

R5



Ordering method

R5

| Model | Cable entry location | Cable length ^{Note 1} |
|-------|--|---|
| | No entry: Standard (S) B: From the side | 3L: 3.5m 5L: 5m 10L: 10m 3K/5K/10K (Flexible cable) |

TSX

| Positioner ^{Note 2} | Driver: Power-supply voltage / Power capacity | LCD monitor | I/O selection | Battery |
|------------------------------|--|-------------------------------|---|---|
| TS-X | 105: 100V/100W or less 205: 200V/100W or less | No entry: None L: With LCD | NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ PT: PROFINET GW: No I/O board ^{Note 3} | B: With battery (Absolute) N: None (Incremental) |

SR1-X

| Controller | 05 | Usable for CE | I/O selection | Battery |
|------------|--|-------------------------------------|---|---|
| | Driver: Power capacity 05: 100W or less | No entry: Standard E: CE marking | N: NPN P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS | B: With battery (Absolute) N: None (Incremental) |

RDV-X

| Driver | 2 | 05 | RBR1 |
|--------|-----------------------------------|--|-------------------|
| | Power-supply voltage 2: AC200V | Driver: Power capacity 05: 100W or less | Regenerative unit |

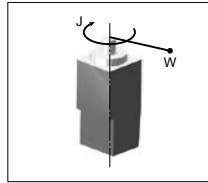
Note 1. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable. See P.594 for details on robot cable.
Note 2. See P.498 for DIN rail mounting bracket.
Note 3. Select this selection when using the gateway function. For details, see P.60.

Specifications

| | |
|---|------------------------------|
| AC servo motor output (W) | 50 |
| Repeatability (°) | +/-0.0083 |
| Maximum speed (°/sec) | 360 |
| Maximum allowable moment inertia (kgm ² [kgfcm ²]) | 0.12 [1.2] |
| Rated torque (Nm[kgfm]) | 5.29 [0.54] |
| Speed reduction ratio | 1/50 |
| Rotation range (°) | 360 |
| Cable length (m) | Standard: 3.5 / Option: 5.10 |
| Speed reducer type | Harmonic drive |
| Position detector | Resolvers |
| Resolution (Pulse/rotation) | 16384 |

Maximum allowable moment inertia

| Payload parameters W (kg) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--|------|------|------|------|------|------|------|------|------|------|
| Maximum allowable moment inertia J (kgfcm ²) | 0.12 | 0.24 | 0.36 | 0.48 | 0.60 | 0.72 | 0.84 | 0.96 | 1.08 | 1.20 |



