

Ordering method

**SXYx - C - A1 - 105 - 65 - ZRS12 - 15 - 3L - RCX142 - E - P1 - CC - S**

Model - Cable - Combination - X-axis stroke - Y-axis stroke - ZR-axis - Z-axis stroke - Cable length - Controller - Usable for CE - Option I/O - Network - Battery

A1 to A4 | 15 to 105 | 15 to 65 | ZRS12, ZRS6 | 3L, 5L, 10L

Note : For the details of the controller, please refer to the catalog of Yamaha Controllers.

Specification

	X-axis	Y-axis	Z-axis:ZRS12	Z-axis:ZRS6	R-axis
Motor output	200W	100W	60W		100W
Repeatability <sup>Note 1</sup>	+/-0.01mm	+/-0.01mm	+/-0.02mm		+/-0.005°
Drive system	Ball screw(Class C7)	Ball screw(Class C7)	Ball screw(Class C10)		Harmonic gear
Ball screw lead (Deceleration ratio)	20mm	20mm	12mm	6mm	(1/50)
Maximum speed <sup>Note 2</sup>	1200mm/sec	1200mm/sec	1000mm/sec	500mm/sec	1020°/sec
Moving range	150 to 1050mm	150 to 650mm	150mm		360°
Robot cable length	Standard : 3.5m Option : 5m, 10m				
Controller	RCX142				

Maximum load capacity

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

Note 1 : Repeatability for single oscillation.

Note 2 : When the X-axis stroke exceeds 750mm, resonance of a ball screw may occur depending on the operation range (dangerous speed). In such case, make an adjustment to reduce the speed using the corresponding parameter or program and referring to the table below for the maximum speed as a guide.

Axis	X-axis			
Stroke (mm)	750	850	950	1050
Maximum speed (mm/sec)	960	780	600	540
Speed setting	80%	65%	50%	45%

**A1**

**X stroke**

394±3, 77.5, 5, 5, Note1, 115, 38, 136.5, 191.5, 140±3, Y stroke+255, 161.5, 59.5, 205, X stroke+215, L (X stroke +320), 35

**Y stroke**

150, 250, 350, 450, 550, 650

**Z stroke**

150

**Sectional drawing of cable carrier**

The figure in the parentheses is the dimension of the cable between Y and Z.

**A section detailed chart** **B section detailed chart** **C section detailed chart**

The M6x1.0 hexagon socket head cap screw should have 20mm or more under head length.

2-φ10H7 See detailed drawing of C section

M8x1.25 depth15

φ5

φ12<sup>h6/g5</sup>

18.5, 5.5, 6.5, 4.5, 7.2, 9

93(73), 77(57)

40, 72, 111, 300, 100±2, 242, 125, 79, 83, 79, 64.5, 239, Note 1, 173, (105), 136, (168), 99, 301, 65, 150, 124, 6.8, 49, 190, 179, 6, 115, 67.5, 110, 83, 233, 42

Mx200, K, 139, N-M6x1.0 depth10, N-φ7 through(C), 156, 200, 151, D±0.02, 114

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

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 the port where the user cable is taken out.