Features

1. **Support most operating method**
   - Supports diverse operating methods including program operation, point trace, and movement to specified coordinates, etc.

2. **Position data hold time: 1 year**
   - The absolute position data hold time which was only 2 weeks, has now been drastically increased to about 1 year.

3. **I/O assignment Change**
   - Changing the I/O assignment allows selecting operations such as program operation, point trace, point teaching, and trace operation by specifying coordinates. Jog operation can also be performed from the upstream device.

4. **Use of two power supplies**
   - Isolating into main power supply and control power supply yields an even higher degree of safety. It also makes servicing easier when an alarm occurs.

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### Model Overview

<table>
<thead>
<tr>
<th>Name</th>
<th>SR1-X</th>
<th>SR1-P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>05 / 10 driver</td>
<td>20 driver</td>
</tr>
<tr>
<td></td>
<td>Single phase 100 to 115V/200 to 230V +/-10% maximum (50/60Hz)</td>
<td>Single phase 200 to 230V +/-10% maximum (50/60Hz)</td>
</tr>
<tr>
<td>Operating method</td>
<td>Programming / I/O point tracing / Remote command / Operation using RS-232C communication</td>
<td>POPCOM</td>
</tr>
<tr>
<td>Maximum number of controllable axes</td>
<td>Single-axis</td>
<td></td>
</tr>
<tr>
<td>Position detection method</td>
<td>Absolute / Incremental</td>
<td>Incremental / Semi-absolute</td>
</tr>
<tr>
<td>Controllable robot</td>
<td>Single-axis robot FLIP-X</td>
<td>Linear motor single-axis robot PHASER</td>
</tr>
<tr>
<td>Programming box</td>
<td>HPB / HPB-D (with enable switch)</td>
<td>HPB / HPB-D (with enable switch)</td>
</tr>
<tr>
<td>Support software for PC</td>
<td>POPCOM</td>
<td>POPCOM</td>
</tr>
</tbody>
</table>

---

### Ordering method

#### SR1-X

- **Controller**
- **Driver**
- **Usable for CE**
- **Input/Output selection**
- **Battery**

#### SR1-P

- **Controller**
- **Driver**
- **Usable for CE**
- **Input/Output selection**
- **Battery**

---

### SR1-X / SR1-P part names

- **Motor connector (MOTOR)**
- **HPB connector (HPB)**
- **Status LED lamp (PWR,ERR)**
- **Robot I/O connector (ROB I/O)**
- **Power input connector (AC IN)**
- **SAFETY connector (SAFETY)**
- **Regenerative unit connector (RGEN)**
- **Input power select terminal**
- **Ground terminal**

Note 1: Driver selection and regenerative unit selection depends on the robot type. See the selection table on the next page for selecting the driver/regenerative circuit.

Note 2: Available only for the standby.

---

### Current position output function

These controllers can output the current position as feedback pulse or binary data. This allows the upstream device to know the robot position in real-time.

### Torque limiting

This function limits the maximum torque value to an optional timing. These controllers offer 2 types of torque limiting: limiting the torque by using parameter data, and limiting torque by using analog input voltages.

### Various monitor functions

Offers monitor functions of different types including input/output status monitoring, duty monitoring, and analog monitoring, etc.

### Support safety circuit category 4

 Installing an external safety circuit will satisfy safety category class 4 standards. See P.484 for more information.

---

Note 1: Driver selection and regenerative unit selection depends on the robot type. See the selection table on the next page for selecting the driver/regenerative circuit.

Note 2: Available only for the standby.
SR1-X/SR1-P

### Driver / regenerative unit selection table

#### SR1-X

<table>
<thead>
<tr>
<th>Driver selection SR1-X</th>
<th>FLIP-X</th>
</tr>
</thead>
<tbody>
<tr>
<td>05</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
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</tbody>
</table>

#### Regenerative unit

<table>
<thead>
<tr>
<th>No entry</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
<tr>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>R (RG1)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

1) Regenerative unit is needed if using in a perpendicular position and movement stroke is 700mm or more.
2) Regenerative unit is needed if using in a perpendicular position.
3) Regenerative unit is needed if using at maximum speeds exceeding 1000mm per second, or if using high leads (40).
4) Regenerative unit is needed if using at maximum speeds exceeding 1000mm per second.
5) Regenerative unit is needed if using at maximum speeds exceeding 1250mm per second.

#### SR1-P

<table>
<thead>
<tr>
<th>Driver selection SR1-P</th>
<th>PHASER</th>
</tr>
</thead>
<tbody>
<tr>
<td>05</td>
<td>MR12D</td>
</tr>
<tr>
<td>10</td>
<td>MR16D</td>
</tr>
<tr>
<td>20</td>
<td>MR16HD</td>
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#### Regenerative unit

<table>
<thead>
<tr>
<th>No entry</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>R (RGU-2)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
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<td></td>
</tr>
</tbody>
</table>

1) Regenerative unit RG1 / RGU-2

#### SR1-X / SR1-P 05 - 10 dimensions

#### SR1-X / SR1-P 20 dimensions

### Regenerative unit RG1 / RGU-2

#### Basic specifications

**Item** | **RG1** | **RGU-2**
---|---|---
Model | KBG-M4107-0A (Including accessory) | KS5-M4107-0A (Including accessory)
Dimensions | W40 × H210 × D146mm | W40 × H250 × D157mm
Weight | 0.8kg | 0.9kg
Regenerative voltage | Approx. 380V or more | Approx. 380V or more
Regenerative stop voltage | Approx. 360V or less | Approx. 360V or less
Accessory | Cable for connection with controller (300mm) | Cable for connection with controller (300mm)

**Note:** Always leave an empty space (gap of about 20mm) between this unit and the adjacent controller. Also, always use the dedicated cable when connecting the controller.