CLEAN ROBOTS

Suitable for electronics component, food, and medical unit related work in clean room. High sealing structure, dust generation prevention, and improvement of suction efficiency are achieved. Both the high cleanliness degree and high performance are established. Clean robots contribute to automation and labor saving of production systems in clean rooms.
Both high cleanliness degree and high performance were achieved. Clean single-axis, Cartesian, and SCARA robots were added to the product lineup.

### Clean SCARA robots

**YK-XGC/XC type**

The Z-axis spline is covered with bellows made of materials with low dust generation and other sliding parts are sealed completely. Harnesses are also incorporated completely and the inside of the robot is sucked from the rear of the base to prevent dust generation.

- **Arm length**: 180 mm to 1000 mm
- **Suction amount**: 30 to 60 Nℓ/minute
- **Cleanliness degree**: CLASS ISO3 (ISO14644-1)
  CLASS10 (FED-STD-209D)
- **Maximum payload**: 20 kg

### POINT 1

**Vertical bellows structure improves the reliability of the clean performance.**

As a beltless structure is used, no dust generation caused by the belt occurs. Furthermore, as the YK-XGC type was renewed to a structure, in which the bellows are installed on the Z-axis vertically, the reliability of the clean performance was further improved.

Note. Except for YK500XC to YK1000XC

### POINT 2

**High durability**

As a beltless structure is used, the robot can be operated without worry about belt elongation and secular change. Additionally, the bellows installed on the Z-axis use material with high durability to ensure the durability performance.

Note. Except for YK500XC to YK1000XC

### POINT 3

**Completely beltless structure improves the rigidity.**

A completely beltless structure was achieved using a ZR-axis direct coupling structure. As a speed reducer is coupled to the tip rotation axis, the R-axis tolerable moment of inertia is very high and the high-speed movement is possible even with a heavy workpiece or largely offset workpiece.

Note. Except for YK500XC to YK1000XC

---

<table>
<thead>
<tr>
<th>Type</th>
<th>Model</th>
<th>Arm length (mm)</th>
<th>Maximum payload (kg)</th>
<th>Standard cycle time (sec.)</th>
<th>Beltless structure</th>
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</table>
Clean single-axis robots

FLIP-XC type

The FLIP-XC type robots are single-axis robots “FLIP-X series” with clean room specifications. According to the applications, an optimal robot can be selected from 14 models from a lightweight and compact model to a large model with a maximum payload of 120 kg. As an air joint for suction is provided as standard equipment, grease with low dust generative characteristics is used, and stainless sheets with an excellent durability are used for the slide table surface, high cleanliness degree is achieved.

- Stroke: 50 to 2050 mm
- Suction amount: 15 to 90 Nl/min.
- Cleanliness degree: CLASS10
- Maximum payload: 120 kg (When installed horizontally)

Note. C4L/C4LH, C5L/C5LH, and C6L are CLASS ISO3 (ISO14644-1).

POINT

Excellent maintenance ability

For C4L to C6L models, removing the screws from the side panel of the slider will allow replacement of the inner roller without detaching the tool. For C8 to C20 models, even when the direct coupling structure is used, the motor or ball screw can be replaced individually.

<table>
<thead>
<tr>
<th>Model</th>
<th>Size (mm) Note</th>
<th>Lead (mm)</th>
<th>Maximum payload (kg)</th>
<th>Maximum speed (mm/sec.)</th>
<th>Stroke (mm)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td>Horizontal</td>
<td>Vertical</td>
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<td>6</td>
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<td>-</td>
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<td>40</td>
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<td>50</td>
<td>16</td>
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<td>60</td>
<td>-</td>
<td>600</td>
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<tr>
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<td>80</td>
<td>20</td>
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<tr>
<td>C14H</td>
<td>W136 × H96</td>
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<td>500</td>
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<td>5</td>
<td>100</td>
<td>30</td>
<td>250</td>
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<tr>
<td>C17</td>
<td>W168 × H114</td>
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<td>80</td>
<td>15</td>
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<td>120</td>
<td>35</td>
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<tr>
<td>C17L</td>
<td>W168 × H114</td>
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<tr>
<td>C20</td>
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<td>50</td>
<td>-</td>
<td>45</td>
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</tbody>
</table>

Note 1. The size shows approximate maximum cross sectional size.
Clean single-axis robots

### SSC type (TRANSERVO)

The SSC type robots are stepping motor single-axis robots "TRANSERVO series" with clean room specifications. Use of a newly developed vector control method achieves the function and performance equivalent to the servomotor at a low cost even using the stepping motor. As an air joint for suction is provided as standard equipment, grease with low dust generative characteristics is used and stainless sheets with an excellent durability are used for the slide table surface, the high cleanliness degree is achieved.

- **Stroke:** 50 to 800 mm
- **Suction amount:** 15 to 80 Nℓ/min.
- **Cleanliness degree:** CLASS10
- **Maximum payload:** 12 kg (When installed horizontally)

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<thead>
<tr>
<th>Model</th>
<th>Size (mm)</th>
<th>Lead (mm)</th>
<th>Maximum payload (kg)</th>
<th>Maximum speed (mm/sec.)</th>
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<th>Page</th>
</tr>
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<td>SSC04</td>
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<td>SSC05</td>
<td>W55 × H56</td>
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<td>1000</td>
<td>300</td>
<td>50 to 800</td>
<td>P.442</td>
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<td>SSC05H</td>
<td>W55 × H56</td>
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<td>600 (horizontal) / 500 (vertical)</td>
<td>300 (horizontal) / 250 (vertical)</td>
<td>50 to 800</td>
<td>P.443</td>
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</table>

Note 1: The size shows approximate maximum cross sectional size.

### Clean Cartesian robots

#### XY-XC type

This Cartesian robot XY-XC type is applicable to clean rooms. As stainless sheets with excellent durability are used, the opening can be designed to be its minimum level and the robots area applicable to CLASS10 with less suction amount. Furthermore, as the ZR-axis of the SXYxC uses a super high speed unit of the SCARA robot, this achieves great reduction of the cycle time.

- **Suction amount:** 60 to 90 Nℓ/ min.
- **Cleanliness degree:** CLASS10
- **Maximum payload:** 20 kg
- **Maximum speed:** 1000 mm/sec.

#### Type

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<thead>
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<th>Model</th>
<th>Axis</th>
<th>Movement range</th>
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<th>Maximum payload (kg)</th>
<th>Page</th>
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<td>2 axes</td>
<td>SXYxC</td>
<td>X</td>
<td>150 to 1050 mm</td>
<td>1000</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y</td>
<td>150 to 650 mm</td>
<td>1000</td>
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<tr>
<td>3 axes</td>
<td>SXYxC (ZSC12)</td>
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<td>150 to 1050 mm</td>
<td>1000</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y</td>
<td>150 to 650 mm</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Z</td>
<td>150 mm</td>
<td>1000</td>
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</tr>
<tr>
<td>4 axes</td>
<td>SXYxC (ZRSC12)</td>
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<td>1000</td>
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<td>R</td>
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Note. User wiring: D-Sub 25-pin connector (Numbers 1 to 24 are already wired and number 25 is frame ground.)

Note. User tubing: ф6-air tube, 3 pcs.
CLEAN ROBOTS

CLEAN TYPE

CONTENTS

■ CLEAN ROBOTS
SPECIFICATION SHEET …… 438

SINGLE-AXIS
● TRANSERVO
SSC04 .................................................. 441
SSC05 .................................................. 442
SSC05H ................................................ 443
● FLIP-XC
C4L ....................................................... 444
C4LH ..................................................... 445
C5L ....................................................... 446
C5LH ..................................................... 447
C6L ....................................................... 448
C8 ......................................................... 449
C8L ....................................................... 450
C8LH ..................................................... 451
C10 ....................................................... 452
C14 ....................................................... 453
C14H ..................................................... 454
C17 ....................................................... 455
C17L ..................................................... 456
C20 ....................................................... 457

CARTESIAN XY-XC
● 2 axes
SXYxC .................................................. 458

● 3 axes / ZSC
SXYxC .................................................. 460

● 4 axes / ZRSC
SXYxC .................................................. 462

SCARA YK-XC
YK180XC .................................................. 464
YK220XC .................................................. 465
YK250XGC ............................................... 466
YK350XGC ............................................... 468
YK400XGC ............................................... 470
YK500XGLC .............................................. 472
YK500XC ............................................... 474
YK600XGLC .............................................. 475
YK600XC ............................................... 477
YK700XC ............................................... 478
YK800XC ............................................... 479
YK1000XC .............................................. 480

Main functions ▶ P.50
### CLEAN ROBOTS SPECIFICATION SHEET

#### Clean single-axis robots

**TRANSERVO**
- **Degree of cleanliness**: CLASS 10
- **Intake air**: 15 to 80 Nl/min

<table>
<thead>
<tr>
<th>Model</th>
<th>Payload (kg)</th>
<th>Stroke (mm) and maximum speed (mm/sec)</th>
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<td>600 933 733 633 550 450 350 250 150</td>
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<td>SSC05</td>
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<tr>
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<td>12 8 – 1000</td>
<td>933 733 633 550 450 350 250 150</td>
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</table>

**FLIP-XC**
- **Degree of cleanliness**: C4L/C4LH/C5L/C5LH/C6L
- **Intake air**: 20 to 90 Nl/min

<table>
<thead>
<tr>
<th>Model</th>
<th>Payload (kg)</th>
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<td>1000 800 600 500 400 300 200 100</td>
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<td>C5L / C5LH</td>
<td>100 20 10 2</td>
<td>1000 800 600 500 400 300 200 100</td>
</tr>
<tr>
<td>C6L</td>
<td>100 12 2 1 –</td>
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<td>100 20 4 –</td>
<td>1000 900 800 700 600 500 400 300 200</td>
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<tr>
<td>C8LH</td>
<td>100 20 4 –</td>
<td>1000 900 800 700 600 500 400 300 200</td>
</tr>
<tr>
<td>C10L</td>
<td>100 20 4 –</td>
<td>1000 900 800 700 600 500 400 300 200</td>
</tr>
<tr>
<td>C14L</td>
<td>200 10 20 5</td>
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</table>

#### Note
- Models other than those shown above are CLASS 10
- Class 10 (0.1 µm) equivalent to FED-STD-209D
### Monaxis robots

- **TRANSERVO**
- **FLIP-X**
- **PHASER**

### Pick & place robots

- **YP-X**

### Linear conveyor modules

- **LCM100**
Clean cartesian robots

**XY-X**
- Degree of cleanliness  CLASS 10
- Intake air  60 to 90Nl/min
- Aperture designed to minimal dimensions by use of stainless steel sheet
- Installed clean robot dedicated cable duct

<table>
<thead>
<tr>
<th>Type</th>
<th>Model</th>
<th>Axis</th>
<th>Moving range (mm)</th>
<th>Maximum speed (mm/sec)</th>
<th>Maximum payload (kg)</th>
<th>Detailed info page</th>
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<td>2 axes</td>
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<tr>
<td>4 axes</td>
<td>SXYXC (ZRSC12)</td>
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<td>3</td>
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</table>

Clean SCARA robots

**YK-XC/YK-XGC/YK-XGLC**
- Degree of cleanliness  YK-XC .......................... CLASS 10
- YK-XG/YK-XGC/YK-XGLC ... ISO CLASS 3 (ISO14644-1)  Note
  Note, Class 10 (0.1µm) equivalent to FED-STD-209D
- Intake air  30 to 60Nl/min
- Bellows cover fitted in axial tip
- Harness placed completely on inside

<table>
<thead>
<tr>
<th>Type</th>
<th>Model</th>
<th>Arm length (mm) and XY axis combined maximum speed (m/s)</th>
<th>Standard cycle time (sec)</th>
<th>Maximum payload (kg)</th>
<th>Axis tolerable moment of inertia (kgm²)</th>
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<td>1.4m/s</td>
<td>0.42</td>
<td>1</td>
<td>0.01</td>
<td>P.464</td>
</tr>
<tr>
<td></td>
<td>YK2200XC</td>
<td>1.8m/s</td>
<td>0.45</td>
<td>1</td>
<td>0.01</td>
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<tr>
<td>Small type</td>
<td>YK2500XC</td>
<td>3.6m/s</td>
<td>0.57</td>
<td>4</td>
<td>0.05</td>
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<tr>
<td></td>
<td>YK3500XC</td>
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<td>0.57</td>
<td>4</td>
<td>0.05</td>
<td>P.468</td>
</tr>
<tr>
<td></td>
<td>YK4000XC</td>
<td>3.6m/s</td>
<td>0.57</td>
<td>4</td>
<td>0.05</td>
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</tr>
<tr>
<td>Medium type</td>
<td>YK5000XGLC</td>
<td>3.1m/s</td>
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<td>0.05</td>
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<tr>
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<td>YK5500XC</td>
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<td>0.53</td>
<td>10</td>
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<td>P.474</td>
</tr>
<tr>
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<td>YK6000XGLC</td>
<td>4.9m/s</td>
<td>0.74</td>
<td>4</td>
<td>0.05</td>
<td>P.475</td>
</tr>
<tr>
<td></td>
<td>YK6000XC</td>
<td>4.9m/s</td>
<td>0.56</td>
<td>10</td>
<td>0.12</td>
<td>P.477</td>
</tr>
<tr>
<td>Large type</td>
<td>YK7000XGLC</td>
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<tr>
<td></td>
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<td>0.32</td>
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<tr>
<td></td>
<td>YK10000XC</td>
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<td>0.60</td>
<td>20</td>
<td>0.32</td>
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</tr>
</tbody>
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## Ordering method

<table>
<thead>
<tr>
<th>SSC04</th>
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<tbody>
<tr>
<td>Model</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brake</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direction of air intake</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Origin position</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stroke</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cable length</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robot positioner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robot driver</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I/O</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I/O cable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Note
- If changing the origin position at the time of purchase, the machine reference amount must be reset. For details, refer to the manual.
- The robot cable is flexible and resists bending.
- See P.500 for DIN rail mounting bracket.
- Select this selection when using the gateway function. For details, see P.62.

