



Ordering method

T9						SR1-X	05				
Model	Lead designation	Brake	Option	Stroke	Cable length ^{Note 2}	Controller	Driver	Usable for CE	Regenerative unit ^{Note 4}	I/O selection	Battery
	30: 30mm 20: 20mm 10: 10mm 5: 5mm	No entry: No brakes BK: Brakes provided	Origin position: None: Standard Z: Non-motor side ^{Note 1} Grease type: None: Standard GC: Clean	150 to 1050 (50mm pitch)	3L: 3.5m (Standard) 5L: 5m 10L: 10m	SR1-X TS-X ^{Note 3}	05: 100W or less 105 (TS-X)	No entry: Standard E: CE marking	No entry: None R: RG1 (SR1-X) R: RGT (TS-X)	N: NPN P: PNP CC: CC-Link DN: DeviceNet PB: Profibus YC: YC-Link ^{Note 5}	No entry: None (Incremental specification) B: Battery (Absolute specification)

- Note 1. If selecting 5mm lead specifications then the origin point cannot be changed to the non-motor side.
- Note 2. The robot cable is standard cable, but can be changed to bend-resistant cable. (consult factory)
- Note 3. To find TS-X, selection options, see the ordering method listed on each controller's page.
- Note 4. When using the SR1-X, TS-X, a regenerative unit is required when the movement stroke is 700mm or more and used vertically.
- Note 5. Available only for the SR1-X slave.

Basic specifications

AC servo motor output (W)	100				
Repeatability ^{Note 1} (mm)	+/-0.01				
Deceleration mechanism	Ball screw (Class C7)				
Ball screw lead (mm)	30	20	10	5	
Maximum speed ^{Note 2} (mm/sec)	1800	1200	600	300	
Maximum payload (kg)	Horizontal	15	30	55	80
	Vertical	-	4	10	20
Rated thrust (N)	56	84	169	339	
Stroke (mm)	150 to 1050 (50mm pitch)				
Overall length (mm)	Horizontal	Stroke+259			
	Vertical	Stroke+289			
Maximum dimensions of cross section of main unit (mm)	W94 x H98				
Cable length (m)	Standard: 3.5 / Option: 5.10				
Linear guide type	4 rows of circular arc grooves x 1 rail				
Position detector	Resolvers ^{Note 3}				
Resolution (Pulse/rotation)	16384				

- 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. Position detectors (resolvers) are common to incremental and absolute specifications. If the controller has a backup function then it will be absolute specifications.

Allowable overhang^{Note}

Horizontal installation (Unit: mm)				Wall installation (Unit: mm)				Vertical installation (Unit: mm)				
	A	B	C		A	B	C		A	C		
Lead 30	5kg	864	501	383	5kg	348	384	776	Lead 20	1kg	600	600
	15kg	491	156	140	15kg	87	40	306		2kg	1098	1098
	5kg	1292	505	462	5kg	416	388	1186		4kg	545	545
Lead 20	15kg	572	158	151	15kg	92	42	386	Lead 10	4kg	594	594
	30kg	455	73	75	30kg	0	0	61		8kg	280	280
	20kg	617	119	127	10kg	193	132	910		10kg	217	217
Lead 10	40kg	422	53	59	20kg	53	0	400	Lead 5	10kg	221	221
	55kg	420	36	40	30kg	0	0	109		15kg	135	135
	50kg	722	42	47	10kg	197	133	2360		20kg	92	92
Lead 5	60kg	657	33	37	20kg	54	0	985				
	80kg	577	23	25	30kg	0	0	427				

