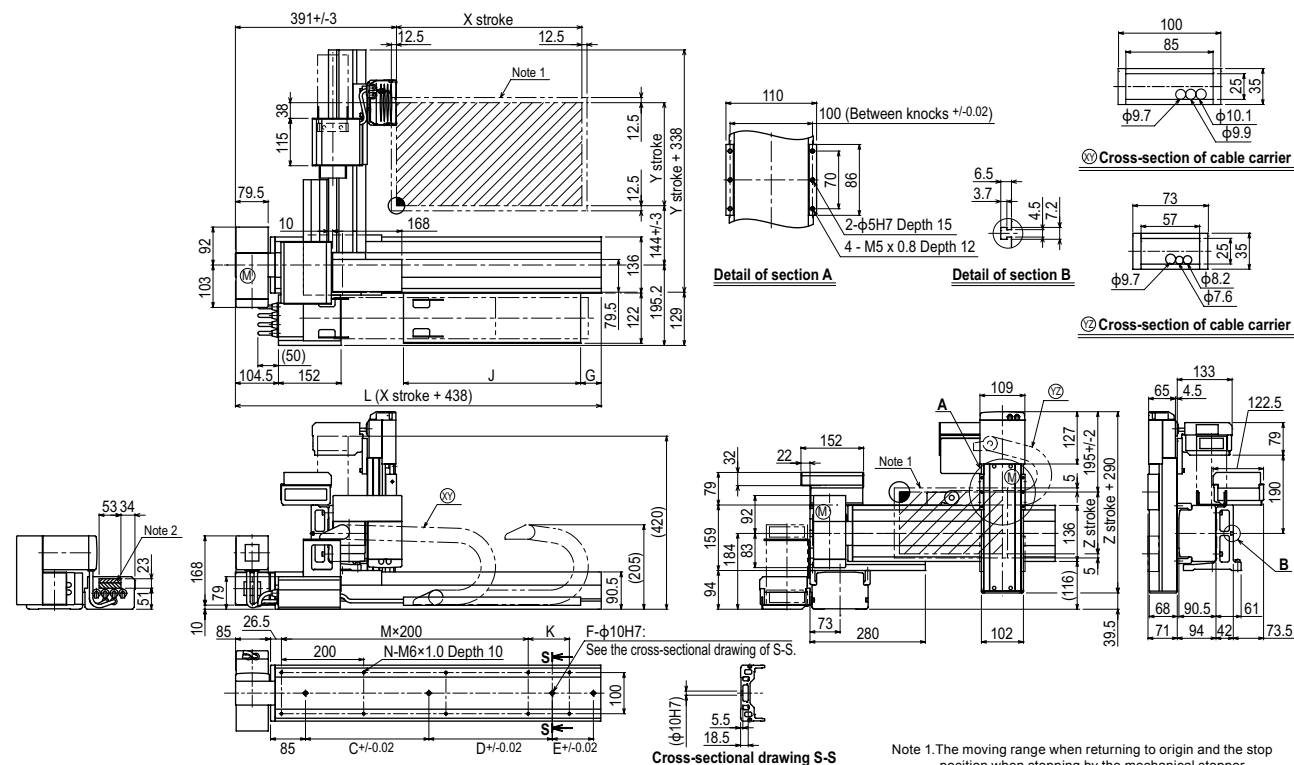
Maximum payload (kg)

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

Controller

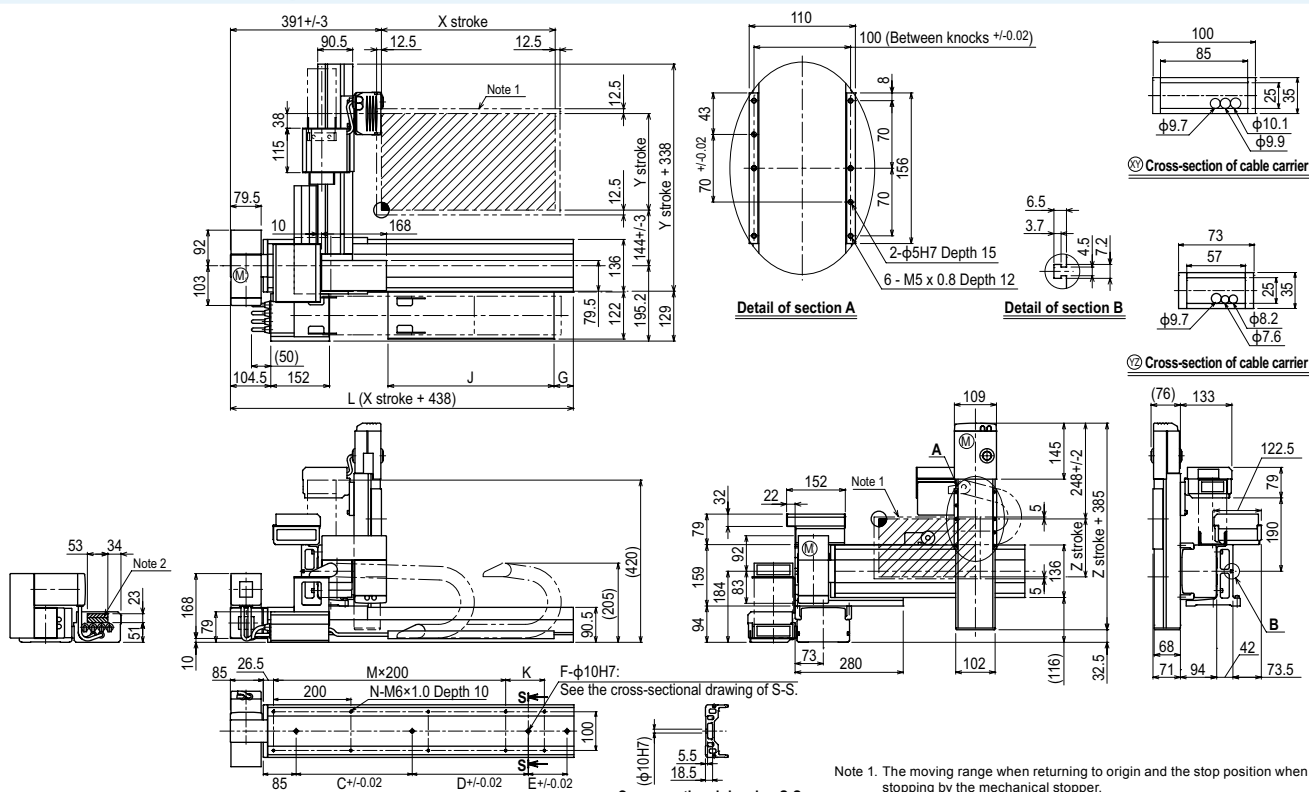
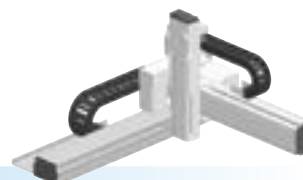
Controller	Operation method
RCX340	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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 / ZFH

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

Ordering method

SXYBx - C					ZFH			RCX340 3								
Model	Cable	Combination	X-axis stroke	Y-axis stroke	ZR-axis	Z-axis stroke	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery	
		A1 A2 A3 A4	15 to 305cm	15 to 45cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m									

Specify various controller setting items. RCX340 ▶ **P.636**

Specification

	X-axis	Y-axis	Z-axis
Axis construction ^{Note 1}	B14H	B14	F10H-BK
AC servo motor output (W)	200	100	200
Repeatability ^{Note 2} (mm)	+/-0.04	+/-0.04	+/-0.01
Drive system	Timing belt	Timing belt	Ball screw φ15
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 450	150 to 350
Robot cable length (m)	Standard: 3.5 Option: 5, 10		

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

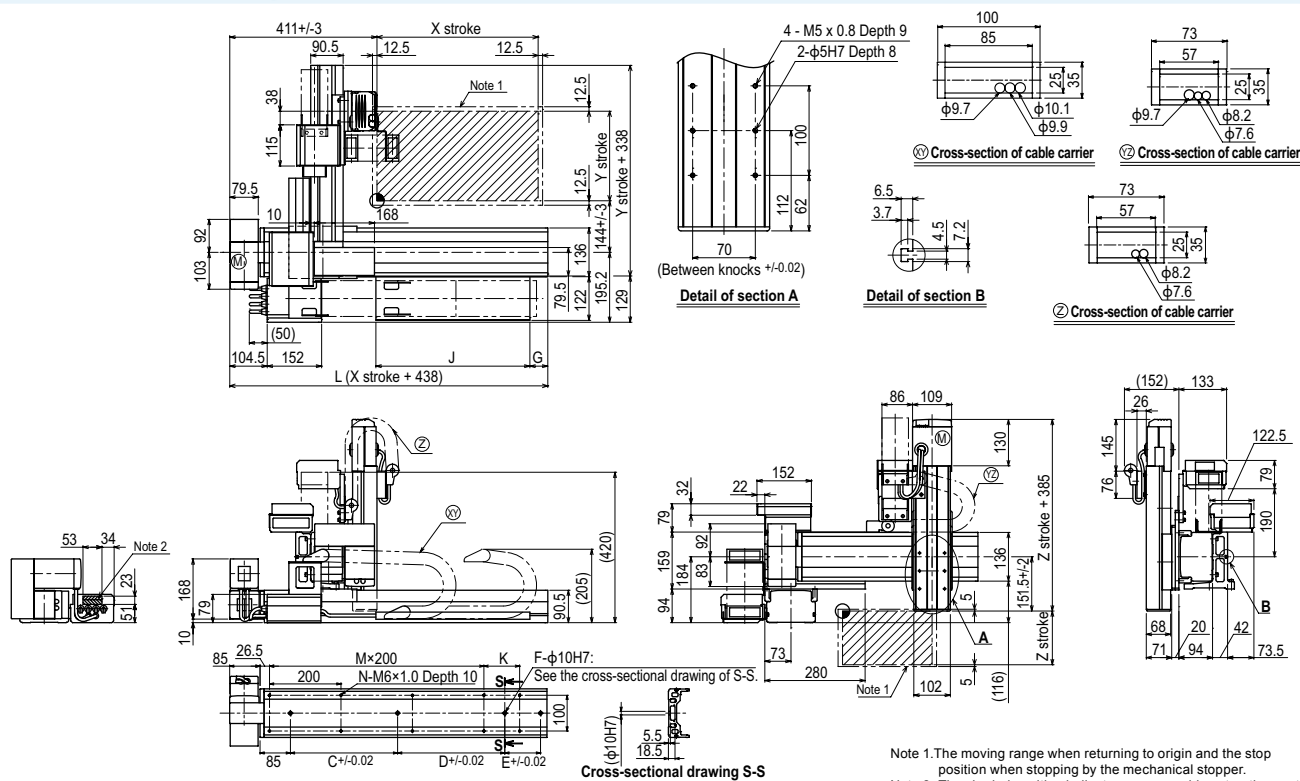
Maximum payload (kg)

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

Controller

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

SXYBx 3 axes / ZFH A1

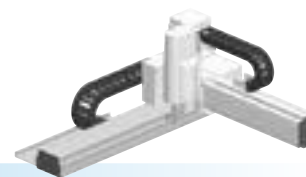


Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.
Note 2. The shaded position indicates an user cable extraction port.

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																										
Z stroke	150	250	350																											

SXYBx 3 axes / ZS

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



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
SXYBx - C		A1 A2 A3 A4	15 to 305cm	15 to 55cm	ZS12 ZS6		3L: 3.5m 5L: 5m 10L: 10m	RCX340 3							

Specify various controller setting items. RCX340 ▶ **P.636**

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 φ12	
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.

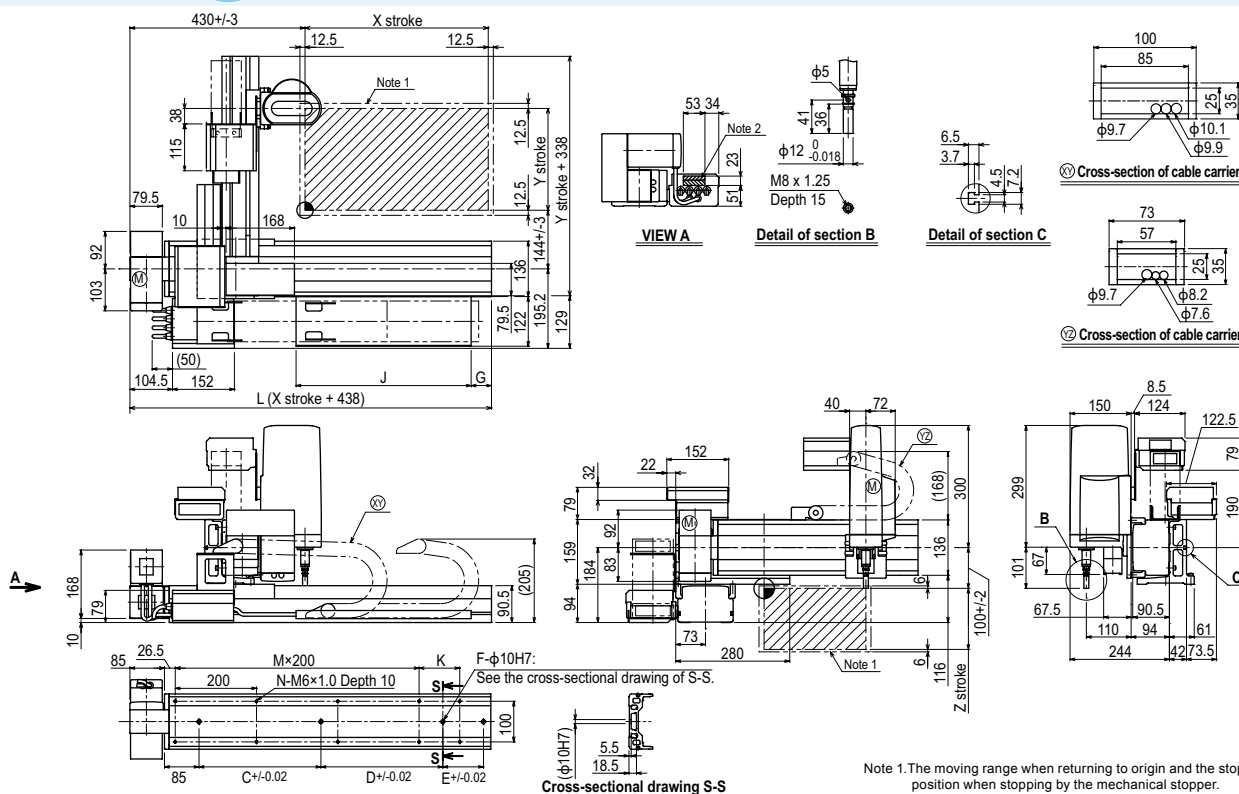
Maximum payload (kg)

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

SXYBx 3 axes / ZS 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.

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																													

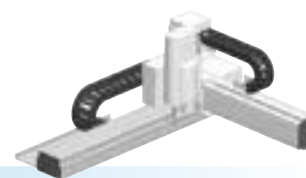
Controller

RCX340 ▶ 636

SXYBx

4 axes / ZRS

● Arm type ● Cable carrier ● ZR axis integrated type



Ordering method

SXYBx - C												15	RCX340 4											
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	ZRS12 ZRS6		3L: 3.5m 5L: 5m 10L: 10m	Specify various controller setting items. RCX340 ▶ P.636																

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
Repeatability ^{Note 2} (XYZ: mm)(R: °)	+/-0.04	+/-0.04	+/-0.02		+/-0.005
Drive system	Timing belt	Timing belt	Ball screw φ12		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
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.

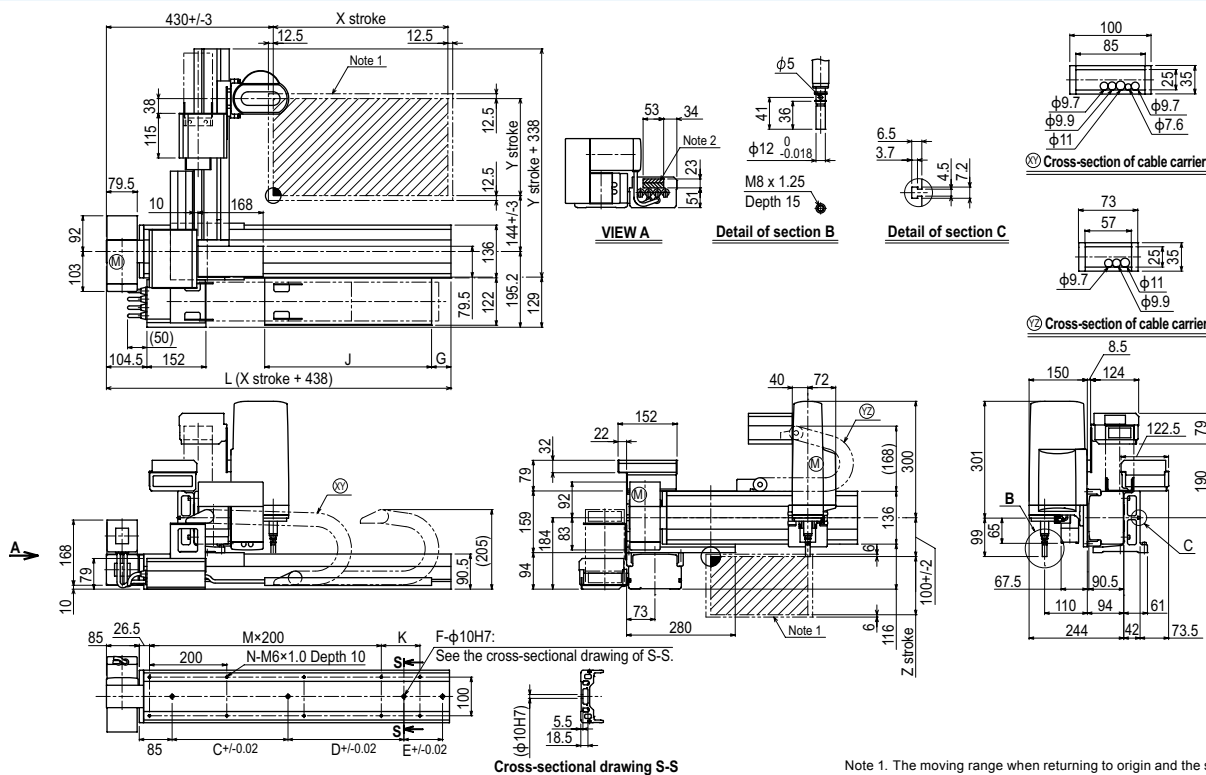
Maximum payload (kg)

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

SXYBx 4 axes / ZRS A1

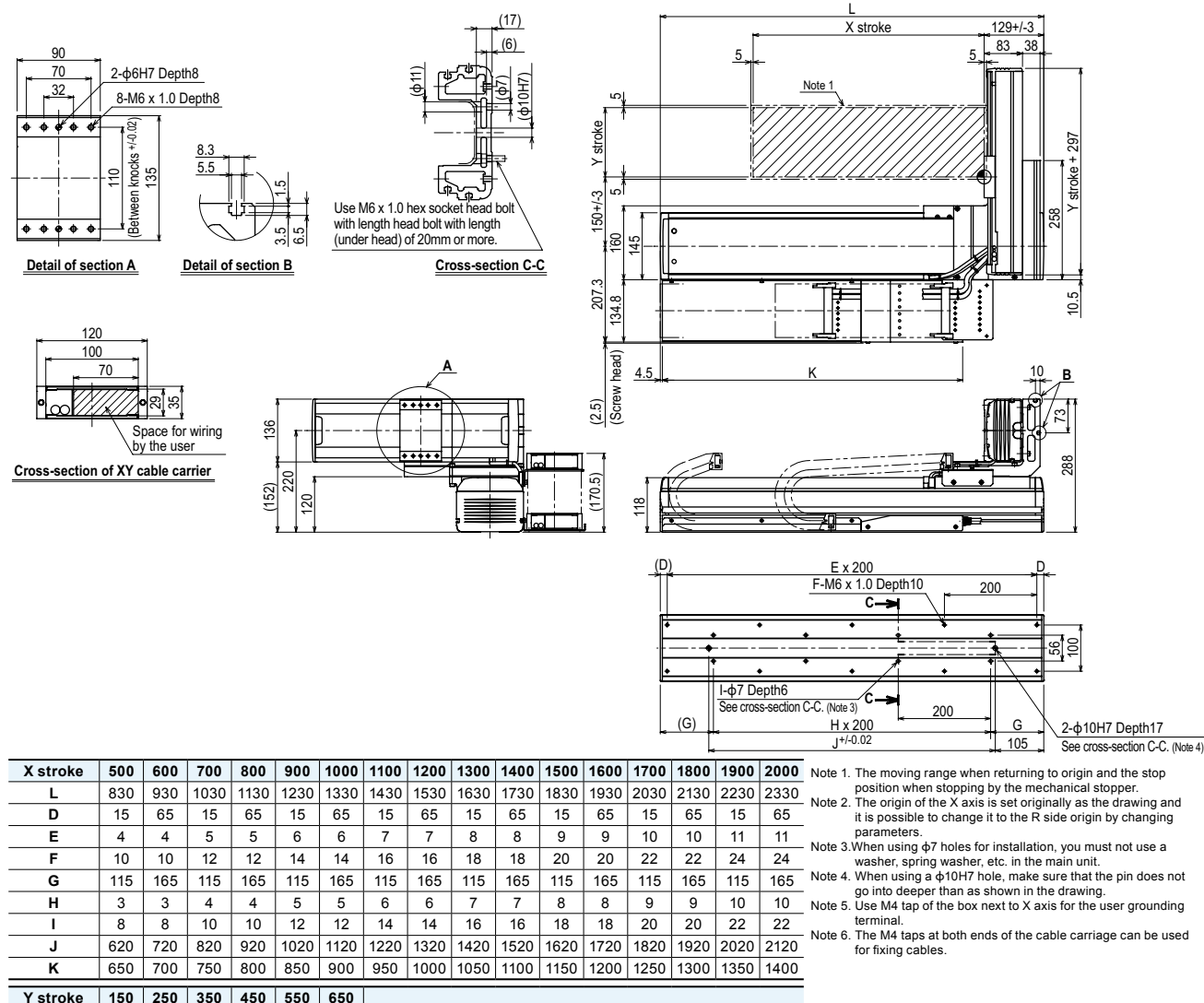


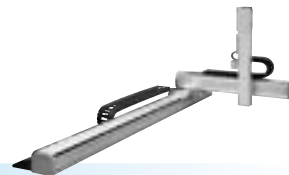
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.
Note 2. The shaded position indicates an user cable extraction port.

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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	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	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																														

Linear conveyor modules	LCMR200
Single-axis robots	GX
Linear conveyor modules	LCM100
SCARA robots	YK-X
Single-axis robots	Robonity
Linear motor single-axis robots	PHASER
Single-axis robots	FLIP-X
Compact single-axis robots	TRANSERO
Cartesian robots	XY-X
Pick & place robots	YP-X
	CLEAN
	CONTROLLER
	INFORMATION
Arm type	
Gantry type	
Moving arm type	
Pole type	
XZ type	

NXY 2 axes A3





● Arm type

● Cable carrier

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

Ordering method

NXY - C

ZFL20

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

Specify various controller setting items. RCX340 ▶ **P.636**

Specification

	X-axis	Y-axis	Z-axis
Axis construction Note 1	N15	F14	F10H-BK
AC servo motor output (W)	400	100	200
Repeatability Note 2 (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw $\phi 15$	Ball screw $\phi 15$	Ball screw $\phi 15$
Ball screw lead Note 3 (Deceleration ratio) (mm)	20	20	20
Maximum speed (mm/sec)	1200	1200	1200
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	8	8	8
250	8	8	8
350	8	8	8
450	8	7	6
550	5	4	3
650	3	2	1

Controller

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

NXY 3 axes / ZFL20 (A1)

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

Space for wiring by the user

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

200 $\pm$ 3 X stroke

Y stroke + 297

258

10.5

5

5

5

145

160

150 $\pm$ 3 Y stroke

207.3

134.8

4.5

(2.5) (Screw head)

10

73

288

120

118

D

200

E x 200

F-M6 x 1.0 Depth10

C

100

56

200

G

H x 200

I-φ7 Depth6 See cross-section C-C. (Note 3)

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

J $\pm$ 0.02

105

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.

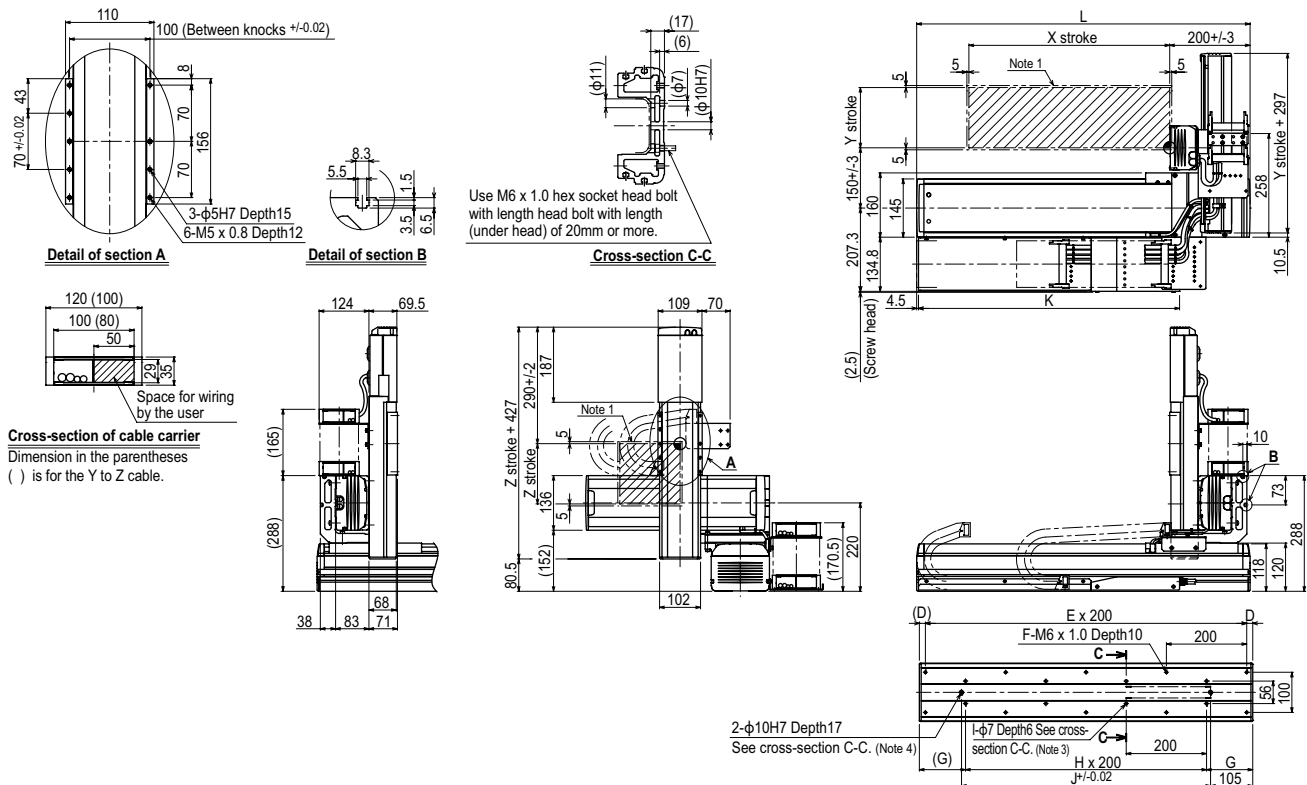
Note 3. When using $\phi 7$ holes for installation, you must not use a washer, spring washer, etc. in the main unit.

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

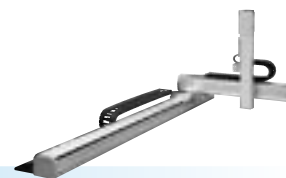
Note 5. Use M4 tap of the box next to X axis for the user grounding terminal.

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

NXY 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													



● 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

Specify various controller setting items. RCX340 ▶ **P.636**

Specification

	X-axis	Y-axis	Z-axis
Axis construction ^{Note 1}	N15	F14	F10H-BK
AC servo motor output (W)	400	100	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw φ15	Ball screw φ15	Ball screw φ15
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 flange machining (installation holes, tap holes) differs from single-axis robots.
Note 2. Positioning repeatability in one direction.
Note 3. Leads not listed in the catalog are also available. Contact us for details.

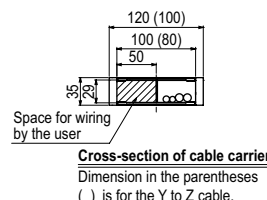
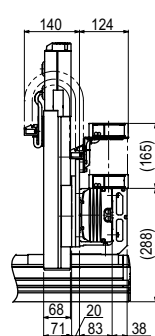
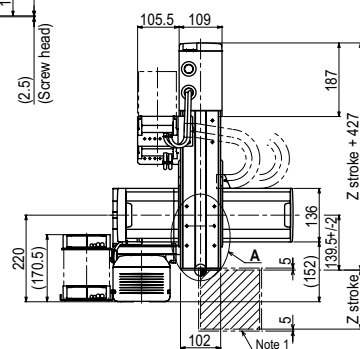
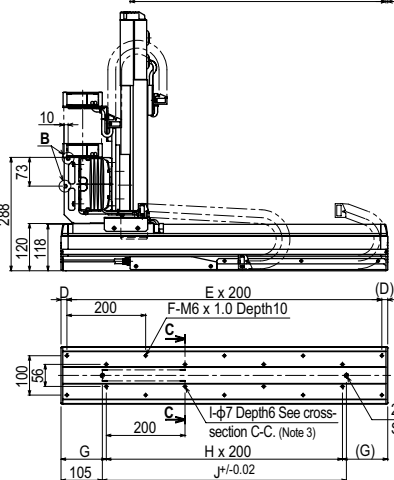
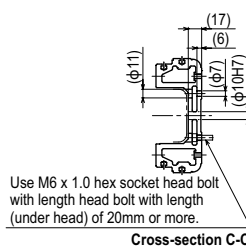
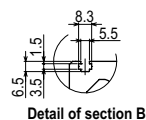
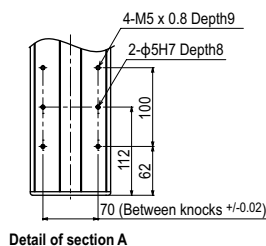
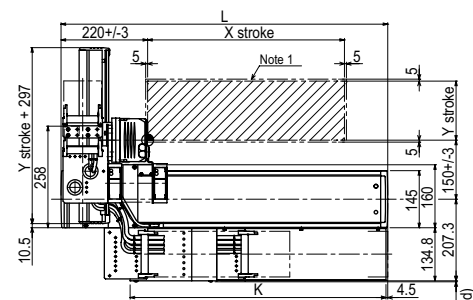
Maximum payload (kg)

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

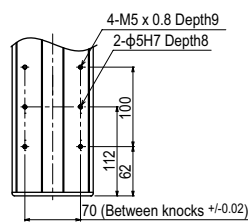
NXY 3 axes / ZFH (A1)



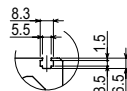
X stroke	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
L	830	930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330
D	15	65	15	65	15	65	15	65	15	65	15	65	15	65	15	65
E	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11
F	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24
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 φ7 holes for installation, you must not use a washer, spring washer, etc. in the main unit.
Note 4. When using a φ10H7 hole, make sure that the pin does not go into deeper than as shown in the drawing.
Note 5. Use M4 tap of the box next to X axis for the user grounding terminal.
Note 6. The M4 taps at both ends of the cable carriage can be used for fixing cables.