## Basic specifications

- **Motor:** 42 [] Step motor
- **Repeatability (mm):** +/-0.02
- **Deceleration mechanism:** Ball screw φ6 (Class C10)
- **Maximum motor torque (N.m):** 0.27
- **Ball screw lead (mm):** 12 6 2
- **Maximum speed (mm/sec):** 600 300 100
- **Maximum payload (kg):** Vertical 1 2 4
- **Maximum pressuring force (N):** Horizontal 12 6 2
- **Stroke (mm):** 50 to 400 (50mm pitch)
- **Overall length (mm):** Stroke+216
- **Maximum outside dimension of body cross-section (mm):** W49 × H59

### Table: Specifications

<table>
<thead>
<tr>
<th>Stroke (mm)</th>
<th>50</th>
<th>100</th>
<th>150</th>
<th>200</th>
<th>250</th>
<th>300</th>
<th>350</th>
<th>400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective stroke</td>
<td>50</td>
<td>L</td>
<td>100</td>
<td>150</td>
<td>200</td>
<td>250</td>
<td>300</td>
<td>350</td>
</tr>
<tr>
<td>A</td>
<td>286</td>
<td>316</td>
<td>366</td>
<td>416</td>
<td>466</td>
<td>516</td>
<td>566</td>
<td>616</td>
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<td>B</td>
<td>3</td>
<td>45</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
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<td></td>
</tr>
<tr>
<td>C</td>
<td>50</td>
<td>100</td>
<td>150</td>
<td>200</td>
<td>250</td>
<td>300</td>
<td>350</td>
<td>400</td>
</tr>
</tbody>
</table>

### Notes
- **Note 1:** Positioning repeatability in one direction.
- **Note 2:** Per 1cf (0.1µm base), when suction blower is used.
- **Note 3:** Secure the cable with a tie-band 100mm or less from unit’s end face to prevent the cable from being subjected to excessive loads.
- **Note 4:** The cable’s minimum bend radius is R30.
- **Note 5:** These are the weights without a brake. The weights are 0.2kg heavier when equipped with a brake.
### SSC05

#### Ordering method

<table>
<thead>
<tr>
<th>Model</th>
<th>Lead Type</th>
<th>Brake</th>
<th>Direction of air</th>
<th>Origin position</th>
<th>Stroke</th>
<th>Cable length</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note 1.** Only the model with a lead of 12mm or 6mm can select specifications with brake.
**Note 2.** If changing from the origin position at the time of purchase, the machine reference amount must be reset. For details, refer to the manual.
**Note 3.** The robot cable is flexible and resists bending.
**Note 4.** See P.500 for DIN rail mounting bracket.
**Note 5.** These are the weights without a brake. The weights subjected to excessive loads.

#### Basic specifications

- **Motor:** Step motor
- **Repeatability (mm):** ±0.02
- **Deceleration mechanism:** Ball screw (Class C10)
- **Maximum motor torque (N·m):** 0.27
- **Ball screw lead (mm):** 20, 12, 6
- **Maximum speed (mm/sec):** 5000, 600, 300
- **Maximum payload (kg):** 4
- **Horizontal Static loading moment**

#### Allowable overhang

**Horizontal installation (mm):**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>2kg</td>
<td>413</td>
<td>139</td>
</tr>
<tr>
<td>4kg</td>
<td>334</td>
<td>67</td>
</tr>
<tr>
<td>6kg</td>
<td>347</td>
<td>72</td>
</tr>
<tr>
<td>8kg</td>
<td>331</td>
<td>24</td>
</tr>
</tbody>
</table>

**Wall installation (mm):**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>2kg</td>
<td>192</td>
<td>123</td>
</tr>
<tr>
<td>4kg</td>
<td>92</td>
<td>31</td>
</tr>
<tr>
<td>6kg</td>
<td>109</td>
<td>37</td>
</tr>
<tr>
<td>8kg</td>
<td>76</td>
<td>35</td>
</tr>
</tbody>
</table>

**Vertical installation (mm):**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>2kg</td>
<td>578</td>
<td>579</td>
</tr>
<tr>
<td>4kg</td>
<td>286</td>
<td>286</td>
</tr>
<tr>
<td>6kg</td>
<td>312</td>
<td>312</td>
</tr>
</tbody>
</table>

**Note:** Distance from center of slider upper surface to conveyor center-of-gravity at a guide service life of 10,000 km (Service life is calculated for 600mm stroke models).

#### Static loading moment

**Controller Operation method**

- **TS-S2:** I/O point trace / Remote command
- **TS-SH:** Remote command
- **TS-SD:** Pulse train control

---

**Controller**

- **TS-S2**
- **TS-SH**
- **TS-SD**

---

**Effective stroke**

<table>
<thead>
<tr>
<th>Stroke</th>
<th>L</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>126.5</td>
<td>101.5</td>
<td>50</td>
</tr>
<tr>
<td>100</td>
<td>250</td>
<td>40</td>
<td>10</td>
</tr>
<tr>
<td>150</td>
<td>325</td>
<td>62</td>
<td>15</td>
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<tr>
<td>200</td>
<td>380</td>
<td>82</td>
<td>20</td>
</tr>
<tr>
<td>250</td>
<td>435</td>
<td>102</td>
<td>25</td>
</tr>
<tr>
<td>300</td>
<td>490</td>
<td>122</td>
<td>30</td>
</tr>
<tr>
<td>350</td>
<td>545</td>
<td>142</td>
<td>35</td>
</tr>
<tr>
<td>400</td>
<td>600</td>
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<td>450</td>
<td>655</td>
<td>182</td>
<td>45</td>
</tr>
<tr>
<td>500</td>
<td>710</td>
<td>202</td>
<td>50</td>
</tr>
<tr>
<td>550</td>
<td>765</td>
<td>222</td>
<td>55</td>
</tr>
<tr>
<td>600</td>
<td>820</td>
<td>242</td>
<td>60</td>
</tr>
<tr>
<td>650</td>
<td>875</td>
<td>262</td>
<td>65</td>
</tr>
<tr>
<td>700</td>
<td>930</td>
<td>282</td>
<td>70</td>
</tr>
<tr>
<td>750</td>
<td>985</td>
<td>302</td>
<td>75</td>
</tr>
<tr>
<td>800</td>
<td>1040</td>
<td>322</td>
<td>80</td>
</tr>
</tbody>
</table>

**Maximum speed for each stroke (mm/sec):**

- **Lead 20:** 800
- **Lead 12:** 600
- **Lead 6:** 500
- **Lead 4:** 350
- **Lead 2:** 250
- **Lead 1:** 200

---

**Controller**

- **TS-S2**
- **TS-SH**
- **TS-SD**

---

**Robot positioner**

- **FLIP-X**
- **TRANSERVO**

**Robot controller**

- **YK-X**
- **YP-X**

---

**Cable length**

- **Note 2.** When the stroke is longer than 650mm, 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.

---

**Controller**

- **TS-S2**
- **TS-SH**
- **TS-SD**

---

**Robot controller**

- **YK-X**
- **YP-X**

---

**Cable length**

- **Note 3.** Secure the cable with a tie-band 100mm or less from unit’s end face to prevent the cable from being subjected to excessive loads.
Note 1. The robot cable is standard cable (1L/3L/5L/10L), but can be changed to flexible cable. See P.596 for details on robot cable.
### Ordering method

<table>
<thead>
<tr>
<th>C4LH</th>
<th>Controller</th>
<th>SR1-X</th>
<th>TS-X</th>
<th>RDV-X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>Driver</td>
<td>05</td>
<td>05</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Power-supply voltage</td>
<td>±15VDC</td>
<td>±24VDC</td>
<td>±24VDC</td>
</tr>
<tr>
<td></td>
<td>Power capacity</td>
<td>±15W</td>
<td>±24W</td>
<td>±24W</td>
</tr>
</tbody>
</table>

#### ALLOWABLE OVERHANDING

<table>
<thead>
<tr>
<th>Horizontal installation (unit:mm)</th>
<th>Wall installation (unit:mm)</th>
<th>Vertical installation (unit:mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td><strong>B</strong></td>
<td><strong>C</strong></td>
</tr>
<tr>
<td>2kg</td>
<td>339</td>
<td>90</td>
</tr>
<tr>
<td>4.5kg</td>
<td>169</td>
<td>39</td>
</tr>
<tr>
<td>6kg</td>
<td>234</td>
<td>27</td>
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<tr>
<td>3kg</td>
<td>1105</td>
<td>59</td>
</tr>
<tr>
<td>5kg</td>
<td>520</td>
<td>27</td>
</tr>
</tbody>
</table>

### Basic specifications

**AC servo motor output (W):** 30

**Ball screw (mm):** Ball screw Ø8 (Class C10)

**Deceleration mechanism:** 1.2 to 2.1 (when brakes are used)

**Maximum speed (mm/sec):** 720

**Maximum payload (kg):**
- Horizontal: 4.5
- Vertical: 1.2

**Rated thrust (N):** 3

**Overall length (mm):**
- Horizontal: Stroke+205
- Vertical: Stroke+240

**Maximum outside dimension of body cross-section (mm):** W45×H55

**Cable length (m):** Standard: 3.5 / Option: 5, 10

**ISO CLASS 3 (ISO14644-1):** Degree of cleanliness

**Effective stroke:** 50, 100, 150, 200, 250, 300, 350, 400

**Rated thrust (N):** 1.2

**Effective stroke (mm/sec):** 120

**Weight (kg):**
- A: 4 to 6
- B: 1 to 2
- C: 100 to 150

**Maximum speed for each stroke (mm/sec):**
- Lead 1: 380
- Lead 2: 120

---

**Note:**
1. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable.
3. Select this selection when using the gateway function. For details, see P.62.
4. Either right or left can be selected for the installation direction for the suction air joint (The left side is the standard.)
5. External view of C4LH is identical to C4L.
### Ordering method

- **C5L**
- High lead: Lead 20
- Origin on the non-motor side is selectable

#### Basic specifications

- **AC servomotor output (W)**: 30
- **Repeatability (mm)**: +/-0.02
- **Ball screw lead (mm)**: 20, 12, 6
- **Maximum speed (mm/sec)**: 1000, 800, 400
- **Rated thrust (N)**: 19, 32, 64
- **Payload (kg)**: Maximum
- **Maximum speed (mm/sec)**: 1000, 800, 400
- **Cable length (m)**: 20, 12, 6
- **Ball screw lead (mm)**: 20, 12, 6
- **Overall length (mm)**: Stroke=236.5
- **Maximum outside dimension of body cross-section (mm)**: W65×H65
- **Rated thrust (N)**: 19, 32, 64
- **Rated speed (rpm)**: 1000, 800, 400
- **Repeatability**: Horizontal, Vertical
- **Degree of cleanliness**: Standard: 3.5 / Option: 1.5, 10
- **Lead 20**: 20mm
- **Lead 12**: 12mm
- **Lead 6**: 6mm
- **Variation of horizontal**: +/-0.02
- **Positioning repeatability in one direction**: Horizontal: +/-0.02, Vertical: +/-0.02
- **Dependency of weight**: 2kg, 3kg, 5kg
- **Degree of cleanliness**: Standard: 3.5 / Option: 1.5, 10
- **Cable length (m)**: 20, 12, 6
- **Rated speed (rpm)**: 1000, 800, 400
- **Rated thrust (N)**: 19, 32, 64

#### Allowable overhang

- **Horizontal installation (Unit:mm)**: 1kg 1084, 2kg 1166, 3kg 123 28 438
- **Vertical installation (Unit:mm)**: 1kg 679, 2kg 1166, 3kg 139
- **Intake air (N/min)**: 250
- **Controller**: ERCD

#### Static loading moment

- **MY, MP, MR**: 30, 34, 40

#### Controller

- **Controller**: ERCD
- **Operation method**: Remote command / I/O point trace / Programming / Remote command / Using RS-232C communication

### Note

1. The model with a lead of 20mm cannot select specifications with brake (vertical specifications).
2. The robot cable is standard cable (1L/3L/5L/10L), but can be changed to flexible cable.
3. The necessary intake amount varies depending on the use conditions and environment.
4. The necessary intake amount varies depending on the use conditions and environment.
5. The necessary intake amount varies depending on the use conditions and environment.
6. Service life is calculated for 600mm stroke models.
C5LH

Ordering method

- **High lead: Lead 20**
- **Origin on the non-motor side is selectable**

### Basic specifications

- **AC servo motor output (W):** 30
- **Repeatability (mm):** +/-0.02
- **Deceleration mechanism:** Ball screw (class 11)
- **Ball screw lead (mm):** 20, 12, 6
- **Maximum speed (mm/sec):** 1000, 800, 400
- **Maximum payload (kg):**
  - **Horizontal:** 3, 5, 9
  - **Vertical:** 12, 24, 48
- **Rated thrust (N):**
  - **Horizontal:** 19, 32, 64
  - **Vertical:** Stroke=201.5
- **Overall length (mm):**
  - **Horizontal:** Stroke=235.6
  - **Vertical:**
- **Maximum outside dimension of body cross-section (mm):** W55×H65
- **Cable length (m):**
- **Ball screw lead (mm):**
- **W55×H65** of body cross-section (mm)
- **Maximum outside dimension**
- **Overall length**
- **Stroke**
- **Rated thrust**
- **Maximum payload**
- **Maximum speed**
- **Deceleration mechanism**
- **Ball screw**

### Allowable overloads

- **Horizontal installation:**
  - **A:** 1kg
  - **B:** 1.099kg
  - **C:** 524.9kg
- **Wall installation:**
  - **A:** 1kg
  - **B:** 324kg
  - **C:** 645kg
- **Vertical installation:**
  - **A:** 1kg
  - **B:** 324kg
  - **C:** 645kg

### Static loading moment

- **A:** 30
- **B:** 34
- **C:** 40

### Controller

- **SR1-X05**
- **RDV-X205**

### Controller Operation method

- **Programming / I/O point trace / Operation using RS-232C communication**
- **TS-X105**
- **TXS205**
- **RDV-X205**
- **Pulse train control**

---

**Note:**
1. The model with a lead of 20mm cannot select specifications with brake (vertical specifications).
2. The robot cable is standard cable (3L/SL/10L), but can be changed to flexible cable. See P-556 for details on robot cable.
3. See P-556 for DIN rail mounting bracket.
4. Select this selection when using the gateway function. For details, see P-62.
5. See P-500 for DIN rail mounting bracket.

