

● Arm type

● Whipover

● ZR axis integrated type

## Ordering method

|               |              |                    |                      |                      |                |                      |                     |                   |                      |                          |
|---------------|--------------|--------------------|----------------------|----------------------|----------------|----------------------|---------------------|-------------------|----------------------|--------------------------|
| <b>SXYx-S</b> | <b> </b>     | <b> </b>           | <b> </b>             | <b> </b>             | <b>15</b>      | <b> </b>             | <b>RCX240</b>       | <b> </b>          | <b> </b>             | <b>BB</b>                |
| <b>Model</b>  | <b>Cable</b> | <b>Combination</b> | <b>X-axis stroke</b> | <b>Y-axis stroke</b> | <b>ZR-axis</b> | <b>Z-axis stroke</b> | <b>Cable length</b> | <b>Controller</b> | <b>Usable for CE</b> | <b>Option I/O Note 1</b> |
| A1            |              |                    | 15 to 85cm           | 15 to 65cm           | ZRS12          |                      | 3L: 3.5m (Standard) |                   | No entry: Standard   | N.P. Standard I/O 16/8   |
| A2            |              |                    |                      |                      | ZRS6           |                      | 5L: 5m              |                   | E: CE marking        | N1, P1: 40/24            |
| A3            |              |                    |                      |                      |                |                      | 10L: 10m            |                   |                      | N2, P2: 64/40            |
| A4            |              |                    |                      |                      |                |                      |                     |                   |                      | N3, P3: 88/66            |
|               |              |                    |                      |                      |                |                      |                     |                   |                      | N4, P4: 112/72           |
|               |              |                    |                      |                      |                |                      |                     |                   |                      | CC: CC-Link              |
|               |              |                    |                      |                      |                |                      |                     |                   |                      | DN: DeviceNet            |
|               |              |                    |                      |                      |                |                      |                     |                   |                      | PB: Profibus             |
|               |              |                    |                      |                      |                |                      |                     |                   |                      | EN: Ethernet             |
|               |              |                    |                      |                      |                |                      |                     |                   |                      | YC: YC-Link Note 2       |
|               |              |                    |                      |                      |                |                      |                     |                   |                      |                          |

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

|  | <b>X-axis</b>               | <b>Y-axis</b>         | <b>Z-axis ZRS12</b>    | <b>Z-axis ZRS6</b> | <b>R-axis</b> |
|--|-----------------------------|-----------------------|------------------------|--------------------|---------------|
| <b>Axis construction Note 1</b>                      | F14H                        | F14                   | —                      | —                  | —             |
| <b>AC servo motor output (W)</b>                     | 200                         | 100                   | 60                     | 100                | 100           |
| <b>Repeatability Note 2 (XYZ mm) (R °)</b>           | +/-0.01                     | +/-0.01               | +/-0.02                | +/-0.005           | +/-0.005      |
| <b>Drive system</b>                                  | Ball screw (Class C7)       | Ball screw (Class C7) | Ball screw (Class C10) | Harmonic gear      |               |
| <b>Ball screw lead (Deceleration ratio) (mm)</b>     | 20                          | 20                    | 12                     | 6                  | (1/50)        |
| <b>Maximum speed Note 3 (XYZ: mm/sec) (R: °/sec)</b> | 1200                        | 1200                  | 1000                   | 500                | 1020          |
| <b>Moving range (XYZ mm) (R °)</b>                   | 150 to 850                  | 150 to 650            | 150                    | 150                | 360           |
| <b>Robot cable length (m)</b>                        | 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.

