

# SXYx 4 axes / ZRFH

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

## Ordering method

| <b>SXYx - C</b> |                      |             |               | <b>ZRFH</b>   |         |               | <b>RCX240</b>                             |            | <b>R</b>                            |                   |   | <b>BB</b>   |           |
|-----------------|----------------------|-------------|---------------|---------------|---------|---------------|---|------------|-------------------------------------|-------------------|---|---|-----------|
| 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 <sup>Note 1</sup>  | Network option  | Battery   |
|                 | A1<br>A2<br>A3<br>A4 |             | 15 to 105cm   | 15 to 55cm    |         | 15 to 35cm    | 3L: 3.5m (Standard)<br>5L: 5m<br>10L: 10m |            | No entry: Standard<br>E: CE marking | R: RGU-2          | N: P: Standard I/O 168<br>N1: P1: 40/24<br>N2: P2: 64/40<br>N3: P3: 88/56<br>N4: P4: 112/72 | No entry: None<br>CC: CC-Link<br>DN: DeviceNet<br>PB: Profibus<br>EN: Ethernet<br>YC: YC-Link <sup>Note 2</sup> | 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        |
|---|----------------------------|-----------------------|--|---------------|
| <b>Axis construction</b> <sup>Note 1</sup>                      | F14H                       | F14                   | F10-BK equivalent guide-reinforced model | R5            |
| <b>AC servo motor output (W)</b>                                | 200                        | 100                   | 200                                      | 50            |
| <b>Repeatability</b> <sup>Note 2</sup> (XYZ: mm) (R: °)         | +/-0.01                    | +/-0.01               | +/-0.01                                  | +/-0.0083     |
| <b>Drive system</b>   | Ball screw (Class C7)      | Ball screw (Class C7) | Ball screw (Class C7)                    | Harmonic gear |
| <b>Ball screw lead (Deceleration ratio) (mm)</b>                | 20                         | 20                    | 10                                       | (1/50)        |
| <b>Maximum speed</b> <sup>Note 3</sup> (XYZ: mm/sec) (R: °/sec) | 1200                       | 1200                  | 600                                      | 360           |
| <b>Moving range (XYZ: mm)(R: °)</b>                             | 150 to 1050                | 150 to 550            | 150 to 350                               | 360           |
| <b>Robot cable length (m)</b>                                   | Standard: 3.5 Option: 5,10 |                       |  |               |

Note 1. Use caution that the frame 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.

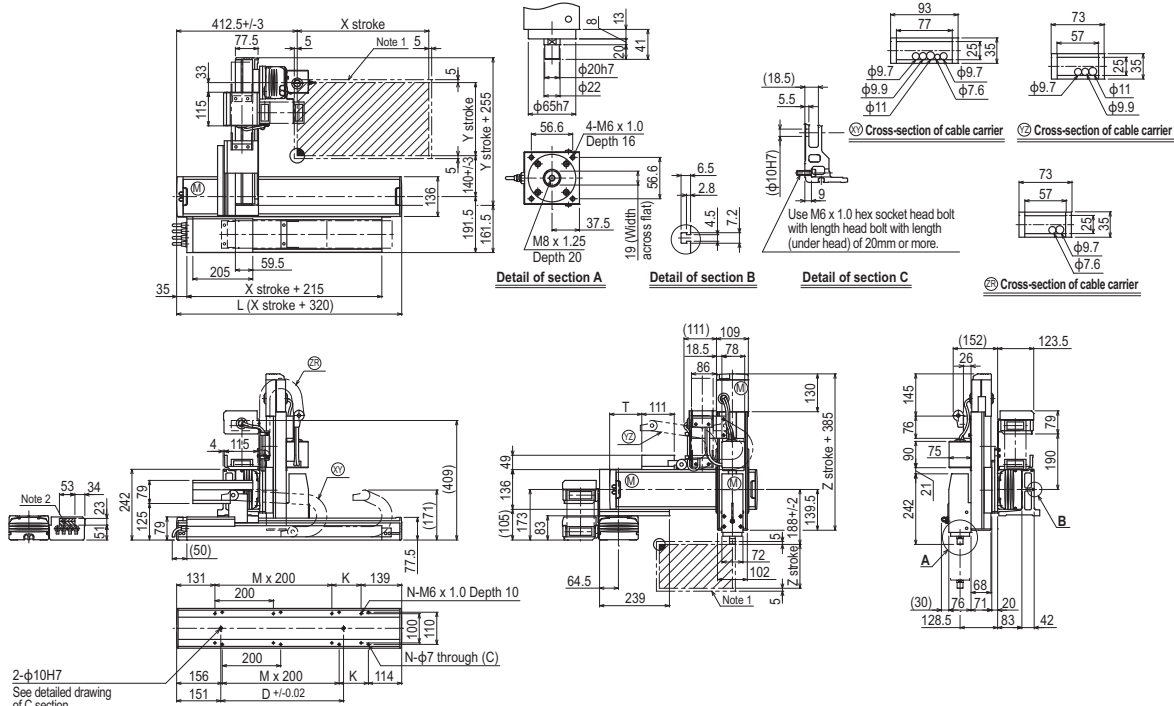
## Maximum payload (kg)

| 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 / (BCD) Remote command / Operation using RS-232C communication |

## SXYx 4 axes / ZRFH (A1)



| 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) | X-axis        |     | 1200 |     | 960 | 780 | 600  | 540  |      |      |  |
|  | Speed setting |     | -    |     | 80% | 65% | 50%  | 45%  |      |      |  |

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 a user cable extraction port.

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.