---

**C5LH**

**Effective stroke**

<table>
<thead>
<tr>
<th>Effective stroke</th>
<th>50</th>
<th>100</th>
<th>150</th>
<th>200</th>
<th>250</th>
<th>300</th>
<th>350</th>
<th>400</th>
<th>450</th>
<th>500</th>
<th>550</th>
<th>600</th>
<th>650</th>
<th>700</th>
<th>750</th>
<th>800</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>5</td>
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<td>6</td>
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<tr>
<td>B</td>
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<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
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</tr>
<tr>
<td>Weight (kg)</td>
<td>1.7</td>
<td>2.0</td>
<td>2.2</td>
<td>2.4</td>
<td>2.7</td>
<td>3.0</td>
<td>3.3</td>
<td>3.7</td>
<td>4.2</td>
<td>4.4</td>
<td>4.7</td>
<td>4.9</td>
<td>5.1</td>
<td>5.4</td>
<td>5.9</td>
<td>5.4</td>
</tr>
</tbody>
</table>

**Maximum speed for each stroke (mm/sec):**

- **Lead 25:** 1000
- **Lead 12:** 800
- **Lead 6:** 400

**Note:**
1. Stop positions are determined by the mechanical stoppers at both ends.
3. Weight of the controller and I/O board is 0.2 kg heavier than the models with no brake shown in the table.
4. Either right or left can be selected for the installation direction for the 4th intake air joint. (The left side is the standard.)
5. When the stroke is longer than 600mm, resonance of the ball screw may depend on the operation conditions (critical speed). In this case, reduce the speed setting on the program referring to the maximum speeds shown in the table at the left.
6. External view of C5LH is identical to C5L.
### Ordering method

**C6L**

- **High lead: Lead 20**
- **Origin on the non-motor side is selectable**

#### Basic specifications

- **AC servo motor output (W)**: 60
- **Repeatability (mm)**: +/-0.02
- **Ball screw lead (mm)**: 20 12 6
- **Maximum speed (mm/sec)**: 1000 800 400
- **Rated thrust (N)**: 10kg
- **Overall length (mm)**: Horizontal Stroke+282.5 Vertical Stroke+247.5
- **Cable length (m)**: 3L: 3.5m 5L: 5m 3K/5K/10K
- **Intake air (N/m2)**: 80 50 30

#### Allowable overhang

- **Horizontal installation (Unit: mm)**: A 2kg 433 192 295 B 6kg 146 59 104 C 10kg 43 33 75
- **Vertical installation (Unit: mm)**: A 2kg 372 33 109 B 5kg 692 73 236 C 10kg 70 5 97

#### Static loading moment

- **Controller**: SR1-X 05 RDV-X 2 05 RBR1
- **Driver**
  - Pulse train control
  - Using RS-232C communication

#### Note

1. Positioning repeatability in one direction.
2. CLASS 10 (0.1 μm) FED-STD-209D or equivalent when a suction blower is used.
3. The necessary intake amount varies depending on the use conditions and environment.
4. Select this selection when using the gateway function. For details, see P.62.
5. See P.500 for DIN rail mounting bracket.
6. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable.
7. The model with a lead of 20mm cannot select specifications with brake (vertical conditions and environment).

---

**C6L**

Approx. 250 (Motor cable length)

- **Effective stroke**: 50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800

- **Weight (kg)**:
  - **Effective stroke**: 2.5 2.9 3.1 3.4 3.7 4.0 4.3 4.6 4.9 5.2 5.4 5.7 6.0 6.3 6.6 6.8

- **Maximum speed for each stroke (mm/sec)**:
  - Lead 20: 1000
  - Lead 12: 800
  - Lead 6: 400

---

**Note**

1. 90% 70%
2. 80%
3. 680 600 520 480
4. 340 300 260 240
5. 85% 75% 65% 60%
### Ordering method

**Model**
- C8
- Brake option
- Option
- Stroke
- Cable
- Positioner
- Linear conveyor modules
- Brake
- Battery
- I/O selection
- Cable
- I/O selection
- Controller Driver: Power capacity
- Regenerative unit

**TSX**
- Positioner
- Linear motor
- Single-axis robots
- FLIP-X
- Linear motor
- Single-axis robots
- TRANSERVO
- Compact single-axis robots
- Articulated robots

**SR1-X**
- Controller
- Driver: Power capacity
- Driver: Power-supply voltage

**RDV-X**
- Driver: Power-supply voltage
- Controller Driver: Power capacity

**YP-X**
- Controllers
- CLEAN CONTROLLER INFORMATION
- Linear conveyor modules
- LCM100
- Single-axis
- Cartesian
- SCARA

---

### Basic specifications

- **AC servo motor output (W)**: 100
- **Repeatability (mm)**: +/-0.02
- **Deceleration mechanism**: Ball screw (Class C10)
- **Bolt screw length (mm)**: 20
- **Maximum speed (mm/sec)**: 1000
- **Rated thrust (N)**: 84
- **Stroke (mm)**: 150 to 800
- **Overall length (mm)**: Stroke+320
- **Maximum outside dimension of body cross-section (mm)**: W80 x H75
- **Cable length (m)**: Standard
- **Degree of cleanliness**: CLASS 10
- **Intake air (N/min)**: 30 to 90

---

### Allowable overhang

<table>
<thead>
<tr>
<th>Horizontal installation (mm)</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>5kg</td>
<td>245</td>
<td>85</td>
<td>146</td>
</tr>
<tr>
<td>10kg</td>
<td>131</td>
<td>39</td>
<td>69</td>
</tr>
<tr>
<td>12kg</td>
<td>115</td>
<td>31</td>
<td>57</td>
</tr>
<tr>
<td>35kg</td>
<td>64</td>
<td>92</td>
<td>192</td>
</tr>
<tr>
<td>60kg</td>
<td>207</td>
<td>43</td>
<td>92</td>
</tr>
<tr>
<td>10kg</td>
<td>144</td>
<td>26</td>
<td>41</td>
</tr>
<tr>
<td>20kg</td>
<td>112</td>
<td>18</td>
<td>40</td>
</tr>
<tr>
<td>30kg</td>
<td>80</td>
<td>47</td>
<td>124</td>
</tr>
<tr>
<td>50kg</td>
<td>225</td>
<td>20</td>
<td>54</td>
</tr>
<tr>
<td>70kg</td>
<td>162</td>
<td>11</td>
<td>31</td>
</tr>
<tr>
<td>90kg</td>
<td>168</td>
<td>7</td>
<td>20</td>
</tr>
</tbody>
</table>

### Static loading moment

<table>
<thead>
<tr>
<th>Controller Operation method</th>
<th>SR1-X05</th>
<th>TS-X205</th>
<th>RDV-X205-BRR1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programming / I/O point trace / Remote command / Operation using RS-232C communication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TS-X105</td>
<td>50</td>
<td>95</td>
<td>110</td>
</tr>
</tbody>
</table>

---

### Controller

- **Controller Driver**: Power capacity
- **Controller Driver**: Power-supply voltage
- **Controller Driver**: Power-supply voltage

---

### C8

- **Effective stroke**:
  - 150 mm: 117 x 117
  - 200 mm: 160 x 160
  - 250 mm: 210 x 210
  - 300 mm: 260 x 260
  - 350 mm: 310 x 310
  - 400 mm: 360 x 360
  - 450 mm: 410 x 410
  - 500 mm: 460 x 460
  - 550 mm: 510 x 510
  - 600 mm: 560 x 560
  - 650 mm: 610 x 610
  - 700 mm: 660 x 660
  - 750 mm: 710 x 710
  - 800 mm: 760 x 760

---

### Maximum speed (mm/sec)

- **Lead 10**: 1000
- **Lead 15**: 950
- **Lead 12**: 900
- **Lead 16**: 850
- **Lead 20**: 800
- **Lead 25**: 750
- **Lead 30**: 700
- **Lead 35**: 650
- **Lead 40**: 600
- **Lead 45**: 550
- **Lead 50**: 500
- **Lead 55**: 450
- **Lead 60**: 400
- **Lead 65**: 350
- **Lead 70**: 300
- **Lead 75**: 250
- **Lead 80**: 200
- **Lead 85**: 150
- **Lead 90**: 100
- **Lead 95**: 50
- **Lead 100**: 0

---

### Note

1. The model with a lead of 20mm cannot select specifications with brake (vertical specifications).
2. The model with a lead of 20mm cannot select specifications with brake (vertical specifications).
3. Per 1cf (0.1µm base), when suction blower is used.
4. The necessary intake amount varies depending on the use conditions and environment.
5. The necessary intake amount varies depending on the use conditions and environment.
6. The necessary intake amount varies depending on the use conditions and environment.
7. The necessary intake amount varies depending on the use conditions and environment.
### Ordering method

<table>
<thead>
<tr>
<th>Model</th>
<th>Lead</th>
<th>Option</th>
<th>Stroke</th>
<th>Cable length (mm)</th>
<th>Origin position</th>
<th>Power supply voltage</th>
<th>Power capacity</th>
<th>Regeneration unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>C8LH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note 1. The robot cable is standard cable (3L/3L/1L0), but can be changed to flexible cable. See P.596 for details on robot cable.
Note 2. See P.550 for DIN rail mounting bracket.
Note 3. Select this selection when using the gateway function. For details, see P.62.

### Basic specifications

- **AC servo motor output (W):** 100
- **Repeatability (mm):** +/-0.01
- **Deceleration mechanism:** Ball screw (Class C7)
- **Ball screw lead (mm):** 20
- **Maximum speed (mm/sec):** 1000
- **Maximum payload (kg):** Horizontal 30, Vertical 60
- **Rated thrust (N):** 84
- **Stroke (mm):** 150 to 1050 (50mm pitch)
- **Overall length (mm):** Stroke+389
- **Maximum outside dimension of body cross-section (mm):** W80 x H75
- **Cable length (m):** Standard: 3.5', Option: 5, 10
- **Degree of cleanliness:** CLASS 10
- **Intake air (Nm³/min):** 30 to 90

Note 1. Positioning repeatability in one direction.
Note 2. When the stroke is longer than 650mm, resonance of the ball screw may occur depending on the operation conditions (critical speed).
Note 3. Per 1cf (0.1µm base), when suction blower is used.

### Allowable overhang

- **Horizontal installation (Unit: mm):**
  - 10kg: 687, 74, 200
  - 20kg: 401, 125, 92
  - 30kg: 338, 76, 57
  - 40kg: 472, 57, 47
  - 50kg: 375, 30, 25
  - 60kg: 20, 27, 182
  - 70kg: 74, 90, 517
  - 80kg: 40, 61, 116

Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.

### Static loading moment

- **Controller Operation method**
  - SR1-X05
  - RS221/222
  - RX204/340

### C8LH

- **Approx. 235 (Motor cable length):**
- **Effective stroke (mm):**
  - 10kg: 687, 74, 200
  - 20kg: 401, 125, 92
  - 30kg: 338, 76, 57
  - 40kg: 472, 57, 47
  - 50kg: 375, 30, 25
  - 60kg: 20, 27, 182
  - 70kg: 74, 90, 517
  - 80kg: 40, 61, 116

Note 1. Stop positions are determined by the mechanical stoppers at both ends.
Note 2. Minimum band radius of motor cable is R50.
Note 3. When the stroke is longer than 650mm, 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.
### Ordering method

<table>
<thead>
<tr>
<th>Model</th>
<th>Lead</th>
<th>Brake</th>
<th>Option</th>
<th>Stroke</th>
<th>L at [mm]</th>
<th>Parallel type</th>
<th>Effective stroke</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>C10</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

### Allowable overhang

**Horizontal installation (max. mm)**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>5kg</td>
<td>1875</td>
<td>510</td>
</tr>
<tr>
<td>10kg</td>
<td>1975</td>
<td>510</td>
</tr>
<tr>
<td>20kg</td>
<td>2075</td>
<td>510</td>
</tr>
</tbody>
</table>

**Wall installation (max. mm)**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>5kg</td>
<td>1620</td>
<td>510</td>
</tr>
<tr>
<td>10kg</td>
<td>1720</td>
<td>510</td>
</tr>
<tr>
<td>20kg</td>
<td>1820</td>
<td>510</td>
</tr>
</tbody>
</table>

**Vertical installation (max. mm)**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>5kg</td>
<td>1070</td>
<td>510</td>
</tr>
<tr>
<td>10kg</td>
<td>1170</td>
<td>510</td>
</tr>
<tr>
<td>20kg</td>
<td>1270</td>
<td>510</td>
</tr>
</tbody>
</table>

### Static loading moment

<table>
<thead>
<tr>
<th>Controller</th>
<th>SR1-X 518</th>
<th>TS-X 492</th>
<th>RDV-X 506</th>
</tr>
</thead>
</table>

Note 1. If selecting 5mm lead specifications then the origin point cannot be changed to the non-motor side.

