APPLICATION

TRANSERVO · Compact single-axis robots

FLIP-X · Single-axis robots

PHASER · Linear motor single-axis robots

XY-X · Cartesian robots

YK-XG · SCARA robots

YP-X · Pick & place robots

CLEAN

CONTROLLER

INFORMATION

Arm type

Gantry type

Moving arm type

Pole type

XZ type

SXYx 4 axes / ZRFH

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

■ Ordering method

SXYx - C ☐ ☐ ☐ - ZRFH ☐ ☐ ☐ RCX240 ☐ R ☐ ☐ BB

Model		Cable	Combination	X-axis stroke 15 to 105cm	Y-axis stroke 15 to 55cm	ZR-axis	Z-axis stroke 15 to 35cm	Cable length	Controller	Usable for CE	Regenerative unit	Option I/O Note 1	Network option	Battery

Combination: A1 / A2 / A3 / A4

Cable length: 3L: 3.5m (Standard) / 5L: 5m / 10L: 10m

Usable for CE: No entry: Standard / E: CE marking

Regenerative 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	R-axis
Axis construction Note 1	F14H	F14	F10-BK equivalent guide-reinforced model	R5
AC servo motor output (W)	200	100	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	10	(1/50)
Maximum speed Note 3 (XYZ: mm/sec) (R: °/sec)	1200	1200	600	360
Moving range (XYZ mm)(R °)	150 to 1050	150 to 550	150 to 350	360
Robot cable length (m)	Standard: 3.5 Option: 5,10			

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 750mm, 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.
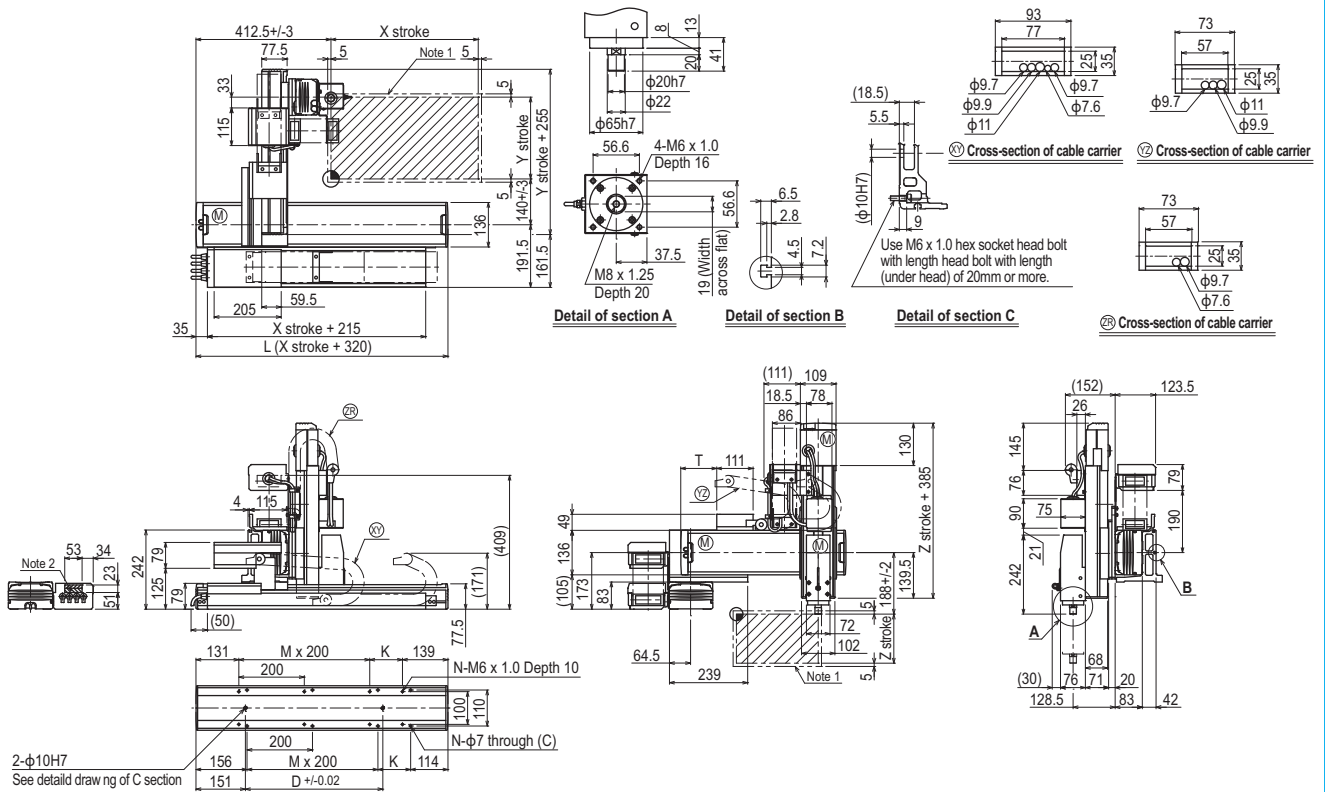
■ Maximum payload (kg)

Y stroke (mm)	Z stroke (mm)		
	150	250	350
150	9	8	7
250	6	5	4
350	4	3	1
450	2	1	–
550	1	–	–

■ Controller

Controller	Operation method
RCX240-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication

SXYx 4 axes / ZRFH A1

Detail of section A

Detail of section B

Detail of section C

XY Cross-section of cable carrier

Y2 Cross-section of cable carrier

ZR Cross-section of cable carrier

Use M6 x 1.0 hex socket head bolt with length head bolt with length (under head) of 20mm or more.

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 an user cable extraction port.

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
T	55	110	165	220	275

Z stroke	150	250	350

| Maximum speed for each stroke (mm/sec) Note 3 | X-axis | 1200 | | | | | | 960 | 780 | 600 | 540 |
| | Speed setting | – | | | | | | 80% | 65% | 50% | 45% |

Note 3. When the X-axis stroke is longer than 750mm, 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.

2-φ10H7
See detailld drawing of C section

N-M6 x 1.0 Depth 10
N-φ7 through (C)