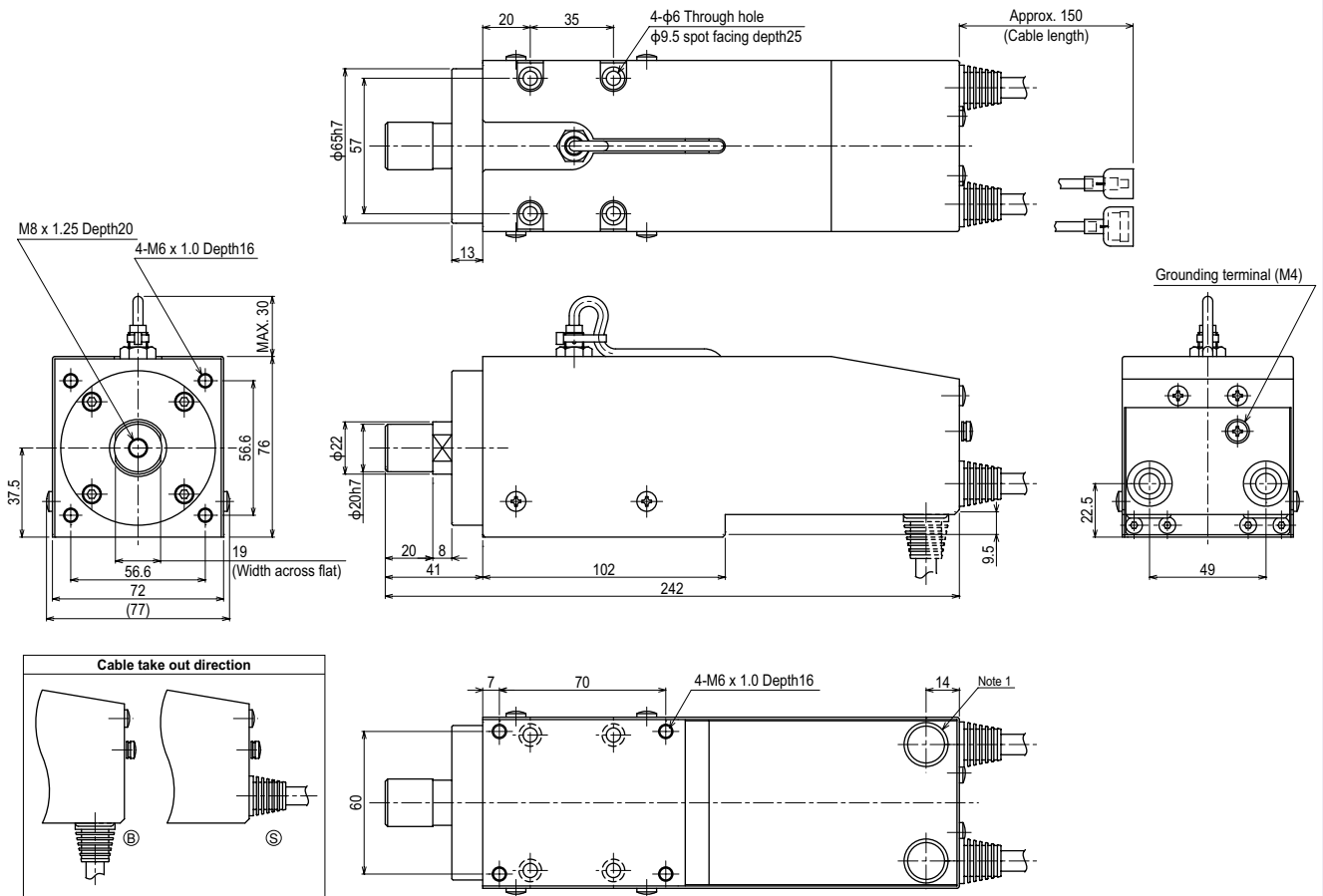
Note. When the weight of a tool or workpiece attached to the shaft R5 is W (kg), its moment of inertia (J) must be smaller than the values shown in the table above. (For example, enter 4kg if W is 3kg and J is 0.48kgf cm sec²) Enter the above mass parameter value for the controller, and optimum acceleration is automatically set based on this value.

Note. For calculation (equation) of the inertia moment, please refer to P.611.

Controller

| Controller | Operation method |
|-------------------------------------|--|
| SR1-X05 RCX221/222 RCX240/340 | Programming / I/O point trace / Remote command / Operation using RS-232C communication |
| TS-X105 | I/O point trace / Remote command |
| RDV-X205-RBR1 | Pulse train control |

R5



Weight (kg) 3.0 Note 1. The cable extraction port can be changed.

R10



Ordering method

R10

| Model | Cable entry location | Cable length ^{Note 1} |
|-------|--|---|
| | No entry: Standard (S) B: From the side | 3L: 3.5m 5L: 5m 10L: 10m 3K/5K/10K (Flexible cable) |

Note 1. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable.
See P.594 for details on robot cable.
Note 2. See P.498 for DIN rail mounting bracket.
Note 3. Select this selection when using the gateway function. For details, see P.60.

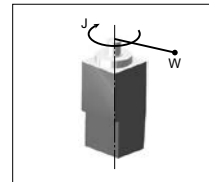
| TSX | SR1-X | RDV-X | RBR1 |
|--|--|-----------------------------------|--|
| Positioner ^{Note 2} TS-X | Controller | Driver | Regenerative unit |
| Driver: Power-supply voltage / Power capacity 105: 100V/100W or less 205: 200V/100W or less | Driver: Power capacity 05: 100W or less | Power-supply voltage 2: AC200V | Driver: Power capacity 05: 100W or less |
| LCD monitor No entry: None L: With LCD | Usable for CE No entry: Standard E: CE marking | | |
| I/O selection NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ PT: PROFINET GW: No I/O board ^{Note 3} | I/O selection N: NPN P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS | | |
| Battery B: With battery (Absolute) N: None (Incremental) | Battery B: With battery (Absolute) N: None (Incremental) | | |

Specifications

| | |
|---|------------------------------|
| AC servo motor output (W) | 100 |
| Repeatability (°) | +/-0.0083 |
| Maximum speed (°/sec) | 360 |
| Maximum allowable moment inertia (kgm ² [kgfcm ²]) | 0.36 [3.71] |
| Rated torque (Nm[kgfm]) | 10.78 [1.10] |
| Speed reduction ratio | 1/50 |
| Rotation range (°) | 360 |
| Cable length (m) | Standard: 3.5 / Option: 5.10 |
| Speed reducer type | Harmonic drive |
| Position detector | Resolvers |
| Resolution (Pulse/rotation) | 16384 |