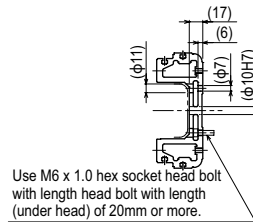
NXY 3 axes / ZFH A3



Detail of section A

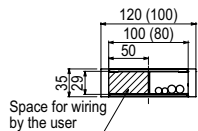


Detail of section B

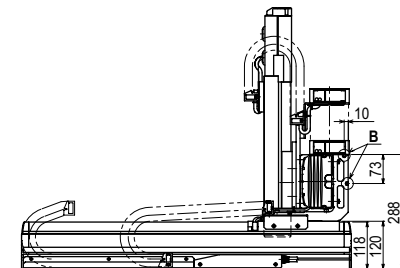
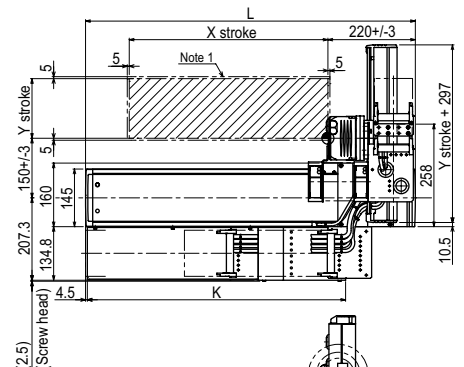
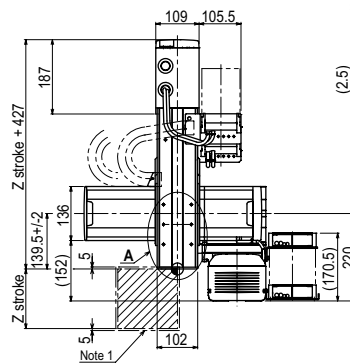
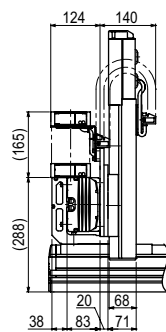


Cross-section C-C

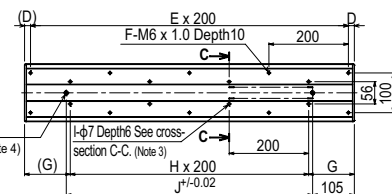
Use M6 x 1.0 hex socket head bolt with length head bolt with length (under head) of 20mm or more.



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

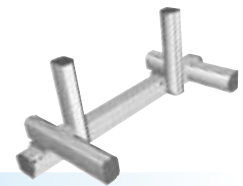


2-φ10H7 Depth17
See cross-section C-C. (Note 4)



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

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



Ordering method

NXY-C	A1			ZFL20			RCX340 4									
Model	Cable	Combination	X-axis stroke 25 to 175cm	Y-axis stroke 15 to 65cm ^{Note 1}	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 ▶ **P.636**

Note 1. When either one or both of Y-axis or Z-axis stroke is different, it will be an order-made.

Specification

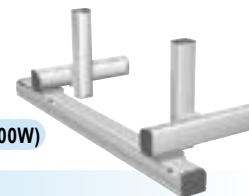
	X-axis	Y-axis ^{Note 1}	Z-axis
Axis construction ^{Note 2}	N15D	F14	F10H-BK
AC servo motor output (W)	400	100	200
Repeatability ^{Note 3} (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw φ15	Ball screw φ15	Ball screw φ15
Ball screw lead ^{Note 4} (Deceleration ratio) (mm)	20	20	20
Maximum speed (mm/sec)	1200	1200	1200
Moving range (mm)	250 to 1750	150 to 650	150 to 350
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

NXY-W

6 axes / ZFH



● Arm type ● Cable carrier ● Double Y axes specifications ● Z-axis: clamped table / moving base type (200W)

Ordering method

NXY-C	A1			ZFH			RCX340 4								
Model	Cable	Combination	X-axis stroke 25 to 175cm	Y-axis stroke 15 to 65cm ^{Note 1}	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 ▶ **P636**

Note 1. When either one or both of Y-axis or Z-axis stroke is different, it will be an order-made.

Specification

	X-axis	Y-axis ^{Note 1}	Z-axis
Axis construction ^{Note 2}	N15D	F14	F10H-BK
AC servo motor output (W)	400	100	200
Repeatability ^{Note 3} (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw $\phi 15$	Ball screw $\phi 15$	Ball screw $\phi 15$
Ball screw lead ^{Note 4} (Deceleration ratio) (mm)	20	20	10
Maximum speed (mm/sec)	1200	1200	600
Moving range (mm)	250 to 1750	150 to 650	150 to 350
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.

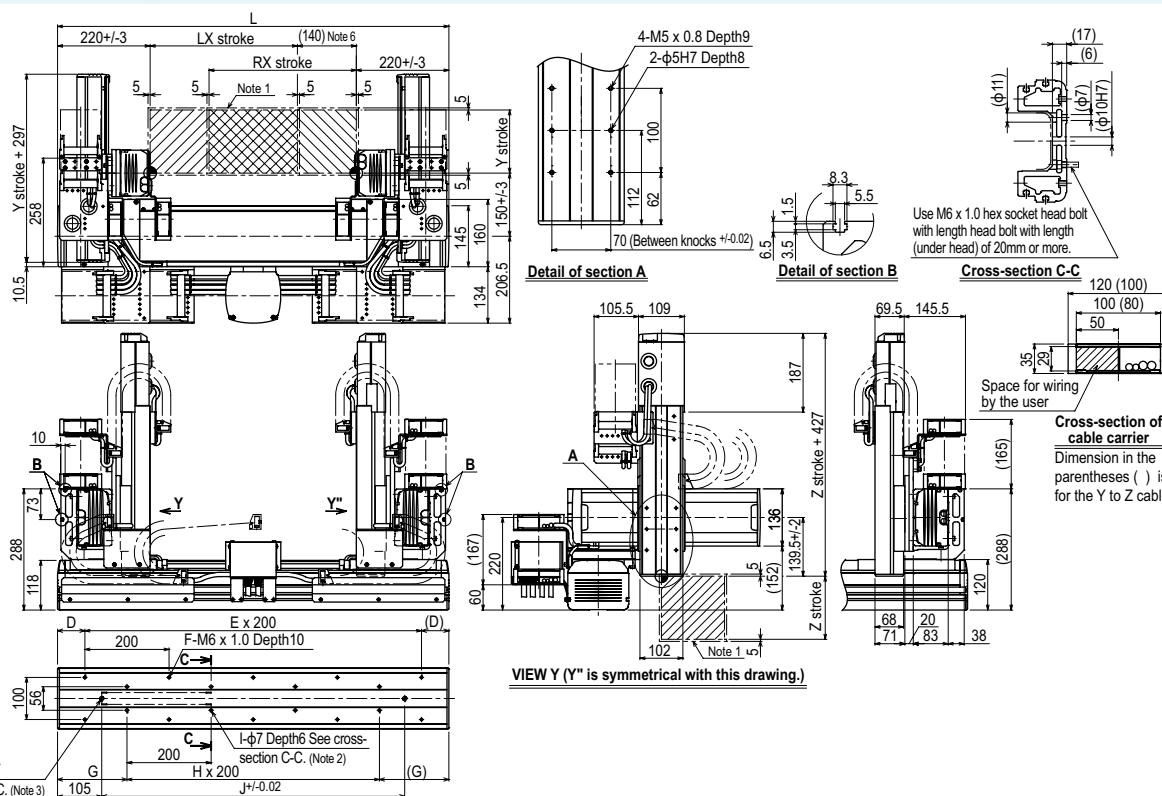
Maximum payload (kg)

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

NXY-W 6 axes / ZFH WA1



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										
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. 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.

Linear conveyor modules	LCMR200
Single-axis robots	GX
Linear conveyor modules	LCM100
SCARA robots	YK-X
Single-axis robots	Robonity
Linear motor single-axis robots	PHASER
Single-axis robots	FLIP-X
Compact single-axis robots	TRANSERVO
Cartesian robots	XY-X
Pick & place robots	YP-X
	CLEAN
	CONTROLLER
	INFORMATION
Arm type	
Gantry type	
Moving arm type	
Pole type	
XZ type	

MXYx
2 axes

Arm type

Cable carrier

Ordering method

MXYx - C

RCX320 2

R

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

Controller / Number of controllable axes

Safety standard

Regenerative unit

Option A (OP.A)

Option B (OP.B)

Vision System

Absolute battery

Specify various controller setting items. RCX320 ▶ P.626

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 φ20	Ball screw φ15
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 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.

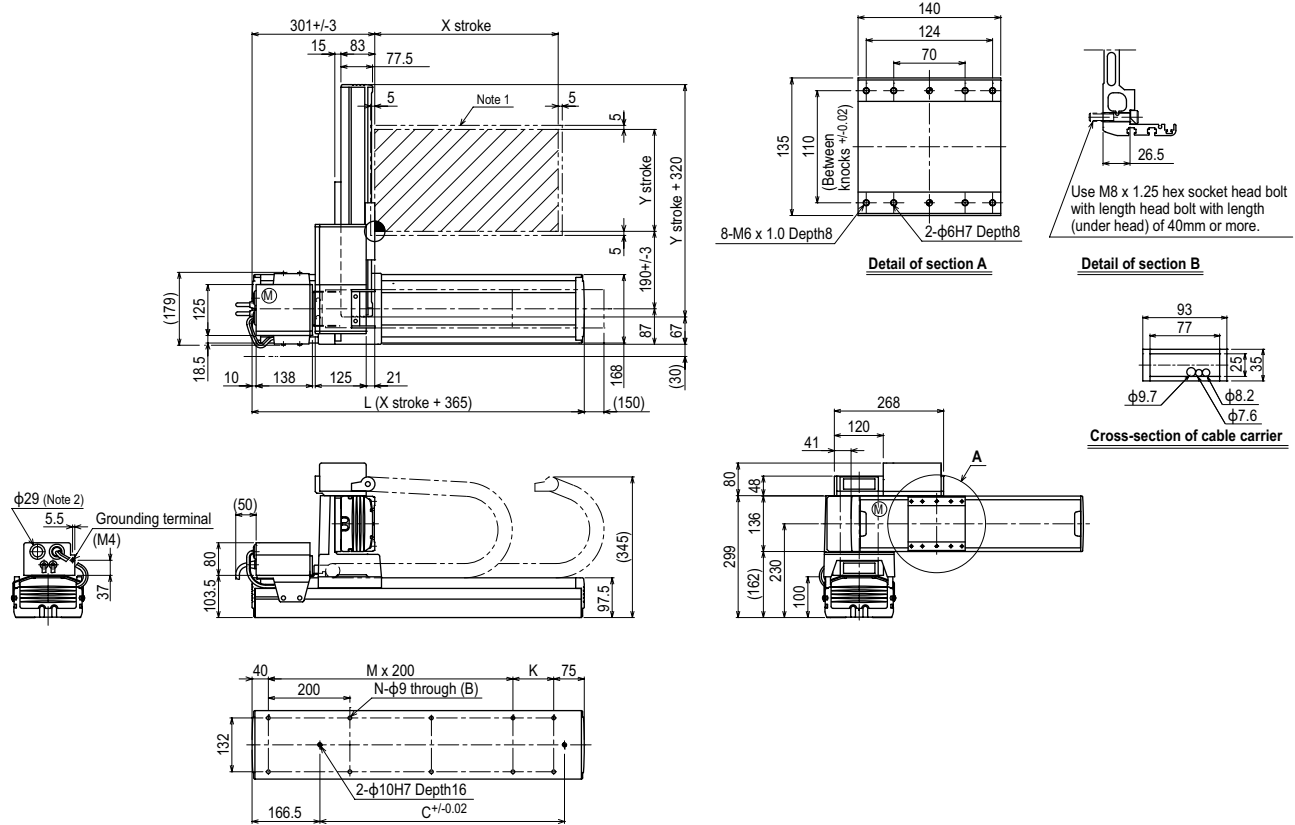
Maximum payload (kg)

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

Controller

Controller	Operation method
RCX320-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

MXYx 2 axes A1

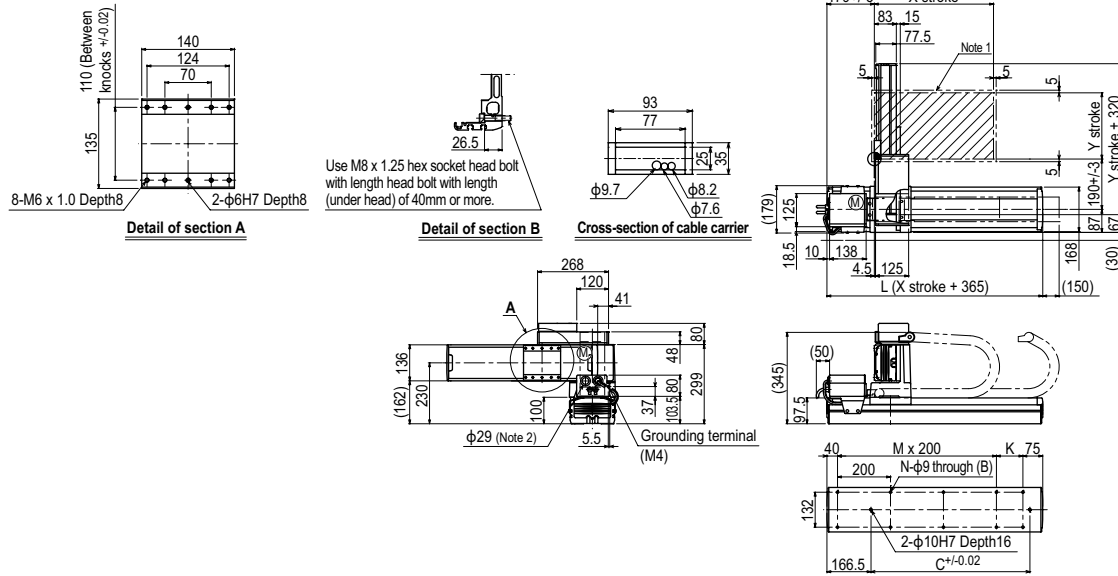


X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
L	615	715	815	915	1015	1115	1215	1315	1415	1515	1615
K	100	200	100	200	100	200	100	200	100	200	100
C	240	420	600	600	780	780	960	960	1140	1140	1320
M	2	2	3	3	4	4	5	5	6	6	7
N	8	8	10	10	12	12	14	14	16	16	18
Y stroke	150	250	350	450	550	650					
Maximum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

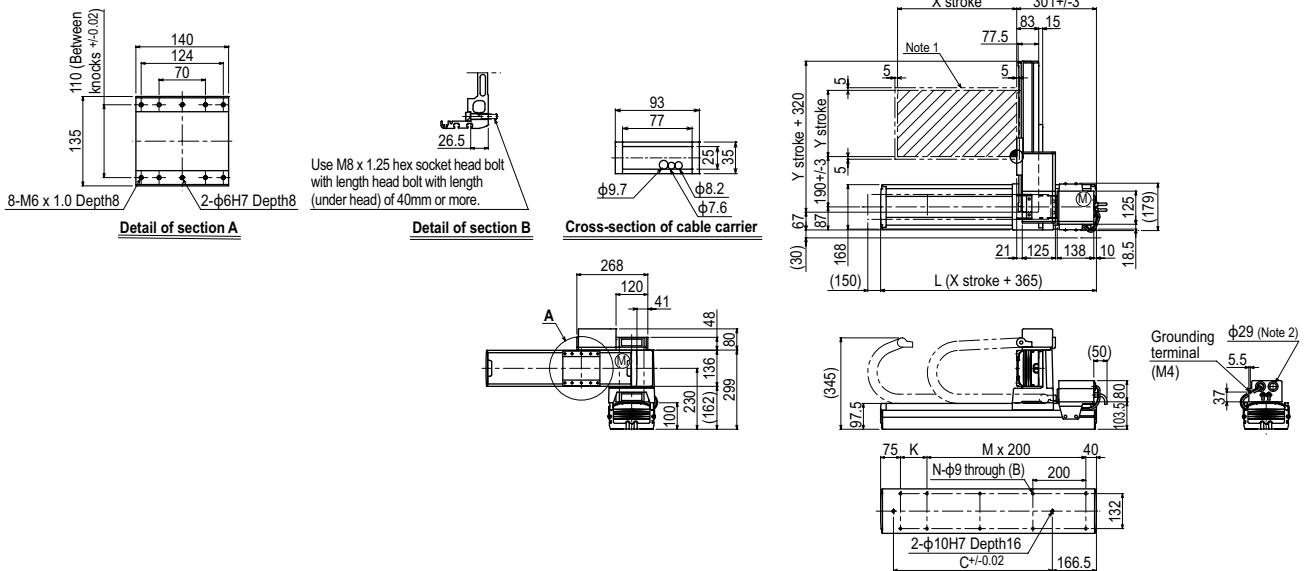
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.
Note 2. User cable extraction port.

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.

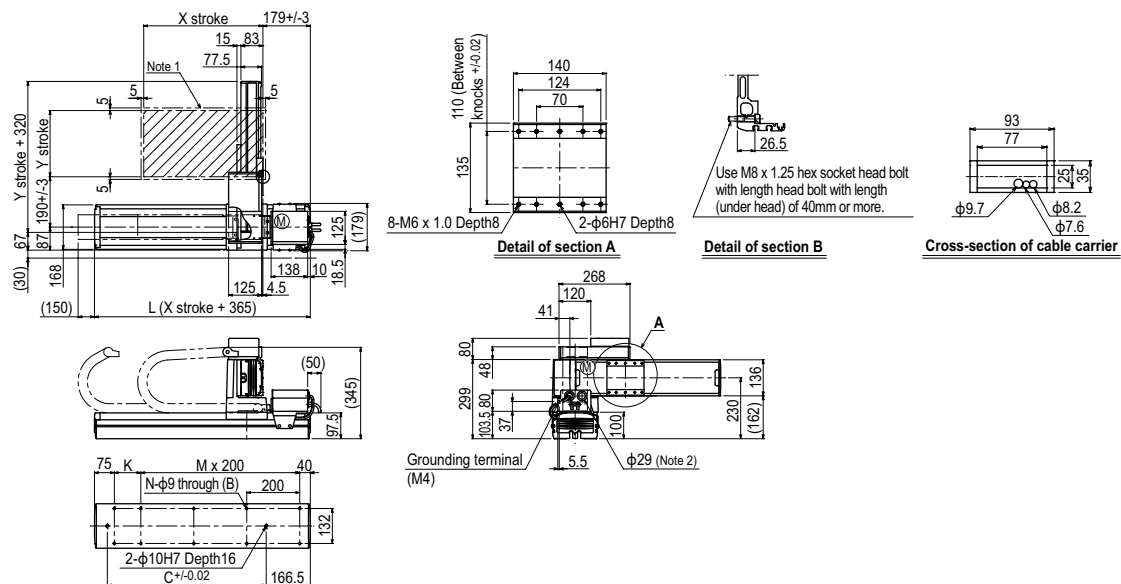
MXYx 2 axes **A2**



MXYx 2 axes **A3**

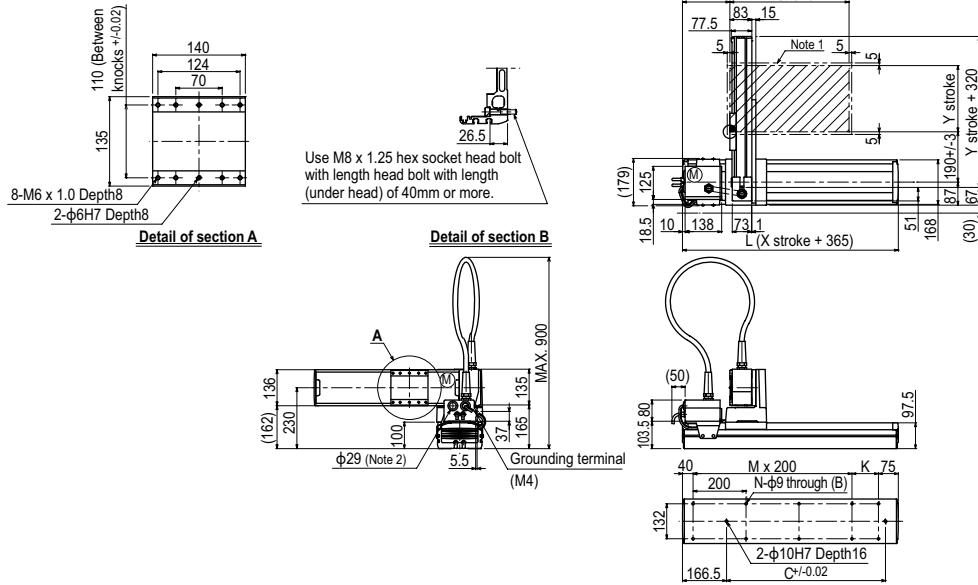


MXYx 2 axes **A4**

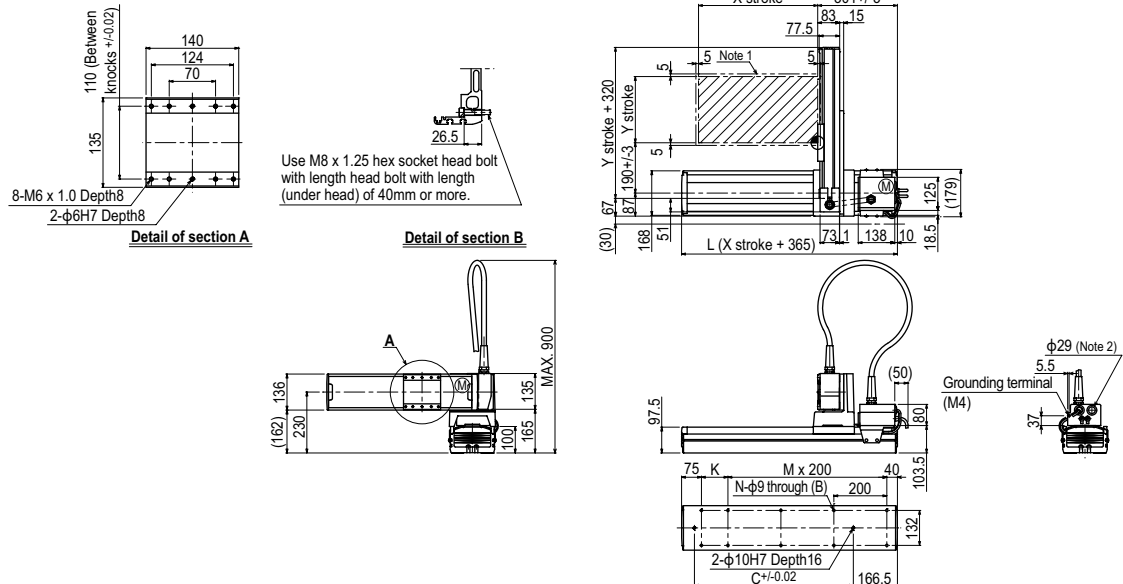




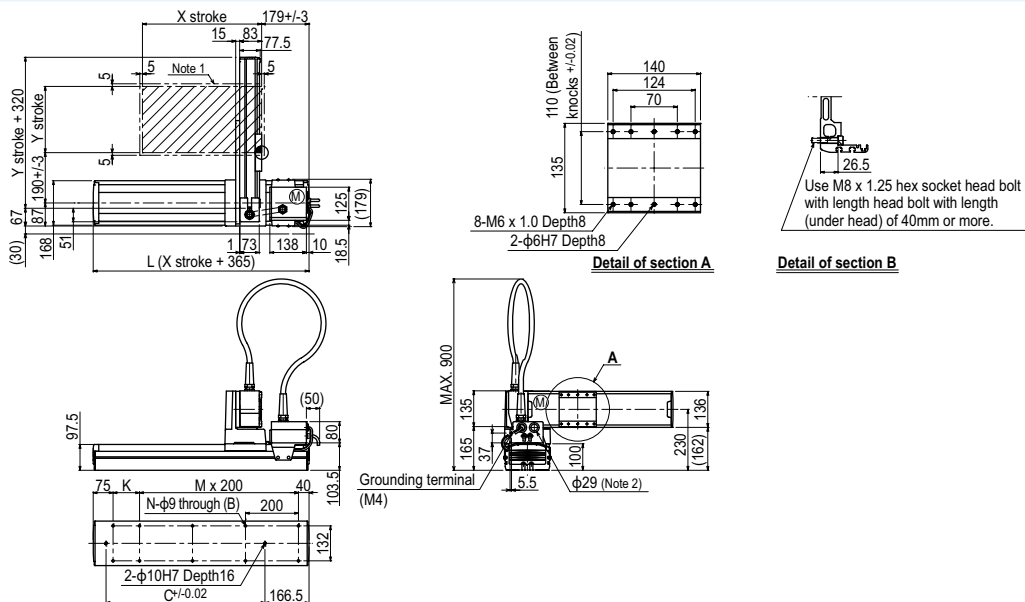
MXYx 2 axes **A2**



MXYx 2 axes **A3**



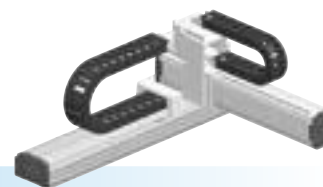
MXYx 2 axes **A4**



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 / Number of controllable axes	Safety standard	Regenerative unit	Option A (OP.A)	Option B (OP.B)	Vision System	Absolute battery
MXYx - C					IO		RCX320 2		R				
	A1		25 to 125cm	15 to 65cm		3L: 3.5m 5L: 5m 10L: 10m							

Specify various controller setting items. RCX320 ▶ **P.626**

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 φ20	Ball screw φ15
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 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.

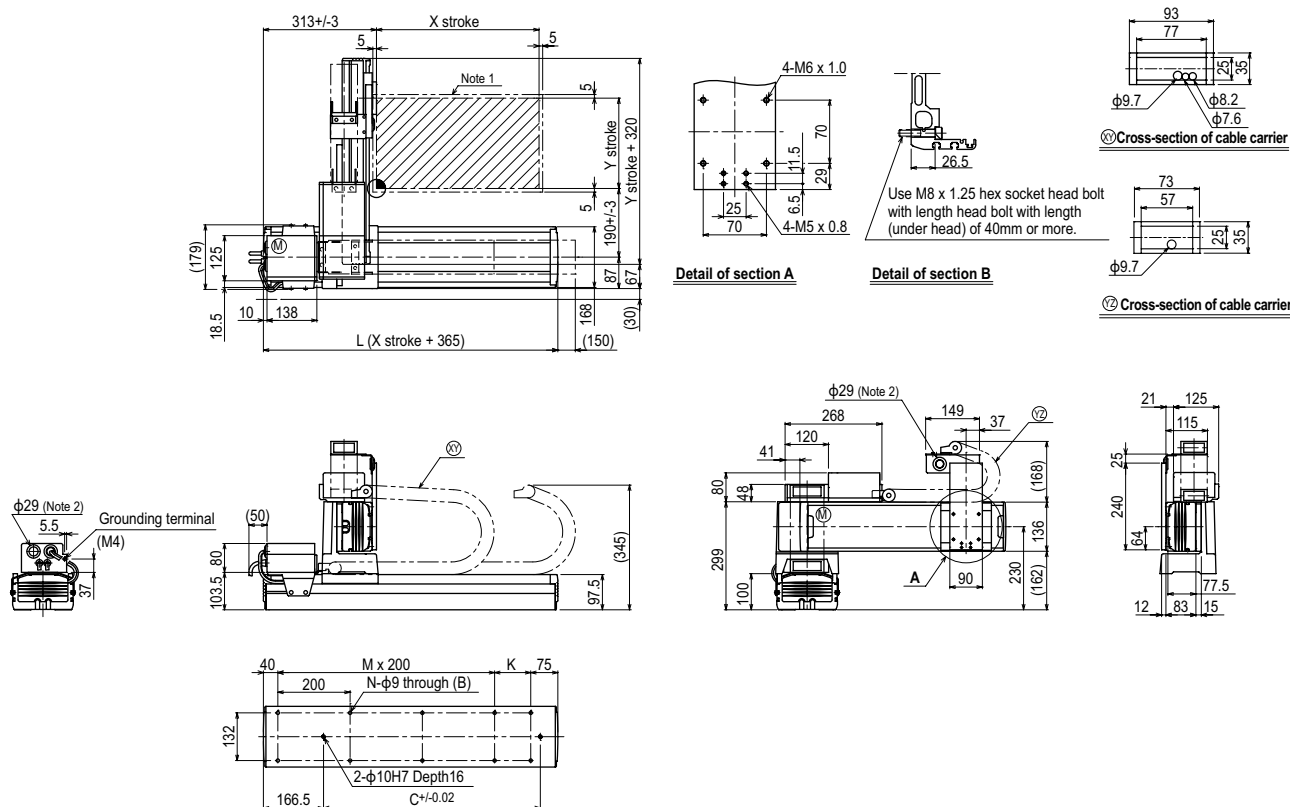
Maximum payload (kg)

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

Controller

Controller	Operation method
RCX320-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

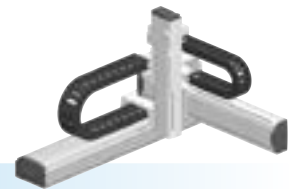
MXYx 2 axes / IO A1



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) ^{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.