Note 2. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable. See P.506 for details on robot cable.

Note 3. See P.500 for DIN rail mounting bracket.

Note 4. Select this selection when using the gateway function. For details, see P.62.
### Ordering method

**C14H**

<table>
<thead>
<tr>
<th>Model</th>
<th>Lead</th>
<th>Brake</th>
<th>Option</th>
<th>Stroke</th>
<th>TSX</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Basic specifications

- **AC servo motor output (W)**: 200
- **Repeatability (mm)**: ±0.01
- **Ball screw lead (mm)**: 8
- **Maximum speed (mm/sec)**: 1000, 500, 250
- **Maximum load (kg)**: Horizontal 40, 80, 100
- **Rated thrust (N)**: 170
- **Stroke (mm)**: 150 to 1050 (50mm pitch)
- **Overall length (mm)**: Horizontal Stroke 140, Vertical Stroke 1379
- **Maximum outside dimension of body cross-section (mm)**: W136 × H96
- **Cable length (m)**: Standard, 3.5, Option: 5, 10
- **Degree of cleanliness**: CLASS 10
- **Intake air (Nm³/min)**: 30 to 90

#### Allowable overhang

- **Horizontal installation**: (unit: mm) A B C
  - 10kg: 2247 1675 958
  - 20kg: 1397 855 528
  - 30kg: 1037 445 318
  - 40kg: 850 328 1238
  - 50kg: 383 74 678
  - 60kg: 224 311 375
  - 60kg: 193 242 235
  - 80kg: 127 83 1008

- **Vertical installation**: (unit: mm) A B C
  - 10kg: 987 1210 1678
  - 20kg: 547 584 958
  - 30kg: 457 271 938
  - 40kg: 357 152 878
  - 50kg: 257 42 78
  - 60kg: 157 6 28

#### Static loading moment

- **MY**: 265
- **MP**: 294
- **MR**: 258

#### Controller

- **SR1-X**: 518
- **TS-X**: 492
- **RDV-X**: 506

**Note**: 1. Positioning repeatability in one direction. 2. When the 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.

**Note**: 3. Per `10 (0.5mm)`, when suction is used.

**Note**: 4. The necessary intake amount varies depending on the use conditions and environment.

---

**C14H**

- **Effective stroke**
  - **L**
    - 150: 499, 549, 599, 649, 699, 749
    - 200: 849, 899, 949, 999
    - 250: 1049, 1099, 1149, 1199
    - 300: 1249, 1299
    - 350: 1349
    - 400: 1399
  - **A**
    - 200: 50, 100, 150, 200, 250, 300
    - 500: 50, 100, 150, 200, 250, 300
    - 550: 50, 100, 150, 200, 250, 300
    - 600: 50, 100, 150, 200, 250, 300
    - 650: 50, 100, 150, 200, 250, 300
    - 700: 50, 100, 150, 200, 250, 300
    - 750: 50, 100, 150, 200, 250, 300
    - 800: 50, 100, 150, 200, 250, 300
    - 850: 50, 100, 150, 200, 250, 300
    - 900: 50, 100, 150, 200, 250, 300
    - 950: 50, 100, 150, 200, 250, 300
    - 1000: 50, 100, 150, 200, 250, 300
    - 1050: 50, 100, 150, 200, 250, 300

- **N**
  - 6, 8, 10, 11, 13, 14, 15

- **Weight (kg)**
  - 10.7, 11.4, 12.7, 13.2, 13.9, 14.5, 15.2, 15.8, 16.5, 17.0, 17.7

- **Maximum speed (mm/sec)**
  - **L**
    - 20: 1000
    - 50: 475
    - 100: 950
    - 200: 1397

- **Lead 10**
  - 50: 475
  - 100: 950

- **Lead 5**
  - 250: 237
  - 200: 1397

**Note**: 1. Stop positions are determined by the mechanical stoppers at both ends. 2. Minimum bend radius of motor cable is 150mm. 3. Weight of models with no brake. The weight of brake-attached models is 0.4 kg heavier than the models with no brake shown in the table.

---

**Note**: 1. When the 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.
## Ordering method

**C17**

- **Model**: Selection from models list
- **Drive Select**: Selection from drive models list
- **Option**: Selection from option models list
- **Stroke**: Selection from stroke options
- **Controller**: Selection from controller options

### Basic specifications

- **AC servo motor output (W)**: 400
- **Repeatability**: +/-0.01
- **Deceleration mechanism**: Ball screw (Class C7)
- **Ball screw lead (mm)**: 20
- **Maximum speed (mm/sec)**: 1000
- **Maximum payload (kg)**: 120
- **Rated thrust (N)**: 539
- **Stroke (mm)**: 200 to 1250 (50mm pitch)
- **Overall length (mm)**: Stroke+395
- **Maximum outside dimension of body cross-section (mm)**: W168 × H114
- **Cable length (m)**: 20
- **Ball screw lead (mm)**: 10
- **Stroke (mm)**: 1000

### Allowable overhang

- **Horizontal installation (Unit: mm)**: 102
- **Wall installation (Unit: mm)**: 152.5
- **Vertical installation (Unit: mm)**: 152.5

### Static loading moment

- **Controller**: Selection from controller options

## Controller

- **Operation method**: Engineering for point teach • Master command
- **Positioning method**: Pulse train control

## Main specifications

- **Rated thrust (N)**: 200 to 1250
- **Stroke (mm)**: 200 to 1250
- **Overall length (mm)**: Stroke+395
- **Maximum outside dimension of body cross-section (mm)**: W168 × H114
- **Cable length (m)**: 20
- **Ball screw lead (mm)**: 10
- **Stroke (mm)**: 1000

### Note

1. The robot cable is standard cable (L5/SL/10L), but can be changed to flexible cable. See P.506 for details on robot cable.
2. Select this selection when using the gateway function. For details, see P.62.
C17L

Note. Built-to-order product. Contact us for the delivery period.

Ordering method

C17L - 50

Model | Lead | Brake
--- | --- | ---
SR1-X | 518 | |
TS-X | 492 | |
RDV-X | 506 | |

Basic specifications

- **AC servo motor output (W)**: 600
- **Repeatability (mm)**: +/-0.02
- **Deceleration mechanism**: Ball screw (Class C10)
- **Ball screw lead (mm)**: 50
- **Maximum speed (mm/sec)**: 1000
- **Maximum payload (kg)**: 50
- **Vertical Rated thrust (N)**: 204
- **Stroke (mm)**: 1150 to 2050 (100 pitch)
- **Overall length (mm)**: Stroke:485
- **Maximum outside dimension of body cross-section (mm)**: W168 x H144
- **Cable length (m)**: Standard: 3.5 / Option: 5, 10
- **Degree of cleanliness**: CLASS 10
- **Intake air (N/min)**: 30 to 60

Allowable overhang

- **Horizontal installation**: (unit: mm) A B C A B C A B C A B C
- **Vertical installation**: (unit: mm) A B C A B C A B C A B C

Static loading moment

- **Controller**: SR1-X20-R

Cable. See P.596 for details on robot cable.

Effective stroke

- **Effective stroke**: 1150 to 2050 (100 pitch)
- **Maximum speed (mm/sec)**: 1000
- **Maximum payload (kg)**: 50
- **Weight (kg)**: 39.1
- **Note**: 1. Positional repeatability in one direction.
- **Note 2**: When the stroke is longer than 1850mm, resonance of the ball screw may occur depending on the conditions and environment.

Origin on the non-motor side is selectable

Note 1. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable. See P.596 for details on robot cable.
Note 2. See P.500 for DIN rail mounting bracket.
Note 3. Acceleration / deceleration is different depending on the Positioner or Controller.
Note 4. Select this selection when using the gateway function. For details, see P.62.
## Ordering method

<table>
<thead>
<tr>
<th>Model</th>
<th>Lead (mm)</th>
<th>Brake</th>
<th>Option</th>
<th>Stroke</th>
<th>Cable length (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C20</td>
<td>200</td>
<td>3L</td>
<td>10L</td>
<td>100</td>
<td>450</td>
</tr>
</tbody>
</table>

Note 1. Only the model with specifications with brake (vertical specifications) can select a lead of 10mm.

Note 2. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible (see P.698 for details on robot cable).

Note 3. See P.500 for DIN rail mounting bracket.

Note 4. Acceleration / deceleration is different depending the Positioner or Controller or Driver.

Note 5. Select this selection when using the gateway function. For details, see P.62.

### Basic specifications

- **AC servo motor output (W):** 600
- **Repeatability (mm):** +/-0.01
- **Max. overload:** 1.5 times
- **Max. speed (mm/min):** 1000
- **Max. load:** 100kg
- **Rated thrust (N):** 510
- **Stroke (mm):** 200 to 1250 (50mm pitch)

### Allowable overhang

- **Horizontal installation:** (unit: mm) A: 45 – 30, B: 45 – 30, C: 0 – 100
- **Wall installation:** (unit: mm) A: 45 – 30, B: 45 – 30, C: 0 – 100
- **Vertical installation:** (unit: mm) A: 45 – 30, B: 45 – 30, C: 0 – 100

### Static loading moment

- **Model:** MY, MP, MR
- **Effective stroke:** 200, 350, 150, 100, 60, 40, 20, 10, 5, 2.5, 1.25
- **Load (kg):** 50, 100, 150, 200, 250, 300, 350, 400, 450, 500
- **effective stroke (mm/sec):** 0.01, 0.02, 0.03, 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.1
- **Max. load:** 500kg

### Controller

- **Controller:** SR1-X, TS-X, RDV-X
- **Operation method:** Programming, operation method, control, utility control, point, remote control, pulse train control

### Note

- Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000km.
- Note 1. Positioning repeatability in one direction.
- Note 2. When the stroke is longer than 950mm, 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.
- Note 3. When the stroke is longer than 950mm, 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.
- Note 4. When the stroke is longer than 950mm, 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.
- Note 5. Stop positions are determined by the mechanical stoppers at both ends.
- Note 1. Minimum bend radius of motor cable is 500mm.
- Note 2. Stop positions are determined by the mechanical stoppers at both ends.
- Note 3. Weight of models with no brake.

### C20

- **Approx. 250:** When origin is on motor side
- **Effective stroke:** 4.86x1.0 Depth of screw 20 mm, 4.26x1.25 Depth of screw 20 mm
- **Note:** When origin is on motor side

### Motor

- **Motor cable length:** 20 to 1250 (500mm pitch)
- **Motor cable length:** 200 to 1250 (500mm pitch)

### Motor specifications

- **Motor cable length:** Standard 3.5 / Optional 5.0
- **Intake air:** 30 to 90°C
- **Cable length:** Standard 200 ± 117

### Note

- **Note 1.** The weight of brake-attached models is 2.0 kg heavier than the models with no brake shown in the table.
- **Note 2.** The weight of brake-attached models is 2.0 kg heavier than the models with no brake shown in the table.

### Controller

- **Controller:** SR1-X, TS-X, RDV-X
- **Operation method:** Programming, operation method, control, utility control, point, remote control, pulse train control

### Note

- **Note 1.** Stop positions are determined by the mechanical stoppers at both ends.
- **Note 2.** Minimum bend radius of motor cable is 500mm.
- **Note 3.** Weight of models with no brake.

