

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

Ordering method

MXy_x - C							RCX240			R			BB
Model	Cable	Combination	X-axis stroke	Y-axis stroke	ZR-axis	Z-axis stroke	Cable length	Controller	Usable for CE	Regenerative unit	Option I/O ^{Note 1}	Network option	Battery
A1 A2 A3 A4			25 to 125cm	15 to 65cm	ZRFL20 ZRFL10	15 to 35cm	3L: 3.5m 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 ^{Note 2}	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 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. 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.

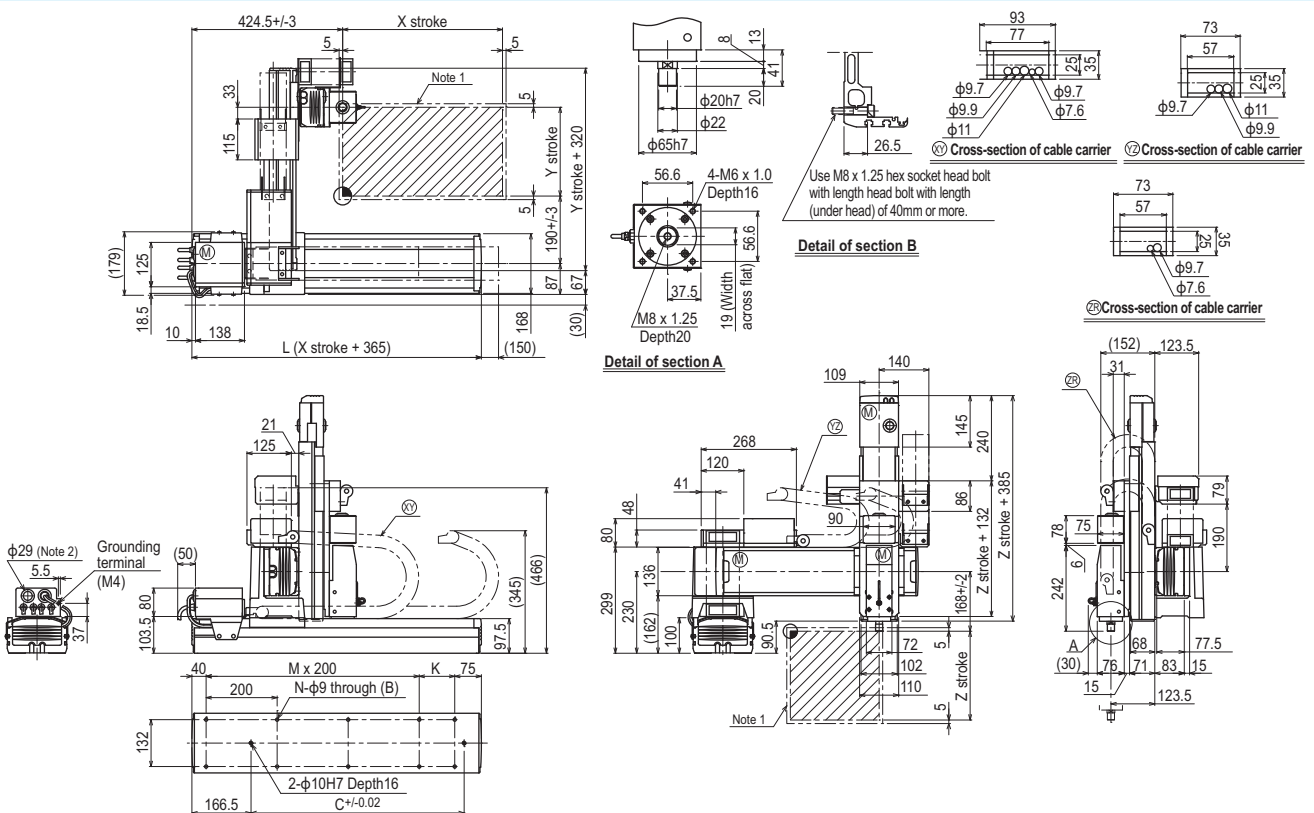
Maximum payload (kg)

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 / Remote command / Operation using RS-232C communication

MXy_x 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 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.

APPLICATION
Compact
single-axis robots
TRANSERO
Single-axis robots
FLIP-X
Linear motor
single-axis robots
PHASER
Cartesian
robots
XY-X
SCARA
robots
YK-XG
Pick & place
robots
YP-X
CLEAN
CONTROLLER
INFORMATION
Arm type
Gantry type
Moving arm
type
Pole type
XZ type