

Ordering method

SXYx - S - M1 - 65 - 35 - ZF - 35 - 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

M1.M3 15 to 85 15 to 35 15 to 35 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
Motor output	200W	100W	100W
Repeatability ^{Note 1}	+/-0.01mm	+/-0.01mm	+/-0.01mm
Drive system	Ball screw(Class C7)	Ball screw(Class C7)	Ball screw(Class C7)
Ball screw lead (Deceleration ratio)	20mm	20mm	10mm
Maximum speed ^{Note 2}	1200mm/sec	1200mm/sec	600mm/sec
Moving range	150 to 850mm	150 to 350mm	150 to 350mm
Robot cable length	Standard : 3.5m Option : 5m, 10m		
Controller	RCX142		

Maximum load capacity

	Z stroke		
Y stroke	150mm	250mm	350mm
150mm	9kg	8kg	7kg
250mm	8kg	7kg	6kg
350mm	7kg	6kg	5kg

Note 1 : Repeatability for single oscillation.

Note 2 : The total of the X and Y strokes should be 1000mm or less.

Note 3 : 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
Maximum speed (mm/sec)	960 780
Speed setting	80% 65%

M1

194±3 X stroke
10 83
40 5
Note 1
5 5
130
122.5 14.8
90
61 77.5
Y stroke
Y stroke + 255
170 Y stroke + (183±3)
(When at the origin position)
(30)

110
100 (Between knocks±0.02)
70 86
A section detailed chart
2-φ5H7 depth 15
4-M5 X 0.8 depth 12

(18.5)
5.5
8 6
5 5
2.3 2.5 3.7
B section detailed chart
C section detailed chart
head cap screw should have
The M6 x 1.0 hexagon socket
20mm or more under head length.

25
16 B
70
77.5
79
34 53
5.1 2.3
77.5
10
L (X stroke + 320)
MAX. 1000
136
83
173
109
15
φ37
A
102
40.5
68
71
4.5 65 (6.5)
187
5
255±2
Z stroke
Z stroke + 350

113 Mx200 K 157
200
2-φ10H7
See detailed drawing of C section
N-M6 x 1.0 depth 10
N-φ7 through (C)
138 Mx200 K 132
151 D±0.02

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

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 shaded position indicates the port where the user cable is taken out.

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