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
MXy _x - C		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 ▶ **P.636**

Specification

	X-axis	Y-axis	Z-axis: ZFL20	Z-axis: ZFL10
Axis construction ^{Note 1}	F17	F14H	F10H-BK	
AC servo motor output (W)	400	200	200	
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01	
Drive system	Ball screw φ20	Ball screw φ15	Ball screw φ15	
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.

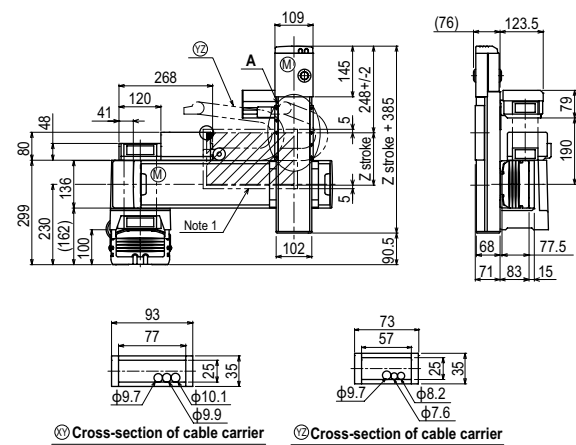
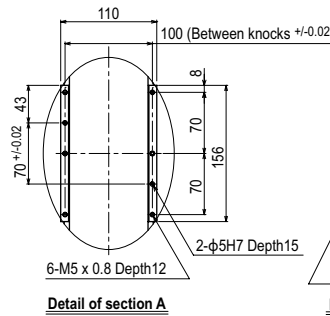
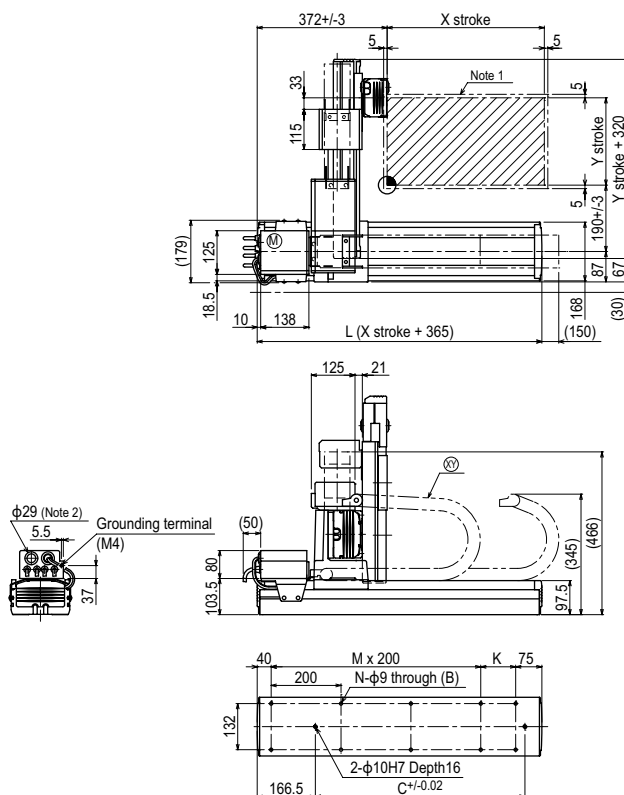
Maximum payload (kg)

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

Controller

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

MXy₃ 3 axes / ZFL20/10 A1

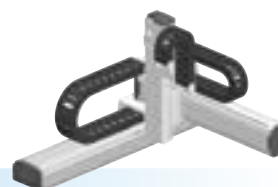


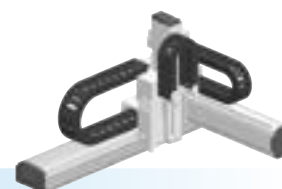
X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
L	615	715	815	915	1015	1115	1215	1315	1415	1515	1615
K	100	200	100	200	100	200	100	200	100	200	100
C	240	420	600	600	780	780	960	960	1140	1140	1320
M	2	2	3	3	4	4	5	5	6	6	7
N	8	8	10	10	12	12	14	14	16	16	18
Y stroke	150	250	350	450	550	650					
Z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

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		A1 A2 A3 A4	25 to 125cm	15 to 65cm	ZRFL20 ZRFL10	15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX340 4							

Specify various controller setting items. RCX340 ▶ **P.636**

Specification

	X-axis	Y-axis	Z-axis: ZRFL20	Z-axis: ZRFL10	R-axis
Axis construction ^{Note 1}	F17	F14H	F10H-BK		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 φ20	Ball screw φ15	Ball screw φ15		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.

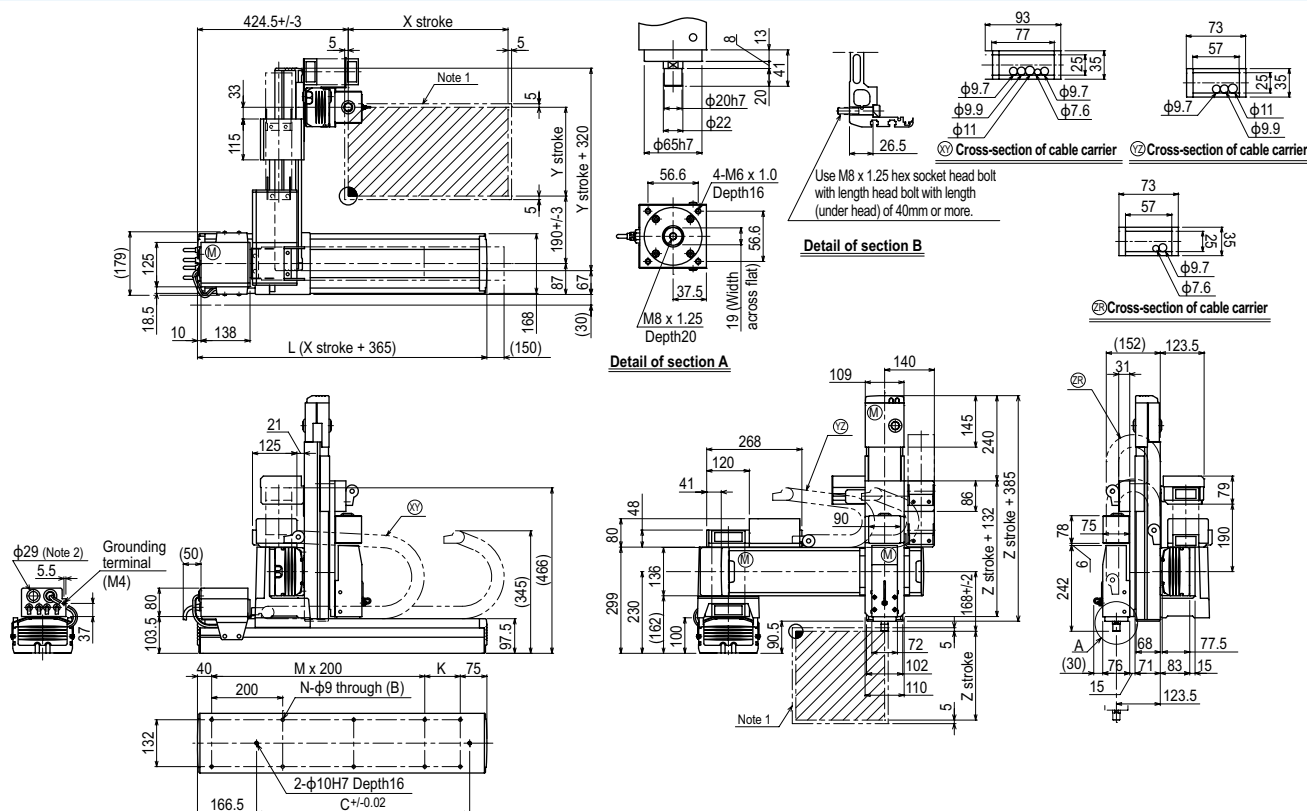
Maximum payload

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

MXYx 4 axes / ZRFL20/10 (A1)



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

Ordering method

MXYx

C

ZRFH

RCX340 4

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

15 to 35cm

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

Specify various controller setting items. RCX340 ▶ **P.636**

Specification

	X-axis	Y-axis	Z-axis	R-axis
Axis construction ^{Note 1}	F17	F14H	F10H-BK	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 φ20	Ball screw φ15	Ball screw φ15	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 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.

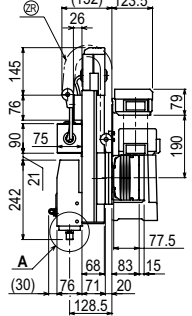
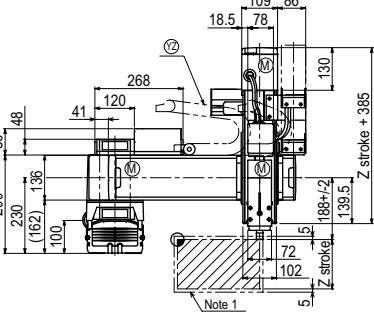
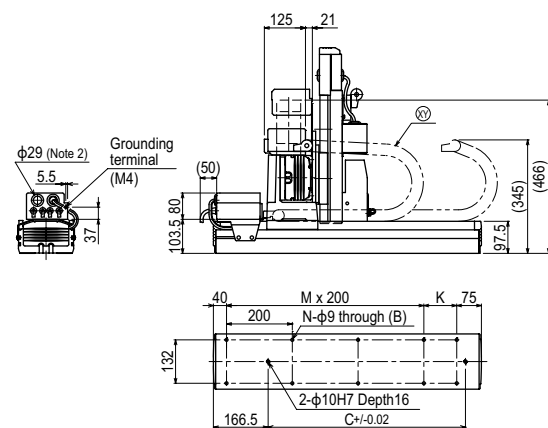
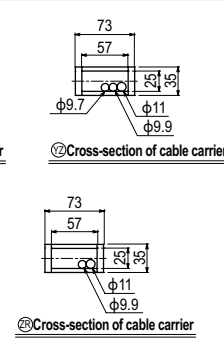
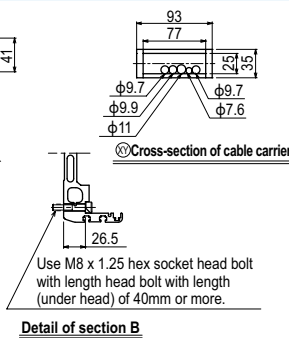
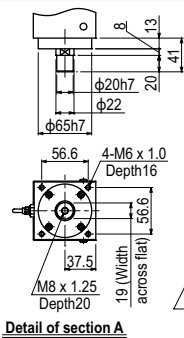
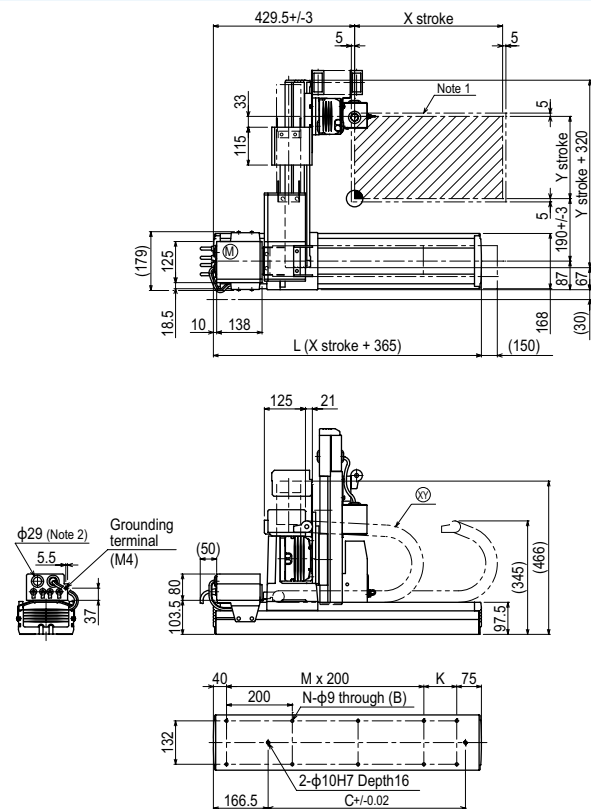
Maximum payload (kg)

	Z stroke (mm)		
Y stroke (mm)	150	250	350
150	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	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 1}	X-axis	1200					960	840	720	600	480
	Speed setting	—					80%	70%	60%	50%	40%

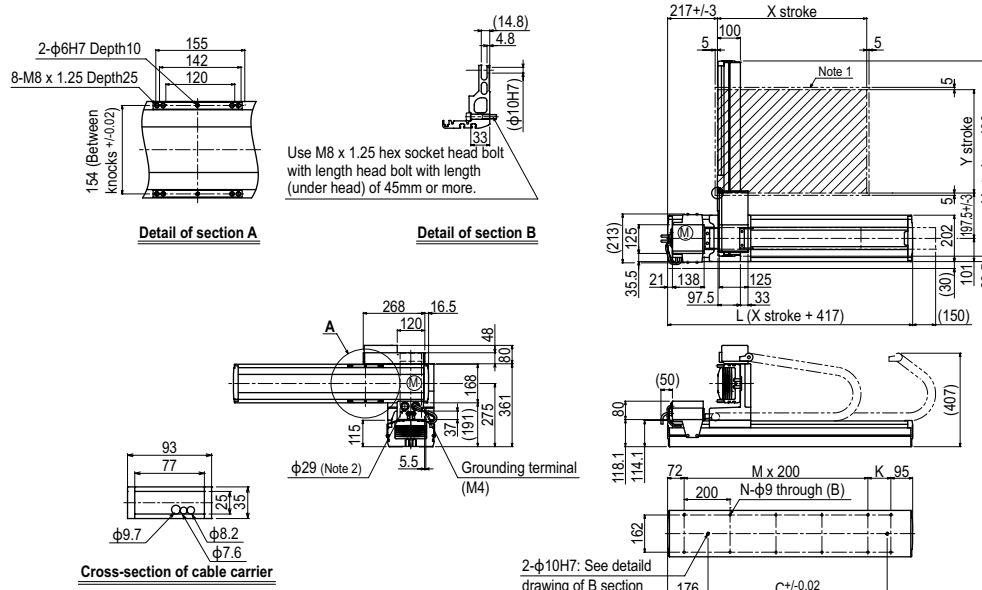
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

Note 2. User cable extraction port.

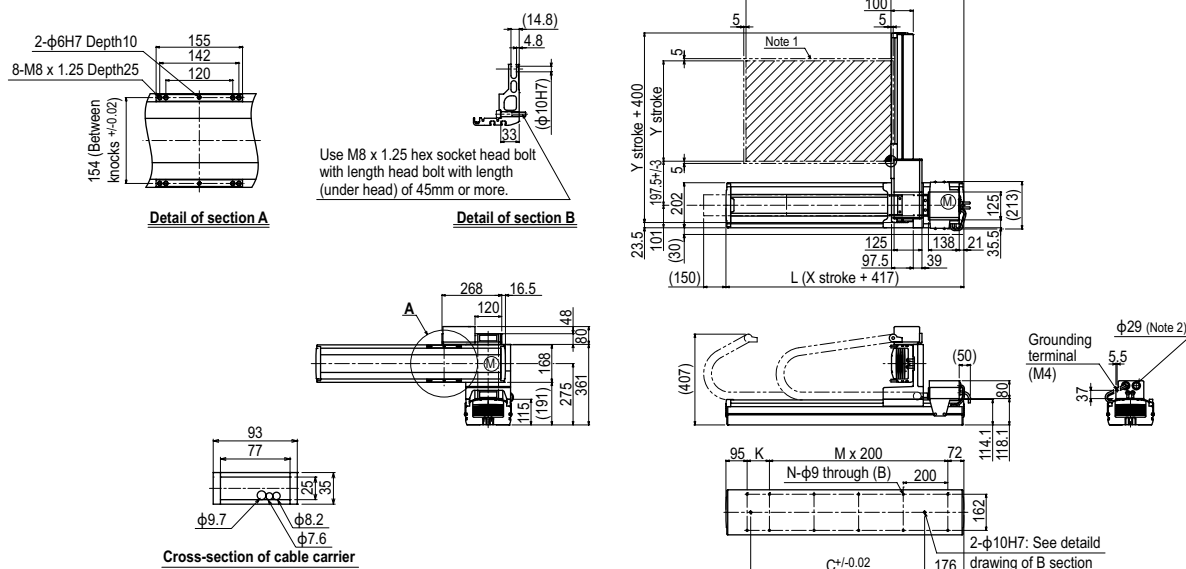
Note 3. When the X-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

Linear conveyor modules	LCMR200
Single-axis robots	GX
Linear conveyor modules	LCM100
SCARA robots	YK-X
Single-axis robots	Robonity
Linear motor single-axis robots	PHASER
Single-axis robots	FLIP-X
Compact single-axis robots	TRANSERO
Cartesian robots	XY-X
Pick & place robots	YP-X
	CLEAN
	CONTROLLER
	INFORMATION
Arm type	
Gantry type	
Moving arm type	
Pole type	
XZ type	

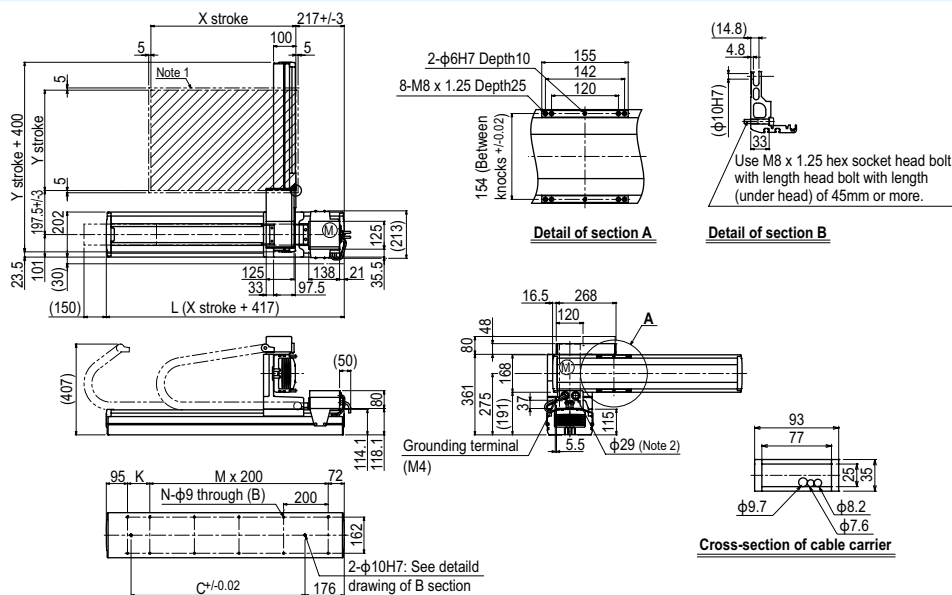
HXYx 2 axes **A2**



HXYx 2 axes **A3**

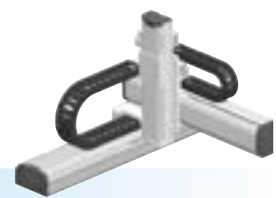


HXYx 2 axes **A4**



HXYx

3 axes / ZL



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

Ordering method

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
HXYx - C		A1 A2 A3 A4	25 to 125cm	25 to 65cm		25 to 55cm	3L: 3.5m 5L: 5m 10L: 10m	RCX340 3							

Specify various controller setting items. RCX340 ▶ **P.636**

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 φ20	Ball screw φ20	Ball screw φ15
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.

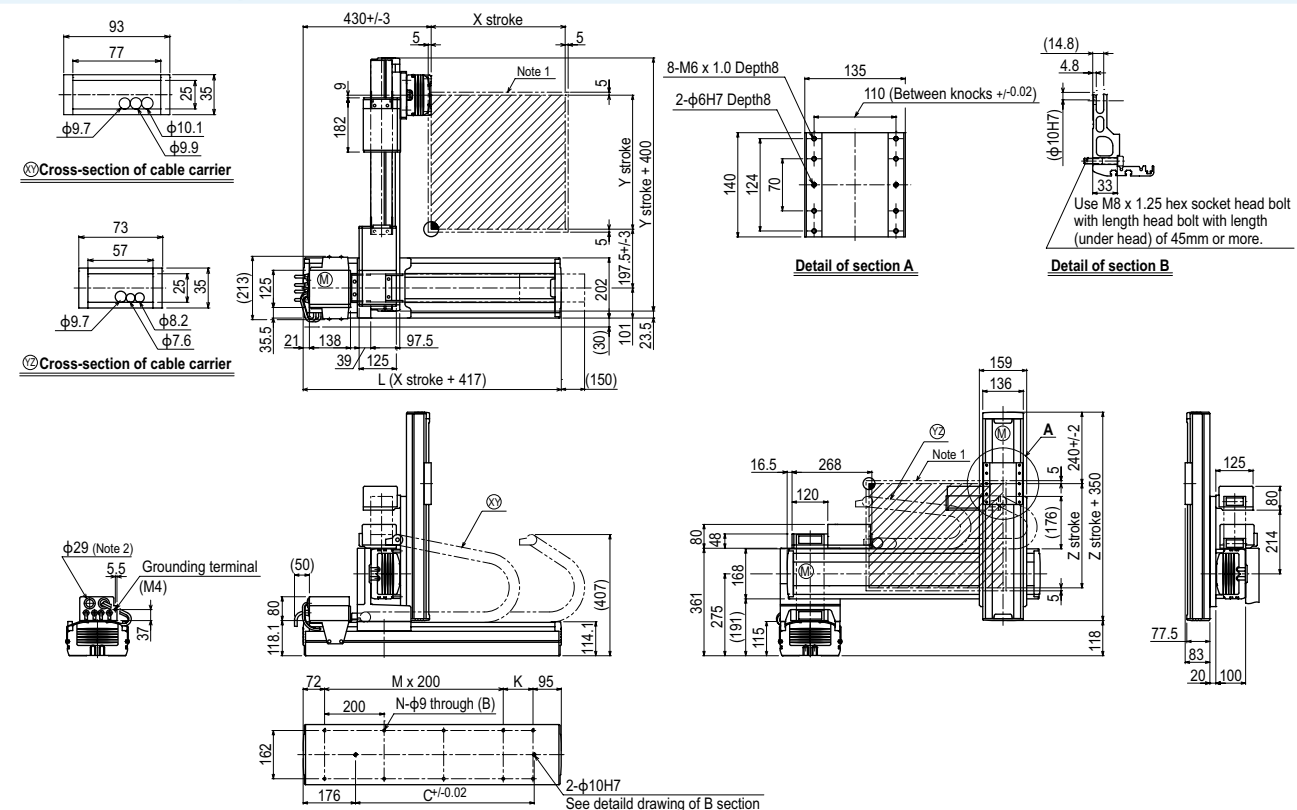
Maximum payload (kg)

	Z stroke (mm)			
Y stroke (mm)	250	350	450	550
250	20	20	20	20
350	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

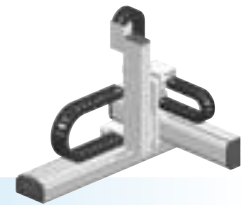
HXYx 3 axes / ZL A1



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.



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
HXYx - C					ZH			RCX340 3							
		A1	25 to 125cm	25 to 65cm		25 to 55cm	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.636**

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 φ20	Ball screw φ20	Ball screw φ15
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20	5
Maximum speed ^{Note 4} (mm/sec) (°/sec)	1200	1200	300
Moving range (mm)	250 to 1250	250 to 650	250 to 550
Robot cable length (m)	Standard: 3.5 Option: 5,10		

Note 1. Use caution that the 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.

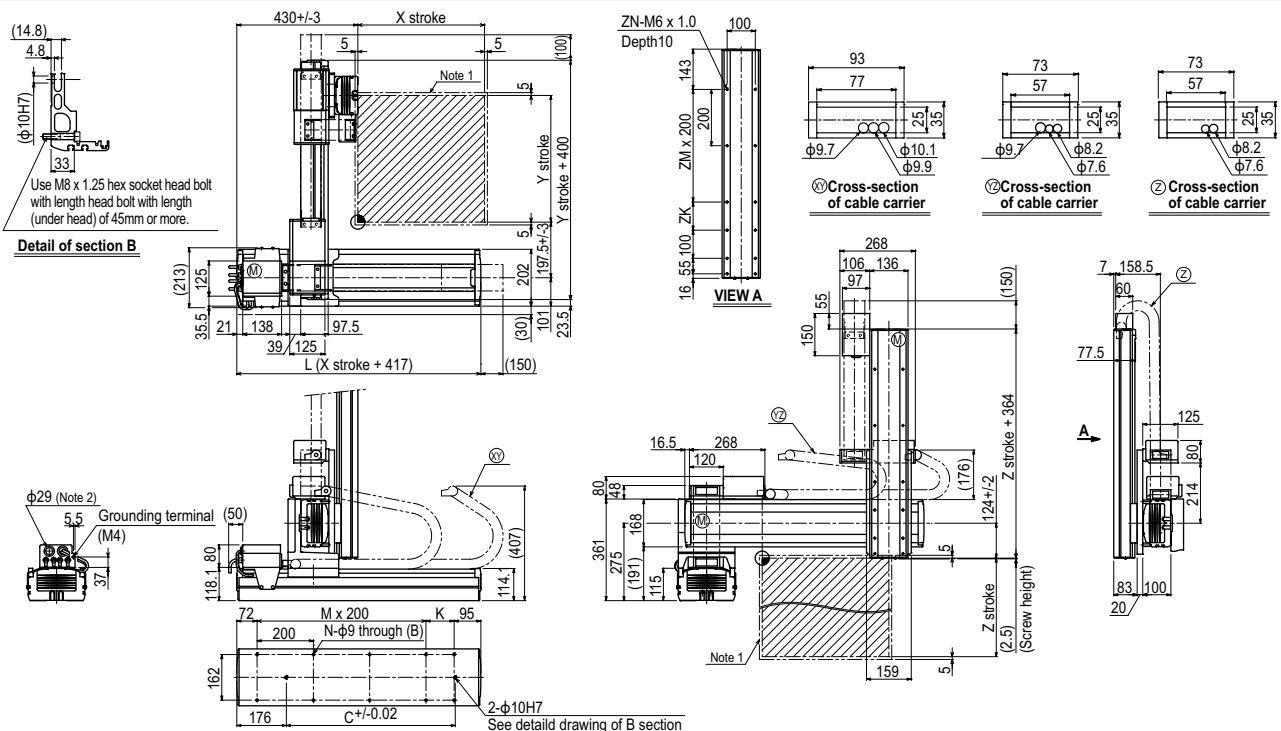
Maximum payload (kg)

	Z stroke (mm)			
Y stroke (mm)	250	350	450	550
250	25	25	24	23
350	25	25	24	23
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

HXYx 3 axes / ZH 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							
ZK	100	200	100	200							
ZM	1	1	2	2							
ZN	10	10	12	12							
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

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

25 to 65cm

25 to 55cm

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

Specify various controller setting items. RCX340 ▶ **P.636**

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 φ20	Ball screw φ20	Ball screw φ15	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.

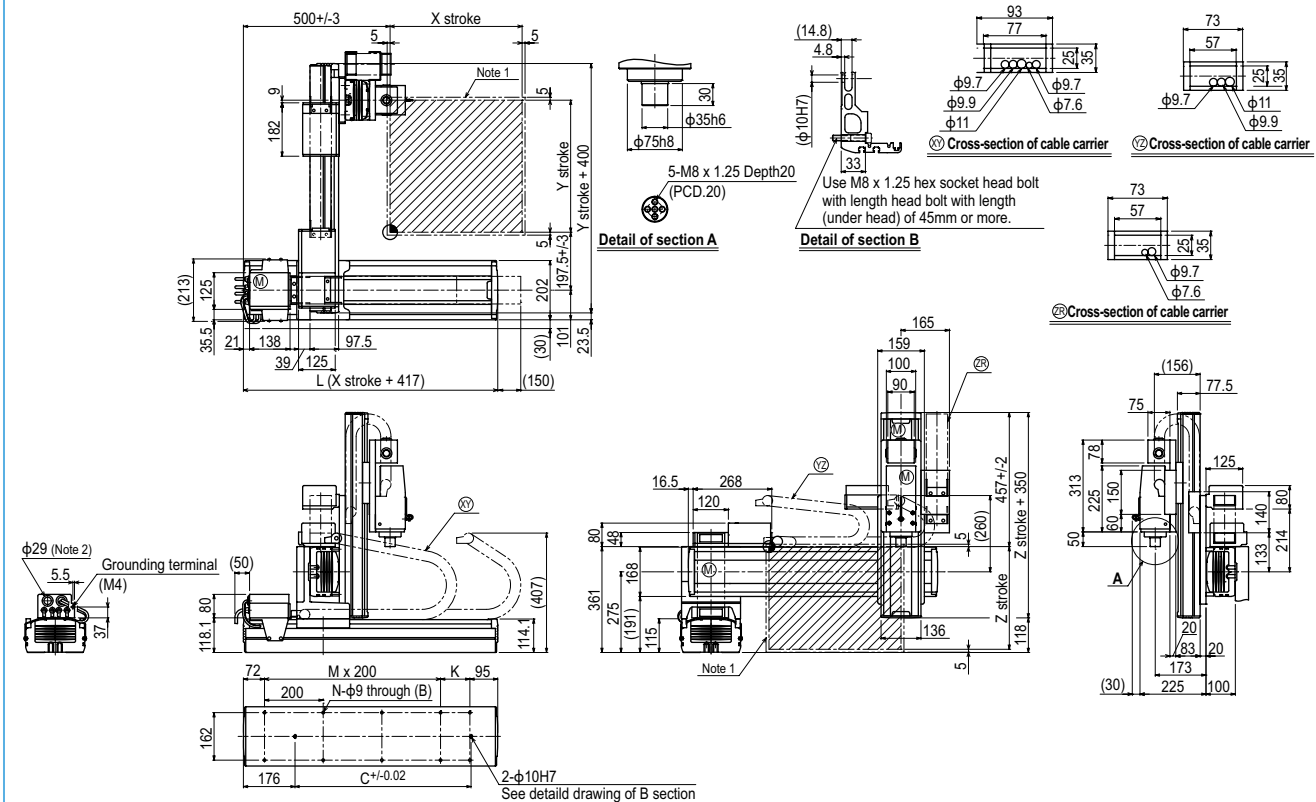
Maximum payload (kg)

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

Controller

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

HXYx 4 axes / ZRL A1

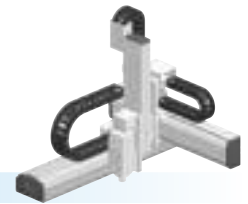


X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
L	667	767	867	967	1067	1167	1267	1367	1467	1567	1667
K	100	200	100	200	100	200	100	200	100	200	100
C	420	420	600	600	780	780	960	960	1140	1320	1320
M	2	2	3	3	4	4	5	5	6	6	7
N	8	8	10	10	12	12	14	14	16	16	18
Y stroke	250	350	450	550	650						
Z stroke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

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
HXYx - C		A1 A2 A3 A4	25 to 125cm	25 to 65cm		25 to 55cm	3L: 3.5m 5L: 5m 10L: 10m	RCX340 4							

Specify various controller setting items. RCX340 ▶ **P636**

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 φ20	Ball screw φ20	Ball screw φ15	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 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.

