

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

### Ordering method

<b>MXYx - C</b>							<b>RCX240</b>			<b>R</b>			<b>BB</b>
<b>Model</b>	<b>Cable</b>	<b>Combination</b>	<b>X-axis stroke</b>	<b>Y-axis stroke</b>	<b>ZR-axis</b>	<b>Z-axis stroke</b>	<b>Cable length</b>	<b>Controller</b>	<b>Usable for CE marking</b>	<b>Regenerative unit</b>	<b>Option I/O Note 1</b>	<b>Network option</b>	<b>Battery</b>
A1 A2 A3 A4		A1 A2 A3 A4	25 to 125cm	15 to 65cm	ZRFL20 ZRFL10	15 to 35cm	3L: 3.5m (Standard) 5L: 5m 10L: 10m		No entry; Standard E: CE marking	R: RGU-2	N: P: Standard I/O 16/8 N1, P1: 40/24 N2, P2: 64/40 N3, P3: 88/56 N4, P4: 112/72	No entry; None CC: CC-Link DN: DeviceNet PB: Profibus EN: Ethernet YC: YC-Link <sup>Note 2</sup>	BB: 4 pcs

Note 1. N to N4 if NPN was selected, or P to P4 if PNP was selected for the I/O board.  
Note 2. Available only for the master.

### Specification

	X-axis	Y-axis	Z-axis: ZRFL20	Z-axis: ZRFL10	R-axis
<b>Axis construction</b> <sup>Note 1</sup>	F17	F14H	F10 equivalent guide-reinforced model		R5
<b>AC servo motor output (W)</b>	400	200	200		50
<b>Repeatability</b> <sup>Note 2</sup> (XYZ: mm) (R: °)	+/-0.01	+/-0.01	+/-0.01		+/-0.0083
<b>Drive system</b>	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)		Harmonic gear
<b>Ball screw lead (Deceleration ratio) (mm)</b>	20	20	20	10	(1/50)
<b>Maximum speed</b> <sup>Note 3</sup> (XYZ: mm/sec) (R: °/sec)	1200	1200	1200	600	360
<b>Moving range (XYZ: mm)(R: °)</b>	250 to 1250	150 to 650	150 to 350		
<b>Robot cable length (m)</b>	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 frame machining (installation holes, tap holes) differs from single-axis robots.  
Note 2. Positioning repeatability in one direction.  
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 below.

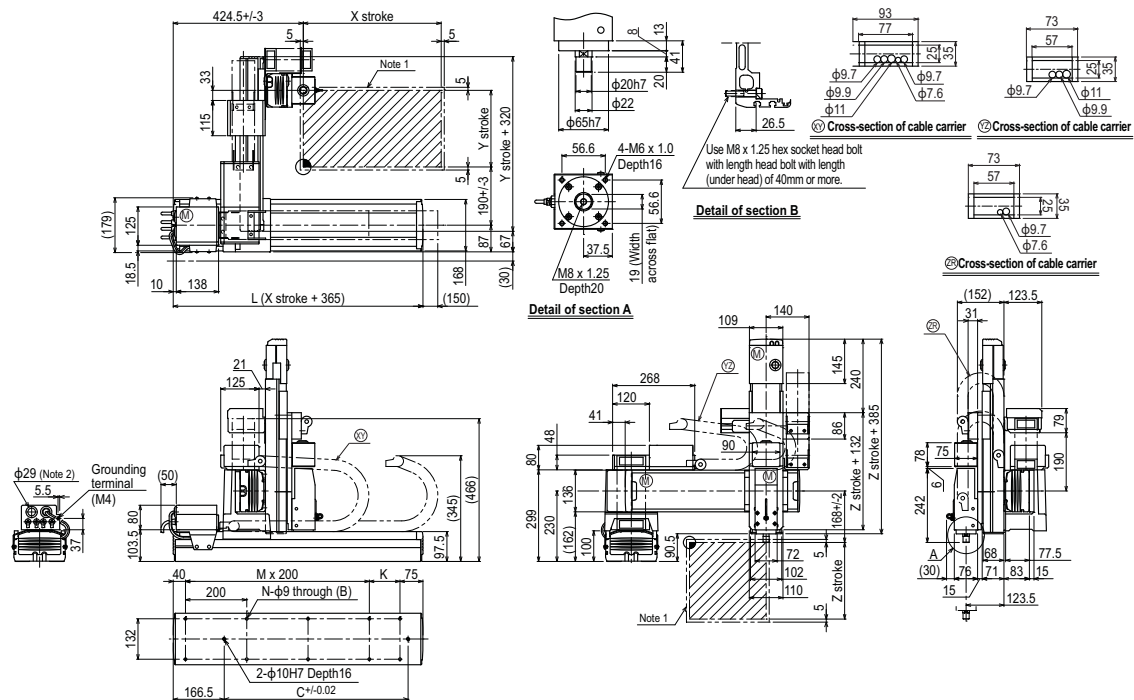
### Maximum payload (kg)

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

### Controller

Controller	Operation method
RCX240-R	Programming / I/O point trace / (BCD) 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)	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.