MXYx 4 axes / ZRFL20/10

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

Ordering method

MXYx-	C	-		-		-		-		-		-	RCX240	-		-	R	-		-		-	BB
Model	Cable	Combination	X-axis stroke	Y-axis stroke	ZR-axis	Z-axis stroke	Cable length	Controller	Usable for CE	Regeneratine unit	Option I/O Note 1	Network option	Battery

- Combination: G1, G2, G3, G4
- X-axis stroke: 25 to 125cm
- Y-axis stroke: 15 to 85cm
- ZR-axis: ZRFL20, ZRFL10
- Z-axis stroke: 15 to 35cm
- Cable length: 3L: 3.5m (Standard), 5L: 5m, 10L: 10m
- Usable for CE: No entry: Standard, E: CE marking
- Regeneratine unit: R: RGU-2
- Option I/O Note 1: N.P: Standard I/O 16/8, N1, P1: 40/24, N2, P2: 64/40, N3, P3: 88/56, N4, P4: 112/72
- Network option: No entry: None, CC: CC-Link, DN: DeviceNet, PB: Profibus, EN: Ethernet, YC: YC-Link Note 2
- Battery: 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
Axis construction Note 1	F17	F14H	F10 equivalent guide-reinforced model		R5
AC servo motor output (W)	400	200	200		50
Repeatability Note 2 (XYZ mm)(R °)	+/-0.01	+/-0.01	+/-0.01		+/-0 0083
Drive system	Ball screw (Class C7)	Ball screw (Class C7)	Ball screw (Class C7)		Harmonic gear
Ball screw lead (Deceleration ratio) (mm)	20	20	20	10	(1/50)
Maximum speed Note 3 (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 1. 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 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. 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.

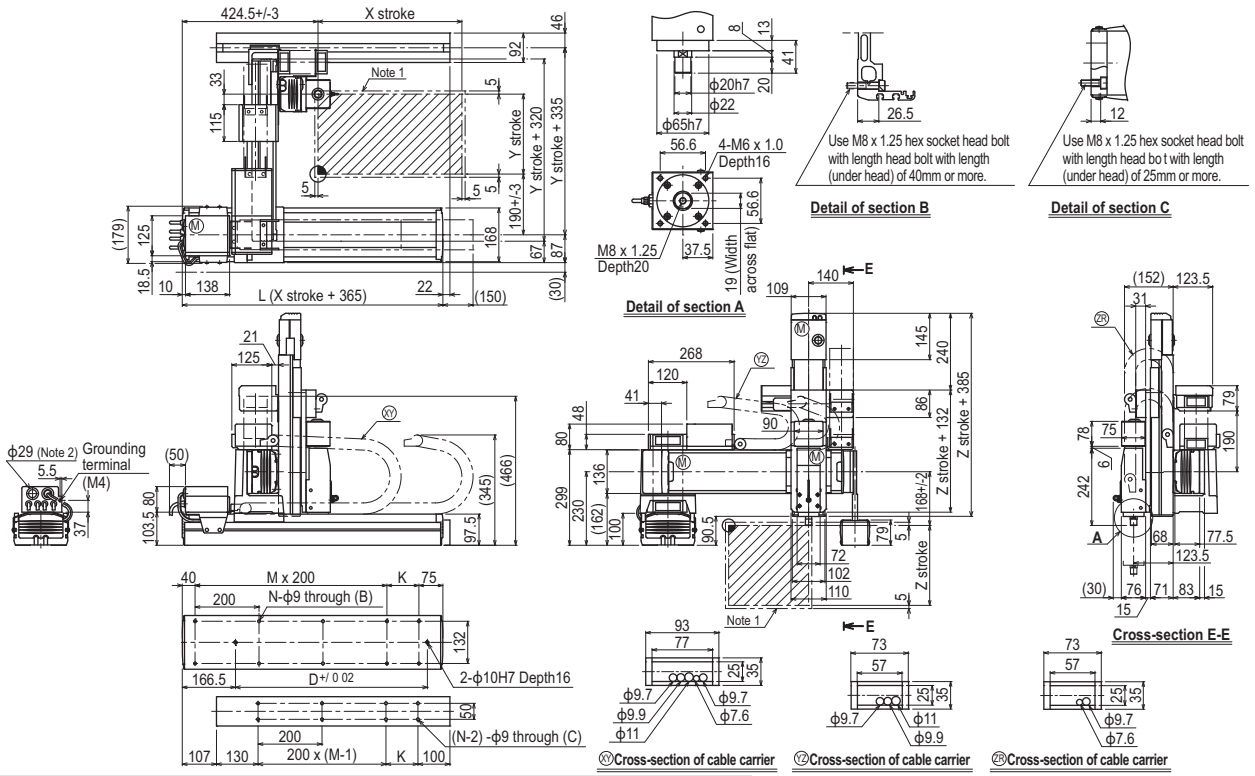
Maximum payload (kg)

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

MXYx 4 axes / ZRFL20/10 G1



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

Y stroke	150	250	350	450	550	650	750	850

Z stroke	150	250	350

Maximum speed for each stroke (mm/sec) Note 3								
	X-axis	1200			960	840	720	600	480
	Speed setting	–			80%	70%	60%	50%	40%
	Y-axis	1200			960	780			
	Speed setting	–			80%	65%			

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