### Motor

- **Motor cable length:** 20 to 1250 (500mm pitch)
- **Motor cable length:** 200 to 1250 (500mm pitch)
SXYxC 2 axes

Ordering method

<table>
<thead>
<tr>
<th>Model</th>
<th>Cable</th>
<th>Combination</th>
<th>Controller</th>
</tr>
</thead>
<tbody>
<tr>
<td>SXYxC</td>
<td>D</td>
<td></td>
<td>RCX222</td>
</tr>
</tbody>
</table>

Basic specifications

- **X axis**
  - Axis construction (mm): C14H
  - AC servo motor output (W): 200
  - Repeatability (mm): +/-0.01
  - Drive system: Ball screw (Class C7)
  - Maximum speed (mm/sec): 1000
  - Moving range (mm): 150 to 1050
  - Robot cable length (m): Standard: 3.5 Option: 5, 10
  - Degree of cleanliness: CLASS 10

- **Y axis**
  - Axis construction (mm): C14
  - AC servo motor output (W): 100
  - Repeatability (mm): +/-0.01
  - Drive system: Ball screw (Class C7)
  - Maximum speed (mm/sec): 1000
  - Moving range (mm): 150 to 650

Maximum payload (kg)

<table>
<thead>
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<th>Y stroke (mm)</th>
<th>XY 2 axes</th>
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</thead>
<tbody>
<tr>
<td>150</td>
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<tr>
<td>550</td>
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Controller

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<tbody>
<tr>
<td>RCX222</td>
<td>Programming / I/O point trace / Remote command / Operation using RS-232C communication</td>
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</tbody>
</table>

Ordering method details:
- Use caution that the frame machining (installation holes, tap holes) differs from single-axis robots’.
- Positioning repeatability in one direction.
- Leads not listed in the catalog are also available. Contact us for details.
- When the X-axis stroke is longer than 850mm, 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.
- The necessary intake amount varies depending on the use conditions and environment.
### SXYxC 2 axes

#### X stroke

<table>
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<tr>
<th>Stroke (mm)</th>
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<th>350</th>
<th>450</th>
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<td>12</td>
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#### Y stroke

<table>
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<th>450</th>
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<td>N 308</td>
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</table>

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

**Note 2:** When the X-axis stroke is longer than 850mm, 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.
Ordering method

Model | Cable | X axis stroke (mm) | Y axis stroke (mm) | Z axis: ZSC12 | Z axis: ZSC6
---|---|---|---|---|---
SXYxC-3-15 | 15 | 150 | 550 | 60 | 60

Controller | Operation method
---|---
RCX340 | Programming / I/O point trace / Remote control
RCX240S | Operation using RS-232C communication

Basic specifications

<table>
<thead>
<tr>
<th></th>
<th>X axis</th>
<th>Y axis</th>
<th>Z axis: ZSC12</th>
<th>Z axis: ZSC6</th>
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<tbody>
<tr>
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<td>C14H</td>
<td>C14</td>
<td></td>
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<tr>
<td>AC servo motor output (W)</td>
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<td>60</td>
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<tr>
<td>Repeatability (mm)</td>
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<td>+/-0.01</td>
<td>+/-0.02</td>
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<tr>
<td>Drive system</td>
<td>Ball screw (Class C7)</td>
<td>Ball screw (Class C7)</td>
<td>Ball screw (Class C10)</td>
<td></td>
</tr>
<tr>
<td>Ball screw lead (mm)</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Maximum speed (mm/sec)</td>
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<tr>
<td>Moving range (mm)</td>
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<td>Degree of cleanliness</td>
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<tr>
<td>Intake air (Nm/min)</td>
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Controller

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</table>

Maximum payload (kg)

<table>
<thead>
<tr>
<th></th>
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<th>ZSC12</th>
<th>ZSC6</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 to 650</td>
<td>3</td>
<td>5</td>
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</table>

Note 1. Use caution that the frame machining (installation holes, tap holes) differs from single-axis robots.
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<td>+/-0.01</td>
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<td>Ball screw (Class C7)</td>
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<td>Ball screw (Class C10)</td>
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<tr>
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<td>+/-0.01</td>
<td>+/-0.02</td>
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<td>Ball screw (Class C10)</td>
<td></td>
</tr>
<tr>
<td>Ball screw lead (mm)</td>
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<td>20</td>
<td></td>
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<tr>
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</tr>
<tr>
<td>Moving range (mm)</td>
<td>150 to 1050</td>
<td>150 to 650</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Robot cable length (m)</td>
<td>Standard: 3.5</td>
<td>Option: 5, 10</td>
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<tr>
<td>Degree of cleanliness</td>
<td>CLASS 10</td>
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</tr>
<tr>
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<th>ZSC6</th>
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</thead>
<tbody>
<tr>
<td>150 to 650</td>
<td>3</td>
<td>5</td>
<td></td>
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SXYxC 3 axes / ZSC

User tubing 1 (ϕ 6 black)
User tubing 2 (ϕ 6 red)
User tubing 3 (ϕ 6 blue)

D-sub connector for user cables (Adapted to #1 to #4)

Detail of section A

Detail of user wiring/user tubing

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

Note 2. When the X-axis stroke is longer than 850mm, 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.
## Basic specifications

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<th>Y axis</th>
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<td>Ball screw (Class C7)</td>
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</tr>
<tr>
<td>Ball screw lead (Deceleration ratio) (mm)</td>
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<td>20</td>
<td>12</td>
<td>6 (1/50)</td>
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</tr>
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<td>1000</td>
<td>500</td>
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<tr>
<td>Moving range (XYZ: mm) (R: °)</td>
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<td>150 to 650</td>
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<td>Robot cable length (m)</td>
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<tr>
<td>Degree of cleanliness</td>
<td>CLASS 10</td>
<td>Option: 1, 2, 3</td>
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</tr>
<tr>
<td>Intake air (Nl/min)</td>
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<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Drive system</td>
<td>Ball screw (Class C7)</td>
<td>Ball screw (Class C10)</td>
<td>Harmonic gear</td>
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<td>Ball screw lead (Deceleration ratio) (mm)</td>
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<tr>
<td>Moving range (XYZ: mm) (R: °)</td>
<td>150 to 1050</td>
<td>150 to 650</td>
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<td>Robot cable length (m)</td>
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<td>Degree of cleanliness</td>
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<td>Intake air (Nl/min)</td>
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### Maximum payload

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<th>ZRSC12</th>
<th>ZRSC6</th>
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<tbody>
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<td>250</td>
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<td>450</td>
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<td>4</td>
<td>4</td>
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<tr>
<td>650</td>
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### Controller

<table>
<thead>
<tr>
<th>Controller</th>
<th>Operation method</th>
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<tbody>
<tr>
<td>RCX340</td>
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</tr>
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Note 6. The necessary intake amount varies depending on the use conditions and environment.
**Articulated robots**

**YA**

**Compact single-axis robots**

**TRANSERVO**

**Single-axis robots**

**FLIP-X**

**Linear motor**

**single-axis robots**

**PHASER**

**Cartesian robots**

**XY-X**

**SCARA robots**

**YP-X**

**Pick & place robots**

**YP-XCLEAN**

**CONTROLLER INFORMATION**

**LCM100 Linear conveyor modules**

---

**XXYxC 4 axes / ZRSC**

**T3**

**Detail of section A**

**Detail of user wiring/user tubing**

---

**X stroke**

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<th>250</th>
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<td>1028</td>
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<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>M</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>N</td>
<td>6</td>
<td>8</td>
<td>10</td>
<td>12</td>
<td>12</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>16</td>
</tr>
</tbody>
</table>

**Y stroke**

<table>
<thead>
<tr>
<th>150</th>
<th>250</th>
<th>350</th>
<th>450</th>
<th>550</th>
<th>650</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>150</td>
<td>250</td>
<td>350</td>
<td>450</td>
<td>550</td>
</tr>
</tbody>
</table>

**Maximum speed for each stroke (mm/sec)**

<table>
<thead>
<tr>
<th>X axis</th>
<th>1000</th>
<th>800</th>
<th>650</th>
<th>550</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed setting</td>
<td>–</td>
<td>80%</td>
<td>65%</td>
<td>55%</td>
</tr>
</tbody>
</table>

---

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

**Note 2.** When the X-axis stroke is longer than 850mm, 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.
## Ordering method

**YK180XC - 100** -

<table>
<thead>
<tr>
<th>Model</th>
<th>RCX340-4</th>
<th>RCX240S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z axis stroke (mm)</td>
<td>180-200</td>
<td>150-180</td>
</tr>
</tbody>
</table>

**Cable length**
- RCX340-4: 0.5 m
- RCX240S: 0.5 m

**Controller**
- Number of controllable axes: 4
- Safety standard: DIN 12831
- Dynamic: (A) 250 ms
- Dynamic: (B) 100 ms
- Dynamic: (D) 64 ms
- Dynamic: (E) 50 ms
- Dynamic: (F) 30 ms
- Dynamic: (G) 20 ms
- Dynamic: (H) 10 ms
- Absolute: BT40

**Specify various controller setting items.**
- RCX340: P.544
- RCX240S: P.534

---

### Basic specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>X axis (mm)</th>
<th>Y axis (mm)</th>
<th>Z axis (mm)</th>
<th>R axis (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arm length (mm)</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>-</td>
</tr>
<tr>
<td>Rotation angle (°)</td>
<td>+/-120</td>
<td>+/-140</td>
<td>-</td>
<td>+/-360</td>
</tr>
<tr>
<td>AC servo motor output (W)</td>
<td>50</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Repeatability (mm) (XYZ: mm)</td>
<td>+/-0.01</td>
<td>+/-0.01</td>
<td>+/-0.004</td>
<td></td>
</tr>
<tr>
<td>Maximum speed (sec) (sec)</td>
<td>3.3</td>
<td>0.7</td>
<td>1700</td>
<td></td>
</tr>
<tr>
<td>Maximum payload (kg)</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard cycle time: with 0.1kg payload (sec)</td>
<td>0.42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-axis tolerable moment of inertia (kgm²)</td>
<td>0.01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>User tubing (sq x wires)</td>
<td>0.1 x 8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel limit</td>
<td>1.5m</td>
<td>2.1kg</td>
<td>4.2kg</td>
<td></td>
</tr>
<tr>
<td>Robot cable length (m)</td>
<td>6.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robot cable weight</td>
<td>1.5kg (3.5m)</td>
<td>2.1kg (5m)</td>
<td>4.2kg (10m)</td>
<td></td>
</tr>
<tr>
<td>Weight (kg) (Excluding robot cable)</td>
<td>0.01</td>
<td>0.021</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard cycle time (sec)</td>
<td>0.42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree of cleanliness</td>
<td>CLASS 10 (0.1µm base)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intake air (Nl/min)</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
1. This is the value at a constant ambient temperature. (X, Y axes)
2. There are limits to acceleration coefficient settings.
3. When moving 25mm in vertical direction and 100mm in horizontal direction reciprocally.
4. The total robot weight is the sum of the robot body weight and the cable weight.

---

### Controller Specifications

<table>
<thead>
<tr>
<th>Controller</th>
<th>Power capacity (VA)</th>
<th>Operation method</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCX340</td>
<td>500</td>
<td>Programming / I/O point trace / Remote command / Operation using RS-232C communication</td>
</tr>
<tr>
<td>RCX240S</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Harmonic and Harmonic Drive are the registered trademarks of Harmonic Drive Systems Inc.

---

### YK180XC

**Technical Diagrams:**
- Right-hand side system operation range
- Left-hand side system operation range

**Details:**
- D-sub connector for user cables 9 pin (Adapted to #1 to 6)
- User tubes 1 (bulkhead union φ3)
- User tubes 2 (bulkhead union φ3)
- D-sub connector for user cables 9 pin (Adapted to #1 to 6)
- Cover internal intake pipe (bulkhead union φ6)
- X, Y, R axis joint section intake pipe (bulkhead union φ6)
- User tubes 2 (bulkhead union φ3)
- User tubes 1 (bulkhead union φ3)

**Additional Information:**
- Do not move the cable.
- Do not perform any motion in this area.
- Right-hand side system operation range
- Left-hand side system operation range
- X-axis origin point is 0°/±0° from the base front surface
- Keep enough space for the maintenance work at the rear of the base.
- The user tool installation flange center line is offset within ±5° relative to the R axis origin point.

---

**Notes:**
- Do not move the cable.
- Keep enough space for the maintenance work at the rear of the base.
- The user tool installation flange center line is offset within ±5° relative to the R axis origin point.
YK220XC

Arm length 220mm
Maximum payload 1kg

Ordering method

YK220XC-100
RCX340-4

RCX240S

Basic specifications

<table>
<thead>
<tr>
<th>X axis</th>
<th>Y axis</th>
<th>Z axis</th>
<th>R axis</th>
</tr>
</thead>
<tbody>
<tr>
<td>111</td>
<td>109</td>
<td>100</td>
<td>-</td>
</tr>
</tbody>
</table>

- Arm length (mm)
- Rotation angle (°)
- AC servo motor output (W)
- Repeatability
- Maximum speed (XYZ: m/sec) (R: °/sec)
- Weight (kg) (Excluding robot cable)
- Robot cable weight
- Degree of cleanliness
- Intake air (Nl/min)

Note 1. This is the value at a constant ambient temperature.
Note 2. When reciprocating 100mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings.
Note 4. The total robot weight is the sum of the robot body weight and the cable weight.

Controller

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<th>Operation method</th>
</tr>
</thead>
<tbody>
<tr>
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<td>500</td>
<td>Programming / K/O point trace / Remote command</td>
</tr>
<tr>
<td>RCX240S</td>
<td></td>
<td>Operation using RS-232C communication</td>
</tr>
</tbody>
</table>

Note. “Harmonic” and “Harmonic drive” are the registered trademarks of Harmonic Drive Systems Inc.

YK220XC

D-sub connector for user cables 9 pin
(Adapted to #1 to 9)

User tubes 1 (bulkhead union)
User tubes 2 (bulkhead union)

Right-hand side system operation range
Lift-hand side system operation range

If the robot enters the inside of R30, the Z-axis flange may be in contact with the base. So, do not perform such motion.