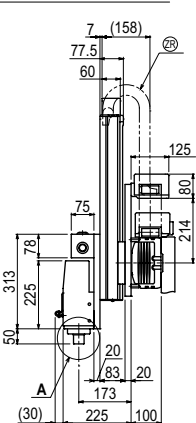
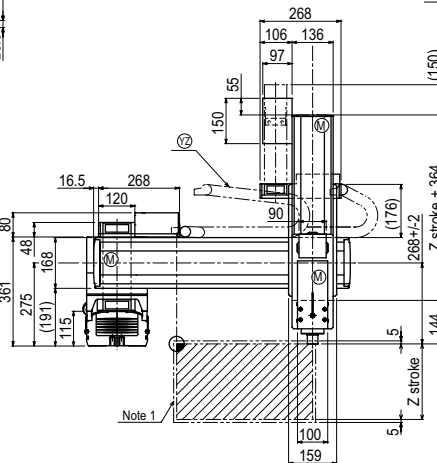
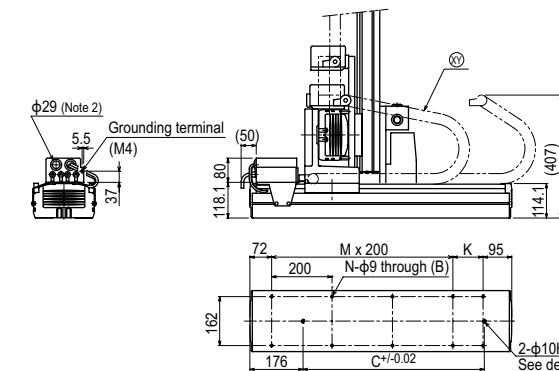
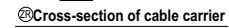
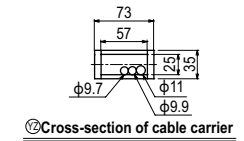
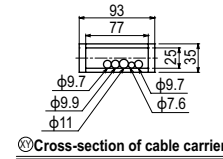
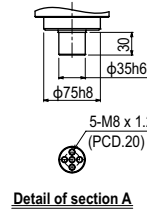
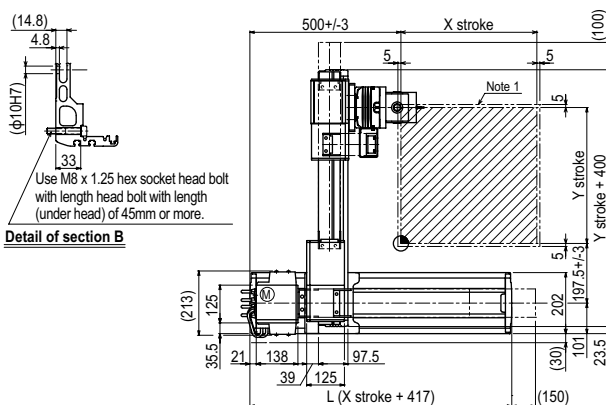
Maximum payload (kg)

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

Controller

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

HXYx 4 axes / ZRH A1



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

HXYLx

2 axes

● Arm type
● Cable carrier

Ordering method

HXYLx - C

Model	Cable	Combination	X-axis stroke	Y-axis stroke	Cable
		A1	115 to 205cm	25 to 65cm	3L: 3.5m
		A2			5L: 5m
		A3			10L: 10m
		A4			

RCX320 2

Controller / Number of controllable axes	Safety standard	Regenerative unit	Option A (OP.A)	Option B (OP.B)	Vision System	Absolute battery
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Specify various controller setting items. RCX320 ▶ [P.626](#)



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 φ20	Ball screw φ20
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.

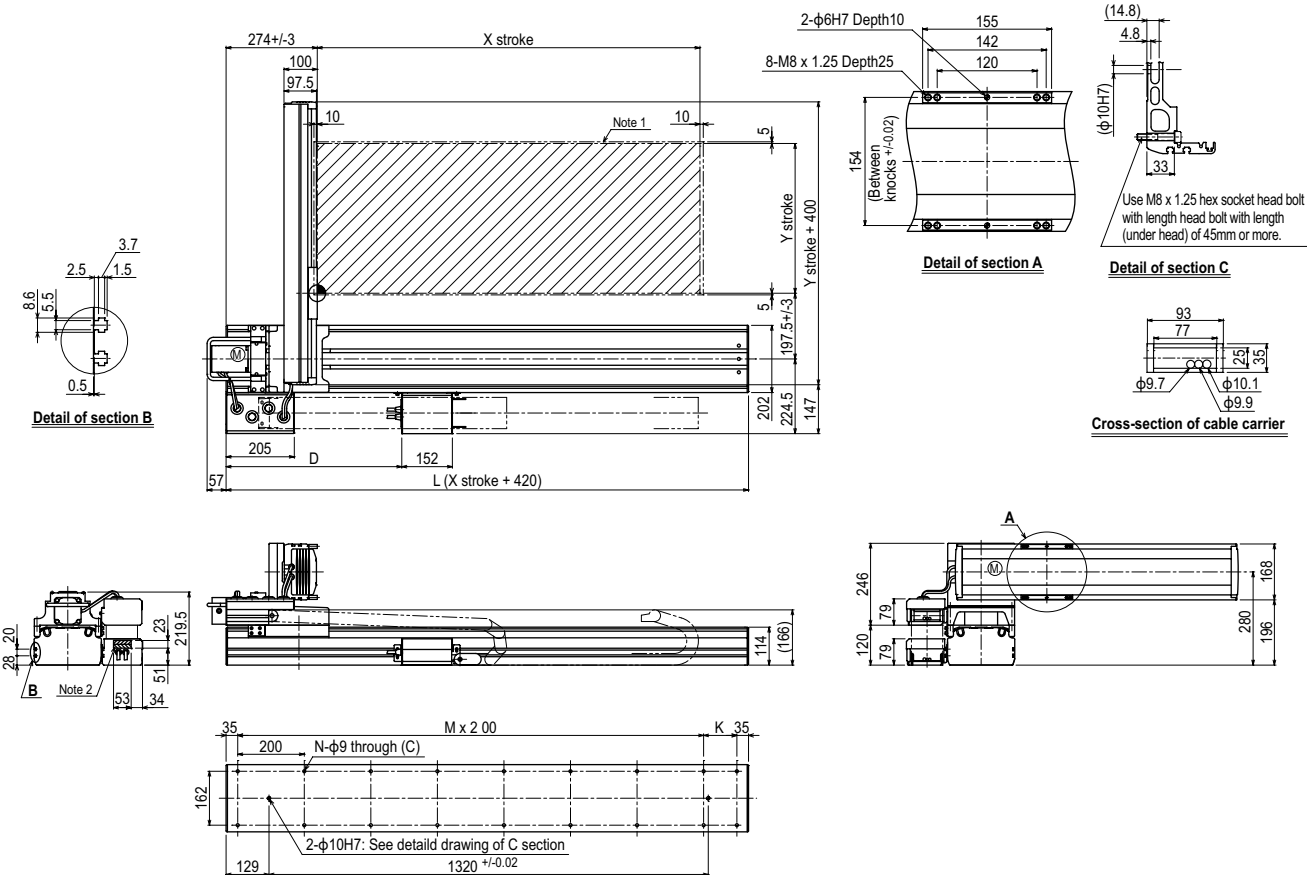
Maximum payload (kg)

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

Controller

Controller	Operation method
RCX320-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

HXYLx 2 axes A1

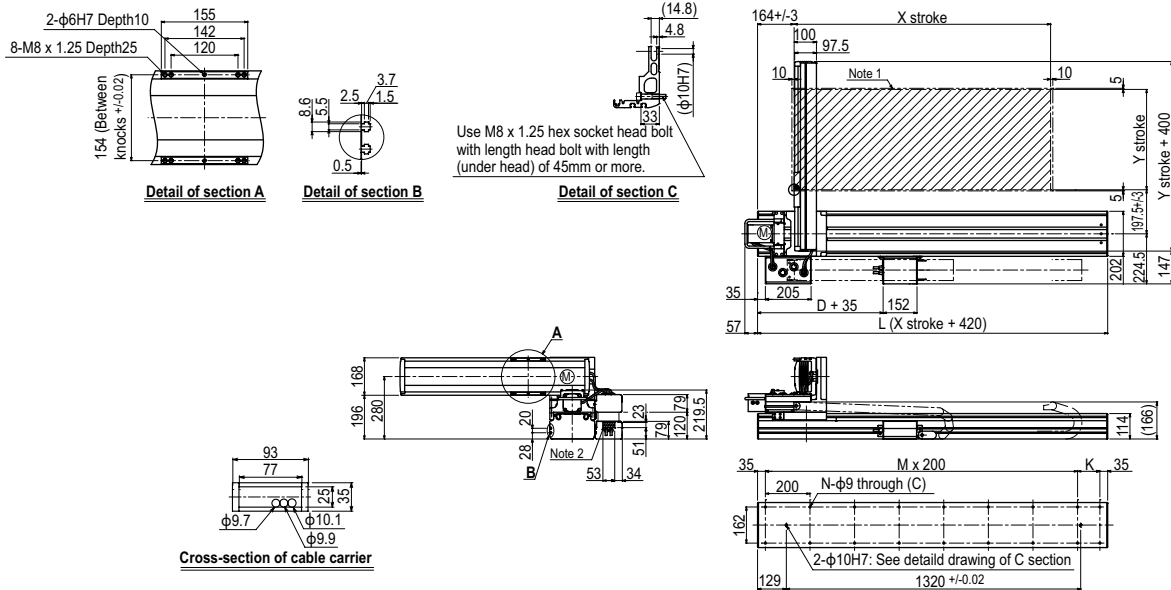


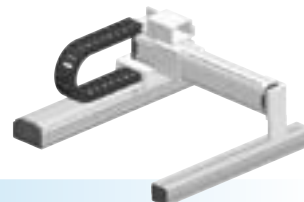
X stroke	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050
L	1570	1670	1770	1870	1970	2070	2170	2270	2370	2470
D	528	574	620	666	712	758	804	850	896	942
K	100	200	100	200	100	200	100	200	100	200
M	7	7	8	8	9	9	10	10	11	11
N	18	18	20	20	22	24	24	24	26	26
Y stroke	250	350	450	550	650					

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

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

HXYLx 2 axes A2





Detail of section A

2-φ6H7 Depth8
8-M6 x 1.0 Depth8

140
124
70
110
135
(Between
bolts
±0.02)

Detail of section B

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

26.5

Detail of section C

Use M8 x 1.25 hex socket head bolt
with length head bolt with length
(under head) of 25mm or more.

12

Cross-section of cable carrier

93
77
25
35
φ9.7
φ8.2
φ7.6

Carrier cross-section

230
162
136
79
268
120
41
80
100
φ29 (Note 2)
5.5
Grounding terminal
(M4)
37
103
80
48
299

Carrier assembly

179+/-3
83
77.5
5
5
5
14
5
168
190+/-3
167
Y stroke + 320
Y stroke + 335
46
92
5
125
18.5
10
138
4.5
125
L (X stroke + 365)
(150)
(179)
X stroke
Note 1
Y stroke
Y stroke + 320
Y stroke + 335
(30)
(87)

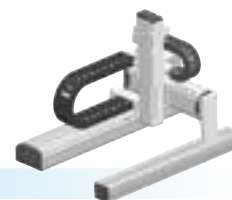
Carrier assembly (side view)

(345)
(50)
97.5
40
M x 200
200
N-φ9 through (B)
166.5
D ± 0.02
75
132
2-φ10H7 Depth16
50
71
130
200 x (M-1)
K
100
(N-2) - φ9 through (C)

[illegible]

The technical drawings illustrate the cable carrier assembly with the following details:

- Main Assembly View:** Shows the side profile of the cable carrier. Key dimensions include a total length of $L (X \text{ stroke} + 365)$, a mounting bracket height of 46, and a cable stroke of $Y \text{ stroke} + 320$. A note indicates a 190 $\pm$ 3 Y stroke dimension.
- Detail of section A:** A cross-sectional view of the mounting bracket. It shows two $\phi 6H7$ holes with a depth of 8, and an 8-M6 $\times$ 1.0 hole with a depth of 8. The distance between the holes is 140, and the distance from the center to the edge is 70. The total width is 124.
- Detail of section B:** A cross-sectional view of the mounting bracket. It shows a single $\phi 6H7$ hole with a depth of 8, and an 8-M6 $\times$ 1.0 hole with a depth of 8. The distance between the hole and the edge is 110, and the total width is 135.
- Detail of section C:** A cross-sectional view of the mounting bracket. It shows a single $\phi 6H7$ hole with a depth of 8, and an 8-M6 $\times$ 1.0 hole with a depth of 8. The distance between the hole and the edge is 110, and the total width is 135.
- Cross-section of cable carrier:** A cross-sectional view of the cable carrier. It shows a cable with a diameter of $\phi 9.7$ and a carrier with a diameter of $\phi 8.2$. The carrier has a thickness of 35 and a width of 93. The distance between the cable and the carrier is 77.
- Grounding terminal (M4):** A detail view of the grounding terminal. It shows a terminal with a diameter of $\phi 29$ (Note 2) and a length of 100. The terminal is mounted on a base with a diameter of $\phi 7.6$ and a length of 136. The distance from the terminal to the base is 162.



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		G1 G2 G3 G4	25 to 125cm	15 to 85cm	ZFL20 ZFL10	15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX340 3							

Specify various controller setting items. RCX340 ▶ **P.636**

Specification

	X-axis	Y-axis	Z-axis: ZFL20	Z-axis: ZFL10
Axis construction ^{Note 1}	F17	F14H-BK	F10H-BK	
AC servo motor output (W)	400	200	200	
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01	
Drive system	Ball screw φ20	Ball screw φ15	Ball screw φ15	
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.

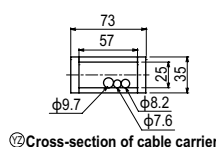
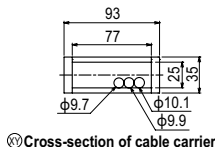
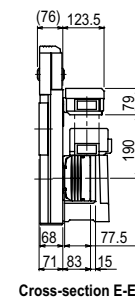
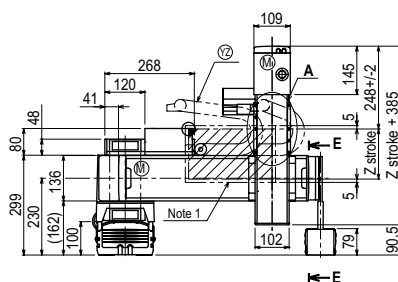
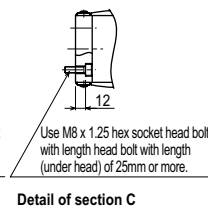
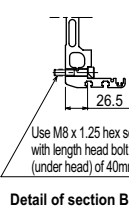
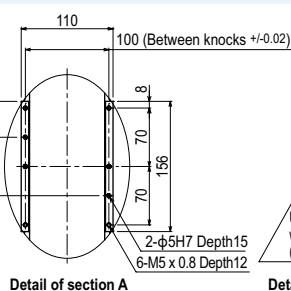
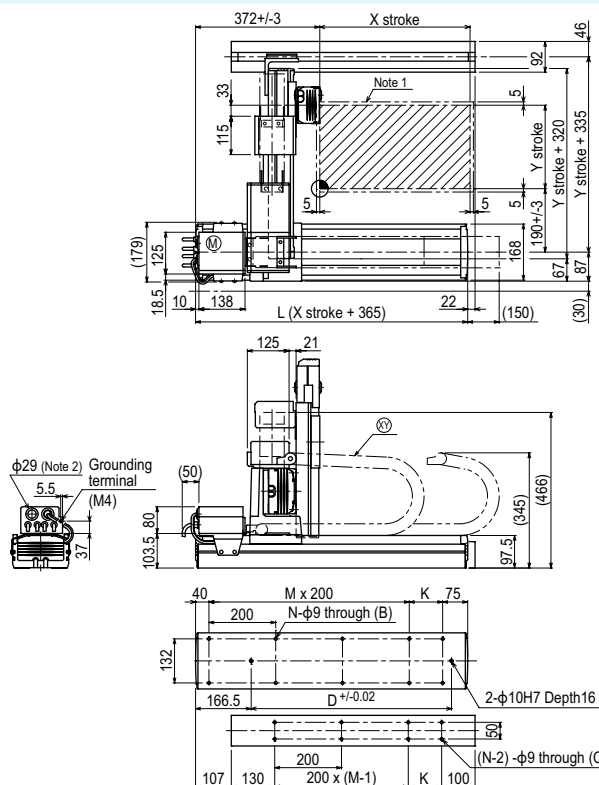
Maximum payload (kg)

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

Controller

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

MXYx 3 axes / ZFL20/10 G1

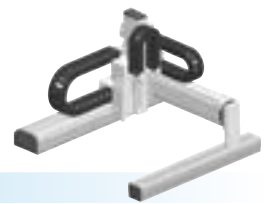


X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
L	615	715	815	915	1015	1115	1215	1315	1415	1515	1615
K	100	200	100	200	100	200	100	200	100	200	100
D	240	420	600	600	780	780	960	960	1140	1140	1320
M	2	2	3	3	4	4	5	5	6	6	7
N	8	8	10	10	12	12	14	14	16	16	18
Y stroke		150	250	350	450	550	650	750	850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



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
MXy _x -C		G1	25 to 125cm	15 to 85cm	ZRFL20	15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX340 4							
		G2			ZRFL10										
		G3													
		G4													

Specify various controller setting items. RCX340 ▶ **P636**

Specification

	X-axis	Y-axis	Z-axis: ZRFL20	Z-axis: ZRFL10	R-axis
Axis construction ^{Note 1}	F17	F14H	F10H-BK		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 φ20	Ball screw φ15	Ball screw φ15		Harmonic gear
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	20	20		(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.

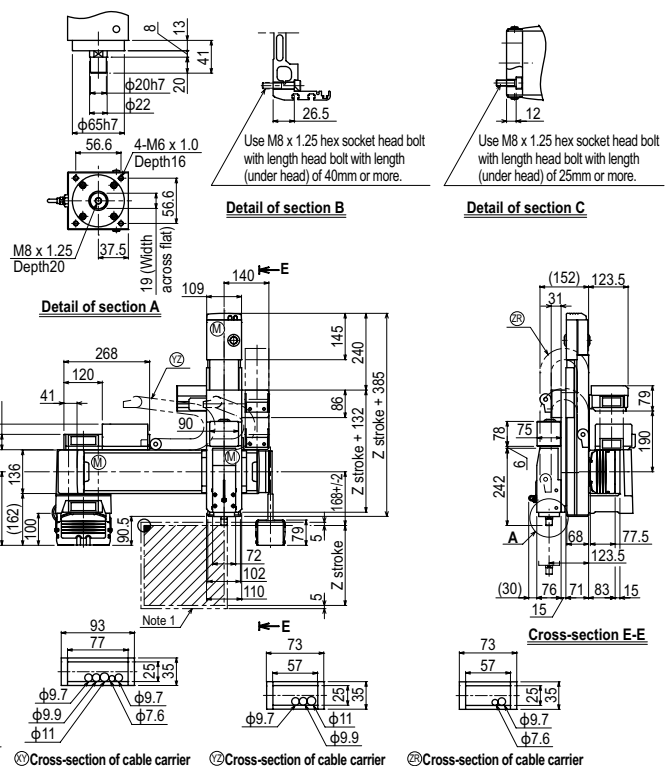
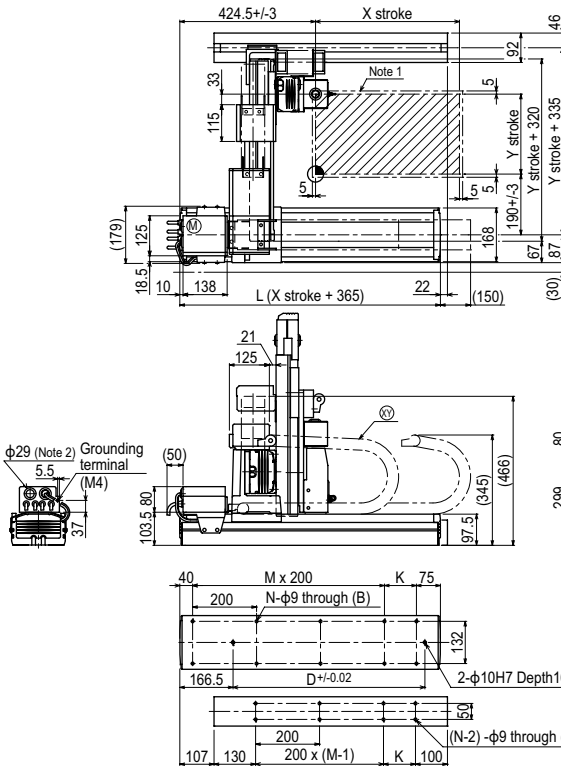
Maximum payload

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

MXy4 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.

Ordering method

MXYx - C

ZRFH

RCX340 4

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

G1

G2

G3

G4

25 to 125cm

15 to 85cm

15 to 35cm

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

Specify various controller setting items. RCX340 ▶ **P.636**

Specification

	X-axis	Y-axis	Z-axis	R-axis
Axis construction ^{Note 1}	F17	F14H	F10H-BK	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 φ20	Ball screw φ15	Ball screw φ15	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 850	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 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.

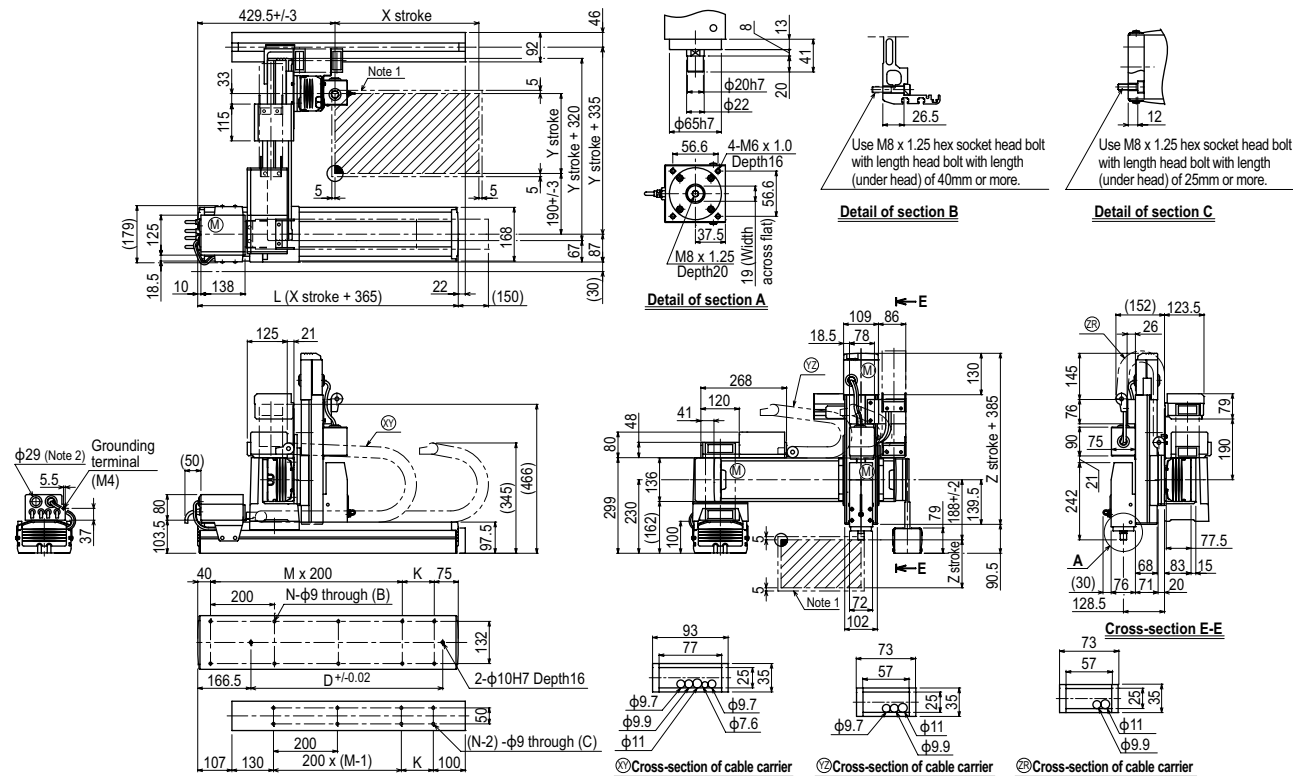
Maximum payload (kg)

	Z stroke (mm)		
Y stroke (mm)	150	250	350
150	10	9	8
250	10	9	8
350	10	9	8
450	10	9	8
550	10	9	8
650	10	9	8
750	10	9	8
850	8	7	6

Controller

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

MXYx 4 axes / ZRFH **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.

Linear conveyor modules	LCMR200
Single-axis robots	GX
Linear conveyor modules	LCM100
SCARA robots	YK-X
Single-axis robots	Robonity
Linear motor single-axis robots	PHASER
Single-axis robots	FLIP-X
Compact single-axis robots	TRANSERO
Cartesian robots	XY-X
Pick & place robots	YP-X
	CLEAN
	CONTROLLER
	INFORMATION
Arm type	
Gantry type	
Moving arm type	
Pole type	
XZ type	

HXYx

2 axes

● Gantry type
● Cable carrier

Ordering method

HXYx - C

Model

Cable

Combination

X-axis stroke

Y-axis stroke

Cable

RCX320 2

Controller / Number of controllable axes

Safety standard

Regenerative unit

Option A (O.P.A)

Option B (O.P.B)

Vision System

Absolute battery

Specify various controller setting items. RCX320 ▶

P.626

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 φ20	Ball screw φ20
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
RCX320-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

HXYx 2 axes G1

Detail of section A

2-φ6H7 Depth10
8-M8 x 1.25 Depth25
154 (Between knocks ±0.02)

Cross-section of cable carrier

93
77
25
35
φ9.7
φ8.2
φ7.6

Detail of section B

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

Detail of section C

Use M8 x 1.25 hex socket head bolt with length (under head) of 25mm or more.

X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
L	667	767	867	967	1067	1167	1267	1367	1467	1567	1667
K	100	200	100	200	100	200	100	200	100	200	100
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%

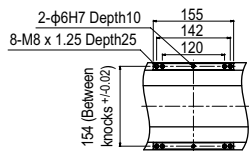
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

Note 2. User cable extraction port.

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

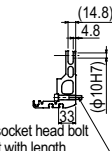
Note 4. When the X-axis/Y-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

HXYx 2 axes G2



Detail of section A

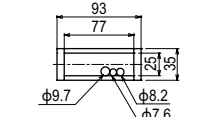
Use M8 x 1.25 hex socket head bolt with length head bolt with length (under head) of 45mm or more.



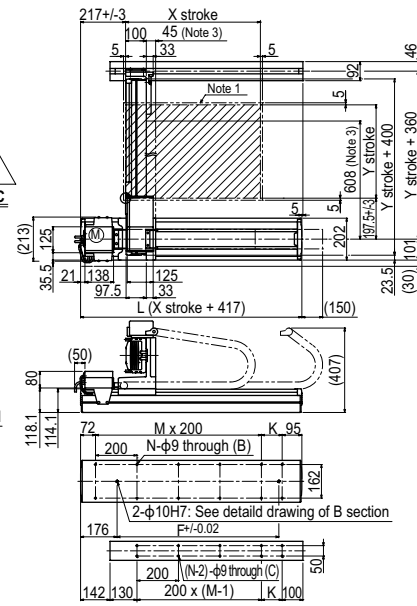
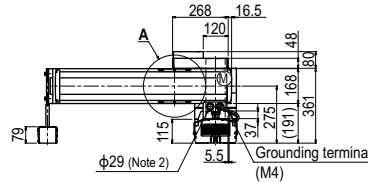
Detail of section B

Use M8 x 1.25 hex socket head bolt with length head bolt with length (under head) of 25mm or more.

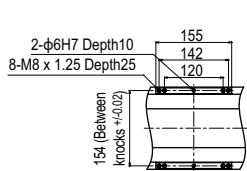
Detail of section C



Cross-section of cable carrier



HXYx 2 axes G3



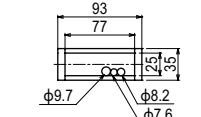
Detail of section A

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

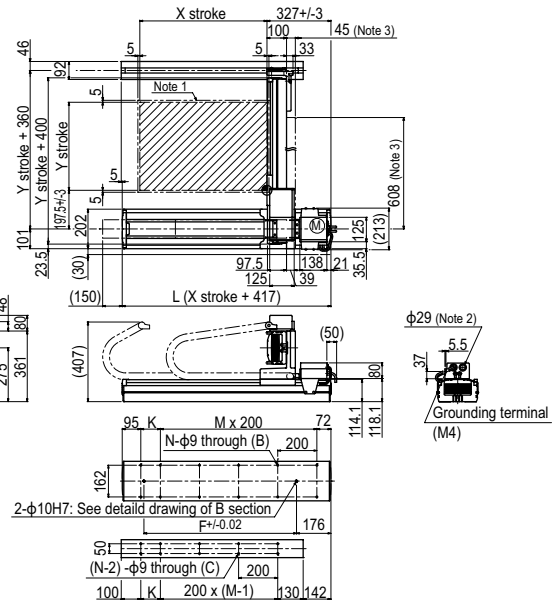
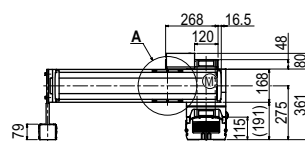
Detail of section B

Use M8 x 1.25 hex socket head bolt with length head bolt with length (under head) of 25mm or more.

