

Ordering method

**HXYx - C - A1 - 125 - 65 - ZH - 55 - 3L - RCX142 - E - R - P1 - CC - S**

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 - Network - Battery

A1 to A4 | 25 to 125 | 25 to 65 | 25 to 55 | 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	600W	400W	200W
Repeatability <sup>Note 1</sup>	+/-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	5mm
Maximum speed <sup>Note 2</sup>	1200mm/sec	1200mm/sec	300mm/sec
Moving range	250 to 1250mm	250 to 650mm	250 to 550mm
Robot cable length	Standard : 3.5m Option : 5m, 10m		
Controller	RCX142-R		

Maximum load capacity

Y stroke	Z stroke			
	250mm	350mm	450mm	550mm
250mm	25kg	25kg	24kg	23kg
350mm	25kg	25kg	24kg	23kg
450mm	20kg	20kg	19kg	18kg
550mm	18kg	17kg	16kg	15kg
650mm	18kg	17kg	16kg	15kg

Note 1 : Repeatability for single oscillation.

Note 2 : When the X-axis stroke exceeds 850mm, 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)	850	950	1050	1150	1250
Maximum speed (mm/sec)	960	840	720	600	480
Speed setting	80%	70%	60%	50%	40%

**A1**

The M8 x 1.25 hexagon socket head cap screw should have 45mm or more under head length.

B section detailed chart

2 - φ 10H7 See detailed drawing of B section

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

X stroke	250	350	450	550	650	750	850	950	1050	1150	1250
L	667	767	867	967	1067	1167	1267	1367	1467	1567	1667
K	100	200	100	200	100	200	100	200	100	200	100
C	420	420	600	600	780	780	960	960	1140	1320	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	250	350	450	550	650

  

Z stroke	250	350	450	550
ZK	100	200	100	200
ZM	1	1	2	2
ZN	10	10	12	12

Note 1 : The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

Note 2 : The port is used when taking out the user cable.