

N18



Ordering method

N18-20 - [] - [] - [] - [] - [] - SR1-X - 20 - [] - [] - R - [] - []

Model	Lead designation	Cable carrier entry location ^{Note 1}	Cable carrier specification	Option	Stroke	Cable length ^{Note 2}	Controller	Driver	Usable for CE marking	Regenerative unit	I/O selection	Battery
		RH: Horizontal, right LH: Horizontal, left RW: Wall, right LW: Wall, left	S: Standard C: Cable carrier M: Optional Cable carrier	Origin position: None: R side (Standard) Z: L side Wall: None: L side (Standard) Z: R side Grease type: None: Standard GC: Clean	500 to 2500 (100mm pitch)	3L: 3.5m (Standard) 5L: 5m 10L: 10m	SR1-X TS-X ^{Note 3}	20: 400 to 600W 220 (TS-X)	No entry: Standard E: CE marking	R: RG1 (SR1-X) R: RGT (TS-X)	N: NPN P: PNP CC: CC-Link DN: DeviceNet PB: Profibus YC: YC-Link ^{Note 4}	No entry: None (Incremental specification) B: Battery (Absolute specification)

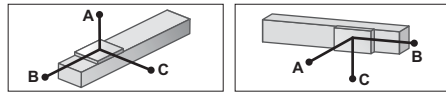
Note 1. To find information on cable carrier extraction directions see P. 7.
 Note 2. The robot cable is standard cable, but can be changed to bend-resistant cable. (consult factory)
 Note 3. To find TS-X selection options, see the ordering method listed on each controller's page.
 Note 4. Available only for the SR1-X slave.

Basic specifications

AC servo motor output (W)	400
Repeatability ^{Note 1} (mm)	+/-0.01
Deceleration mechanism	Ball screw $\phi 20$ (Class C7)
Ball screw lead (mm)	20
Maximum speed ^{Note 2} (mm/sec)	1200
Maximum payload (kg)	80
Rated thrust (N)	339
Stroke (mm)	500 to 2500 (100mm pitch)
Overall length (mm)	Stroke+362
Maximum dimensions of cross section of main unit (mm)	W180 x H115
Cable length (m)	Standard: 3.5 / Option: 5,10
Linear guide type	4 rows of circular arc grooves x 2 rail
Position detector	Resolvers ^{Note 3}
Resolution (Pulse/rotation)	16384

Note 1. Repeatability for single oscillation.
 Note 2. The maximum speed may not be reached when the moving distance is short.
 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.

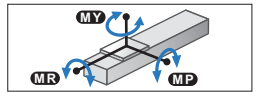
Allowable overhang^{Note}



Lead 20	Horizontal installation (Unit: mm)				Wall installation (Unit: mm)			
	A	B	C		A	B	C	
30kg	3045	1629	1902		30kg	1928	1553	3045
50kg	2602	961	1150		50kg	1157	885	2602
80kg	2193	586	716		80kg	707	509	2193

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



(Unit: N·m)		
MY	MP	MR
1161	1163	1021

Controller

Controller	Operation method
SR1-X-20-R	Programming / I/O point trace (BCD) / Remote command / Operation using RS-232C communication
TS-X220-R	I/O point trace (BCD)

Cable carrier for users

S type Standard cable carrier

M type Optional cable carrier

Note. Cannot pass more than 3 urethane hoses ($\phi 6 \times 4$).
 Space for optional cable for users

N18: Horizontal installation / Standard Cable carrier specification **RH**

Cross-section E-E: Shows cable carrier profile with dimensions: 179, 156, 61, 58, 36, 115, 22, 180, 114, 65. Includes note: Use M8 x 1.25 hex socket head bolt with length head bolt with length (under head) of 40mm or more.

Cross-section of cable carrier: Shows cable carrier profile with dimensions: 40, 14, $\phi 6.5$, $\phi 8.2$.

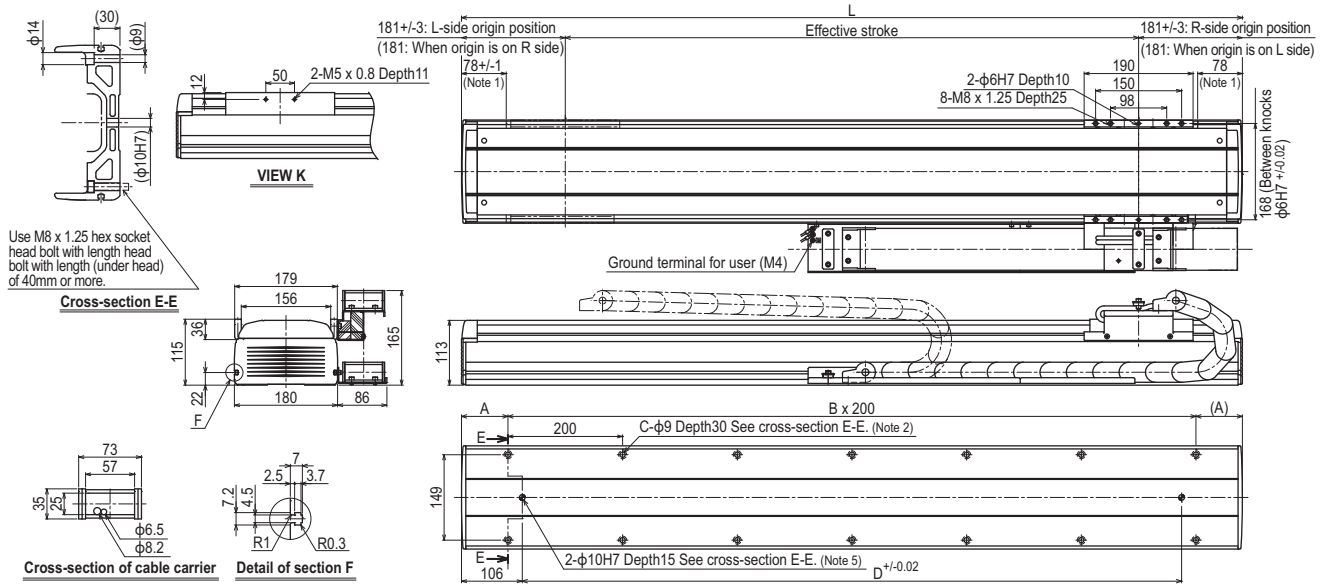
Detail of section F: Shows cable carrier detail with dimensions: 7.2, 4.5, 2.5, 3.7, R1, R0.3.

