**SS04 Slider type**

- **CE compliance**
- **Origin on the non-motor side is selectable**

### Ordering method

<table>
<thead>
<tr>
<th>SS04</th>
<th>Lead</th>
<th>Model</th>
<th>Lead</th>
<th>Model</th>
<th>Lead</th>
<th>Model</th>
<th>Lead</th>
<th>Model</th>
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</tbody>
</table>

Note 1. 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 2. The robot cable is flexible and resists bending.

Note 3. See P.498 for DIN rail mounting bracket.

Note 4. These are the weights without a brake. The weights are 0.2kg heavier when equipped with a brake.

### Basic specifications

**Motor**
- 42: Step motor

**Resolution (Pulse/rotation)**
- 20480

**Repeatability ± (mm)**
- 0.02

**Deceleration mechanism**
- Ball screw φ8 (Class C10)

**Maximum motor torque (N.m)**
- 0.27

**Ball screw lead (mm)**
- 12 8 2

**Maximum speed (mm/sec)**
- 600 300 100

**Maximum payload (kg)**
- 2 4 6

**Max. pressing force (N)**
- 45 90 150

**Stroke (mm)**
- 50 to 400 (50mm pitch)

**Overall length (mm)**
- 210 246 274

**Linear conveyor modules**
- LCM100

**Linear motor single-axis robots**
- FLIP-X

**Compact single-axis robots**
- TRANSERVO

### Allowable overhang

**Vertical**
- Stroke + 261 (with brake)

**Horizontal**
- Stroke + 216 (with brake)

### Static loading moment

- **MY**
- **MP**
- **MR**

### Controller

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

**Robot positioner I/O**
- SD: TS-SD
- SH: TS-SH
- NP: NPN

**Robot driver I/O cable**
- EP: EtherNet/IP™
- PT: PROFINET
- DN: DeviceNet™
- CC: CC-Link
- GW: No I/O board

**Remote command I/O point trace / (Unit: N.m)**
- MY: 16 19 17
- MP: 16 19 17
- MR: 16 19 17

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

### Motor installation (Space-saving model)

**Type A**
- Motor installed on right

**Type B**
- Motor installed on left

### Motor installation (Space-saving model) - SS04 Straight model S

- **Approx. 200 (Cable length)**
- **161+2: When origin is on motor side**
- **Effective stroke**
  - (55: When origin is on motor side)

**Note 1.** Stop positions are determined by the mechanical stoppers at both ends.

**Note 2.** 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 3.** The cable’s minimum bend radius is R30.

**Note 4.** These are the weights without a brake. The weights are 0.2kg heavier when equipped with a brake.
### SS04 Space-saving model

#### Controller
- **TS-S2**: 490
- **TS-SH**: 490
- **TS-SD**: 500

#### Specifications

<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>
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<tbody>
<tr>
<td><strong>L</strong></td>
<td>187</td>
<td>237</td>
<td>287</td>
<td>337</td>
<td>387</td>
<td>437</td>
<td>487</td>
<td>537</td>
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<tr>
<td><strong>A</strong></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>180</td>
<td>150</td>
<td>200</td>
<td>250</td>
<td>300</td>
<td>350</td>
<td>400</td>
<td>450</td>
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<tr>
<td><strong>Weight (kg)</strong></td>
<td>1.2</td>
<td>1.4</td>
<td>1.6</td>
<td>1.8</td>
<td>1.9</td>
<td>2.0</td>
<td>2.1</td>
<td>2.2</td>
</tr>
</tbody>
</table>

**Note 1.** Stop positions are determined by the mechanical stoppers at both ends.

**Note 2.** Secure the cable with a tie-band 80mm or less from unit's end face to prevent the cable from being subjected to excessive loads.

**Note 3.** The cable's minimum bend radius is R30.

**Note 4.** These are the weights without a brake. The weights are 0.2kg heavier when equipped with a brake.

**Note 5.** The belt cover's left and right sides are asymmetrical. Therefore, if the motor mounting orientation is changed, the cover cannot be attached.
SS05 Slider type

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

### Ordering method

#### SS05

<table>
<thead>
<tr>
<th>Model</th>
<th>Lead</th>
<th>Stroke (mm)</th>
<th>Origin position</th>
<th>Grease option</th>
<th>Max. pressing force (N)</th>
<th>Brushed motor Installed on top</th>
<th>Motor installed at bottom</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS05-R</td>
<td>100</td>
<td>200</td>
<td>Standard</td>
<td>Standard</td>
<td>10</td>
<td>YP-X</td>
<td>YP-X</td>
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<tr>
<td>SS05-A</td>
<td>100</td>
<td>200</td>
<td>Standard</td>
<td>Standard</td>
<td>10</td>
<td>YP-X</td>
<td>YP-X</td>
</tr>
</tbody>
</table>

Note 1. Brake-equipped models can be selected only when the lead is 12mm or 6mm.