Maximum allowable moment inertia

| Payload parameters W (kg) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--|------|------|------|------|------|------|------|------|------|------|
| Maximum allowable moment inertia J (kgfcm ²) | 0.25 | 0.49 | 0.74 | 0.99 | 1.24 | 1.48 | 1.73 | 1.98 | 2.23 | 2.47 |
| Payload parameters W (kg) | 11 | 12 | 13 | 14 | 15 | | | | | |
| Maximum allowable moment inertia J (kgfcm ²) | 2.72 | 2.97 | 3.22 | 3.46 | 3.71 | | | | | |



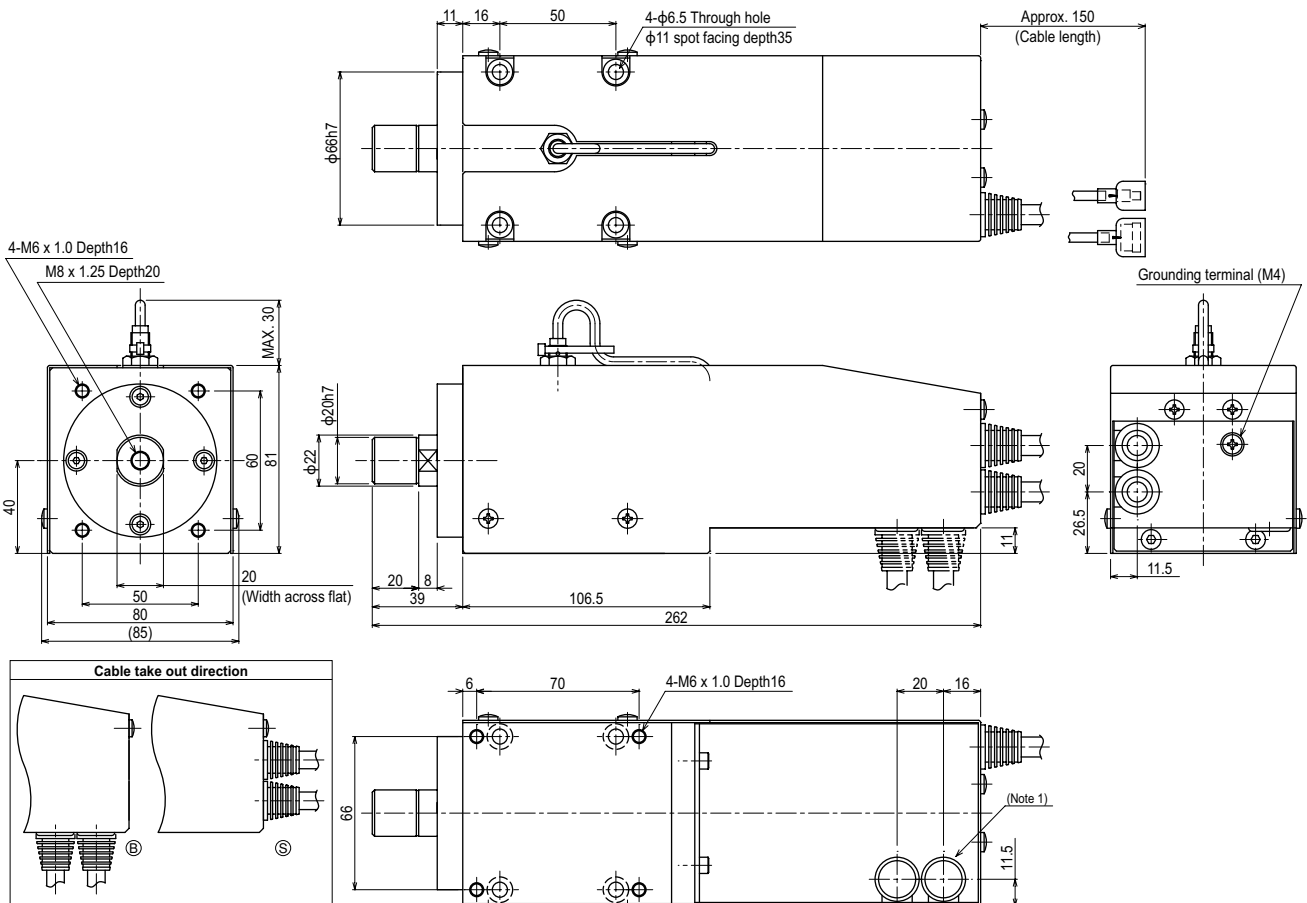
Note. When the weight of a tool or workpiece attached to the shaft R10 is W (kg), its moment of inertia (J) must be smaller than the values shown in the table above. (For example, enter 4kg if W is 3kg and J is 0.99kgf cm sec².) Enter the above mass parameter value for the controller, and optimum acceleration is automatically set based on this value.