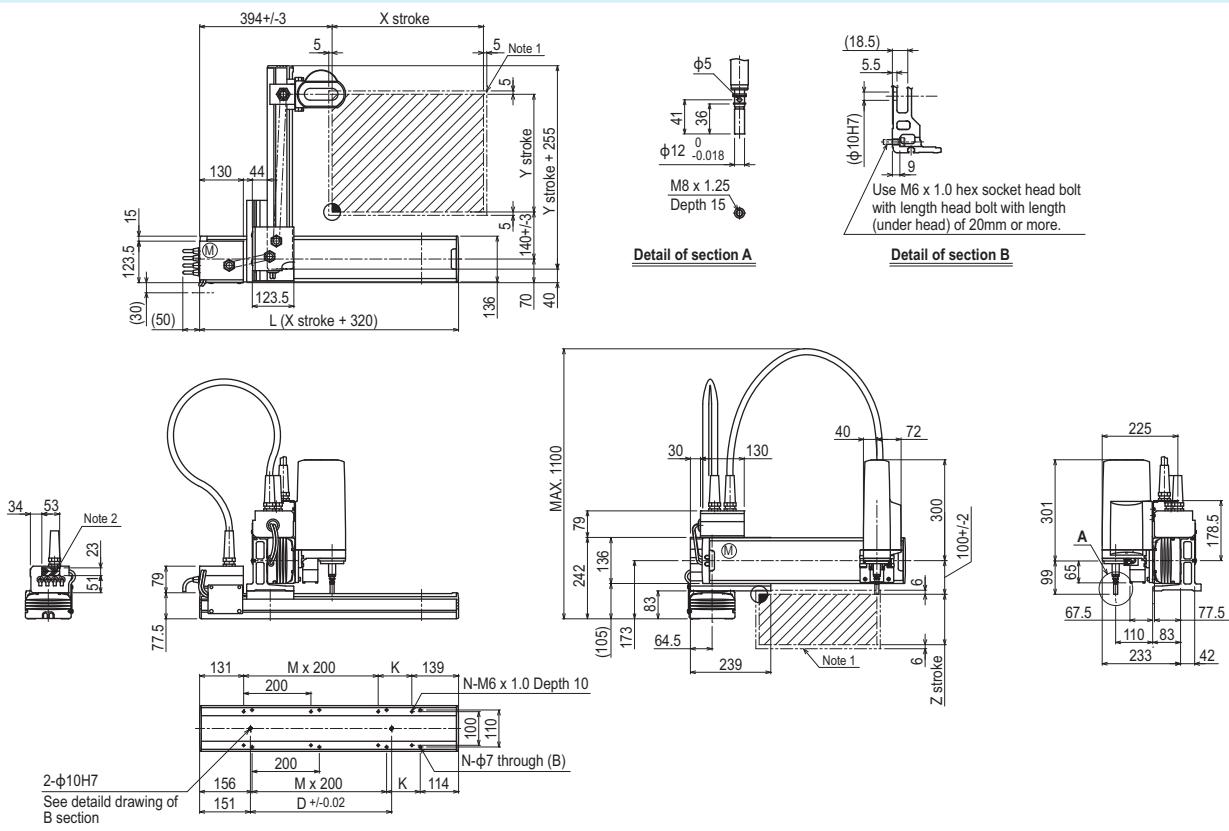
## Maximum payload (kg)

| <b>Y stroke (mm)</b> | <b>ZRS12</b> | <b>ZRS6</b> |
|----------------------|--------------|-------------|
| 150                  | 3            | 5           |
| 250                  | 3            | 5           |
| 350                  | 3            | 5           |
| 450                  | 3            | 5           |
| 550                  | 3            | 5           |
| 650                  | 3            | 4           |

## Controller

| <b>Controller</b> | <b>Operation method</b>  |
|-------------------|--|
| RCX240            | Programming / I/O point trace / Remote command / Operation using RS-232C communication |

## SXYx 4 axes / ZRS A1



| <b>X stroke</b> | <b>150</b> | <b>250</b> | <b>350</b> | <b>450</b> | <b>550</b> | <b>650</b> | <b>750</b> | <b>850</b> |
|-----------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>L</b>        | 470        | 570        | 670        | 770        | 870        | 970        | 1070       | 1170       |
| <b>K</b>        | 200        | 100        | 200        | 100        | 200        | 100        | 200        | 100        |
| <b>D</b>        | 240        | 240        | 420        | 420        | 600        | 600        | 780        | 960        |
| <b>M</b>        | 0          | 1          | 1          | 2          | 2          | 3          | 3          | 4          |
| <b>N</b>        | 4          | 6          | 6          | 8          | 8          | 10         | 10         | 12         |

| <b>Y stroke</b> | <b>150</b> | <b>250</b> | <b>350</b> | <b>450</b> | <b>550</b> | <b>650</b> |
|-----------------|------------|------------|------------|------------|------------|------------|
| <b>Z stroke</b> | <b>150</b> |            |            |            |            |            |

|   |                      |      |     |     |
|---|----------------------|------|-----|-----|
| Maximum speed for each stroke (mm/sec) Note 3 | <b>X-axis</b>        | 1200 | 960 | 780 |
|   | <b>Speed setting</b> | —    | 80% | 65% |

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.

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.

|                 |                                 |
|-----------------|---------------------------------|
| APPLICATION     | Compact single-axis robots      |
| TRANSERVO       | Single-axis robots              |
| FLIP-X          | Linear motor single-axis robots |
| PHASER          | Cartesian robots                |
| YK-XG           | SCARA robots                    |
| CLEAN           | Pick & place robots             |
| CONTROLLER      | CONTROLLER                      |
| INFORMATION     | INFORMATION                     |
| Arm type        | Gantry type                     |
| Moving arm type | Moving arm type                 |
| Pole type       | Pole type                       |
| XZ type         | XZ type                         |