### Basic specifications

- **Motor**: 42 / Step motor
- **Resolution (Pulse/rotation)**: 1500
- **Deceleration mechanism**: Ball screw 6 / (Class C10)
- **Maximum motor torque (Nm)**: 0.72
- **Ball screw lead (mm)**: 12
- **Maximum speed (mm/sec)**: 1000 / 500 / 300
- **Maximum payload (kg)**: 40 / 20 / 8
- **Max. pressing force (N)**: 97 / 45 / 20
- **Stroke (mm)**: 50 to 800 (50mm pitch)
- **Overall length (Horizontal)**: Stroke x 1000
- **Overall length (Vertical)**: Stroke x 2000
- **Maximum outside dimension of body cross-section (mm)**: 565 x 565
- **Motor installation (Space-saving model)**: Left: Space-saving model Right: Standard

### Motor installation (Space-saving model)

#### SS05 Straight model

- **Approx. 200 (Cable length)**: 178
- **178: When origin is on motor side**
- **140:1 (Note 1)**
- **Effective stroke**
  - **L**: 280, 330, 380, 430, 480, 530, 580, 630, 680, 730, 780, 830, 880, 930, 980, 1030
  - **A**: 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18
  - **B**: 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19
  - **C**: 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51

- **Weight (kg)**
  - **Lead20**: 1000
  - **Lead12**: 600
  - **Lead6**: 300
  - **Speed setting**: 8kg, 6kg, 4kg, 2kg

Note 1. Positioning repeatability in one direction.

Note 2. When the stroke is longer than 600mm, 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.

### Allowable overhang

#### Horizontal installation (Unit: mm)

- **Effective stroke 50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800**
- **Allowable overhang**
  - **Note 1**: When the stroke is longer than 600mm, 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.

### Static loading moment

#### Controller

- **Operation method**: P: IPo point control / Remote command
- **Controller**: TS-S2, TS-SH, TS-S2, TS-SD
  - **Pulse train control**

Note 1. Stop positions are determined by the mechanical stops at both ends.

Note 2. The robot cable is flexible and resists bending. Note 3. Secure the cable with a tie-band 100mm or less subject to excessive loads.

Note 4. These are the weights without a brake. The weights are 0.2kg heavier when equipped with a brake.

Note 5. When the stroke is longer than 600mm, 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.
**Articulated robots**

**Compact single-axis robots**

**TRANSERVO**

**Single-axis robots**

**FLIP-X**

**Linear motor single-axis robots**

**PHASER**

**Cartesian robots**

**XY-X**

**SCARA robots**

**YK-X**

**Pick & place robots**

**YP-X**

**CLEAN CONTROLLER INFORMATION**

**Linear conveyor modules**

**LCM100**

**Controller**

**TS-S2**

**TS-SH**

**TS-SD**

**Specifications**

<table>
<thead>
<tr>
<th>Length (mm)</th>
<th>96.5</th>
<th>126.5</th>
<th>156.5</th>
<th>186.5</th>
<th>216.5</th>
<th>246.5</th>
<th>276.5</th>
<th>306.5</th>
<th>336.5</th>
<th>366.5</th>
<th>396.5</th>
<th>426.5</th>
<th>456.5</th>
<th>486.5</th>
<th>516.5</th>
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</thead>
<tbody>
<tr>
<td>Weight (kg)</td>
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<td>1.8</td>
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<td>2.2</td>
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<td>3.8</td>
<td>4.0</td>
<td>4.1</td>
<td>4.3</td>
</tr>
</tbody>
</table>

Note 1. Stop positions are determined by the mechanical stoppers at both ends.

Note 2. Secure the cable with a tie-band (80mm or less) from unit’s end face to prevent the cable from being subjected to excessive loads.

Note 3. The cable’s minimum bend radius is R30.

Note 4. These are the weights without a brake. The weights are 0.2kg heavier when equipped with a brake.

Note 5. When the stroke is longer than 600mm, 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.

Note 6. The belt cover’s left and right sides are asymmetrical. Therefore, if the motor mounting orientation is changed, the cover cannot be attached.
**SS05H Slider type**

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

### Ordering method

<table>
<thead>
<tr>
<th>SS05H</th>
<th>Lead type</th>
<th>Model</th>
<th>Motor</th>
<th>Control board</th>
<th>I/O point trace</th>
<th>Robot driver</th>
<th>Robot driver I/O cable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L type</td>
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<td>L type</td>
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<tr>
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<td>R type</td>
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<td>R type</td>
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</tr>
</tbody>
</table>

Note 1. Brake-equipped models can be selected only when the lead is 12mm or 6mm.

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.498 for DIN rail mounting bracket.

Note 5. Select this selection when using the gateway function. For details, see P.60.