- Internal intake pipe (bulkhead union #6)
- X, Y, R axis joint section intake pipe (bulkhead union #6)
- User tubes 1 (bulkhead union #3)
- User tubes 2 (bulkhead union #3)

Move counterbore in advance from the above position when performing origin return.
## Ordering method

**YK250XGC**

<table>
<thead>
<tr>
<th>Model</th>
<th>X axis stroke (mm)</th>
<th>Z axis stroke (mm)</th>
<th>Tool flange (mm)</th>
<th>Motor flange (mm)</th>
<th>Cable length</th>
<th>Number of controller axes</th>
<th>Safety standard</th>
<th>Controller / I/O point trace</th>
<th>Condition / Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RCX340</td>
<td></td>
</tr>
<tr>
<td>RCX240S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RCX240S</td>
<td></td>
</tr>
</tbody>
</table>

Specify various controller setting items. RCX340 → P.544

Specify various controller setting items. RCX240S/RCX240S → P.534

## Basic specifications

<table>
<thead>
<tr>
<th>Axis</th>
<th>X axis</th>
<th>Y axis</th>
<th>Z axis</th>
<th>R axis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arm length (mm)</td>
<td>100</td>
<td>150</td>
<td>150</td>
<td>-</td>
</tr>
<tr>
<td>Rotation angle (°)</td>
<td>+129</td>
<td>+134</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>AC servo motor output (W)</td>
<td>200</td>
<td>150</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>Repeatability (XYZ, mm): (R°):</td>
<td>±0.01</td>
<td>±0.01</td>
<td>±0.004</td>
<td></td>
</tr>
<tr>
<td>Maximum speed (XYZ, m/sec): (R°/sec):</td>
<td>4.5</td>
<td>1.1</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Maximum payload (kg)</td>
<td>4.5</td>
<td>1.1</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Standard cycle time: with 2kg payload (sec)</td>
<td>21.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree of cleanliness</td>
<td>ISO CLASS 3 (ISO 14644-1)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note 1. This is the value at a constant ambient temperature. (XY axes)

Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).

Note 3. There are limits to acceleration coefficient settings. See P.609.

Note 4. Class 10 (0.05μm) equivalent to JIS:STD-2009.

Note 4. ESD (ElectroStatic Discharge) prevention is an option. Please contact our distributor.

Note 6. The necessary intake amount varies depending on the use conditions and environment.

### Controller

<table>
<thead>
<tr>
<th>Controller</th>
<th>Power capacity (VA)</th>
<th>Operation method</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCX340</td>
<td>1000</td>
<td>Programming / Remote command / Operation using RS-232C communication</td>
</tr>
<tr>
<td>RCX240S</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)

See our robot manuals (installation manuals) for detailed information.

Note. To set the standard coordinate with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:

http://global.yamaha-motor.com/business/robot/

---

**YK250XGC**

- **Arm length**: 250mm
- **Maximum payload**: 4kg

### Basic specifications

- **X axis**
  - Arm length (mm): 100
  - Rotation angle (°): +129
  - AC servo motor output (W): 200
  - Repeatability (XYZ, mm): ±0.01
  - Maximum speed (XYZ, m/sec): 4.5
  - Maximum payload (kg): 4.5
  - Standard cycle time: 21.5 sec
  - Degree of cleanliness: ISO CLASS 3 (ISO 14644-1)

- **Y axis**
  - Arm length (mm): 150
  - Rotation angle (°): +134
  - Maximum speed (XYZ, m/sec): 1.1
  - Maximum payload (kg): 1.1

- **Z axis**
  - Arm length (mm): 150
  - Rotation angle (°): -
  - Maximum speed (XYZ, m/sec): 100
  - Maximum payload (kg): 10

- **R axis**
  - Arm length (mm): -
  - Rotation angle (°): -
  - Maximum speed (XYZ, m/sec): -
  - Maximum payload (kg): -

### Controller Specifications

- **RCX340**
  - Power capacity (VA): 1000

- **RCX240S**
  - Power capacity (VA): 
  - Operation method:

---

**YK250XGC**

- **Arm length**: 250mm
- **Maximum payload**: 4kg

### Basic specifications

- **X axis**
  - Arm length (mm): 100
  - Rotation angle (°): +129
  - AC servo motor output (W): 200
  - Repeatability (XYZ, mm): ±0.01
  - Maximum speed (XYZ, m/sec): 4.5
  - Maximum payload (kg): 4.5
  - Standard cycle time: 21.5 sec
  - Degree of cleanliness: ISO CLASS 3 (ISO 14644-1)

- **Y axis**
  - Arm length (mm): 150
  - Rotation angle (°): +134
  - Maximum speed (XYZ, m/sec): 1.1
  - Maximum payload (kg): 1.1

- **Z axis**
  - Arm length (mm): 150
  - Rotation angle (°): -
  - Maximum speed (XYZ, m/sec): 100
  - Maximum payload (kg): 10

- **R axis**
  - Arm length (mm): -
  - Rotation angle (°): -
  - Maximum speed (XYZ, m/sec): -
  - Maximum payload (kg): -

### Controller Specifications

- **RCX340**
  - Power capacity (VA): 1000

- **RCX240S**
  - Power capacity (VA): 
  - Operation method:
**YK250XGC Tool flange mount type**

Connector for user wiring (No.1 to 10 usable, cable clamp size: ϕ13.1 to 15)
Cover with the caps provided when not used.

User tubing 1 (ϕ4 black)
Insert the plug provided when not used.

User tubing 2 (ϕ4 red)

User tubing 3 (ϕ4 blue)

User tubing 4 (ϕ4 white)

4-M3 × 0.5 Depth 5
(No phase relation to R-axis origin.)
As this hole is intended for the wiring/tubing clamp, do not attach a large load to it.

If the robot enters the inside from the inner limit of the working envelope, the Z-axis bellows may be in contact with the base. So, do not perform such motion.

- Note that the robot cannot be used at a position where the base flange, robot cable, spline, bellows, and tool flange interfere with each other in the working envelope shown above.

- X-axis mechanical stopper position: 131°

- Y-axis mechanical stopper position: 136°

User tubing 2 (ϕ4 red)
Insert the plug provided when not used.

User tubing 3 (ϕ4 blue)

User tubing 4 (ϕ4 white)

Since this port is not used, cover it with the cap supplied with the joint.

Connector for user wiring (No.1 to 10 usable, cable clamp size: ϕ13.1 to 15)
Cover with the caps provided when not used.

**Detailed drawing D**

Detailed view D

- Tap hole for user wiring 6-M3 × 0.5 Depth 6
- The weight of the tool attached here should be added to the tip mass.

4-M3 (Min. cable bending radius)
Do not move the table.

4-ϕ11

4-ϕ4.5 through-hole

M4 ground terminal

Keep enough space for the maintenance work at the rear of the base.

Z-axis bellows

Machine Harness

Hollow diameter: ϕ11
Do not move the cable.

Keep enough space for the maintenance work at the rear of the base.

Z-axis bellows

Machine Harness

Hollow diameter: ϕ11
Do not move the cable.

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Hollow diameter: ϕ11
Do not move the cable.

Keep enough space for the maintenance work at the rear of the base.

Z-axis bellows

Machine Harness

Hollow diameter: ϕ11
Do not move the cable.

Keep enough space for the maintenance work at the rear of the base.

Z-axis bellows

Machine Harness

Hollow diameter: ϕ11
Do not move the cable.

Keep enough space for the maintenance work at the rear of the base.

Z-axis bellows

Machine Harness

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Keep enough space for the maintenance work at the rear of the base.

Z-axis bellows

Machine Harness

Hollow diameter: ϕ11
Do not move the cable.

Keep enough space for the maintenance work at the rear of the base.

Z-axis bellows

Machine Harness

Hollow diameter: ϕ11
Do not move the cable.
YK350XGC

Ordering method

**YK350XGC - 150**

- **Model**: YK350XGC
- **Arm length**: 350mm
- **Maximum payload**: 4kg

**Basic specifications**

<table>
<thead>
<tr>
<th>Axis specifications</th>
<th>X axis</th>
<th>Y axis</th>
<th>Z axis</th>
<th>R axis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arm length (mm)</td>
<td>200</td>
<td>150</td>
<td>150</td>
<td>-</td>
</tr>
<tr>
<td>Rotation angle (°)</td>
<td>+/-1.29</td>
<td>+/-1.34</td>
<td>+/-1.36</td>
<td>+/-3.60</td>
</tr>
<tr>
<td>AC servo motor output (W)</td>
<td>200</td>
<td>150</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>Repeatability (XYZ: mm) (R: °)</td>
<td>+/-0.01</td>
<td>+/-0.01</td>
<td>+/-0.004</td>
<td></td>
</tr>
<tr>
<td>Maximum speed (XYZ: m/sec) (R: °/sec)</td>
<td>5.6</td>
<td>1.1</td>
<td>1020</td>
<td></td>
</tr>
<tr>
<td>Maximum payload (kg)</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard cycle time: with 2kg payload (sec)</td>
<td>0.57</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-axis tolerable moment of inertia (kgm²)</td>
<td>0.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>User wiring (sq x wires)</td>
<td>0.02 x10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>User tubing (Outer diameter)</td>
<td>4-6 x4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travelt limit</td>
<td>1. Soft limit, 2. Mechanical stopper (X, Y, Z axes)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robot cable length (m)</td>
<td>Standard: 3.5, Option: 5, 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree of cleanliness</td>
<td>ISO CLASS 3 (ISO 14644-1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intake air (Nm/3/min)</td>
<td>30³⁻¹⁰</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Controller**

- **Controller**: RCX340, RCX240S
- **Power capacity (VA)**: 1000
- **Operation method**: 1000

- **Programming / I/O point tracing / Remote command / Operation using RS-232C communication**

**Note**

- ESD (ElectroStatic Discharge) prevention is an option. Please contact our distributor.

- Class 10 (0.1µm) equivalent to FED-STD-209D

- There are limits to acceleration coefficient settings. See P.609.

- When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).

- See our robot manuals (installation manuals) for detailed information.

- To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user’s manual (installation manual) for more details.

- Our robot manuals (installation manuals) can be downloaded from our website at the address below: http://global.yamaha-motor.com/business/robot

---

**YK350XGC**

**Connector for user wiring**

- **(No. 1 to 10 usable, cable clamp size: φ13.1 to15)**
- Cover with the caps provided when not used.

- **User tubing 1 (φ4 black)**
- **User tubing 2 (φ4 red)**

**User tubing 3 (φ4 blue)**

**User tubing 4 (φ4 white)**

**4-φ4 M8 bolt for installation, 4 bolts used**

**4-φ4 M8 bolt for installation, 4 bolts used**

**View of F**

- **Note**
- The robot cannot be used at a position where the base flange, control cable, spline, bellows, and tool flange interfere with each other in the working envelope shown above.
- **X-axis mechanical stopper position**: -13°
- **Y-axis mechanical stopper position**: 136°

**User tubing 1 (φ4 blue)**

**User tubing 2 (φ4 red)**

**Since this port is not used, cover it with the cap supplied with the joint.**

**Connector for user wiring**

- **(No. 1 to 10 usable, cable clamp size: φ13.1 to15)**
- Cover with the caps provided when not used.

**User tool installation range**

- **Note**
- The robot enters the inside from the inner limit of the working envelope, the Z-axis rises 4mm during return-to-origin.

- **R-axis tolerance moment of inertia**: 0.05 kgm²

- **R-axis tolerable moment of inertia**: 200 150 150 ±79 ±134 ±129

- **Z-axis riser**: 4mm during return-to-origin.

**Cross section A-A**

- **Tapped hole for user wiring (M3 x 0.5 Depth 6)**
- **The weight of the tool attached here should be added to the tip mass.**

- **Note**
- When the tool clamp is mounted, do not exceed the cable limit.
YK350XGC Tool flange mount type

Connector for user wiring (No.1 to 10 usable, cable clamp size: ϕ13.1 to 15)
Cover with the caps provided when not used.

User tubing 1 (ϕ4 black)
Insert the plug provided when not used.
User tubing 2 (ϕ4 red)

Machine Harness

Z-axis bellows
Hollow diameter: ϕ11

If the robot enters the inside from the inner limit of the working envelope, the Z-axis bellows may come into contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.

4-M3 x 0.5 Depth 5 (No phase relation to R-axis origin.)
All the hole is intended for the wiring/tubing clamp, do not attach a large load to it.

User tubing 3 (ϕ4 blue)
User tubing 4 (ϕ4 white)
212
12
183 (Base size)

4-ϕ9 M8 bolt for installation, 4 bolts used

• Note that the robot cannot be used at a position where the base flange, robot cable, spline, bellows, and tool flange interfere with each other in the working envelope shown above.
• X-axis mechanical stopper position: 131°
• Y-axis mechanical stopper position: 136°

User tubing 1 (ϕ4 black)
Insert the plug provided when not used.

User tubing 2 (ϕ4 red)

Since this port is not used, cover it with the cap supplied with the joint.

User tubing 3 (ϕ4 blue)
User tubing 4 (ϕ4 white)

Connector for user wiring (No.1 to 10 usable, cable clamp size: ϕ13.1 to 15)
Cover with the caps provided when not used.

Tapped hole for user wiring 6-M3 x 0.5 Depth 6
The weight of the tool attached here should be added to the tip mass.

R32 (Min. cable bending radius)
Do not move the cable.

Keep enough space for the maintenance work at the rear of the base.