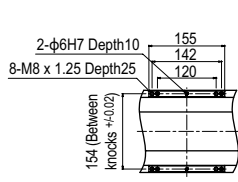
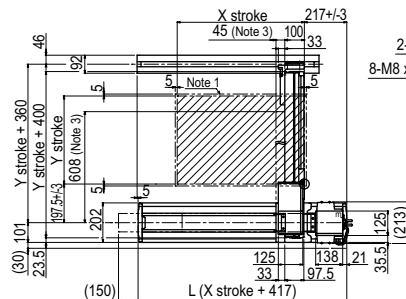
Detail of section C



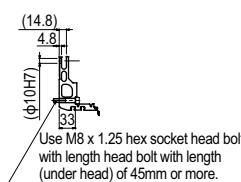
Cross-section of cable carrier



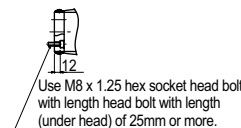
HXYx 2 axes G4



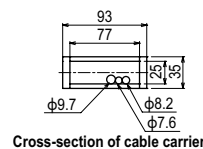
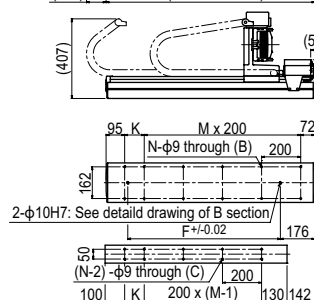
Detail of section A



Detail of section B



Detail of section C



Cross-section of cable carrier

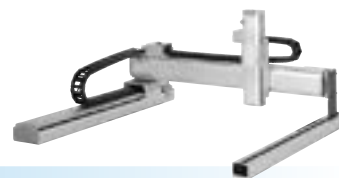
HXYx

3 axes / ZL

● Gantry type

● Cable carrier

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



Ordering method

HXYx	C				ZL				RCX340 3							
Model	Cable	Combination	X-axis stroke	Y-axis stroke	ZR-axis	Z-axis stroke	Cable	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	
		G1 G2 G3 G4	25 to 125cm	25 to 105cm		25 to 55cm	3L: 3.5m 5L: 5m 10L: 10m									

Specify various controller setting items. RCX340 ▶ **P.636**

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 φ20	Ball screw φ20	Ball screw φ15
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 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.

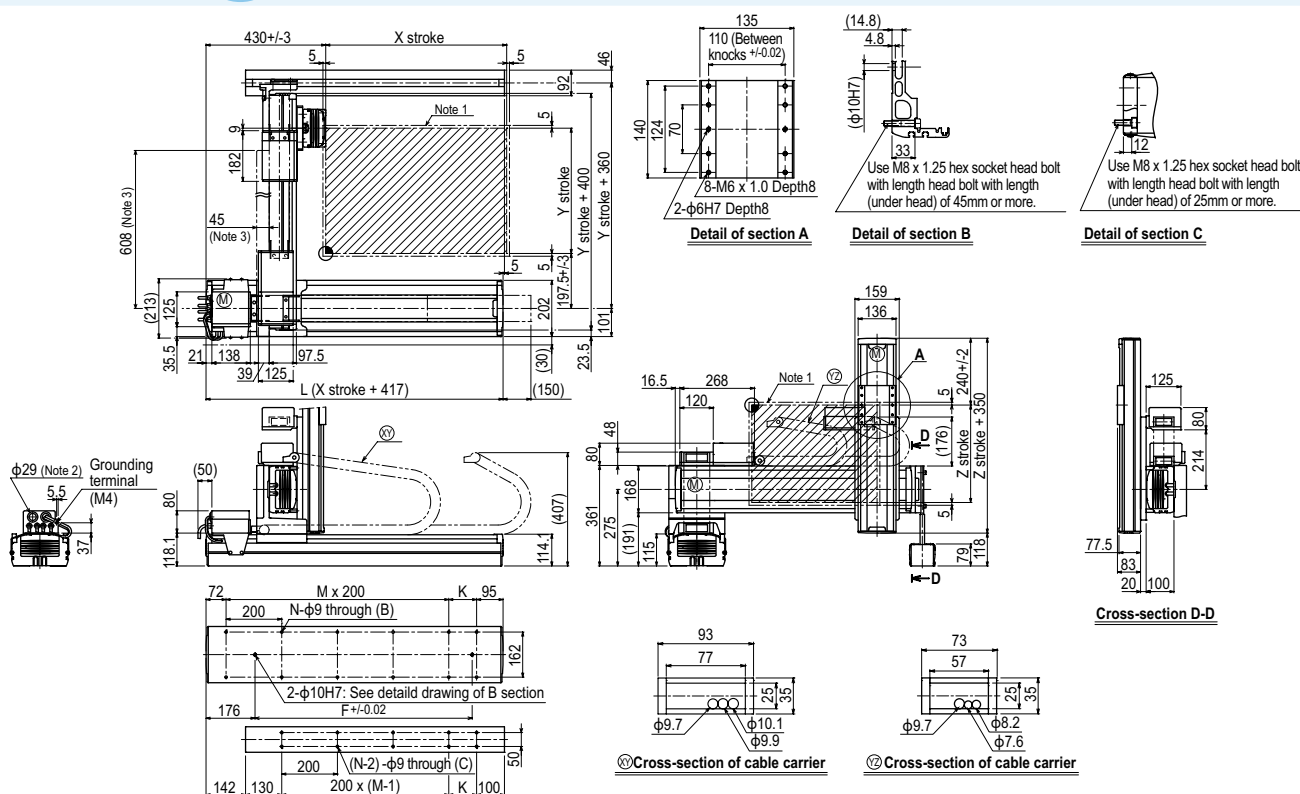
Maximum payload (kg)

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

Controller

Controller	Operation method
RCX340	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.

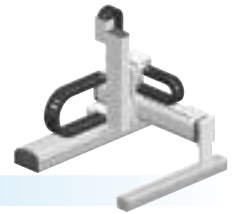
Note 2. User cable extraction port.

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

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
HXYx - C		G1	25 to 125cm	25 to 105cm			3L: 3.5m 5L: 5m 10L: 10m	RCX340 3							
		G2													
		G3													
		G4													

Specify various controller setting items. RCX340 ▶ P.636

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 φ20	Ball screw φ20	Ball screw φ15
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.

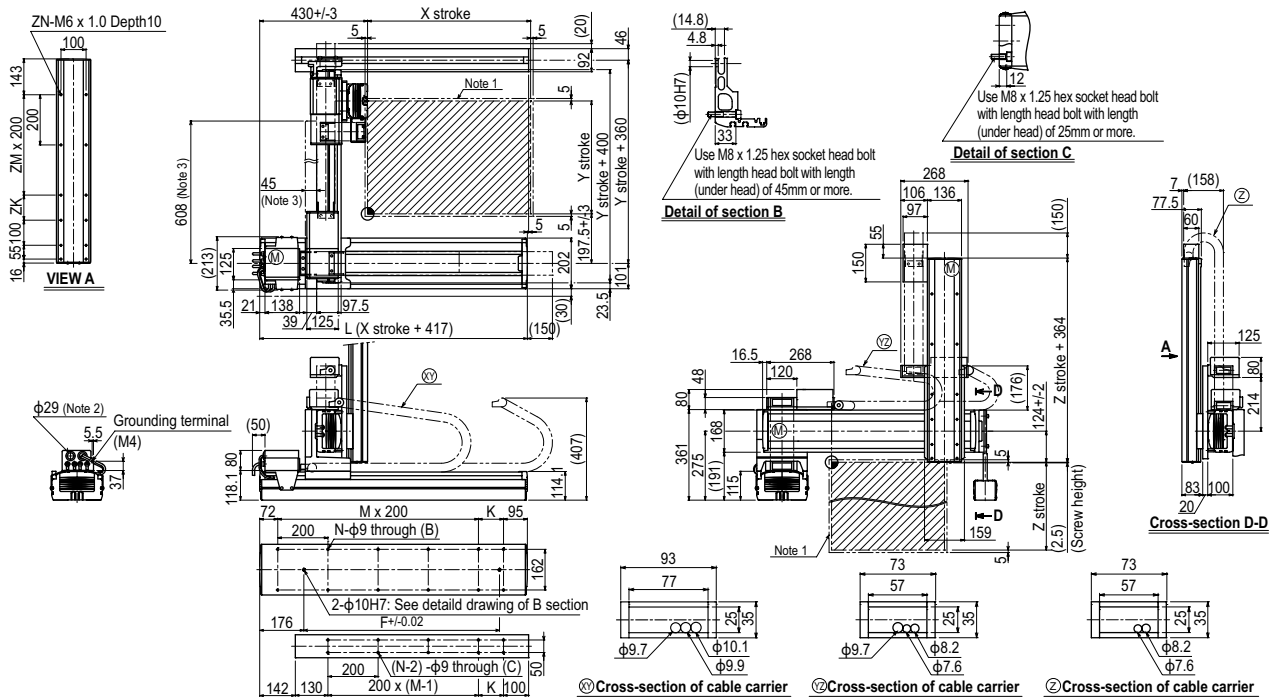
Maximum payload (kg)

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

Controller

Controller	Operation method
RCX340	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 ▶ 636

HXYx

4 axes / ZRL

Gantry 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

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

G1

25 to 125cm

25 to 105cm

25 to 55cm

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

Specify various controller setting items. RCX340 ▶ **P.636**

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 φ20	Ball screw φ20	Ball screw φ15	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 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 (kg)

Y stroke (mm)	Z stroke (mm)
250 to 1050	250 to 550
	12

Controller

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

HXYx 4 axes / ZRL **G1**

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	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					

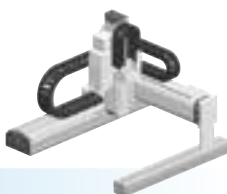
Maximum speed for each stroke (mm/sec) ^{Note 4}	X-axis					960	840	720	600	480
	Y-axis	1200				960	840	720		
Speed setting	—				80%	70%	60%	50%	40%	

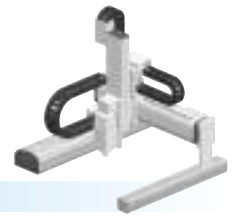
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

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.





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
HXYx - C		G1 G2 G3 G4	25 to 125cm	25 to 105cm		25 to 55cm	3L: 3.5m 5L: 5m 10L: 10m	RCX340 4							

Specify various controller setting items. RCX340 ▶ **P.636**

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 φ20	Ball screw φ20	Ball screw φ15	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.

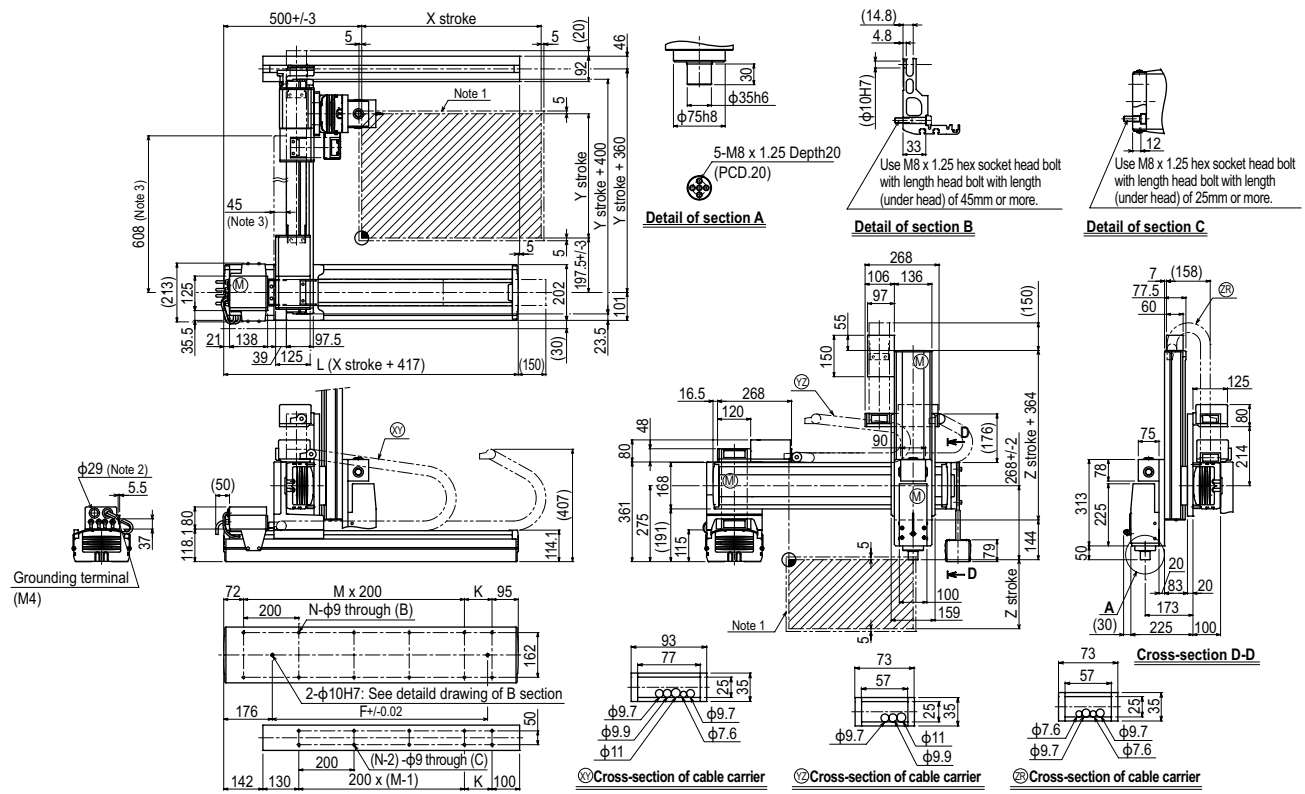
Maximum payload (kg)

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

Controller

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

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

Model

Cable

Combination

X-axis stroke

Y-axis stroke

Cable

Controller / Number of controllable axes

Safety standard

Regenerative unit

Option A (O.P.A.)

Option B (O.P.B.)

Vision System

Absolute battery

RCX320 2

R

Specify various controller setting items. RCX320 ▶ **P.626**

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 φ20	Ball screw φ20
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.

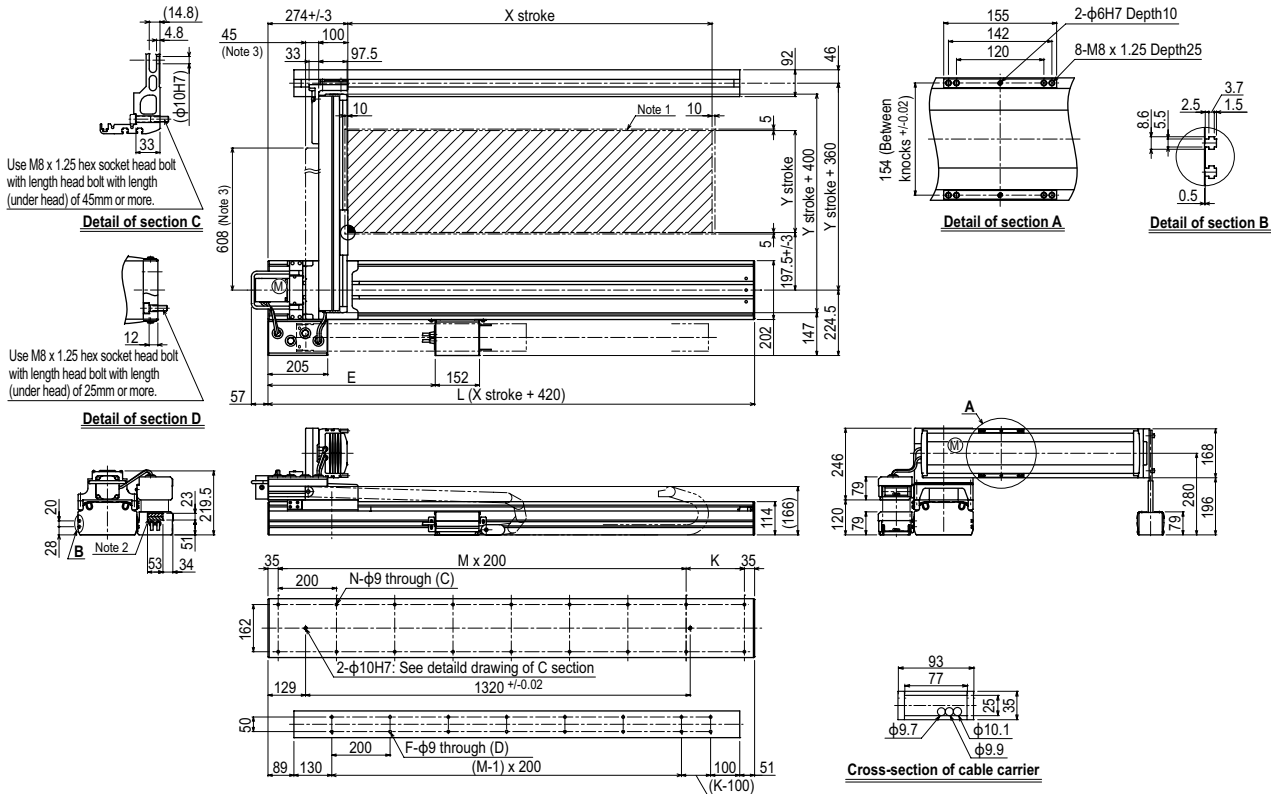
Maximum payload (kg)

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

Controller

Controller	Operation method
RCX320-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

HXYLx 2 axes G1

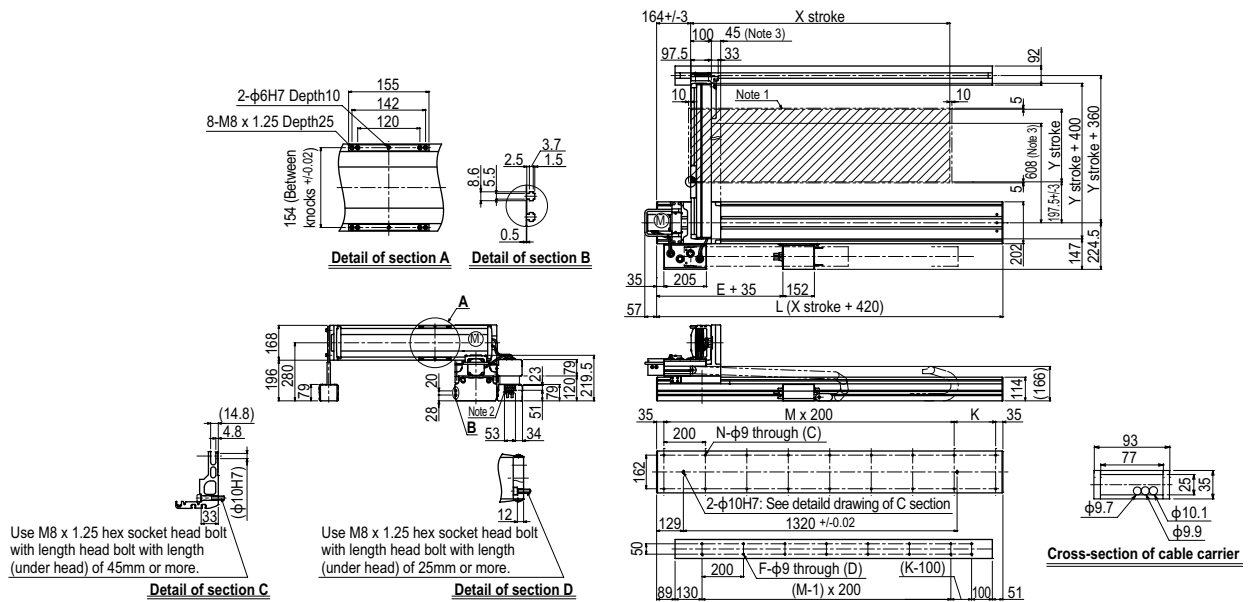


X stroke	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050
L	1570	1670	1770	1870	1970	2070	2170	2270	2370	2470
E	528	574	620	666	712	758	804	850	896	942
K	100	200	100	200	100	200	100	200	100	200
M	7	7	8	8	9	9	10	10	11	11
N	18	18	20	20	22	22	24	24	26	26
F	14	16	16	18	18	20	20	22	22	24
Y stroke	250	350	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%	

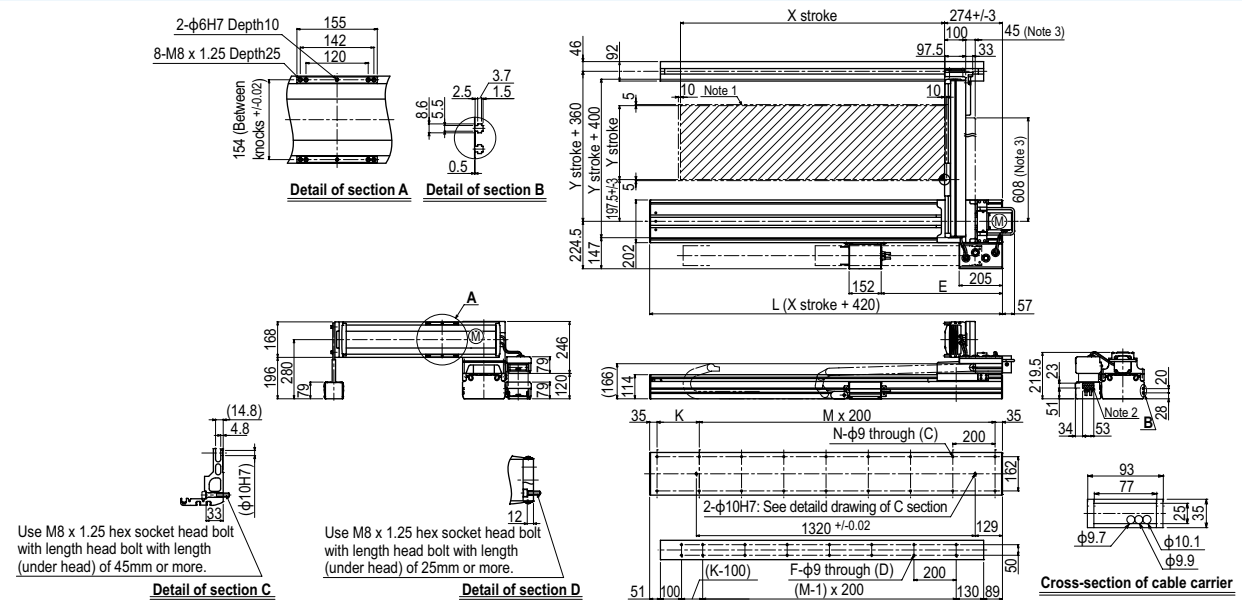
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.
 Note 2. User cable extraction port.
 Note 3. Dimension of reinforced bracket (To be installed when the Y stroke is 750mm or longer)

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.

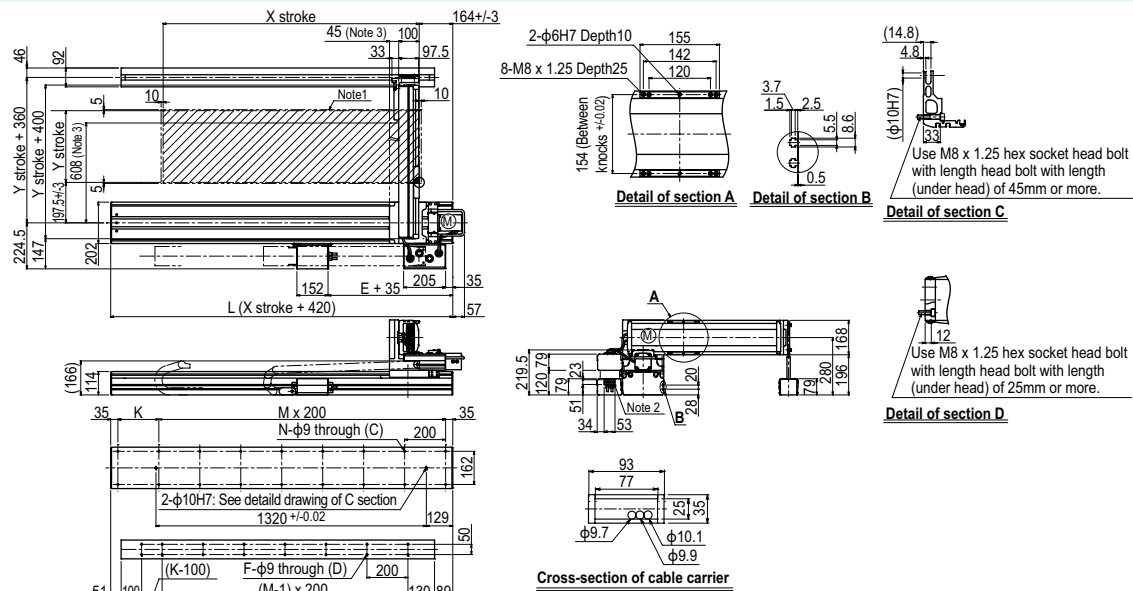
HXYLx 2 axes G2



HXYLx 2 axes G3



HXYLx 2 axes G4



SXYx

2 axes

● Moving arm type ● Whipover

Ordering method

SXYx - S					RCX320 2				
Model	Cable	Combination	X-axis stroke ^{Note 1}	Y-axis stroke ^{Note 1}	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)
M1		M1	15 to 85cm	15 to 35cm	3L: 3.5m				
M3		M3			5L: 5m				
					10L: 10m				

Specify various controller setting items. RCX320 ▶ **P.626**

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

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 φ15	Ball screw φ15
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.

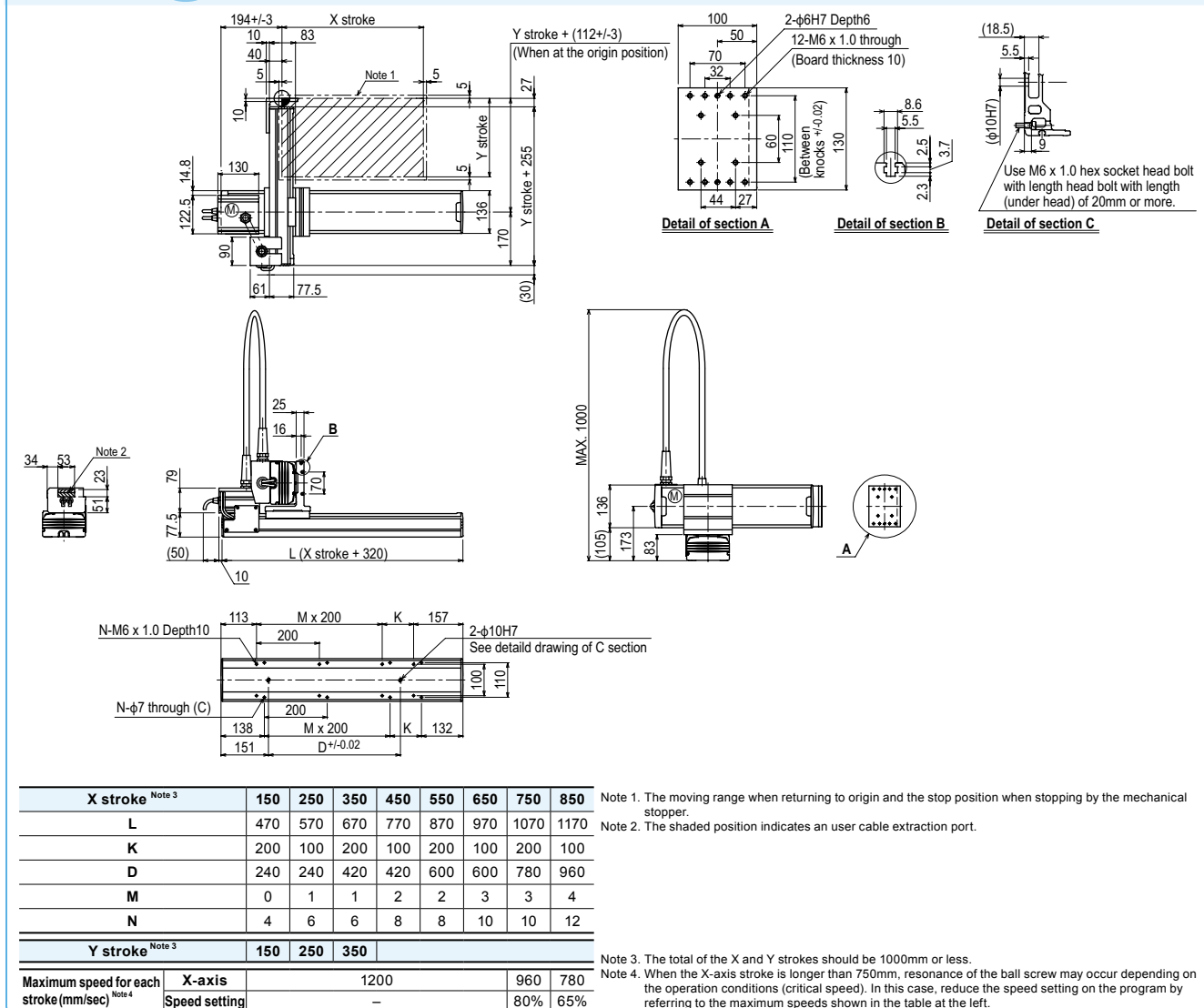
Maximum payload (kg)

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

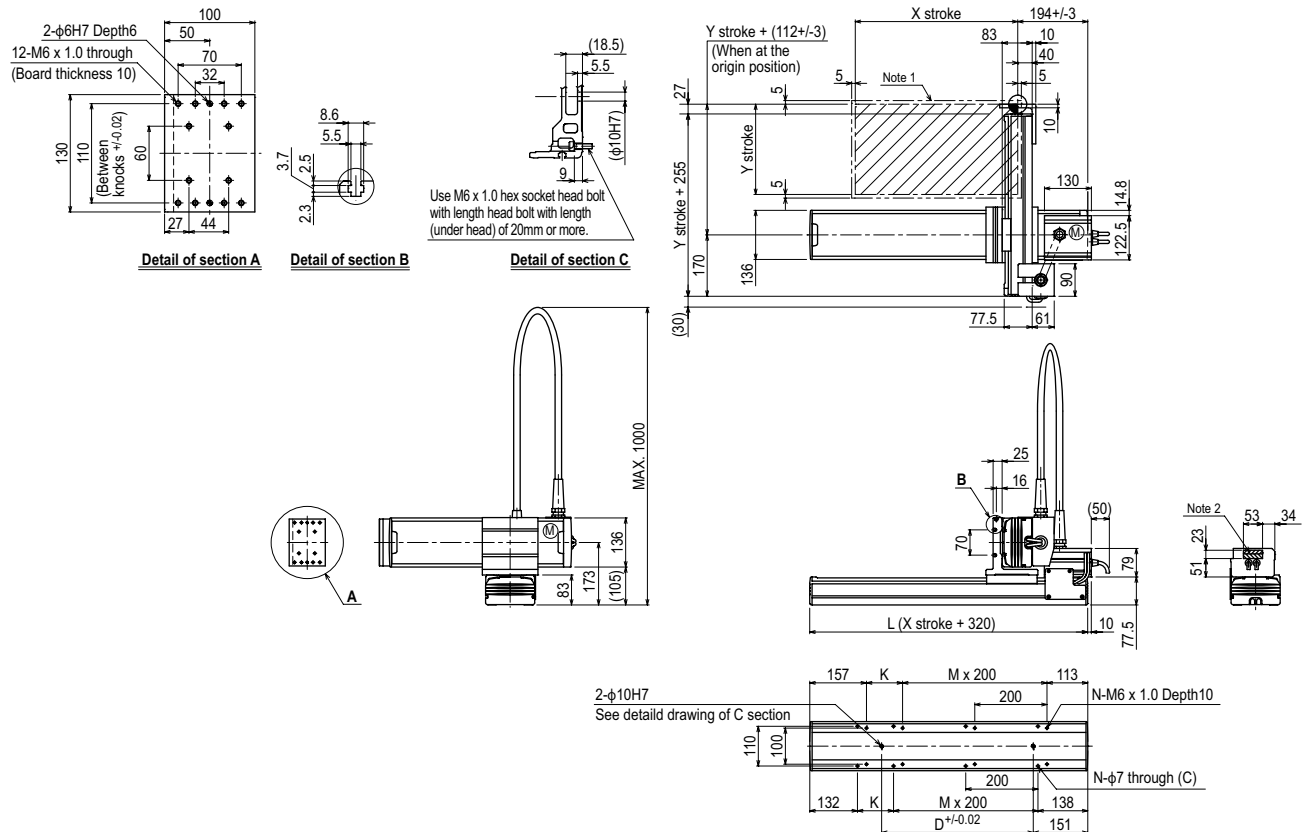
Controller

Controller	Operation method
RCX320	Programming / I/O point trace / Remote command / Operation using RS-232C communication

SXYx 2 axes M1



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

Model	Cable	Combination	X-axis stroke ^{Note 1}	Y-axis stroke ^{Note 1}	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		M1	15 to 85cm	15 to 35cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX340 3							

Specify various controller setting items. RCX340 ▶ **P.636**

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 φ15	Ball screw φ15	Ball screw φ15
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.