### Basic specifications

- **Motor**: 42: Step motor
- **Resolution (Pulse/rotation)**: 2048
- **Repeatability (mm)**: ±0.02
- **Balancing mechanism**: Ball screw (Class C10)
- **Maximum motor torque (Nm)**: 0.41
- **Ball screw lead (mm)**: 20, 12, 6
- **Maximum speed (mm/sec)**: Horizontal 1000, 600, 300, Vertical 500, 250
- **Max. pressing force (N)**:
  - Horizontal: 500, 280, 118, 55
  - Vertical: 300, 280, 120, 55
- **Cable length (m)**: 20: 300, 150, 75, 38
  - 12: 300, 150, 75, 38
  - 6: 0.47, 0.23, 0.12
- **Overall outside dimension of body cross-section (mm)**: W55 × H56

Note 1: Positioning repeatability in one direction.

Note 2: When the stroke is longer than 600mm, 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.

### Motor installation (Space-saving model)

<table>
<thead>
<tr>
<th>L type</th>
<th>Motor installed on left</th>
</tr>
</thead>
</table>

### Allowable overhang

**Horizontal installation (Unit: mm)**

- **A**: 2kg: 250, 200, 150, 100
- **B**: 4kg: 220, 180, 140, 100
- **C**: 6kg: 200, 150, 100, 50

**Wall installation (Unit: mm)**

- **A**: 2kg: 180, 150, 120, 90
- **B**: 4kg: 150, 120, 90, 60
- **C**: 6kg: 120, 90, 60, 30

**Vertical installation (Unit: mm)**

- **A**: 2kg: 150, 120, 90, 60
- **B**: 4kg: 130, 100, 70, 40
- **C**: 6kg: 110, 80, 50, 20

### Static loading moment

**Horizontal installation (Unit: N·mm)**

- **A**: 2kg: 300, 250, 200, 150
- **B**: 4kg: 250, 200, 150, 100
- **C**: 6kg: 200, 150, 100, 50

### Controller

- **Operation method**: TS-S2, TS-SH, Remote command
- **TS-SD**: Pulse train control

---

**SS05H Straight model 5**

**Effective stroke**

- **50**: 500, 450, 400, 350, 300, 250, 200, 150, 100
- **100**: 933, 833, 733, 633
- **150**: 833, 733, 633
- **200**: 733, 633, 533
- **250**: 633, 533, 433
- **300**: 533, 433, 333
- **350**: 433, 333, 233
- **400**: 333, 233, 133
- **450**: 233, 133, 033
- **500**: 133, 033, 033
- **550**: 033, 033, 033
- **600**: 033, 033, 033
- **650**: 033, 033, 033
- **700**: 033, 033, 033
- **750**: 033, 033, 033
- **800**: 033, 033, 033

**Effective stroke**

- **Effective stroke**
  - **L**: 500, 450, 400, 350, 300, 250, 200, 150, 100
  - **A**: 333, 283, 233, 183, 133, 83, 33, 8, 3
  - **B**: 222, 172, 122, 72, 22, 7, 2
  - **C**: 111, 61, 11, 6, 1

**Weight (kg)**

- **2kg**: 1.8
- **4kg**: 3.6
- **6kg**: 5.4

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

- **L**: 500
- **A**: 300
- **B**: 280
- **C**: 260

**Speed setting**

- **A**: 200
- **B**: 220
- **C**: 240
SS05H  Space-saving model

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>
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<td>4.1</td>
<td>4.3</td>
<td>4.5</td>
<td>4.6</td>
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</tbody>
</table>

Maximum speed for each stroke

<table>
<thead>
<tr>
<th>Maximum speed for each stroke (mm/sec)</th>
<th>1000</th>
<th>930</th>
<th>830</th>
<th>730</th>
<th>630</th>
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</thead>
<tbody>
<tr>
<td>Lead20 (Horizontal)</td>
<td>1000</td>
<td>930</td>
<td>830</td>
<td>730</td>
<td>630</td>
</tr>
<tr>
<td>Lead12 (Horizontal)</td>
<td>600</td>
<td>560</td>
<td>500</td>
<td>440</td>
<td>380</td>
</tr>
<tr>
<td>Lead12 (Vertical)</td>
<td>500</td>
<td>440</td>
<td>380</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead6 (Horizontal)</td>
<td>300</td>
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<td>220</td>
<td>190</td>
</tr>
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<td>Lead6 (Vertical)</td>
<td>250</td>
<td>220</td>
<td>190</td>
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</tr>
</tbody>
</table>

Note 1: Stop positions are determined by the mechanical stops set at both ends.
Note 2: Secure the cable with a tie-band 80mm or less from the unit’s end face to prevent the cable from being subjected to excessive loads.
Note 3: The cable’s minimum bend radius is R30. The weights are 0.2kg heavier when equipped with a brake.
Note 4: When the stroke is longer than 600mm, 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.
Note 5: The belt cover’s left and right sides are asymmetrical. Therefore, if the motor mounting orientation is changed, the cover cannot be attached.

Controller: TS-S2 ▶ 490 ▶ TS-SH ▶ 490 ▶ TS-SD ▶ 500