Connector for user wiring
(RC30 to 31)

4-ϕ11

Detailed drawing D

View of E

Controller RCX340 ▶ 544 RCX240S ▶ 534
YK400XGC

### Ordering method

<table>
<thead>
<tr>
<th>Model</th>
<th>RCX340-4</th>
<th>RCX240S</th>
</tr>
</thead>
<tbody>
<tr>
<td>YK400XGC-150</td>
<td>S</td>
<td>S</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Controller</th>
<th>Power capacity (VA)</th>
<th>Operation method</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCX340</td>
<td>1000</td>
<td>Programming / I/O point trace / Remote command / Operation using RS-232C communication</td>
</tr>
<tr>
<td>RCX240S</td>
<td>544</td>
<td>Remote command / I/O point trace / Operation using RS-232C communication</td>
</tr>
</tbody>
</table>

### Basic specifications

<table>
<thead>
<tr>
<th>Axis specifications</th>
<th>X axis</th>
<th>Y axis</th>
<th>Z axis</th>
<th>R axis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arm length (mm)</td>
<td>250</td>
<td>150</td>
<td>150</td>
<td>-</td>
</tr>
<tr>
<td>Rotation angle (°)</td>
<td>+/-129</td>
<td>+/-144</td>
<td>+/-136</td>
<td>+/-360</td>
</tr>
<tr>
<td>AC servo motor output (W)</td>
<td>200</td>
<td>150</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Repeatability [XYZ: (mm)]:</td>
<td>+/-0.01</td>
<td>+/-0.01</td>
<td>+/-0.004</td>
<td></td>
</tr>
<tr>
<td>Maximum speed (XYZ: m/sec):</td>
<td>6.1</td>
<td>1.1</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Robot cable length (m):</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree of cleanliness:</td>
<td>ISO CLASS 3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Controller

- **Controller**: RCX340, RCX240S
- **Power capacity (VA)**: 1000, 544
- **Operation method**: Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. *Harmonic* and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. The movement range is set to the maximum at the time of shipment.

Our robot manuals (installation manuals) can be downloaded from our website at the address below: http://global.yamaha-motor.com/business/robot/
### Ordering method

**YK500XGLC-150**

**Model: YK500XGLC**

- S: Articulated robots
- TRANSERVO: Single-axis robots
- FLIP-X: Linear motor single-axis robots

### Basic specifications

**YK500XGLC**

<table>
<thead>
<tr>
<th>Axis</th>
<th>X axis</th>
<th>Y axis</th>
<th>Z axis</th>
<th>R axis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length (mm)</td>
<td>250</td>
<td>250</td>
<td>150</td>
<td>+/−360</td>
</tr>
<tr>
<td>Rotation angle (°)</td>
<td>+/−2/9</td>
<td>+/−144</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>AC servo motor output (W)</td>
<td>200</td>
<td>150</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>Repeatability (mm: (X,Y) (Z): (R):)</td>
<td>+/−0.01</td>
<td>+/−0.01</td>
<td>+/−0.004</td>
<td></td>
</tr>
<tr>
<td>Maximum speed (mm/sec: (X,Y) (Z): (R): (sec)</td>
<td>5.1</td>
<td>1.1</td>
<td>1020</td>
<td></td>
</tr>
<tr>
<td>Maximum payload (kg)</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard cycle time: with 2kg payload (sec)</td>
<td>4±4±4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel limit</td>
<td>1. Soft limit, 2. Mechanical stopper (X, Y, Z axes)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robot cable length (m)</td>
<td>Standard: 3.5 Option: 5, 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>3.5 Standard: 5, 10 Option: 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree of cleanliness</td>
<td>ISO CLASS 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intake air (m³/min)</td>
<td>30+360</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:**
- This is the value at a constant ambient temperature. (X, Y axes)
- There are limits to acceleration coefficient settings. See P.610.
- This is the value at a constant ambient temperature. (X, Y axes)
- The necessary intake amount varies depending on the use conditions and environment.

### Controller

**Controller**

<table>
<thead>
<tr>
<th>Controller</th>
<th>Power capacity (VA)</th>
<th>Operation method</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCX340</td>
<td>1000</td>
<td>Programming / I/O point trace / Remote command / Operation using RS-232C communication</td>
</tr>
<tr>
<td>RCX240S</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:**
- “Harmonic” and “Harmonic drive” are the registered trademarks of Harmonic Drive Systems Inc.
- The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)
- See our robot manuals (installation manuals) for detailed information.
- To set the standard coordinates with high accuracy, use a standard coordinate setting (if option). Refer to the user’s manual (installation manuals) for more details.

---

**YK500XGLC**

- **Arm length:** 500mm
- **Maximum payload:** 4kg

**Controller:**

- RCX340: P.534
- RCX240S: P.534

### Specification details:

- Connector for user wiring
- User tubing
- User tool installation range
- R-axis tolerable moment of inertia
- Machine harness
- User tool installation range
- Z-axis upper and mechanical stopper position
- Z-axis lower and mechanical stopper position
- Keep enough space for the maintenance work at the rear of the base.

---

**Note:**
- The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)
- See our robot manuals (installation manuals) for detailed information.
- To set the standard coordinates with high accuracy, use a standard coordinate setting (if option). Refer to the user’s manual (installation manuals) for more details.

---

**Our robot manuals (installation manuals) can be downloaded from our website at the address below:**

http://global.yamaha-motor.com/business/robot
YK500XGLC Tool flange mount type

Connector for user wiring
(No. 1 to 10 usable, cable-clamp size: φ13.1 to 15)
Cover with the caps provided when not used.

User tubing 3 (φ4 blue)
User tubing 4 (φ4 white)

User tubing 1 (φ4 black)
Insert the plug provided when not used.

User tubing 2 (φ4 red)

4-M3 x 0.5 Depth 5
(No phase relation to R-axis origin.)
As this hole is intended for the wiring/tubing clamp, do not attach a large load to it.

If the robot enters the inside from the inner limit of the working envelope, the Z-axis bellows may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.

User tubing 1 (φ4 black)
User tubing 2 (φ4 red)
Insert the plug provided when not used.

Since this port is not used, cover it with the cap supplied with the joint.

Connector for user wiring
(No. 1 to 10 usable, cable-clamp size: φ13.1 to 15)
Cover with the caps provided when not used.

Machine Harness
User tubing 3 (φ4 blue)
User tubing 4 (φ4 white)

Keep enough space for the maintenance work at the rear of the base.

R32 (Min. cable bending radius)
Do not move the cable.

4-M3 x 0.5 Depth 5
(No phase relation to R-axis origin.)
As this hole is intended for the wiring/tubing clamp, do not attach a large load to it.

If the robot enters the inside from the inner limit of the working envelope, the Z-axis bellows may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.

Tapped hole for user wiring 4-M3 x 0.5 Depth 5
This weight of the tool attached here should be added to the tip mass.

Controller
RCX340 ▶ 544 RCX240S ▶ 534
YK500XC

Basic specifications

- **Ordering method**

  - **Model:** YK500XC
  - **Controller:** RCX340-4
  - **Controller Power capacity (VA):** 1500
  - **Programing/Operation method:** Remote command / Operation using RS-232C communication

- **Basic specifications**

  - **Axis specifications**
    - **Axis:** X, Y, Z, R
    - **Arm length (mm):** 250, 250, 200, 300
    - **Rotation angle (°):** +1/120, +1/142, +1/180
    - **AC servo motor output (W):** 400, 200, 200, 100
    - **Repeatability (XYZ: mm) (R: °):** +0.02, +0.01, +0.005
    - **Maximum speed (XYZ: m/sec) (R: °/sec):** 4.9, 1.7, 876
    - **Maximum payload (kg):** 10
    - **Standard cycle time: with 2kg payload (sec):** 10
    - **Maximum payload (kg):** 10
    - **Travel limit:** 1. Soft limit, 2. Mechanical stopper (X, Y, Z axes)
    - **Robot cable length (m):** Standard: 3.5, Option: 5, 10
    - **Travel limit:** 0.2 × 20
    - **User tubing (Outer diameter):** φ6 × 3
    - **Weight (kg):** 31
    - **Degree of cleanliness:** CLASS 10
    - **Intake air (Nm³/min):** 10

  - **Specifications**
    - **Arm length:** 500mm
    - **Maximum payload:** 10kg

- **Controller**

  - **Controller:** RCX340
  - **Power capacity (VA):** 1500
  - **Programming/Operation method:** Remote command / Operation using RS-232C communication

- **Note:**
  - "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
  - Note: The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)
  - See our robot manuals (installation manuals) for detailed information.
  - Our robot manuals (installation manuals) can be downloaded from our website at the address below:

- **Diagram**

  - **Working envelope**
  - **XY axis mechanical stopper position**
  - **User tubes 1 (φ6 Black) Adapated to No.1 to 20**
  - **User tubes 2 (φ6 Red) Adapated to No.1 to 20**
  - **User tubes 3 (φ6 Blue) Adapated to No.1 to 20**
  - **M4 grounding terminal**
  - **D-sub connector for user wiring (Adapated to No.1 to 20)**
  - **Use M10 bolt for installation**
  - **Keep enough space for the maintenance work at the rear of the base.**

- **Additional notes:**
  - Note: For details about tubing work, refer to the User's Manual.
**YK600XGLC**

**Arm length 600mm**  
**Maximum payload 4kg**

### Ordering method

**YK600XGLC - 150**

<table>
<thead>
<tr>
<th>Model</th>
<th>Z axis stroke (mm)</th>
<th>Hollow shaft (mm)</th>
<th>Cable length (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Basic specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>X axis</th>
<th>Y axis</th>
<th>Z axis</th>
<th>R axis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arm length (mm)</td>
<td>350</td>
<td>250</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>Rotation angle (°)</td>
<td>+/-129</td>
<td>+/-144</td>
<td>+/-180</td>
<td>+/-360</td>
</tr>
<tr>
<td>AC servo motor output (W)</td>
<td>200</td>
<td>150</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>Repeatability (XYZ: mm) (R: °)</td>
<td>+/-0.01</td>
<td>+/-0.01</td>
<td>+/-0.04</td>
<td></td>
</tr>
<tr>
<td>Maximum speed (XYZ: m/sec) (R: °/sec)</td>
<td>4.9</td>
<td>1.1</td>
<td>1020</td>
<td></td>
</tr>
<tr>
<td>Standard cycle time: with 2kg payload (sec)</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>User tubing (sq × wires)</td>
<td>ø4×4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>User tubing (Outer diameter)</td>
<td>ø4×4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel limit</td>
<td>1. Soft limit, 2. Mechanical stopper (X, Y, Z axes)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robot cable length (m)</td>
<td>Standard: 3.5, Option: 5, 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree of cleanliness</td>
<td>ISO CLASS 3 (ISO 14644-1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intake air (Ng/min)</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Controller

<table>
<thead>
<tr>
<th>Controller</th>
<th>Power capacity (VA)</th>
<th>Operation method</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCX340</td>
<td>1000</td>
<td>Programming / i/O point trace / Remote command / Operation using RS-232C communication</td>
</tr>
<tr>
<td>RCX240S</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **RCX340**: \( RCX240S \)

Note. "Harmonics" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)

See our robot manuals (installation manuals) for detailed information.

Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (optional). Refer to the user’s manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:


---

**YK600XGLC**

- **Controller**: RCX340
- **Maximum Payload**: 4kg
- **Arm Length**: 600mm
- **Encoder**: Incremental or absolute
- **RS-232C Interface**

**Model Specifications**

<table>
<thead>
<tr>
<th>Connector for user wiring</th>
<th>(No. 1 to 10 usable, cable clamp size: ø13.1 to 15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cover with the caps provided when not used.</td>
<td></td>
</tr>
<tr>
<td>User tubing 1 (ø4 black)</td>
<td></td>
</tr>
<tr>
<td>Insert the plug provided when not used.</td>
<td></td>
</tr>
<tr>
<td>User tubing 2 (ø4 red)</td>
<td></td>
</tr>
<tr>
<td>User tubing 3 (ø4 blue)</td>
<td></td>
</tr>
<tr>
<td>User tubing 4 (ø4 white)</td>
<td></td>
</tr>
<tr>
<td>4.93 M4 bolt for installation, 4 bolts used</td>
<td></td>
</tr>
<tr>
<td>View of F</td>
<td></td>
</tr>
<tr>
<td>4.43 6/32 Depth 5</td>
<td></td>
</tr>
<tr>
<td>As this hole is intended for the wiring/tubing clamp, do not attach a large load to it.</td>
<td></td>
</tr>
<tr>
<td>13.4 6/32 Depth 5</td>
<td></td>
</tr>
</tbody>
</table>

- **Note that the robot cannot be used at a position where the base flange, robot cable, spline, bellows, and tool flange interfere with each other in the working envelope shown above.**
- **X-axis mechanical stopper position**: 131°
- **Y-axis mechanical stopper position**: 146°
- **User tubing 1 (ø4 black)**
- **User tubing 2 (ø4 red)**
- **User tubing 3 (ø4 blue)**
- **User tubing 4 (ø4 white)**
- **Since this port is not used, cover it with the cap supplied with the joint.**
- **Connector for user wiring (No. 1 to 10 usable, cable clamp size: ø13.1 to 15) **
- **Cover with the caps provided when not used.**

**Diagram:**

- **Cross section A-A**
- **Main Harness**
- **Machine Harness**
- **Z-axis bellows**
- **Z-axis upper end mechanical stopper**
- **Z-axis bellows**
- **Z-axis lower end mechanical stopper**
- **Z-axis tip shape**
- **Keep enough space for the maintenance work at the rear of the base.**

**Diagrams:**

- **RCX340**
- **RCX240S**
- **RCX340 - 4**
- **RCX240S - 534**

---

**Notes:**

1. This is the value at a constant ambient temperature. (X-Y axes)
2. When reciprocating 25mm in vertical direction and 350mm in horizontal direction (rough-positioning with motion).
3. There are limits to acceleration coefficient settings. See P.610.
4. Class 10 (0.5μm) equivalent to FED-STD-200D
5. ESD (Electro-Static Discharge) prevention is an option. Please contact our distributor.
6. The necessary intake amount varies depending on the use conditions and environment.
YK600XGLC Tool flange mount type

Connector for user wiring (No. 1 to 10 usable, cable clamp size: φ13.1 to 15)
Cover with the caps provided when not used.

