APPLICATION

TRANSERVO
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

C14H

● Origin at non-motor side: Lead 20 • 10

■ Ordering method

C14H						SR1-X	10				
Model	Lead	Brake	Option	Stroke	Cable length Note 2	Controller	Driver	Usable for CE	Regenerative unit Note 4	Input/Output selection	Battery

- **Model**
- **Lead**: 20: 20mm / 10: 10mm / 5: 5mm
- **Brake**: No entry: With no brake / BK: With brake
- **Option**: Origin position change / None: Standard / Z: Non-motor side Note 1
- **Stroke**: 150 to 1050 (100mm pitch)
- **Cable length Note 2**: 3L: 3.5m (Standard) / 5L: 5m / 10L: 10m
- **Controller**: SR1-X Note 3 / TS-X Note 3 / RDX Note 3
- **Driver**: 10: 200W
- **Usable for CE**: No entry: Standard / E: CE marking
- **Regenerative unit Note 4**: No entry: None / R: RG1
- **Input/Output selection**: N: NPN / P: PNP / CC: CC-Link / DN: DeviceNet / PB: Profibus / YC: YC-Link No e 5
- **Battery**: No entry: None (Incremental specification) / B: With battery (Absolute specification)

Note 1. If using 5mm lead specifications then the origin point cannot be changed to the side opposite the motor.
Note 2. 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 3. 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 4. When using the vertical model of SR1-X, a regeneration unit RG1 is required. When using RDX, a regeneration unit RBR1 is required regardless of installation conditions.
Note 5. Available only for the slave.

■ Basic specifications

AC servo motor output (W)		200		
Repeatability Note 1 (mm)		+/-0.01		
Deceleration mechanism		Ball screw (Class C7)		
Ball screw lead (mm)		20	10	5
Maximum speed Note 2 (mm/sec)		1000	500	250
Maximum payload (kg)	Horizontal	40	80	100
	Vertical	8	20	30
Rated thrust (N)		170	341	683
Stroke (mm)		150 to 1050 (100mm pitch)		
Overall length (mm)	Horizontal	Stroke+349		
	Vertical	Stroke+379		
Maximum outside dimension of body cross-section (mm)		W136 × H96		
Cable length (m)		Standard: 3.5 / Option: 5, 10		
Degree of cleanliness		CLASS 10 Note 3		
Intake air (Nℓ/min)		30 to 90 Note		

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 Note

Horizontal installation (Unit: mm)

		A	B	C
Lead 20	10kg	2247	1675	958
	20kg	1397	855	528
	40kg	1037	445	318
Lead 10	30kg	1937	583	478
	50kg	1637	364	323
	80kg	1717	242	235
Lead 5	60kg	2443	311	313
	80kg	2193	242	250
	100kg	2000	202	213

Wall installation (Unit: mm)

		A	B	C
Lead 20	10kg	987	1210	1678
	20kg	497	548	958
	40kg	247	217	598
Lead 10	30kg	402	328	1238
	50kg	227	152	878
	80kg	119	74	678
Lead 5	60kg	197	108	1308
	80kg	127	53	1008
	100kg	85	20	788

Vertical installation (Unit: mm)

		A	C
Lead 20	4kg	2400	2008
	6kg	1687	1358
	8kg	1287	1033
Lead 10	10kg	1347	1088
	15kg	887	718
	20kg	657	538
Lead 5	20kg	747	608
	25kg	663	484
	30kg	491	396

Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.
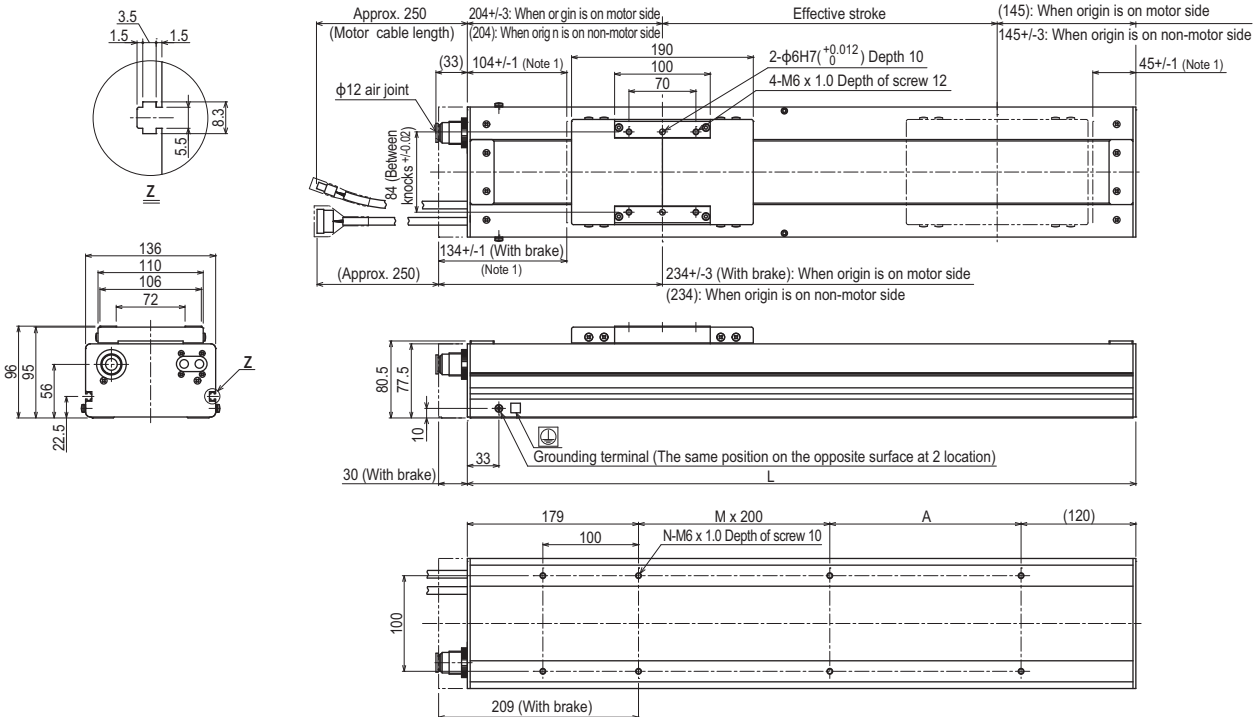
■ Static loading moment

(Unit: N·m)

MY	MP	MR
293	294	258

■ Controller

Controller	Operation method
SR1-X-10 Note	Programming / I/O point trace / Remote command / Operation using RS-232C communication
TS-X210 Note	I/O point trace
RDX-10-RBR1	Pulse train control

Note. Regenerative unit is required when used vertically.

C14H

Effective stroke	150	250	350	450	550	650	750	850	950	1050
L	499	599	699	799	899	999	1099	1199	1299	1399
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) Note 3	10.7	12.0	13.2	14.5	15.8	17.0	18.3	19.6	20.8	22.1
Maximum speed Note 4 (mm/sec) — Lead 20	1000						950	750	600	500
Lead 10	500						475	375	300	250
Lead 5	250						237	187	150	125
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.