



# R10



## Ordering method

<b>R10</b>	<b>Model</b>	<b>Cable entry location</b> No entry: Standard (S) B: From the side	<b>Cable length</b> <small>Note 1</small> 3L: 3.5m 5L: 5m 10L: 10m 3K/5K/10K (Flexible cable)	<b>TSX</b>	<b>Positioner</b> <small>Note 2</small> TSX: TS-X	<b>Driver: Power-supply voltage / Power capacity</b> 105: 100V/100W or less 205: 200V/100W or less	<b>LCD monitor</b> No entry: None L: With LCD	<b>I/O selection</b> NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ PT: PROFINET GW: No I/O board <small>Note 3</small>	<b>Battery</b> B: With battery (Absolute) N: None (Incremental)
	<b>SR1-X</b>	<b>Controller</b>	<b>05</b>	<b>Driver: Power capacity</b> 05: 100W or less	<b>Usable for CE</b> No entry: Standard E: CE marking	<b>I/O selection</b> N: NPN P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS	<b>Battery</b> B: With battery (Absolute) N: None (Incremental)		
	<b>RDV-X</b>	<b>Driver</b>	<b>2</b>	<b>Power-supply voltage</b> 2: AC200V	<b>05</b>	<b>Driver: Power capacity</b> 05: 100W or less	<b>RBR1</b>	<b>Regenerative unit</b>	

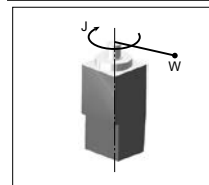
Note 1. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable.  
See P.692 for details on robot cable.  
Note 2. See P.600 for DIN rail mounting bracket.  
Note 3. Select this selection when using the gateway function.

## Specifications

AC servo motor output (W)	100
Repeatability (°)	+/-0.0083
Maximum speed (°/sec)	360
Maximum allowable moment inertia (kgm <sup>2</sup> [kgfcm <sup>2</sup> ])	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 <sup>2</sup> )	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 <sup>2</sup> )	2.72	2.97	3.22	3.46	3.71					