User tubing 1 (φ4 black)
Insert the plug provided when not used.
User tubing 2 (φ4 red)

User tubing 3 (φ4 blue)
User tubing 4 (φ4 white)

4-M3 × 0.5 Depth 5
(No phase relation to R-axis origin.)
As this hole is intended for the wiring/tubing clamp, do not attach a large load to it.

86.5 ± 2
63.5 ± 2
D

Tapped hole for user wiring 6-M3 × 0.5 Depth 6
The weight of the tool attached here should be added to the tip mass.

R32 (Min. cable bending radius)
Do not move the cable.

As this hole is intended for the wiring/tubing clamp, do not attach a large load to it.

The arm may be in contact with the machine harness in an area inside from the inner limit of this working envelope. So, do not operate the arm in this area.

• Note that the robot cannot be used at a position where the base flange, robot cable, spline, bellows, and tool flange interfere with each other in the working envelope shown above.
• X-axis mechanical stopper position: 131°
• Y-axis mechanical stopper position: 146°

Machine Harness
Z-axis bellows

Keep enough space for the maintenance work at the rear of the base.

Since this port is not used, cover it with the cap supplied with the joint.

Connector for user wiring (No. 1 to 10 usable, cable clamp size: φ13.1 to 15)
Cover with the caps provided when not used.

Connector for user wiring
(User tubing 1 (φ4 black)
User tubing 2 (φ4 red)
User tubing 3 (φ4 blue)
User tubing 4 (φ4 white))

Controller
RCX340 ▶ 544 RCX240S ▶ 534

Controller
# YK600XC

- **Arm length**: 600mm
- **Maximum payload**: 10kg

## Ordering method

<table>
<thead>
<tr>
<th>Model</th>
<th>Cable length (m)</th>
<th>Controller / Number of controllable axes</th>
<th>Safety standard</th>
<th>Dimensions (W x D x H mm)</th>
<th>Connection / Mounting part</th>
<th>Absolute battery</th>
</tr>
</thead>
<tbody>
<tr>
<td>YK600XC</td>
<td>560.9</td>
<td>RCX240-4</td>
<td>Safety standard</td>
<td>Dimensions (W x D x H mm)</td>
<td>Connection / Mounting part</td>
<td>Absolute battery</td>
</tr>
</tbody>
</table>

Specify various controller setting items. **RCX240**

<table>
<thead>
<tr>
<th>Model</th>
<th>Cable length (m)</th>
<th>Controller / Number of controllable axes</th>
<th>Safety standard</th>
<th>Dimensions (W x D x H mm)</th>
<th>Connection / Mounting part</th>
<th>Absolute battery</th>
</tr>
</thead>
<tbody>
<tr>
<td>YK600XC</td>
<td>560.9</td>
<td>RCX240-4</td>
<td>Safety standard</td>
<td>Dimensions (W x D x H mm)</td>
<td>Connection / Mounting part</td>
<td>Absolute battery</td>
</tr>
</tbody>
</table>

Specify various controller setting items. **RCX240/RCX240**

## Basic specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>X axis</th>
<th>Y axis</th>
<th>Z axis</th>
<th>R axis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arm length (mm)</td>
<td>350</td>
<td>250</td>
<td>200</td>
<td>305</td>
</tr>
<tr>
<td>Rotation angle (°)</td>
<td>+/-120</td>
<td>+/-145</td>
<td></td>
<td>+/-180</td>
</tr>
<tr>
<td>AC servo motor output (W)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repeatability (mm)</td>
<td>+/-0.02</td>
<td>+/-0.01</td>
<td>+/-0.005</td>
<td></td>
</tr>
<tr>
<td>Maximum speed (m/sec)</td>
<td>5.6</td>
<td>1.7</td>
<td>876</td>
<td></td>
</tr>
<tr>
<td>Maximum payload (kg)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard cycle time: with 2kg payload (sec)</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-axis tolerable moment of inertia (kgm)</td>
<td>0.12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>User tubing (Outer diameter)</td>
<td>6 x 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel limit</td>
<td>1.5 soft limit, 2 mechanical stoppers (X, Y, Z axes)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robot cable length (m)</td>
<td>Standard: 3.5, Option: 5, 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree of cleanliness</td>
<td>CLASS 10</td>
<td>60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intake air (N/min)</td>
<td>60</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Notes:

1. This is the value at a constant ambient temperature. (X, Y axes)
2. There are limits to acceleration coefficient settings.
3. The necessary intake amount varies depending on the use conditions and environment.
4. The necessary intake amount varies depending on the use conditions and environment.
5. Please refer to the User’s Manual for details about tubing work.
### Ordering method

**YK700XC**

- **Model**: YK700XC
- **Axis specifications**:
  - **Arm length (mm)**: 700
  - **Maximum payload (kg)**: 20

#### RCX340-4

- **Controller**: RCX340-4
- **Cable length (m)**: 2000
- **Z axis stroke**: 2400
- **X axis stroke**: 2200
- **Y axis stroke**: 1470
- **Z axis travel limit**: 147°
- **X, Y axis travel limit**: 180°
- **User tubes 1 (6 Black)**: 14
- **User tubes 2 (6 Red)**: 14
- **User tubes 3 (6 Blue)**: 14
- **D-sub connector for user wiring (Adapted to No.1 to 20)**: 1

#### RCX240

- **Controller**: RCX240
- **R axis rotating radius (X, Y, Z axes)**: 50
- **R axis tolerable moment of inertia (kgm²)**: 0.32
- **R-axis rotating radius**: 50
- **R-axis tolerable moment of inertia**: 0.32
- **Reach (XYZ): mm (R: °)**: 147°
- **Motor**: AC servo motor output (W)
  - **X axis**: 800
  - **Y axis**: 400
  - **Z axis**: 400
  - **R axis**: 200

### Basic specifications

<table>
<thead>
<tr>
<th>Axis</th>
<th>X axis</th>
<th>Y axis</th>
<th>Z axis</th>
<th>R axis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arm length (mm)</td>
<td>350</td>
<td>350</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>AC servo motor output (W)</td>
<td>800</td>
<td>400</td>
<td>400</td>
<td>200</td>
</tr>
<tr>
<td>Rotation angle (°)</td>
<td>+/-120</td>
<td>+/-145</td>
<td>+/-180</td>
<td></td>
</tr>
<tr>
<td>Repeatability (XYZ: mm) (R: °)</td>
<td>+/-0.02</td>
<td>+/-0.01</td>
<td>+/-0.005</td>
<td></td>
</tr>
<tr>
<td>Maximum speed (XYZ: m/sec) (R: °/sec)</td>
<td>6.7</td>
<td>1.7</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>Maximum payload (kg)</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard cycle time: with 2kg payload (sec)</td>
<td>0.57</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>User wiring (sq × wires)</td>
<td>0.2 × 20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robot cable length (m)</td>
<td>3.5</td>
<td>Option: 5, 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intake air (N²m³/min)</td>
<td>60</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Controller

- **Controller**: RCX340/RCX240
- **Power capacity (VA)**: 2000
- **Operation method**: Programming / I/O point trace / Remote command / Operation using RS-232C communication

### Notes

1. This is the value at a constant ambient temperature. (X, Y axes)
2. There are limits to acceleration coefficient settings.
3. Per 1cf (0.1µm base), when suction blower is used.
4. The necessary intake amount varies depending on the use conditions and environment.

---

**YK700XC**

- **Controller**: RCX340
- **XY axis mechanical stopper position**
- **X, Y axis mechanical stopper position**
- **User tubes 1 (6 Black)**: 14
- **User tubes 2 (6 Red)**: 14
- **User tubes 3 (6 Blue)**: 14
- **D-sub connector for user wiring (Adapted to No.1 to 20)**: 1

**Note**: For details about tubing work, refer to the User’s Manual.
### Ordering method

**YK800XC**

**RCX340-4**

Specify various controller setting items. RCX340  YK800XC  P.544

**RCX240**

Specify various controller setting items. RCX240/RCX240-R  YK800XC  P.534

### Basic specifications

<table>
<thead>
<tr>
<th>Axis specifications</th>
<th>X axis</th>
<th>Y axis</th>
<th>Z axis</th>
<th>R axis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arm length (mm)</td>
<td>450</td>
<td>350</td>
<td>200</td>
<td>400</td>
</tr>
<tr>
<td>Rotation angle (°)</td>
<td>+/-120</td>
<td>+/-145</td>
<td>+/-145</td>
<td>+/-180</td>
</tr>
<tr>
<td>Repeatability (XYZ: (mm) (R: °))</td>
<td>+/-0.02</td>
<td>+/-0.01</td>
<td>+/-0.005</td>
<td></td>
</tr>
<tr>
<td>Maximum speed (XYZ: m/sec) (R: °/sec)</td>
<td>7.3</td>
<td>1.7</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>Maximum payload (kg)</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard cycle time: with 2kg payload (sec)</td>
<td>0.57</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel limit</td>
<td>1. Soft limit, 2. Mechanical stopper (X, Y, Z axes)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robot cable length (m)</td>
<td>Standard: 3.5 Option: 5, 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree of cleanliness</td>
<td>CLASS 10 (Note 3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intake air (N/min)</td>
<td>60 (Note 3)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Controller

<table>
<thead>
<tr>
<th>Controller</th>
<th>Power capacity (VA)</th>
<th>Operation method</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCX340</td>
<td>2000</td>
<td>Programming / I/O point trace / Remote command / Operation using RS-232C communication</td>
</tr>
</tbody>
</table>

Note: 1. There are limits to acceleration coefficient settings.
Note: 2. This is the value at a constant ambient temperature. (X, Y axes)
Note: 3. Per 1cf (0.1µm base), when suction blower is used.
Note: 4. The necessary intake amount varies depending on the use conditions and environment.
### Ordering method

**YK1000XC**

<table>
<thead>
<tr>
<th>Model</th>
<th>RCX340-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controller</td>
<td>Safety standard</td>
</tr>
<tr>
<td>Number of controllable axes</td>
<td>TOP.A, TOP.B, TOP.C, TOP.D, TOP.E</td>
</tr>
<tr>
<td>Cable length</td>
<td>Absolute battery</td>
</tr>
<tr>
<td>2 axis stroke</td>
<td>Safety standard</td>
</tr>
</tbody>
</table>

Specify various controller setting items. RCX340-4

**RCX240**

Specify various controller setting items. RCX240/RCX240S

### Basic specifications

<table>
<thead>
<tr>
<th>Axis</th>
<th>X axis</th>
<th>Y axis</th>
<th>Z axis</th>
<th>R axis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arm length (mm)</td>
<td>550</td>
<td>450</td>
<td>200</td>
<td>400</td>
</tr>
<tr>
<td>Rotation angle (˚)</td>
<td>+/-120</td>
<td>+/-1145</td>
<td>+/-180</td>
<td></td>
</tr>
<tr>
<td>AC servo motor output (W)</td>
<td>800</td>
<td>400</td>
<td>400</td>
<td>200</td>
</tr>
<tr>
<td>Repeatability (XYZ: mm) (R: ˚)</td>
<td>+/-0.02</td>
<td>+/-0.01</td>
<td>+/-0.005</td>
<td></td>
</tr>
<tr>
<td>Maximum speed (XYZ: m/sec) (R: ˚/sec)</td>
<td>8.0</td>
<td>1.7</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>Maximum payload (kg)</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard cycle time: with 2kg payload (sec)</td>
<td>0.60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel limit</td>
<td>1. Soft limit, 2. Mechanical stopper (X, Y, Z axes)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>User tubing (Outer diameter)</td>
<td>6 × 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>User wiring (sq × wires)</td>
<td>0.2 × 20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intake air (Nm³/min)</td>
<td>3.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree of cleanliness</td>
<td>CLASS 10</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note 1. This is the value at a constant ambient temperature. (X, Y axes)
Note 2. There are limits to acceleration coefficient settings.
Note 3. Per 1cf (0.1µm base), when suction blower is used.
Note 4. The necessary intake amount varies depending on the use conditions and environment.

### Controller

<table>
<thead>
<tr>
<th>Controller</th>
<th>Power capacity (VA)</th>
<th>Operation method</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCX340</td>
<td>2000</td>
<td>Programming / I/O point trace / Remote command / Operation using RS-232C communication</td>
</tr>
</tbody>
</table>

Note. “Harmonic” and “Harmonic drive” are the registered trademarks of Harmonic Drive Systems Inc.

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)

See our robot manuals (installation manuals) for detailed information.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:
http://global.yamaha-motor.com/business/robot/

---

**YK1000XC**

Arm length 1000mm

Maximum payload 20kg

---

**Diagram:**

- User tubes 1 (Φ6 Black)
- User tubes 2 (Φ6 Red)
- User tubes 3 (Φ6 Blue)
- D-sub connector for user wiring (Adapted to No.1 to 20)
- R-axis rotating radius
- R-axis rotating radius
- M12 x 1.75 Depth 10
- 4-414
- Use M12 bolt for installation
- User tubing 1 (Φ6 Black)
- User tubing 2 (Φ6 Red)
- User tubing 3 (Φ6 Blue)
- D-sub connector for user wiring (Adapted to No.1 to 20)

---

**Working envelope:**

- Maximum working envelope
- Joint (Note) (Φ62)
- Joint (Note) (Φ62)
- Joint (Note) (Φ62)
- Joint (Note) (Φ62)
- D-sub connector for user wiring (Adapted to No.1 to 20)

Note: For details about tubing work, refer to the User’s Manual.