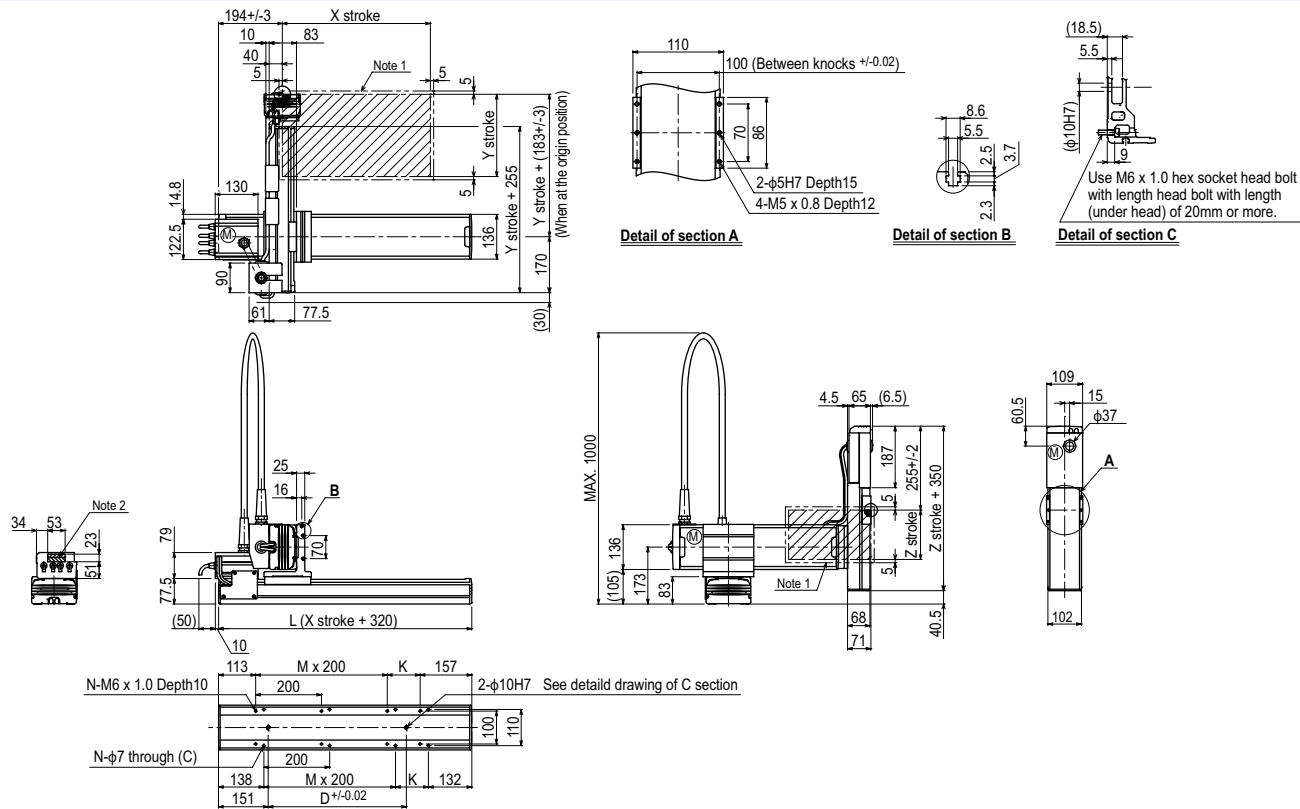
Maximum payload (kg)

	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 / 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	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%</		

SXYx 3 axes / ZS

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

Ordering method

SXYx - S **15** **RCX340 3**

Model	Cable	Combination	X-axis stroke ^{Note 1}	Y-axis stroke ^{Note 1}	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
M1			15 to 85cm	15 to 35cm	ZS12		3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P636**

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 φ15	Ball screw φ15	Ball screw φ12	
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.

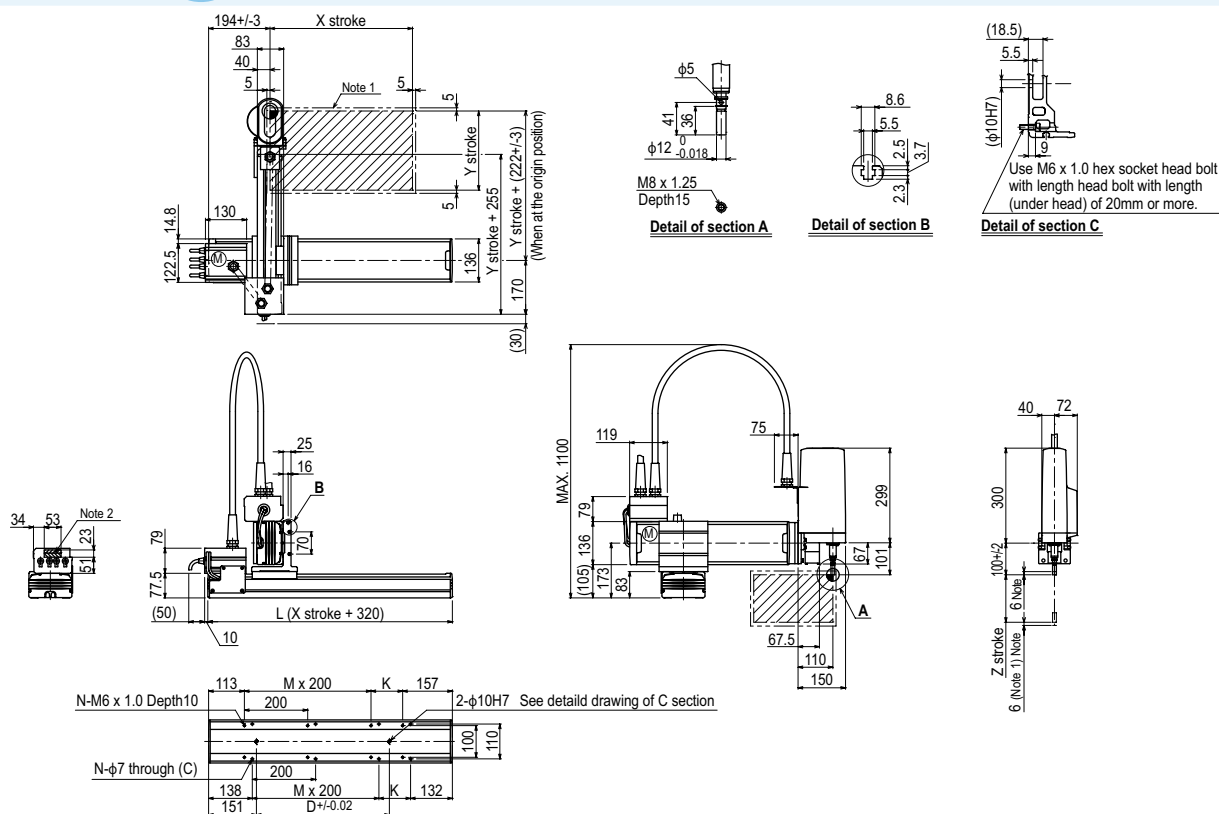
Maximum payload

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

Controller

Controller	Operation method
RCX340	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

Moving arm type
Cable carrier

Ordering method

MXYx
C

Model

Cable

Combination

X-axis stroke

Y-axis stroke

Cable

M1

M3

25 to 125cm

15 to 55cm

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

RCX320 2

R

Controller / Number of controllable axes

Safety standard

Regenerative unit

Option A (OP.A)

Option B (OP.B)

Vision System

Absolute battery

Specify various controller setting items. RCX320 ▶ **P.626**

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 φ20	Ball screw φ15
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 550
Robot cable length (m)	Standard: 3.5 Option: 5,10	

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

Maximum payload (kg)

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

Controller

Controller	Operation method
RCX320-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

MXYx 2 axes M1

234+/-3
10
40
83
5
5
30
Y stroke + (140+/-3)
(When at the origin position)
Y stroke
Y stroke + 320
210
18.5
125
10
138
179
90
61
24
125
77.5
L (X stroke + 365)
(150)

100
50
70
32
2-φ6H7 Depth6
12-M6 x 1.0 through
(Board thickness 10)
60
110
44
27
(Between knicks +/-0.02)
130

Detail of section A

26.5
Use M8 x 1.25 hex socket head bolt with length head bolt with length (under head) of 40mm or more.

Detail of section B

φ29
(Note 2)
Grounding terminal
(M4)
5.5
37
103.5
80
135
165
50
97.5
(345)

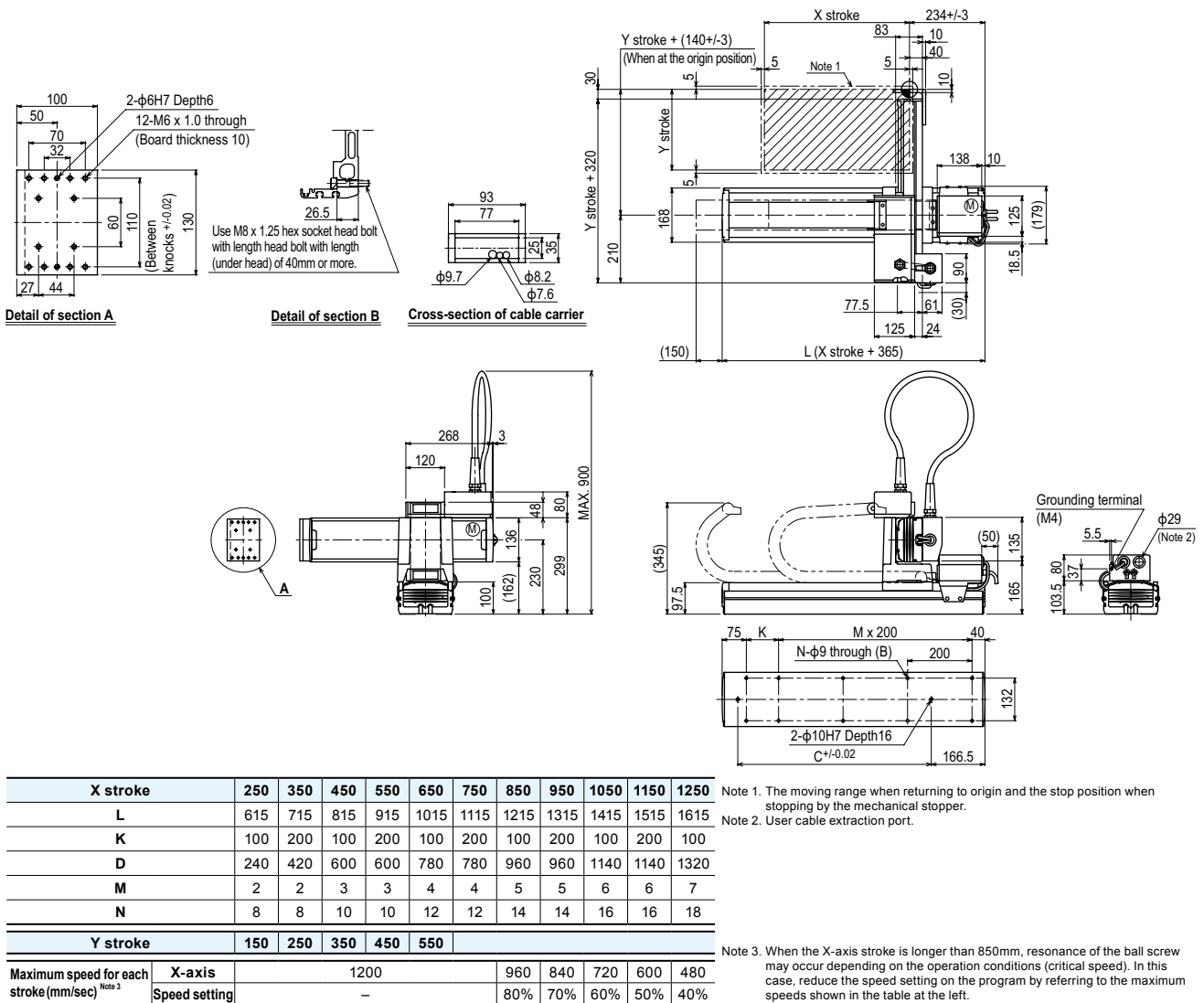
40
200
M x 200
N-φ9 through (B)
K
75
132
166.5
2-φ10H7 Depth16
C+/-0.02

93
77
27
39
φ9.7
φ8.2
φ7.6
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						
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 **M3**



Ordering method

MXYx - C										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	
		M1 M3	25 to 125cm	15 to 55cm	ZFL20 ZFL10	15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m									

Specify various controller setting items. RCX340 ▶ **P.636**

Specification

	X-axis	Y-axis	Z-axis: ZFL20	Z-axis: ZFL10
Axis construction ^{Note 1}	F17	F14H	F10H-BK	
AC servo motor output (W)	400	200	200	
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01	
Drive system	Ball screw φ20	Ball screw φ15	Ball screw φ15	
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 flame machining (installation holes, tap holes) differs from single-axis robots'.

Note 2. Positioning repeatability in one direction.

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

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

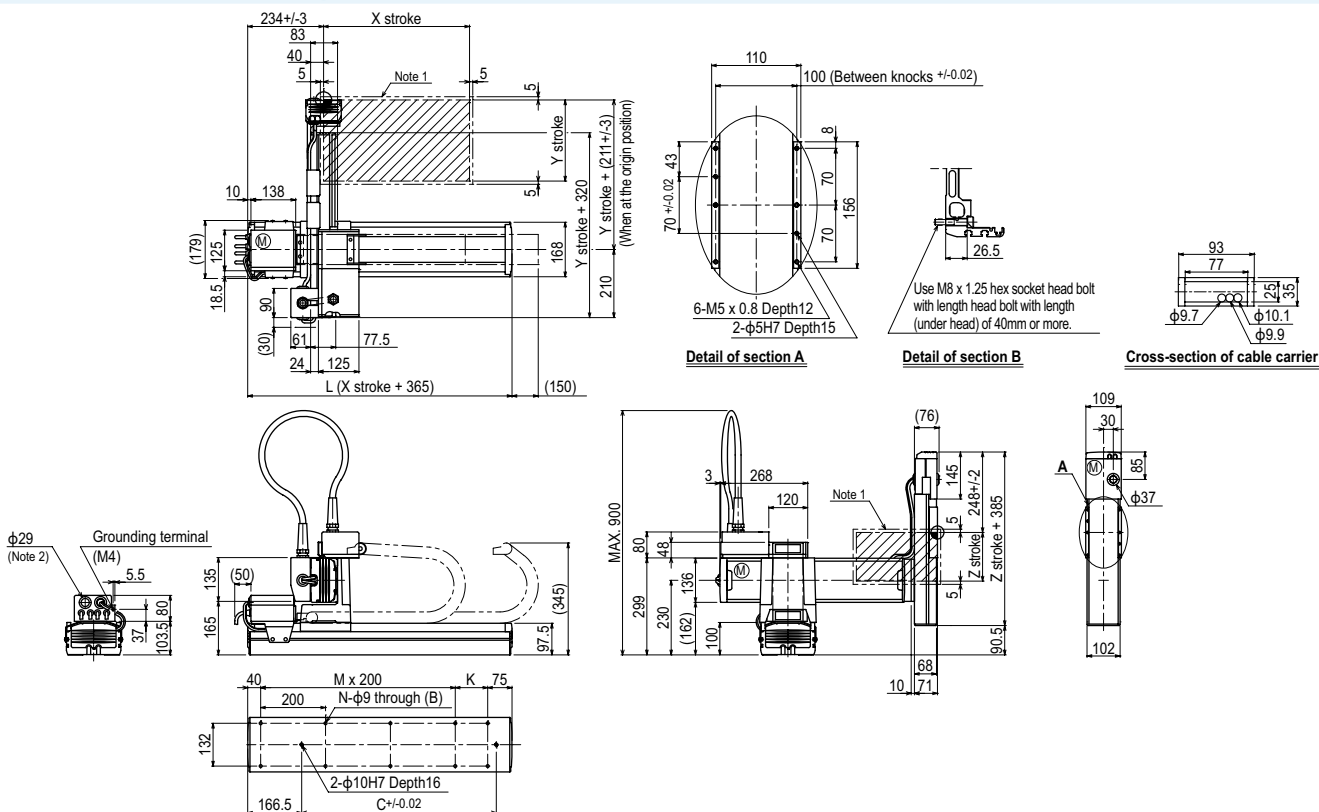
Maximum payload (kg)

Y stroke (mm)	Z stroke (mm)					
	ZFL20			ZFL10		
	150	250	350	150	250	350
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

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 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.

MXYx 3 axes / ZFH

● Moving arm type ● Cable carrier ● Z-axis: clamped table / moving base 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			3L: 3.5m 5L: 5m 10L: 10m	RCX340 3							

Specify various controller setting items. RCX340 ▶ **P636**

Specification

	X-axis	Y-axis	Z-axis
Axis construction ^{Note 1}	F17	F14H	F10H-BK
AC servo motor output (W)	400	200	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw $\phi 20$	Ball screw $\phi 15$	Ball screw $\phi 15$
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.

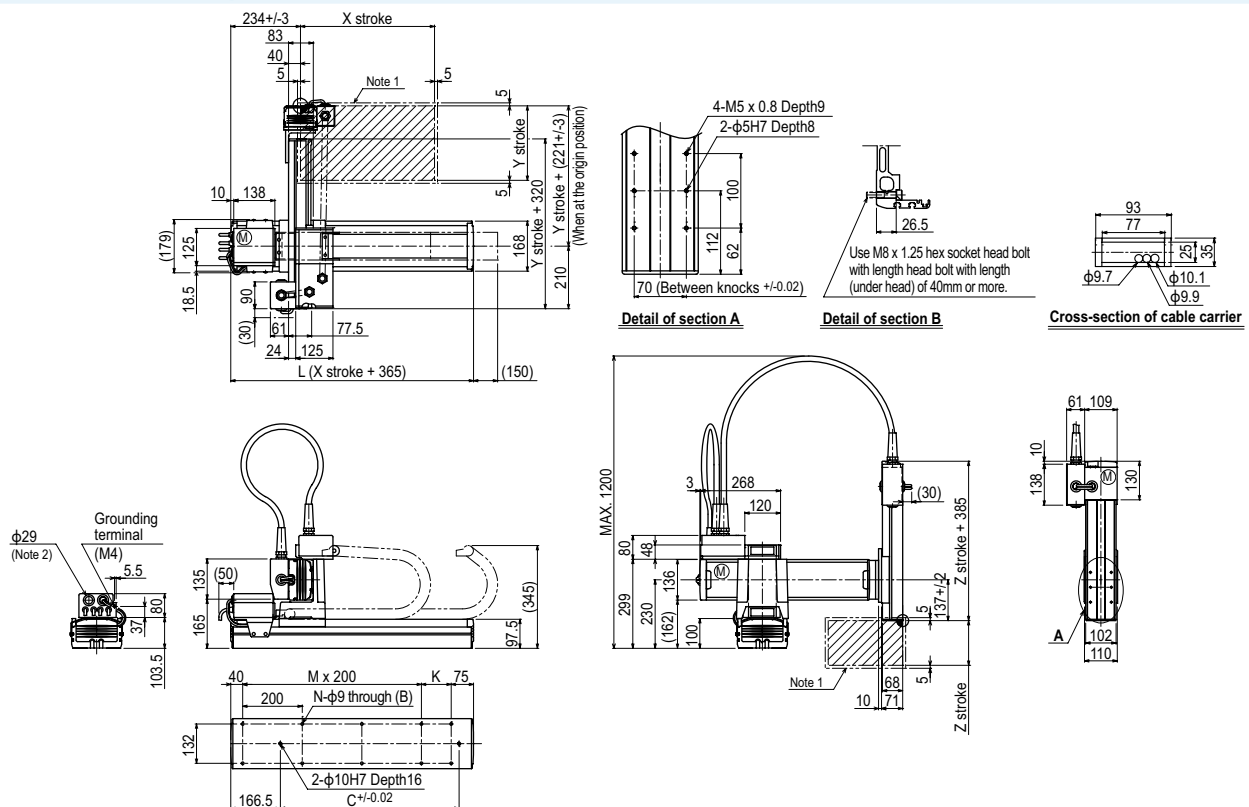
Maximum payload (kg)

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

Controller

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

MXYx 3 axes / ZFH M1



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					RCX320 2		R					
Model	Cable	Combination	X-axis stroke	Y-axis stroke	Cable	Controller / Number of controllable axes	Safety standard	Regenerative unit	Option A (OP.A)	Option B (OP.B)	Vision System	Absolute battery
	M1 M3		25 to 125cm	25 to 65cm	3L: 3.5m 5L: 5m 10L: 10m							

Specify various controller setting items. RCX320 ▶ **P.626**

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 φ20	Ball screw φ20
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 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.

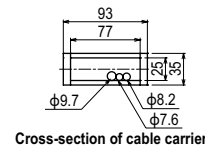
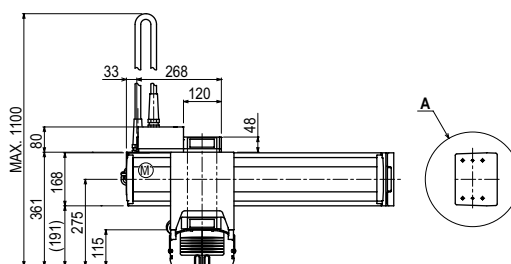
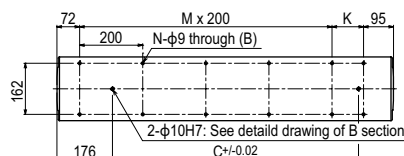
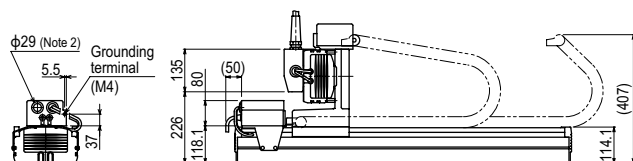
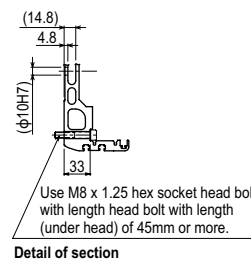
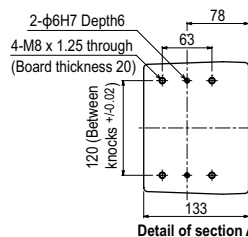
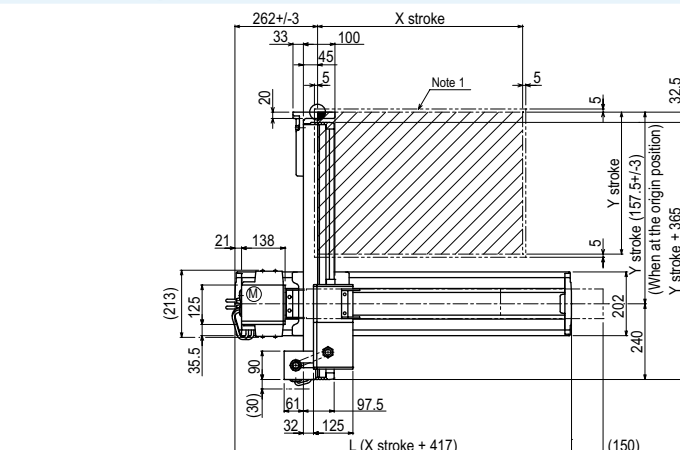
Maximum payload (kg)

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

Controller

Controller	Operation method
RCX320-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

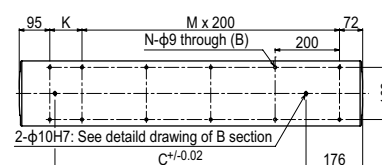
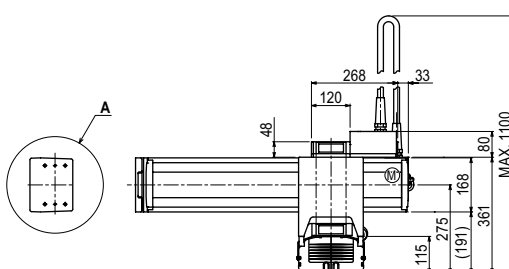
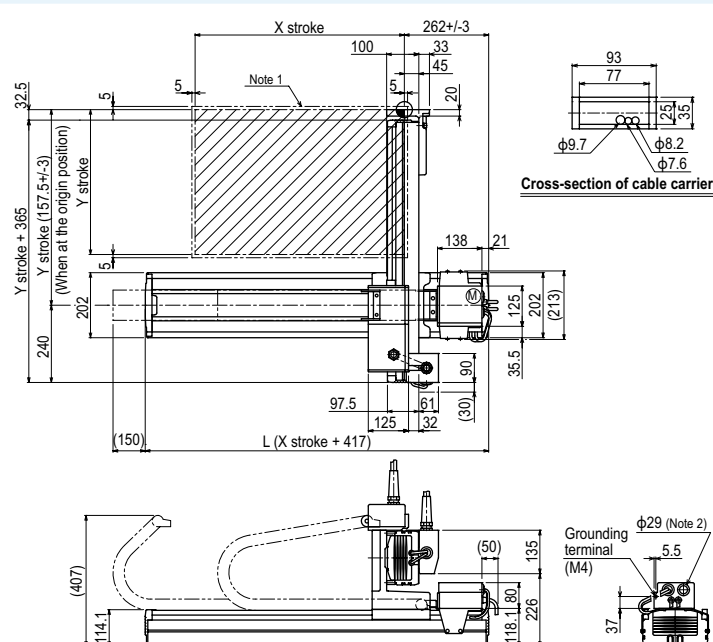
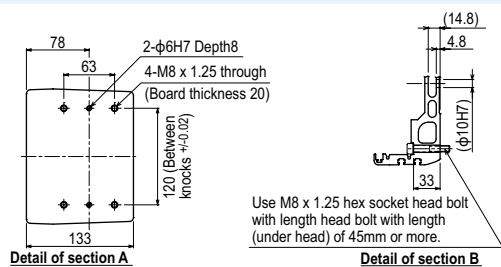
HXYx 2 axes M1



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																
Speed setting	—																

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.