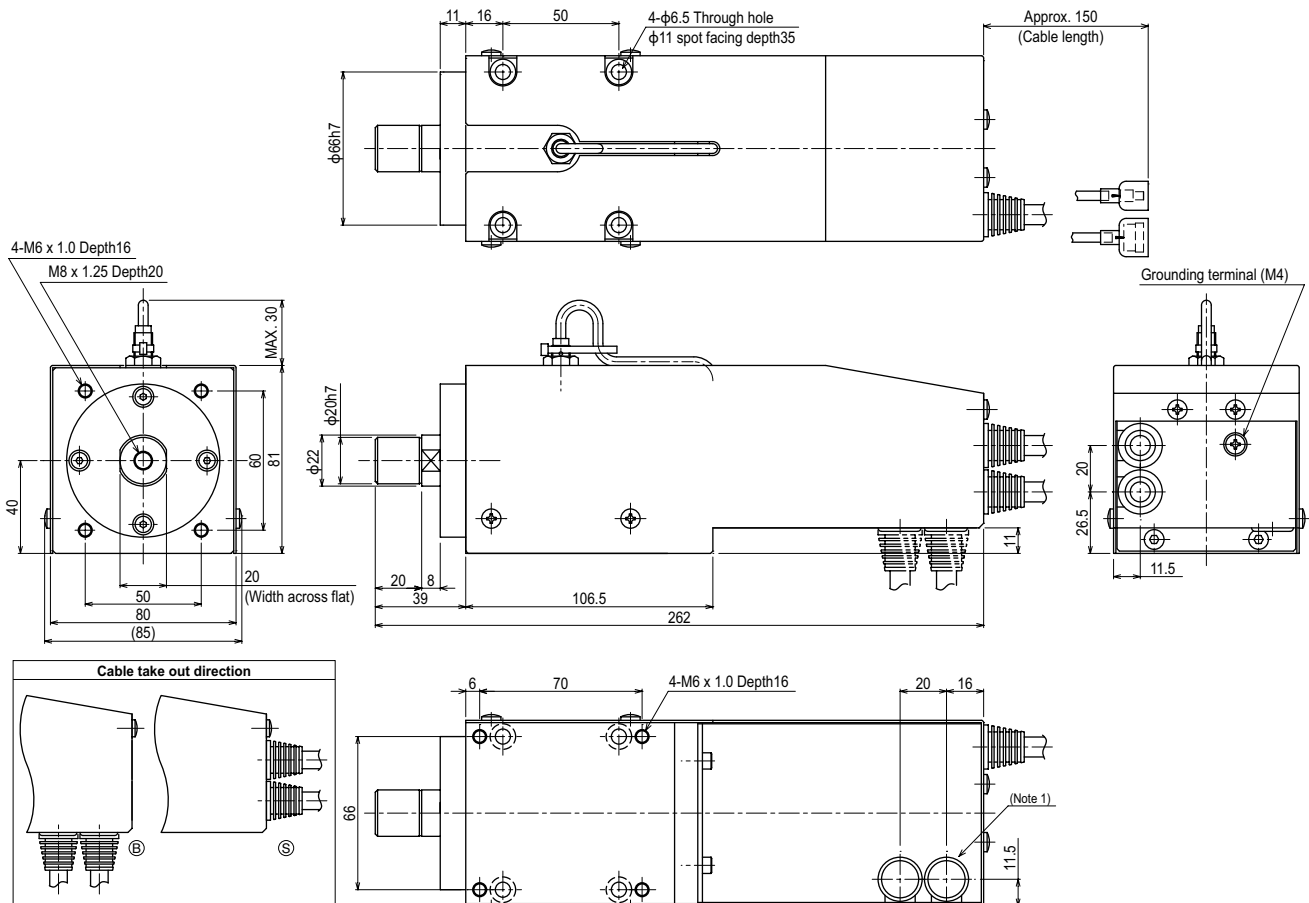
Note. When the weight of a tool or workpiece attached to the shaft R10 is W (kg), its moment of inertia (J) must be smaller than the values shown in the table above. (For example, enter 4kg if W is 3kg and J is 0.99kgf cm sec<sup>2</sup>.) Enter the above mass parameter value for the controller, and optimum acceleration is automatically set based on this value.

Note. For calculation (equation) of the inertia moment, please refer to P.708.

## Controller

Controller	Operation method
SR1-X05 RCX320 RCX340	Programming / I/O point trace / Remote command / Operation using RS-232C communication
TS-X105 TS-X205	I/O point trace / Remote command
RDV-X205-RBR1	Pulse train control

## R10



Weight (kg) 3.5 Note 1. The cable extraction port can be changed.

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## Ordering method

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

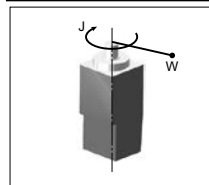
Note 1. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable.  
See P.692 for details on robot cable.  
Note 2. See P.600 for DIN rail mounting bracket.  
Note 3. Select this selection when using the gateway function.

## Specifications

AC servo motor output (W)	200
Repeatability (°)	+/-0.0083
Maximum speed (°/sec)	360
Maximum allowable moment inertia (kgm <sup>2</sup> [kgfcm <sup>2</sup> ])	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 (kgfcm <sup>2</sup> )	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 (kgfcm <sup>2</sup> )	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 sec<sup>2</sup>.) Enter the above mass parameter value for the controller, and optimum acceleration is automatically set based on this value.

## Controller

Controller	Operation method
SR1-X10 RCX320 RCX340	Programming / I/O point trace / Remote command / Operation using RS-232C communication
TS-X110 TS-X210	I/O point trace / Remote command
RDV-X210-RBR1	Pulse train control

Note. For calculation (equation) of the inertia moment, please refer to P.708.

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