Side View: Shows cable carrier with dimensions: 181+/-3 L-side origin position, 78+/-1 (Note 1), Effective stroke L, 181+/-3 R-side origin position, 2- $\phi 6H7$ Depth10, 8-M8 x 1.25 Depth25, 190, 150, 98, 78 (Note 1), 168 (Between knicks $\phi 6H7$ +/-0.02), Ground terminal for user (M4), (Note 7), B x 200, C- $\phi 9$ Depth30 See cross-section E-E. (Note 2), 2- $\phi 10H7$ Depth15 See cross-section E-E. (Note 5), D +/-0.02.

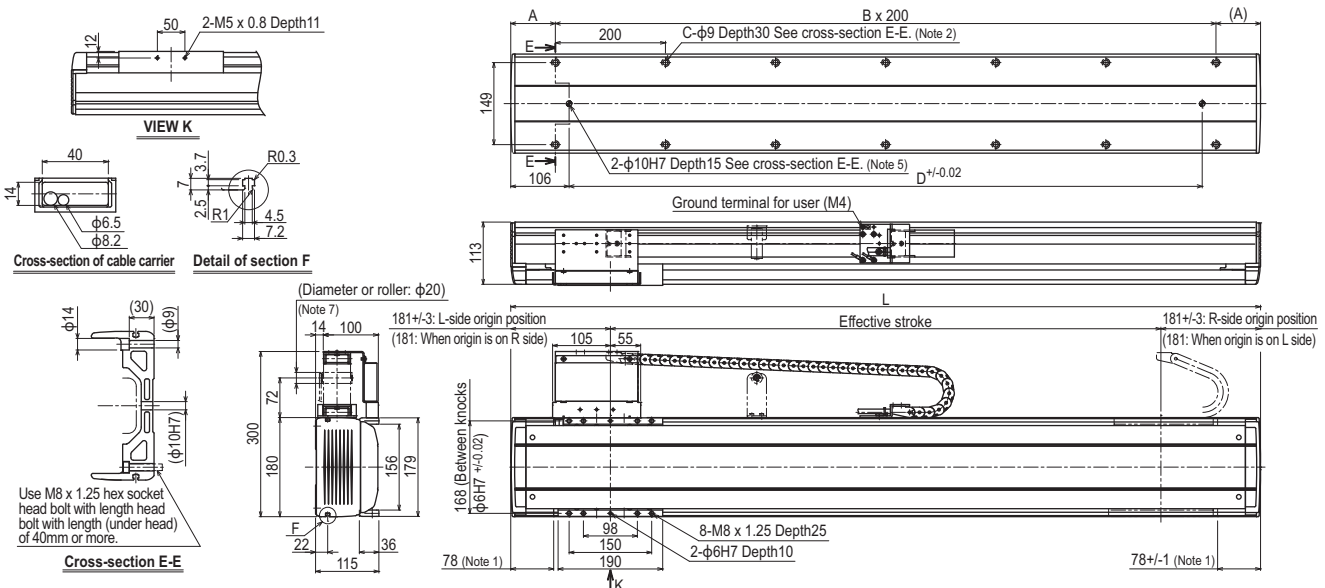
Note 1. Distance from both ends to the mechanical stopper.
 Note 2. When using $\phi 9$ holes for installation, do not use a washer, spring washer, etc. in the main unit.
 Note 3. When shipped from the factory, the horizontal model has the origin on the right side and the wall model has the origin on the left side. (This diagram shows the machine whose cable carrier taken out from right.)
 Note 4. If the model is a standard cable carrier specification, it is not possible to pass 3 or more $\phi 6 \times 4$ urethane air hoses.
 Note 5. When using a $\phi 10H7$ hole, make sure that the pin does not go into deeper than as shown in the drawing.
 Note 6. Contact us for vertical installation.
 Note 7. For the robot with more than 2,100 stroke, a roller is installed to prevent the cable carrier hanging.
 Note 8. Weight of models with no brake. The weight of brake-attached models is 1 kg heavier than the models with no brake shown in the table.

Effective stroke	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500
L	862	962	1062	1162	1262	1362	1462	1562	1662	1762	1862	1962	2062	2162	2262	2362	2462	2562	2662	2762	2862
A	131	81	131	81	131	81	131	81	131	81	131	81	131	81	131	81	131	81	131	81	131
B	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13
C	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28
D	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650
Weight (kg) ^{Note 8}	27	29	31	33	35	37	39	41	43	45	47	48	50	52	54	56	58	60	62	64	66

N18: Horizontal installation / Optional Cable carrier specification RH



N18: Wall installation / Standard Cable carrier specification RW



N18: Wall installation / Optional Cable carrier specification RW