HXYx

3 axes / ZH

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

Ordering method

HXYx

C

ZH

RCX340 3

Model

Cable

Combination

X-axis stroke

Y-axis stroke

ZR-axis

Z-axis stroke

Cable

Controller / Number of controllable axes

Safety standard

Option A (OP.A)

Option B (OP.B)

Option C (OP.C)

Option D (OP.D)

Option E (OP.E)

Absolute battery

M1

M3

25 to 125cm

25 to 65cm

25 to 55cm

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

Specify various controller setting items. RCX340 ▶ **P.636**

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 φ20	Ball screw φ20	Ball screw φ15
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 650	250 to 550
Robot cable length (m)	Standard: 3.5 Option: 5,10		

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

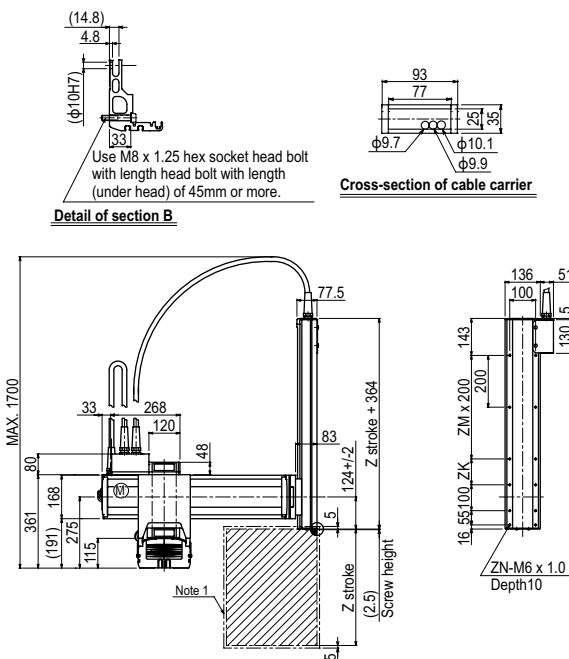
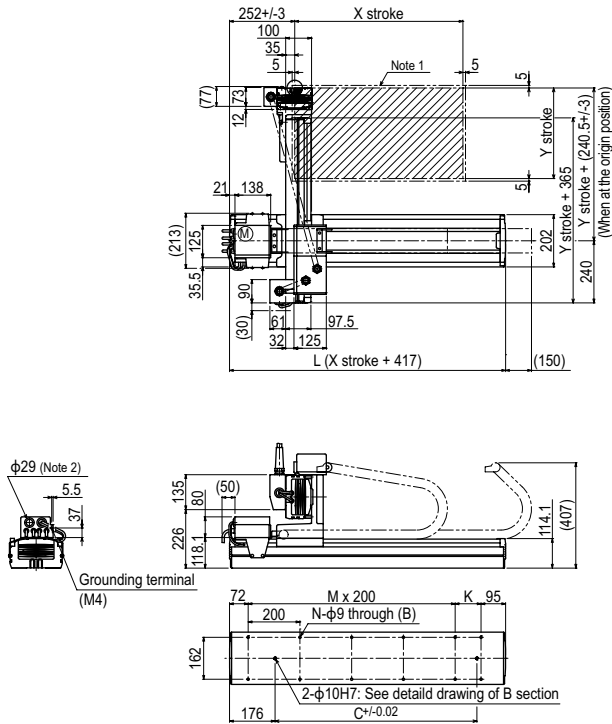
Maximum payload (kg)

	Z stroke (mm)				
Y stroke (mm)	250	350	450	550	
250	18	18	18	18	
350	18	18	18	18	
450	18	18	18	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

HXYx 3 axes / ZH M1

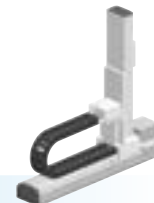


X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
L	667	767	867	967	1067	1167	1267	1367	1467	1567	1667
K	100	200	100	200	100	200	100	200	100	200	100
C	420	420	600	600	780	780	960	960	1140	1320	1320
M	2	2	3	3	4	4	5	5	6	6	7
N	8	8	10	10	12	12	14	14	16	16	18
Y stroke	250	350	450	550	650						
Z stroke	250	350	450	550							
ZK	100	200	100	200							
ZM	1	1	2	2							
ZN	10	10	12	12							
Maximum speed for each stroke (mm/sec) ^{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.

Linear conveyor modules	LCMR200
Single-axis robots	GX
Linear conveyor modules	LCM100
SCARA robots	YK-X
Single-axis robots	Robonity
Linear motor single-axis robots	PHASER
Single-axis robots	FLIP-X
Compact single-axis robots	TRANSERO
Cartesian robots	XY-X
Pick & place robots	YP-X
	CLEAN
	CONTROLLER
	INFORMATION
Arm type	
Gantry type	
Moving arm type	
Pole type	
XZ type	



Ordering method

MXYx - C - P2				RCX320 2		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 / Number of controllable axes	Safety standard	Regenerative unit	Option A (O.P.A)	Option B (O.P.B)	Vision System
Specify various controller setting items. RCX320 ▶ P.626											

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 φ20	Ball screw φ15
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 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.

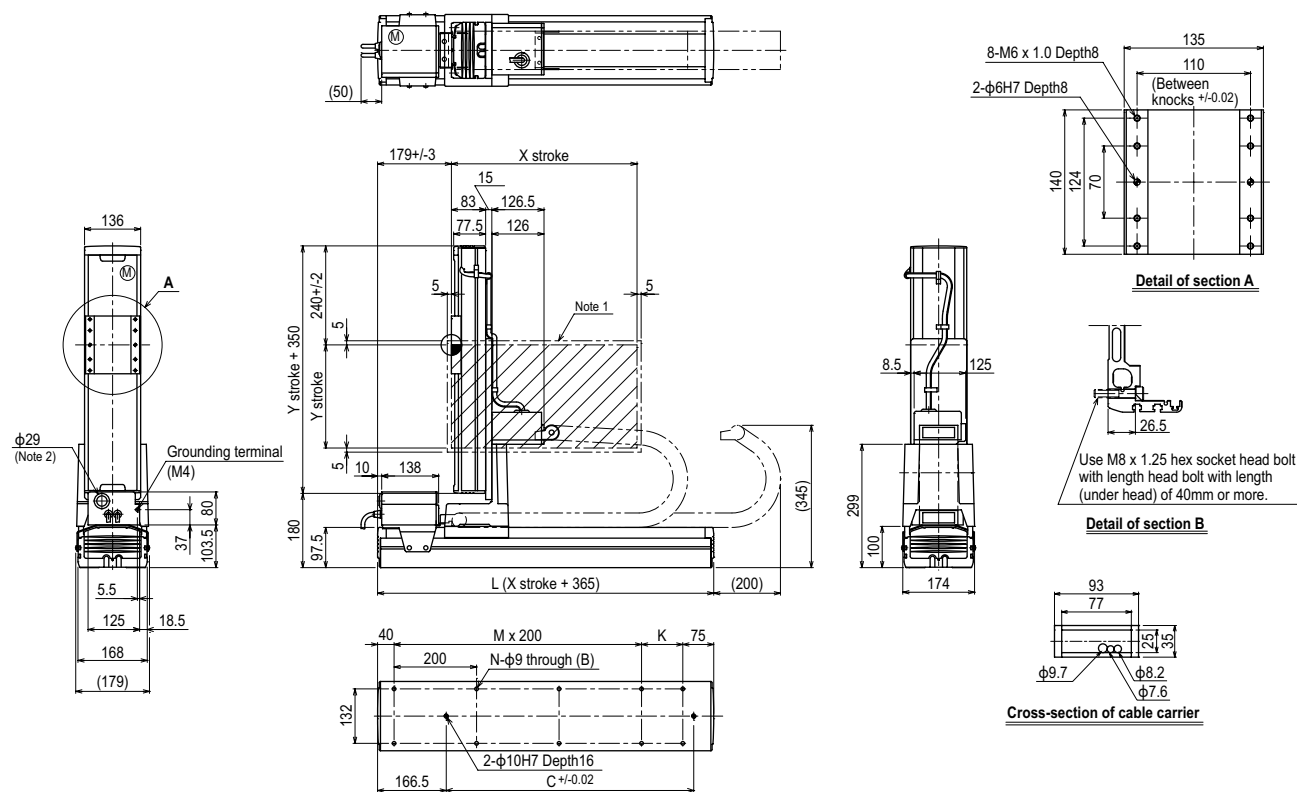
Maximum payload

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

Controller

Controller	Operation method
RCX320-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.



Ordering method

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	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 - P2								RCX340 3							

Specify various controller setting items. RCX340 ▶ **P.636**

Specification

	X-axis	Y-axis	Z-axis
Axis construction ^{Note 1}	F17	F14H-BK	F10H-BK
AC servo motor output (W)	400	200	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01	+/-0.01
Drive system	Ball screw φ20	Ball screw φ15	Ball screw φ15
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 YAMAHHA.

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.

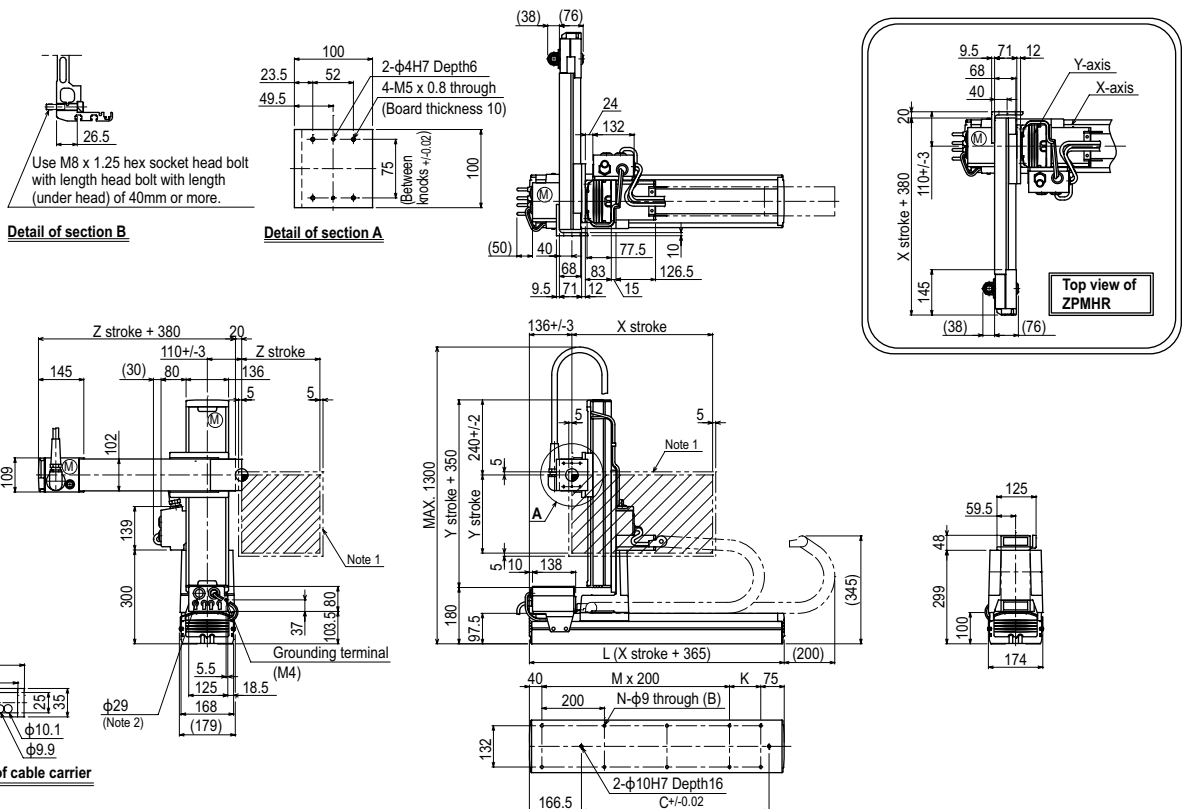
Maximum payload (kg)

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

Controller

Controller	Operation method
RCX340	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

RCX320 2

R

Model

Cable

Combination

X-axis stroke
25 to 125cm

Y-axis stroke
25 to 105cm

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

Controller /
Number of controllable axes

Safety
standard

Regenerative unit

Option A
(OP.A)

Option B
(OP.B)

Vision
System

Absolute
battery

Specify various controller setting items. RCX320 ▶ **P.626**

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 φ20	Ball screw φ20
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 flange machining (installation holes, tap holes) differs from single-axis robots'.
 Note 2. Positioning repeatability in one direction.
 Note 3. Leads not listed in the catalog are also available. Contact us for details.
 Note 4. When the X-axis/Y-axis stroke is longer than 850mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

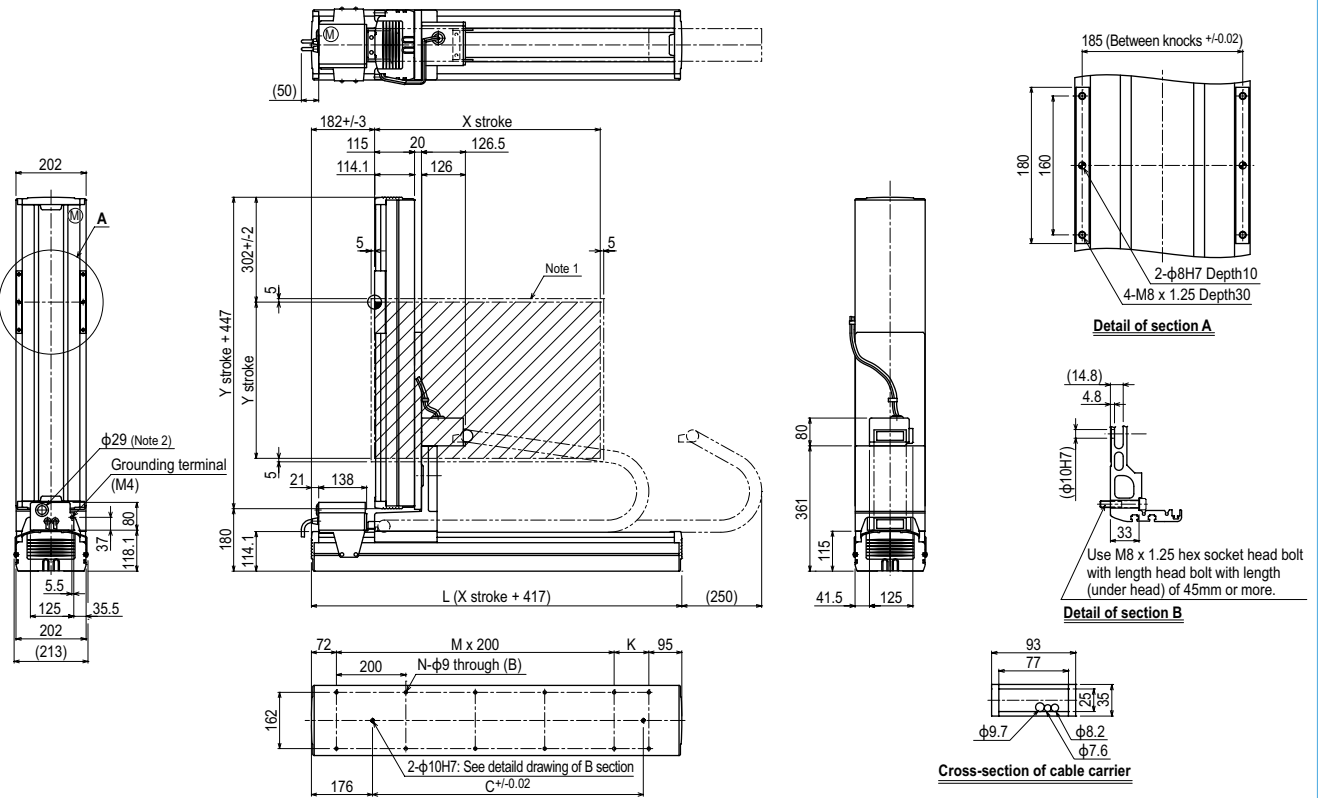
Maximum payload (kg)

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

Controller

Controller	Operation method
RCX320-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 ^{Note 3} (mm/sec)	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						RCX320 2		R				
Model	Cable	Combination	X-axis stroke Model S 25 to 85cm	Y-axis stroke Model S 25 to 85cm	Cable 3L: 3.5m 5L: 5m 10L: 10m	Controller / Number of controllable axes	Safety standard	Regenerative unit	Option A (OP.A)	Option B (OP.B)	Vision System	Absolute battery
Specify various controller setting items. RCX320 ▶ P526												

Specify various controller setting items. RCX320 ▶ **P.626**

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

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 φ20	Ball screw φ20
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.

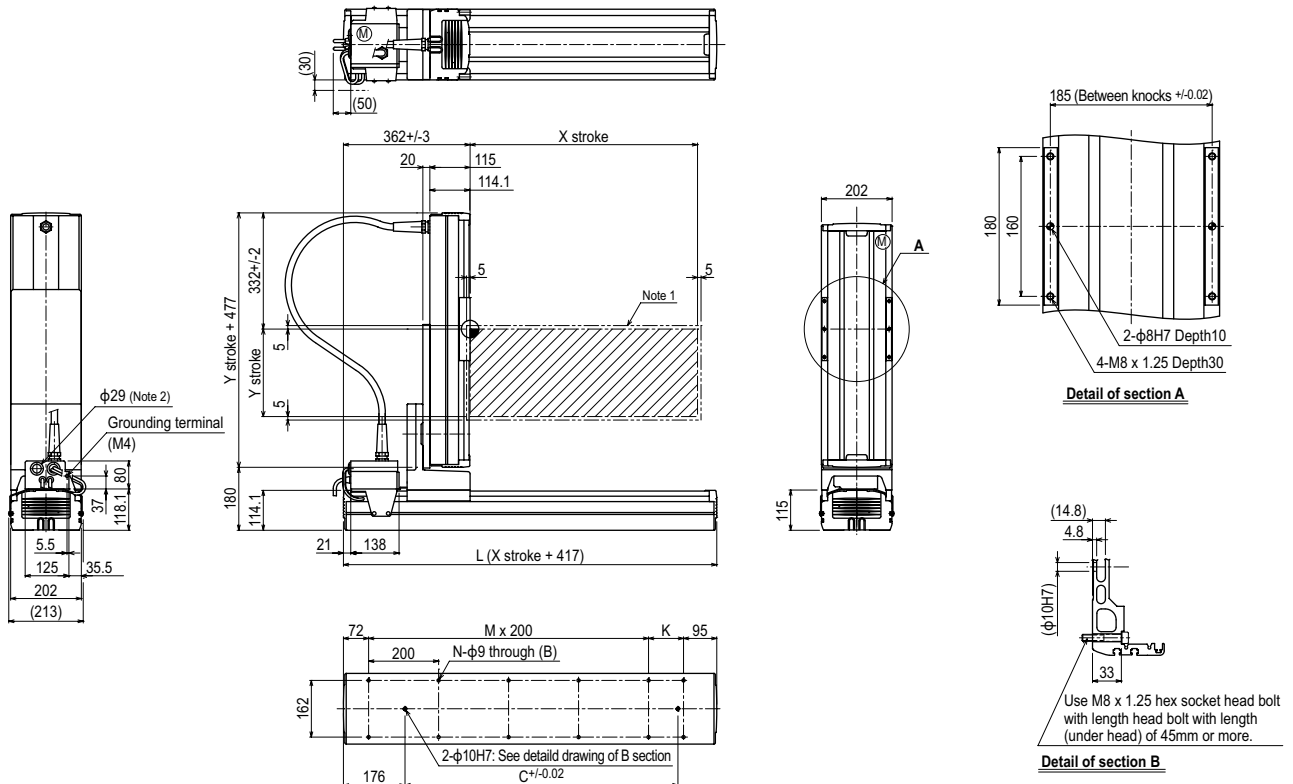
Maximum payload (kg)

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

Controller

Controller	Operation method
RCX320-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.

Ordering method

HXYx - S - P1						RCX340 3										
Model	Cable	Combination	X-axis stroke ^{Note 1}	Y-axis stroke ^{Note 1}	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	
			25 to 85cm	25 to 85cm	ZPHL ZPHR	25 to 65cm	3L: 3.5m 5L: 5m 10L: 10m									

Specify various controller setting items. RCX340 ▶ **P.636**

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 φ20	Ball screw φ20	Ball screw φ15
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.

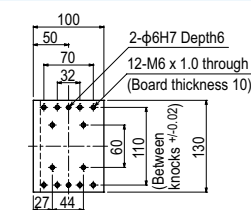
Maximum payload (kg)

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

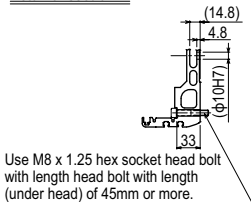
Controller

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

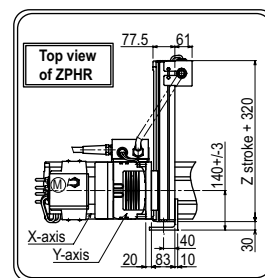
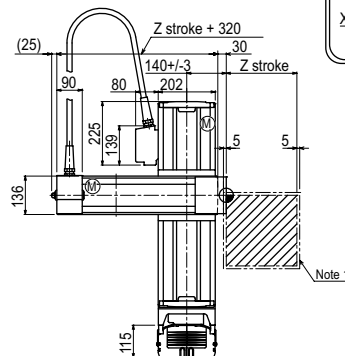
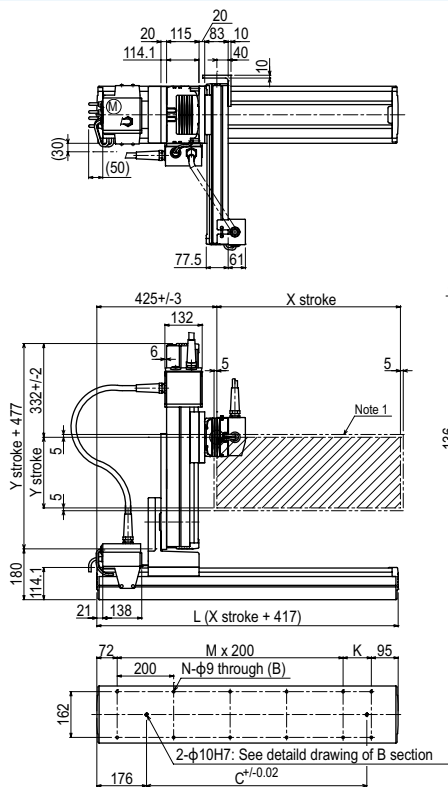
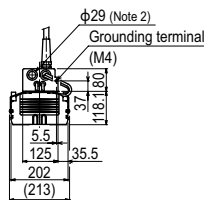
HXYx 3 axes / ZPHL (P1)



Detail of section A



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 ^{Note 5} (mm/sec)	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 / Number of controllable axes	Safety standard	Option A (O.P.A.)	Option B (O.P.B.)	Vision System	Absolute battery
SXYx - C			ZF			RCX320 2						
	F1		15 to 105cm		15 to 35cm	3L: 3.5m						
	F3					5L: 5m						
						10L: 10m						

Specify various controller setting items. RCX320 ▶ [P.626](#)

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 ϕ 15	Ball screw ϕ 15
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 flange machining (installation holes, tap holes) differs from single-axis robots'.
 Note 2. Positioning repeatability in one direction.
 Note 3. Leads not listed in the catalog are also available. Contact us for details.
 Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

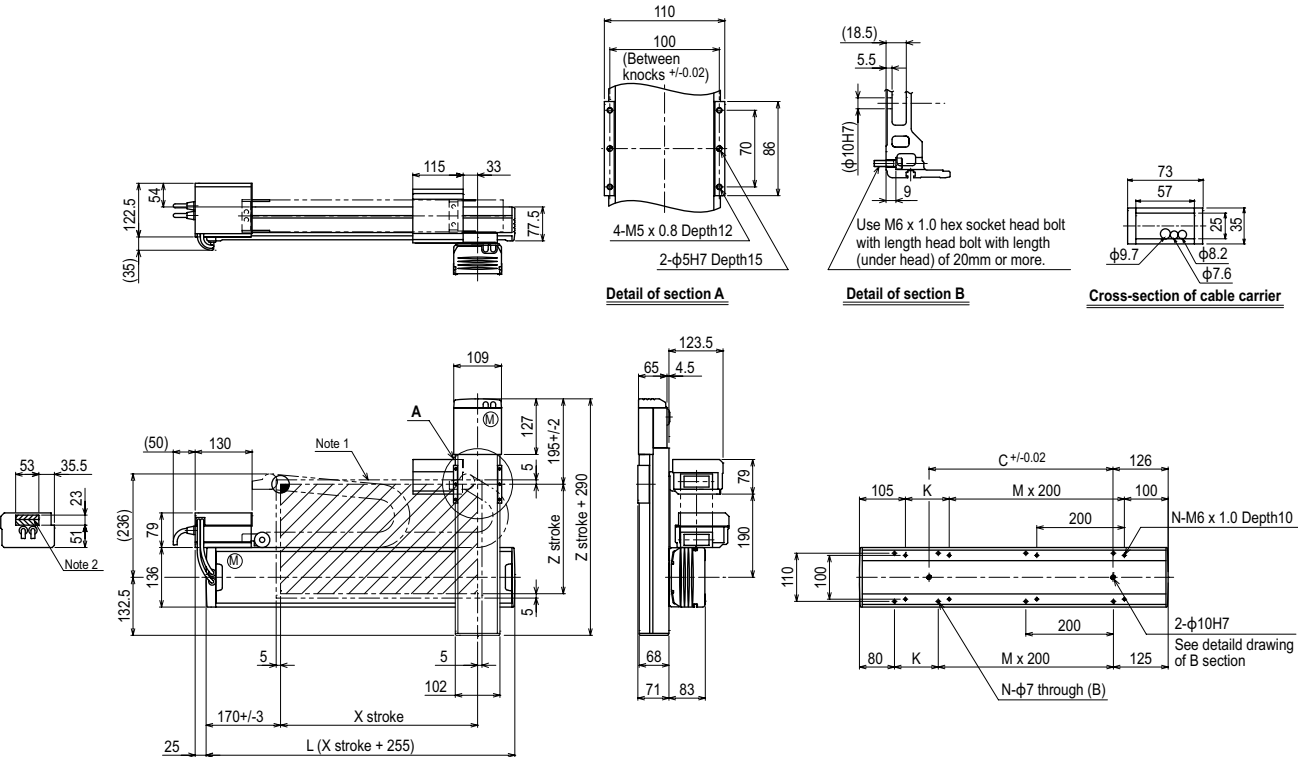
Maximum payload (kg)

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

Controller

Controller	Operation method
RCX320	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%						



Ordering method

Model	Cable	Combination	X-axis stroke	ZR-axis	Z-axis stroke	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Vision System	Absolute battery
SXYx - S			15 to 85cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX320 2					

Specify various controller setting items. RCX320 ▶ **P.626**

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 $\phi 15$	Ball screw $\phi 15$
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.

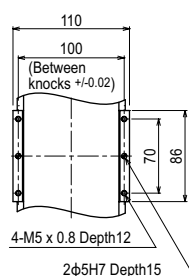
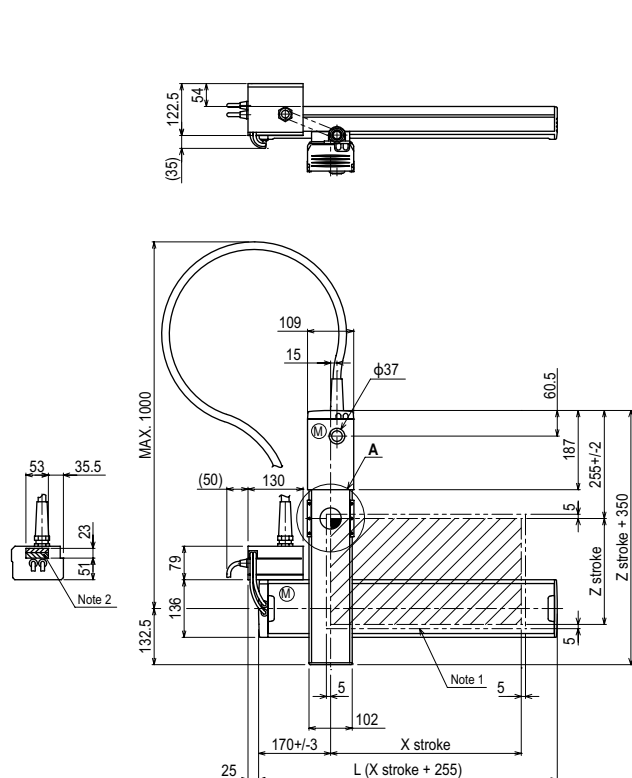
Maximum payload (kg)

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

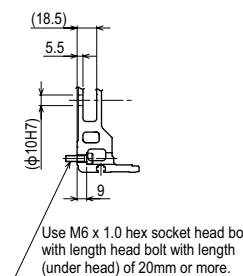
Controller

Controller	Operation method
RCX320	Programming / I/O point trace / Remote command / Operation using RS-232C communication

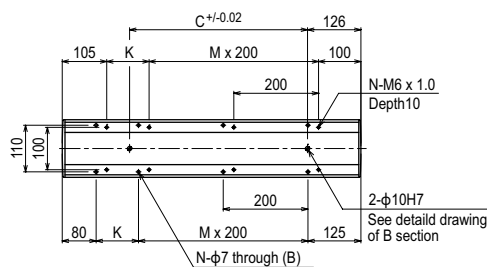
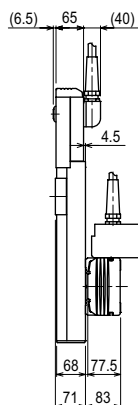
SXYx 2 axes / ZF (F1)



Detail of section A



Detail of section B



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}	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.

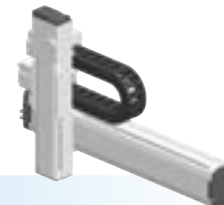
Note 2. The shaded position indicates an user cable extraction port.

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			RCX320 2		R				
Model	Cable	Combination	X-axis stroke	ZR-axis	Z-axis stroke	Cable	Controller / Number of controllable axes	Safety standard	Regenerative unit ^{Note 1}	Option A (OP.A)	Option B (OP.B)	Vision System
	F1 F3		15 to 105cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m						

Specify various controller setting items. RCX320 ▶ **P.626**

Note 1. RCX320 uses the YHX-RU regenerative unit. The RCX222 uses the RG2.

Specification

	X-axis	Z-axis
Axis construction ^{Note 1}	F14	F10H-BK
AC servo motor output (W)	100	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01
Drive system	Ball screw $\phi 15$	Ball screw $\phi 15$
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 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.