- Note 1. 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

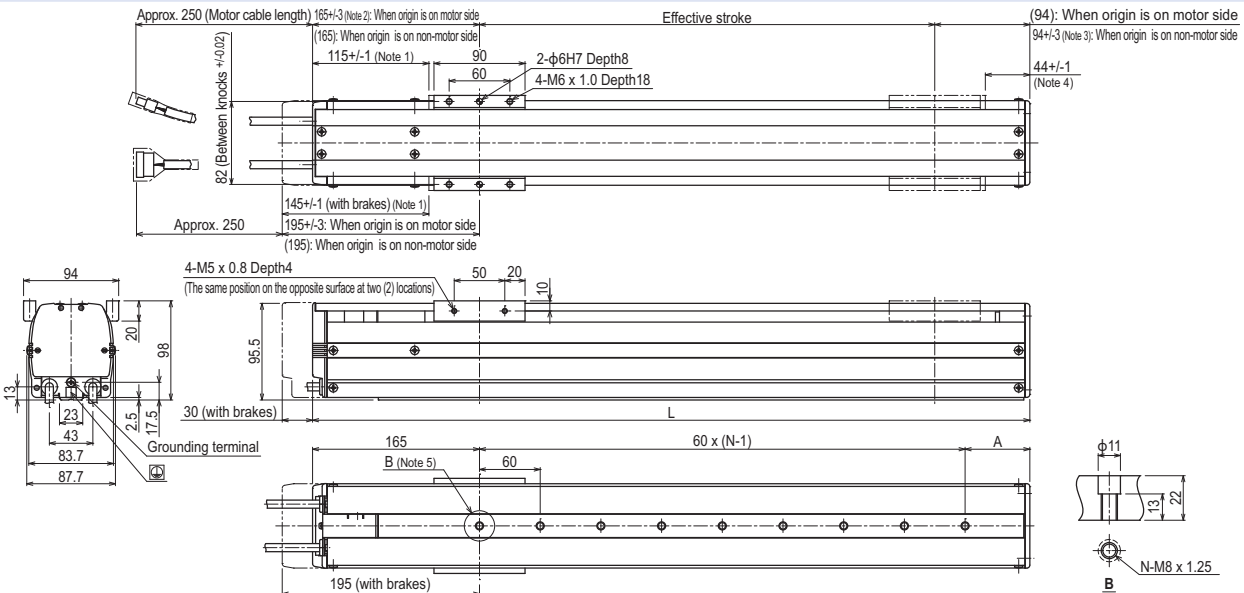
MY	MP	MR
86	133	117

Controller

Controller	Operation method
SR1-X-05 ^{Note 6}	Programming / I/O point trace (BCD) / Remote command / Operation using RS-232C communication
TS-X105 ^{Note 5}	I/O point trace (BCD)

- Note 1. Regenerative unit is required when the models used vertically and with 700mm or larger stroke.

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- Note 1. Distance from both ends to the mechanical stopper.
- Note 2. 167.5+/-4 when the high lead specification (Lead 30) is used.
- Note 3. 94+/-4 when the high lead specification (Lead 30) is used.
- Note 4. 41.5+/-1 when the high lead specification (Lead 30) is used.
- Note 5. When installing the unit, washers, etc., cannot be used in the φ11 counter bore hole.
- Note 6. Minimum bend radius of motor cable is R5.
- Note 7. Weight of models with no brake. The weight of brake-attached models is 0.5 kg heavier than the models with no brake shown in the table.
- Note 8. 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 above.

Effective stroke	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	609	459	509	559	609	659	709	759	809	859	909	959	1009	1059	1109	1159	1209	1259	1309
A	64	54	44	94	84	74	64	54	44	94	84	74	64	54	44	94	84	74	64
N	4	5	6	6	7	8	9	10	11	11	12	13	14	15	16	16	17	18	19
Weight (kg) ^{Note 7}	5.5	5.9	6.2	6.6	6.9	7.3	7.6	8.0	8.3	8.7	9.0	9.4	9.7	10.0	10.3	10.7	11.0	11.4	11.7
Maximum speed (mm/sec) ^{Note 8}	Lead 30	1800										1440		1170		900		810	
	Lead 20	1200										960		780		600		540	
	Lead 10	600										480		390		300		270	
	Lead 5	300										240		195		150		135	
Speed setting	-										80%		65%		50%		45%		