

C14

Origin at non-motor side

Ordering method

C14						SR1-X	05					
Model	Lead	Brake	Option	Stroke	Cable length <small>Note 1</small>	Controller	Driver	Usable for CE	Regenerative unit <small>Note 3</small>	Input/Output selection	Battery	
	20: 20mm 10: 10mm 5: 5mm	No entry: With no brake BK: With brake	Origin position change None: Standard Z: Non-motor side	150 to 1050 (100mm pitch)	3L: 3.5m (Standard) 5L: 5m 10L: 10m	SR1-X TS-X <small>Note 2</small> RDX <small>Note 2</small>	05: 100W or less	No entry: Standard E: CE marking	No entry: None R: RG1	N: NPN P: PNP CC: CC-Link DN: DeviceNet PB: Profibus YC: YC-Link <small>Note 4</small>	No entry: None (Incremental specification) B: With battery (Absolute specification)	

Note 1. The robot cable is a standard cable and may be changed to a flex-resistant type (except RDX). See P.423 for more information on robot cables.

Note 2. To find TS-X, RDX selection options, see the ordering method listed on each controller's page (TS-X: P.355, RDX: P.365).

Note 3. When using SR1-X, if the moving stroke of the vertical model is 700mm or longer, a regeneration unit RG1 is required.

When using RDX, a regeneration unit RBR1 is required regardless of installation conditions.

Note 4. Available only for the slave.

Basic specifications

AC servo motor output (W)	100		
Repeatability <small>Note 1</small> (mm)	+/-0.01		
Deceleration mechanism	Ball screw (Class C7)		
Ball screw lead (mm)	20	10	5
Maximum speed <small>Note 2</small> (mm/sec)	1000	500	250
Maximum payload (kg)	Horizontal	30	55
	Vertical	4	10
Rated thrust (N)	Horizontal	84	169
	Vertical	169	339
Stroke (mm)	150 to 1050 (100mm pitch)		
Overall length (mm)	Horizontal	Stroke+285	
	Vertical	Stroke+315	
Maximum outside dimension of body cross-section (mm)	W136 x H96		
Cable length (m)	Standard: 3.5 / Option: 5, 10		
Degree of cleanliness	CLASS 10 <small>Note 3</small>		
Intake air (Nl/min)	30 to 90 <small>Note 4</small>		

Note 1. Positioning repeatability in one direction.

Note 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 1cf (0.1µm base), when suction blower is used.

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

Allowable overhang

Horizontal installation (Unit: mm)				Wall installation (Unit: mm)				Vertical installation (Unit: mm)			
	A	B	C		A	B	C		A	B	C
Lead 20				Lead 20				Lead 20			
5kg	2127	1384	968	5kg	1047	968	1553	1kg	600	600	
15kg	1177	459	425	15kg	387	264	748	2kg	1200	1200	
30kg	1247	242	291	30kg	206	97	633	4kg	1141	885	
40kg	857	179	215	40kg	127	49	363	8kg	621	943	
55kg	932	138	182	55kg	79	16	296	10kg	503	390	
50kg	2017	250	335	50kg	233	103	1033	10kg	574	445	
60kg	1477	134	192	60kg	75	13	433	15kg	370	287	
80kg	1452	106	157	80kg	35	0	242	20kg	268	208	

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

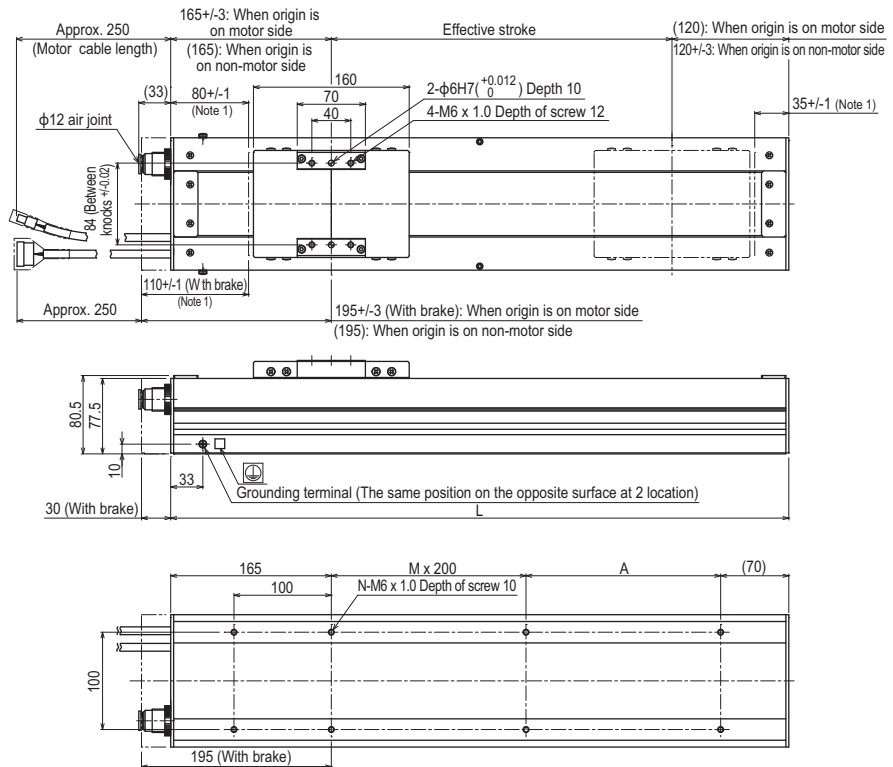
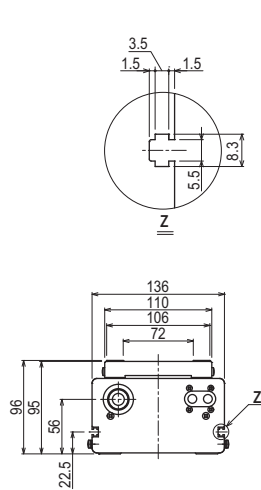
(Unit: N·m)		
MY	MP	MR
232	233	204

Controller

Controller	Operation method
SR1-X-05 <small>Note</small>	Programming / IO point trace / Remote command / Operation using RS-232C communication
TS-X205 <small>Note</small>	/O point trace
RDX-05-RBR1	Pulse train control

Note. Regenerative unit is required when the models used vertically and with 700mm or larger stroke.

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Effective stroke	150	250	350	450	550	650	750	850	950	1050			
L	435	535	635	735	835	935	1035	1135	1235	1335			
A	200	100	200	100	200	100	200	100	200	100			
M	0	1	1	2	2	3	3	4	4	5			
N	6	8	8	10	10	12	12	14	14	16			
Weight (kg) <small>Note 3</small>	9.2	10.5	11.7	13.0	14.3	15.5	16.8	18.1	19.3	20.6			
Maximum speed <small>Note 4</small> (mm/sec)	Lead 20	1000											
	Lead 10	500											
	Lead 5	250											
Speed setting										95%	75%	60%	50%

Note 1. Distance from both ends to the mechanical stopper.

Note 2. Minimum bend radius of motor cable is R50.

Note 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 4. 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.

APPLICATION
TRANSERO
Compact single-axis robots
FLIP-X
Single-axis robots
PHASER
Linear motor single-axis robots
XY-X
Cartesian robots
YK-XG
SCARA robots
YP-X
Pick & place robots
CLEAN
CONTROLLER INFORMATION
Single-axis
Cartesian
SCARA