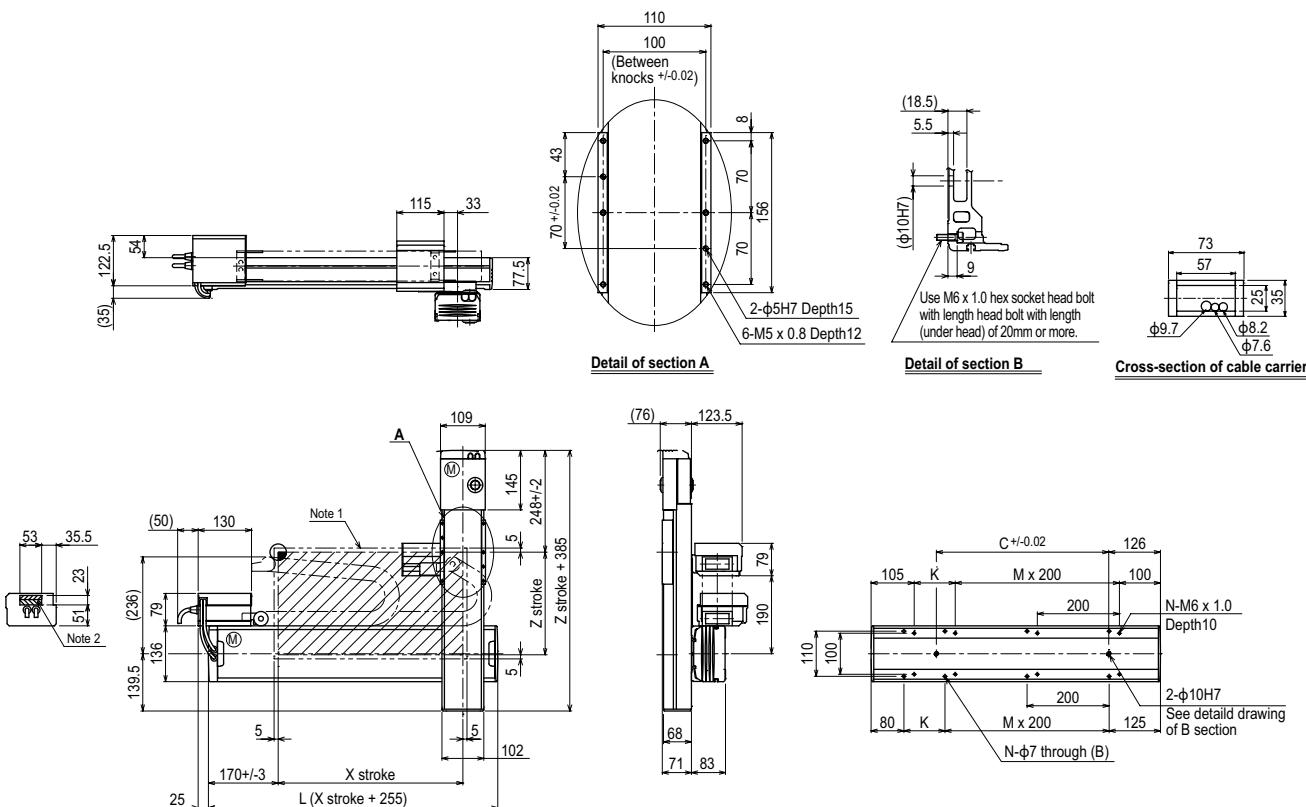
Maximum payload (kg)

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

Controller

Controller	Operation method
RCX320-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) ^{Note 3}	1200		960		780		600		540	
Speed setting	—		80%		65%		50%		45%	

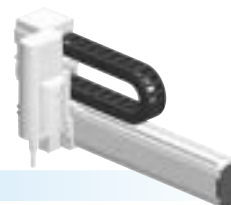
Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

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.

SXYx 2 axes / ZS

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



Ordering method

Model	Cable	Combination	X-axis stroke	ZR-axis	Z-axis stroke	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Vision System	Absolute battery
SXYx - C	F1		15 to 105cm	ZS12	15	3L: 3.5m 5L: 5m 10L: 10m	RCX320 2					
	F3			ZS6								

Specify various controller setting items. RCX320 ▶ P.626

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 φ15	Ball screw φ12	
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	12	6
Maximum speed ^{Note 4} (mm/sec)	1200	1000	500
Moving range (mm)	150 to 1050	150	
Robot cable length (m)	Standard: 3.5 Option: 5,10		

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

Note 2. Positioning repeatability in one direction.

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

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

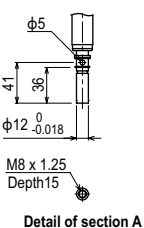
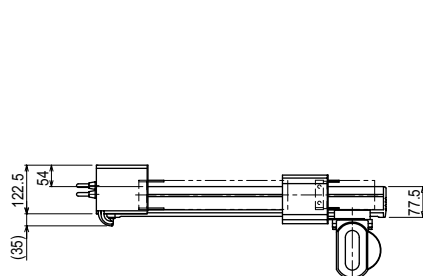
Maximum payload (kg)

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

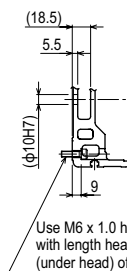
Controller

Controller	Operation method
RCX320	Programming / I/O point trace / Remote command / Operation using RS-232C communication

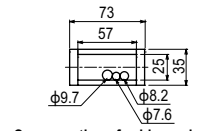
SXYx 2 axes / ZS (F1)



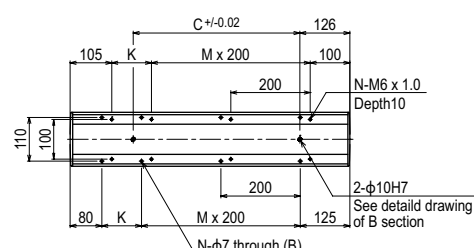
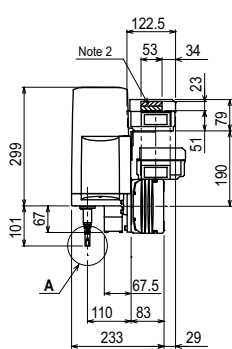
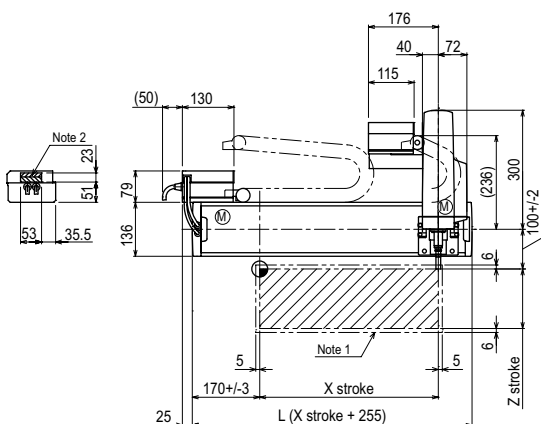
Detail of section A



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) ^{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.

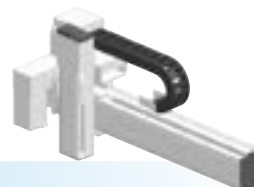
Note 2. The shaded position indicates an user cable extraction port.

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

Model	Cable	Combination	X-axis stroke	ZR-axis	Z-axis stroke	Cable	Controller / Number of controllable axes	Safety standard	Regenerative unit	Option A (OP.A)	Option B (OP.B)	Vision System	Absolute battery
SXYBx - C		F1	15 to 305cm	ZF	15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX320 2						

Specify various controller setting items. RCX320 ▶ P.626

Note 1. A regenerative unit is required when the maximum speed exceeds 1250mm/sec.

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 φ15
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)

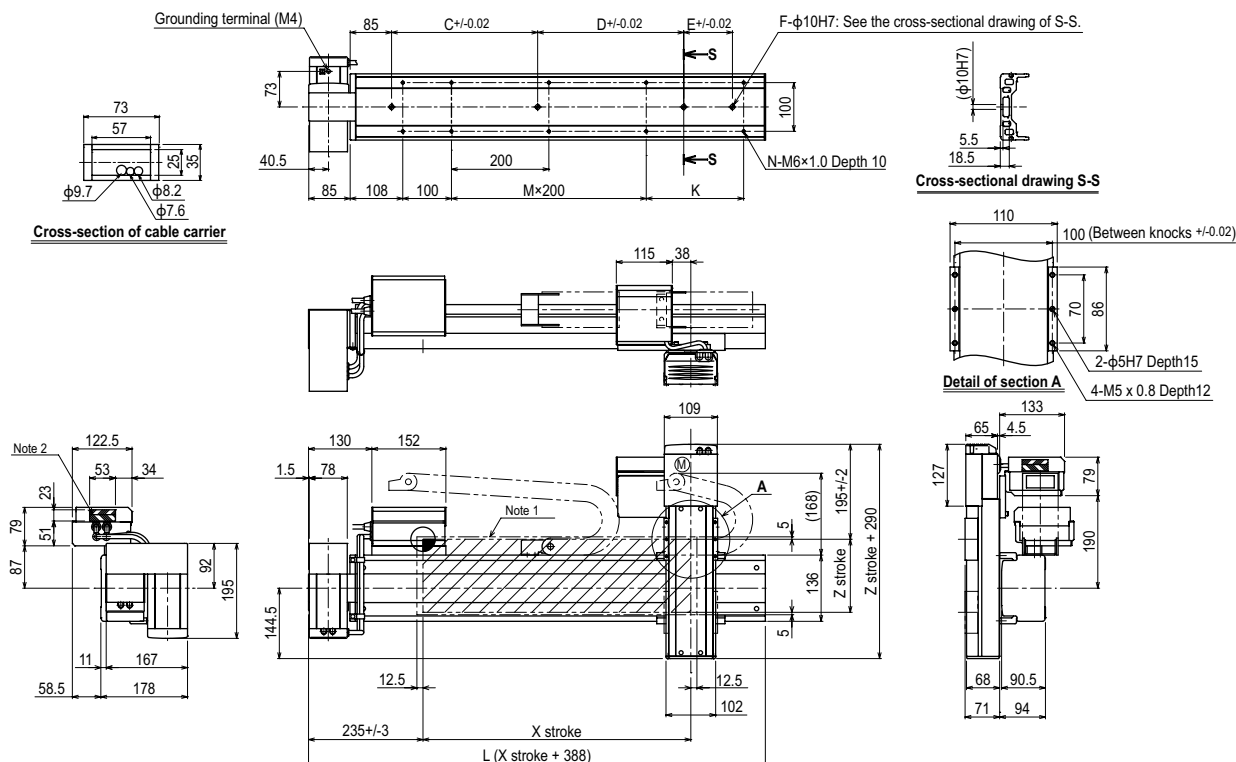
X stroke (mm)	Z stroke (mm)
150 to 3050	150 to 350
	10

Controller

Controller	Operation method
RCX320	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)

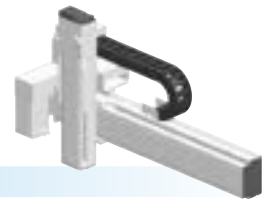


Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

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

Model	Cable	Combination	X-axis stroke	ZR-axis	Z-axis stroke	Cable	Controller / Number of controllable axes	Safety standard	Regenerative unit	Option A (O.P.A)	Option B (O.P.B)	Vision System	Absolute battery
SXYBx - C		F1	15 to 305cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m	RCX320 2		R				

Specify various controller setting items. RCX320 ▶ **P626**

Specification

	X-axis	Z-axis
Axis construction ^{Note 1}	B14H	F10H-BK
AC servo motor output (W)	200	200
Repeatability ^{Note 2} (mm)	+/-0.04	+/-0.01
Drive system	Timing belt	Ball screw $\phi 15$
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.

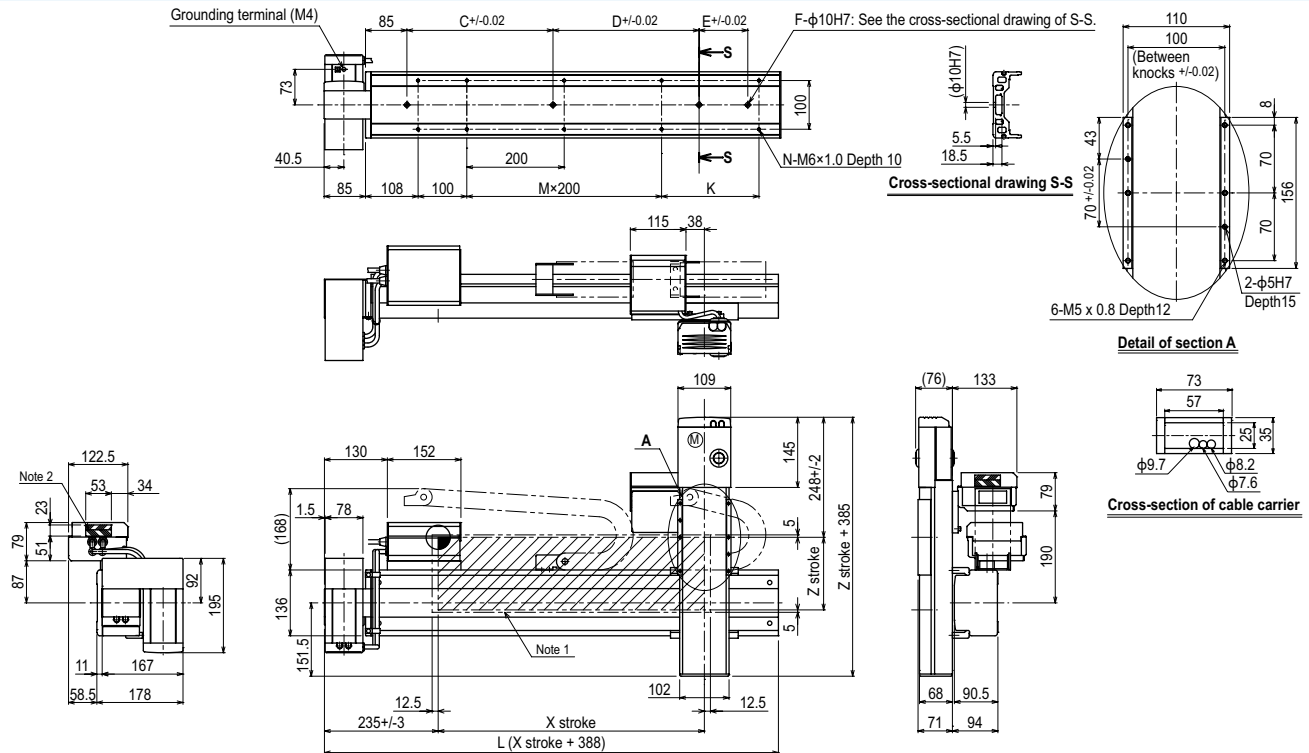
Maximum payload (kg)

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

Controller

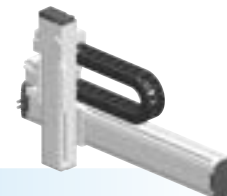
Controller	Operation method
RCX320-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

SXYBx 2 axes / ZFL20 (F1)



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

X stroke	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050
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

MXy_x - C			ZFL10			RCX320 2		R					
Model	Cable	Combination	X-axis stroke	ZR-axis	Z-axis stroke	Cable	Controller / Number of controllable axes	Safety standard	Regenerative unit	Option A (OP.A)	Option B (OP.B)	Vision System	Absolute battery
		F1 F3	15 to 105cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m							

Specify various controller setting items. RCX320 ▶ **P.626**

Specify various controller setting items. RCX320 ▶ **P.626**

Specification

	X-axis	Z-axis
Axis construction ^{Note 1}	F14H	F10H-BK
AC servo motor output (W)	200	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01
Drive system	Ball screw φ15	Ball screw φ15
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 flange machining (installation holes, tap holes) differs from single-axis robots'.
 Note 2. Positioning repeatability in one direction.
 Note 3. Leads not listed in the catalog are also available. Contact us for details.
 Note 4. When the X-axis stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

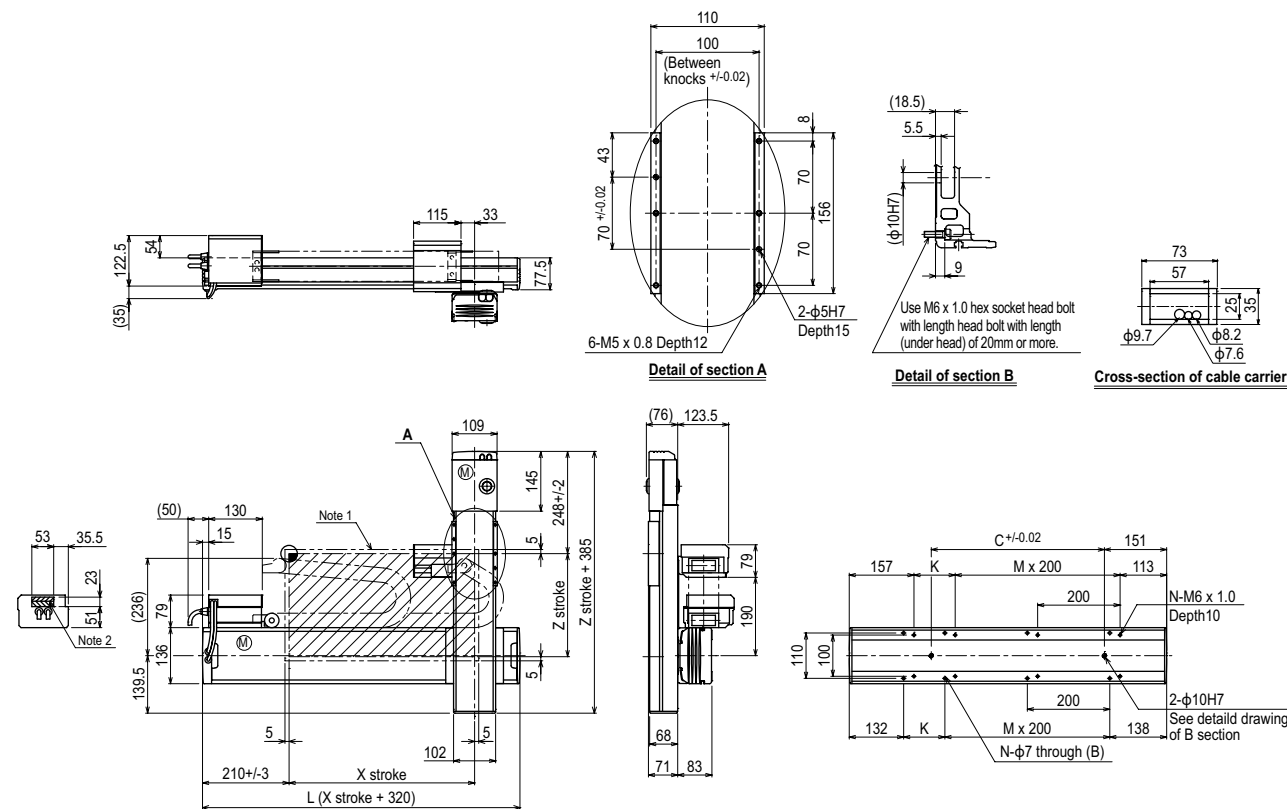
Maximum payload (kg)

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

Controller

Controller	Operation method
RCX320-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

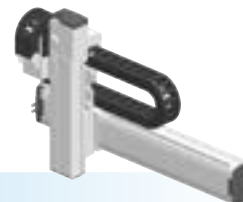
MXYx 2 axes / ZFL10 **F1**



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}	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.



Ordering method

MXYx	C			ZFH			RCX320 2		R					
Model	Cable	Combination	X-axis stroke	ZR-axis	Z-axis stroke	Cable	Controller / Number of controllable axes	Safety standard	Regenerative unit	Option A (OP.A)	Option B (OP.B)	Vision System	Absolute battery	
		F1 F3	15 to 105cm		15 to 35cm	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX320 ▶ **P.626**

Specification

	X-axis	Z-axis
Axis construction ^{Note 1}	F14H	F10H-BK
AC servo motor output (W)	200	200
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01
Drive system	Ball screw $\phi 15$	Ball screw $\phi 15$
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 flange machining (installation holes, tap holes) differs from single-axis robots'.

Note 2. Positioning repeatability in one direction.

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

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

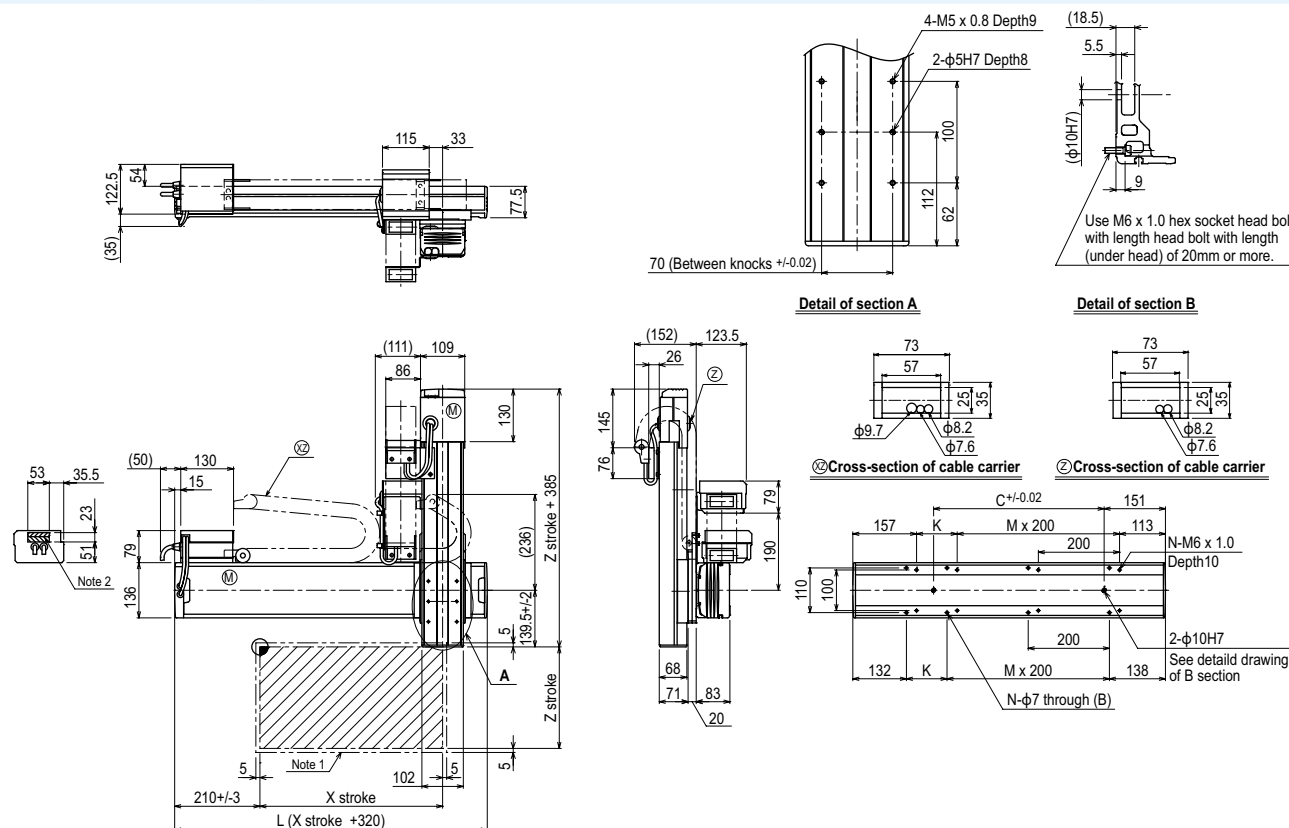
Maximum payload (kg)

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

Controller

Controller	Operation method
RCX320-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	—		
	960 780 600 540		
	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.

HXYx

2 axes / ZL

XZ type

Cable carrier

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

Ordering method

HXYx	C			ZL			RCX320 2		R					
Model	Cable	Combination	X-axis stroke	ZR-axis	Z-axis stroke	Cable	Controller / Number of controllable axes	Safety standard	Regenerative unit	Option A (OP.A)	Option B (OP.B)	Vision System	Absolute battery	
		F1 F3	25 to 125cm		25 to 55cm	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX320 ▶ **P626**

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 φ20	Ball screw φ15
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.

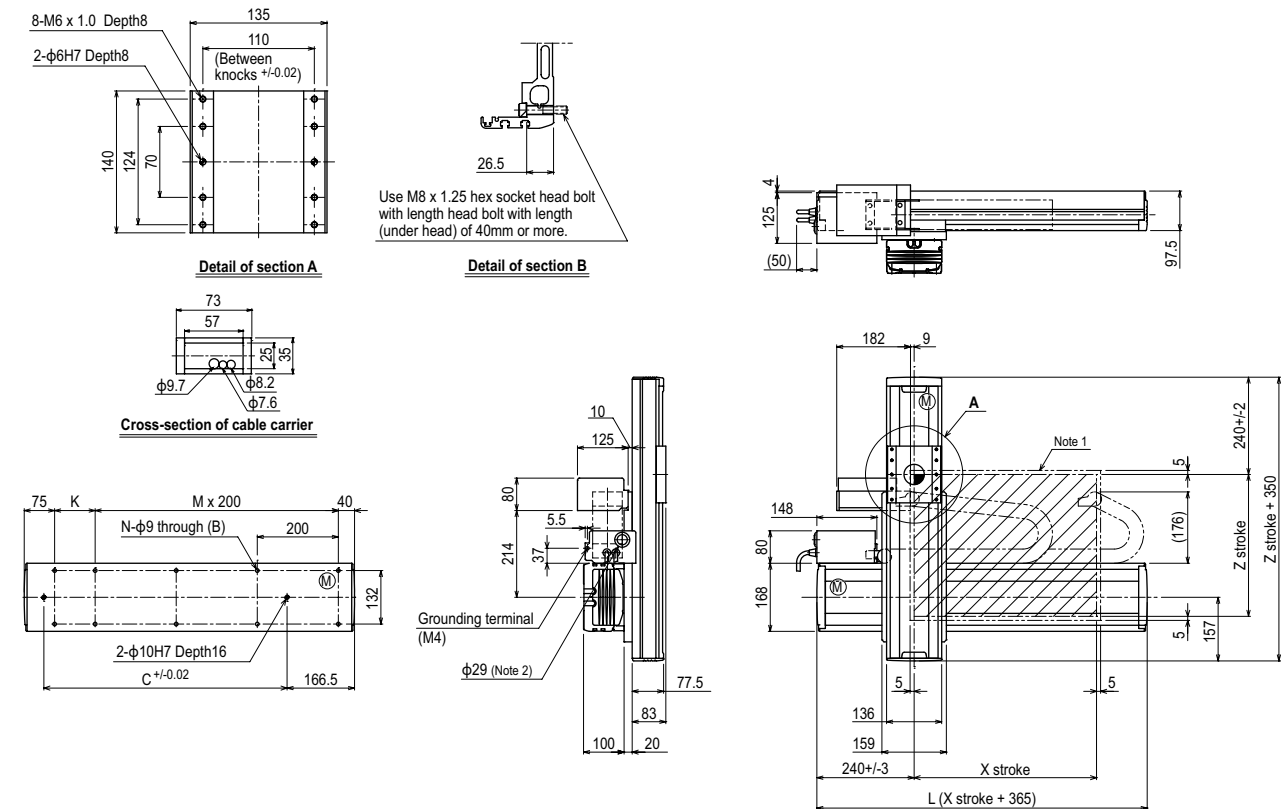
Maximum payload (kg)

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

Controller

Controller	Operation method
RCX320-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

HXYx 2 axes / ZL (F1)



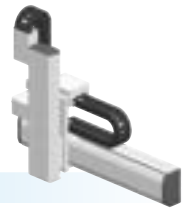
X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
L	615	715	815	915	1015	1115	1215	1315	1415	1515	1615
K	100	200	100	200	100	200	100	200	100	200	100
C	240	420	600	600	780	780	960	960	1140	1140	1320
M	2	2	3	3	4	4	5	5	6	6	7
N	8	8	10	10	12	12	14	14	16	16	18
Z stroke	250	350	450	550							
Maximum 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 / Number of controllable axes	Safety standard	Regenerative unit	Option A (OP.A)	Option B (OP.B)	Vision System	Absolute battery
HXYx	C	F1	25 to 125cm	ZH	25 to 55cm	3L: 3.5m 5L: 5m 10L: 10m	RCX320 2		R				

Specify various controller setting items. RCX320 ▶ **P.626**

Specification

	X-axis	Z-axis
Axis construction ^{Note 1}	F17	F14H-BK
AC servo motor output (W)	400	
Repeatability ^{Note 2} (mm)	+/-0.01	+/-0.01
Drive system	Ball screw φ20	Ball screw φ15
Ball screw lead ^{Note 3} (Deceleration ratio) (mm)	20	5
Maximum speed ^{Note 4} (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.

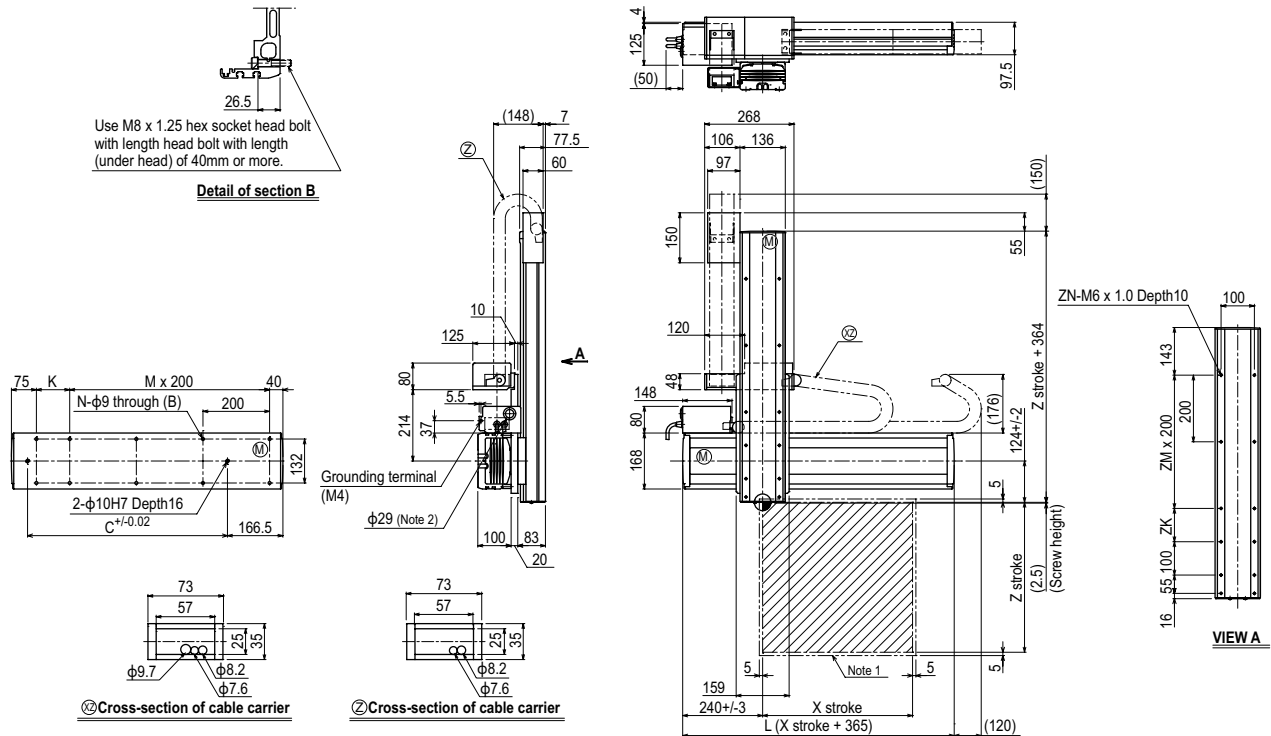
Maximum payload (kg)

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

Controller

Controller	Operation method
RCX320-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) ^{Note 3}	1200										
Speed setting	—				960	840	720	600	480		
					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.