Note. For calculation (equation) of the inertia moment, please refer to P.611.

Controller

| Controller | Operation method |
|-------------------------------------|--|
| SR1-X05 RCX221/222 RCX240/340 | Programming / I/O point trace / Remote command / Operation using RS-232C communication |
| TS-X105 | I/O point trace / Remote command |
| TS-X205 | Remote command |
| RDV-X205-RBR1 | Pulse train control |

R10



Weight (kg) 3.5

Note 1. The cable extraction port can be changed.

Controller

SR1-X ▶ 516 TS-X ▶ 490 RDV-X ▶ 504

R20



Ordering method

| | | | | | | | | | |
|------------|--------------|---|--|---|---|--|---|---|---|
| R20 | Model | Cable entry location No entry: Standard (S) B: From the side | Cable length ^{Note 1} 3L: 3.5m 5L: 5m 10L: 10m 3K/5K/10K (Flexible cable) | TSX | Positioner ^{Note 2} TS-X | Driver: Power-supply voltage / Power capacity 110: 100V/200W or less 210: 200V/200W or less | LCD monitor No entry: None L: With LCD | I/O selection NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ PT: PROFINET GW: No I/O board ^{Note 3} | Battery B: With battery (Absolute) N: None (Incremental) |
| | SR1-X | Controller | 10 | Driver: Power capacity 10: 200W or less | Usable for CE No entry: Standard E: CE marking | I/O selection N: NPN P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS | Battery B: With battery (Absolute) N: None (Incremental) | | |
| | RDV-X | Driver | 2 | Power-supply voltage 2: AC200V | 10 | Driver: Power capacity 10: 200W or less | RBR1 | Regenerative unit | |

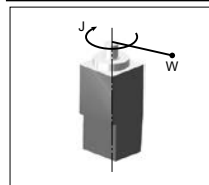
Note 1. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable.
See P.594 for details on robot cable.
Note 2. See P.498 for DIN rail mounting bracket.
Note 3. Select this selection when using the gateway function. For details, see P.60.

Specifications

| | |
|--|------------------------------|
| AC servo motor output (W) | 200 |
| Repeatability (°) | +/-0.0083 |
| Maximum speed (°/sec) | 360 |
| Maximum allowable moment inertia (kgm²[kgfcm²]) | 1.83 [18.7] |
| Rated torque (Nm[kgfm]) | 21.46 [2.19] |
| Speed reduction ratio | 1/50 |
| Rotation range (°) | 360 |
| Cable length (m) | Standard: 3.5 / Option: 5,10 |
| Speed reducer type | Harmonic drive |
| Position detector | - |
| Resolution (Pulse/rotation) | 16384 |

Maximum allowable moment inertia

| | | | | | | | | | | |
|---|------|------|------|------|-----|------|------|------|------|------|
| Payload parameters W (kg) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Maximum allowable moment inertia J (kgfcm²) | 0.93 | 1.8 | 2.8 | 3.7 | 4.6 | 5.6 | 6.5 | 7.4 | 8.4 | 9.3 |
| Payload parameters W (kg) | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Maximum allowable moment inertia J (kgfcm²) | 10.2 | 11.2 | 12.1 | 13.1 | 14 | 14.9 | 15.9 | 16.8 | 17.7 | 18.7 |



Note. When the weight of a tool or workpiece attached to the shaft R20 is W (kg), its moment of inertia (J) must be smaller than the values shown in the table above. (For example, enter 4kg if W is 3kg and J is 3.7kgf cm sec².) Enter the above mass parameter value for the controller, and optimum acceleration is automatically set based on this value.

Note. For calculation (equation) of the inertia moment, please refer to P.611.

Controller

| Controller | Operation method |
|-------------------------------------|--|
| SR1-X10 RCX221/222 RCX240/340 | Programming / I/O point trace / Remote command / Operation using RS-232C communication |
| TS-X110 | I/O point trace / Remote command |
| TS-X210 | Remote command |
| RDV-X210-RBR1 | Pulse train control |

R20

