

# N18D

Double carriage

## Ordering method

**N18D - 20**

Model	Lead designation	Installation direction	Cable carrier specification	Option	Stroke	Cable length	Controller <sup>Note 1</sup>
		H: Horizontal installation W: Wall installation	S: Standard Cable carrier M: Optional Cable carrier	Grease type None: Standard GC: Clean	250 to 2250 (100mm pitch)	3L: 3.5m 5L: 5m 10L: 10m 3K/5K/10K Flexible cable <sup>Note 3</sup>	RCX320 RCX222HP SR1-X (2 units) <sup>Note 2</sup> TS-X (2 units) <sup>Note 2</sup> RDV-X (2 units) <sup>Note 2</sup>

Note 1. To find controller selection options, see the ordering method on each controller page.

Note 2. 2 units are required when using SR1-X, TS-X or RDV-X.

Note 3. If a flexible cable is needed for the SR1-X, TS-X, or RDV-X, then select 3K/5K/10K. On the RCX320/RCX222HP, the standard cable is a flexible cable, so enter 3L/5L/10L when ordering.

## Specifications

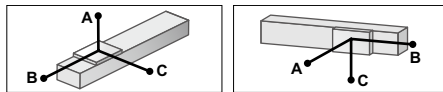
AC servo motor output (W)	400
Repeatability <sup>Note 1</sup> (mm)	+/-0.01
Deceleration mechanism	Ball screw $\phi 20$
Ball screw lead (mm)	20
Maximum speed <sup>Note 2</sup> (mm/sec)	1200
Maximum payload (kg)	80
Rated thrust (N)	339
Stroke (mm)	250 to 2250 (100 pitch)
Overall length (mm)	Stroke+362
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 <sup>Note 3</sup>
Resolution (Pulse/rotation)	16384

Note 1. Positioning repeatability in one direction.

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.

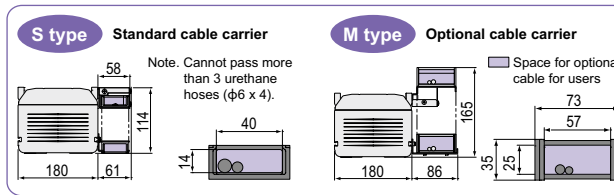
## Allowable overhang<sup>Note</sup>



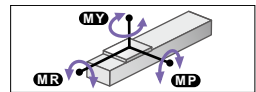
Horizontal installation (Unit: mm)	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)	Wall installation (Unit: mm)			
	A	B	C		A	B	C	
Lead 20	30kg	3045	1629	1902	30kg	1928	1553	3045
	50kg	2602	961	1150	50kg	1157	885	2602
	80kg	2193	586	716	80kg	707	509	2193

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

## Cable carrier for users



## Static loading moment



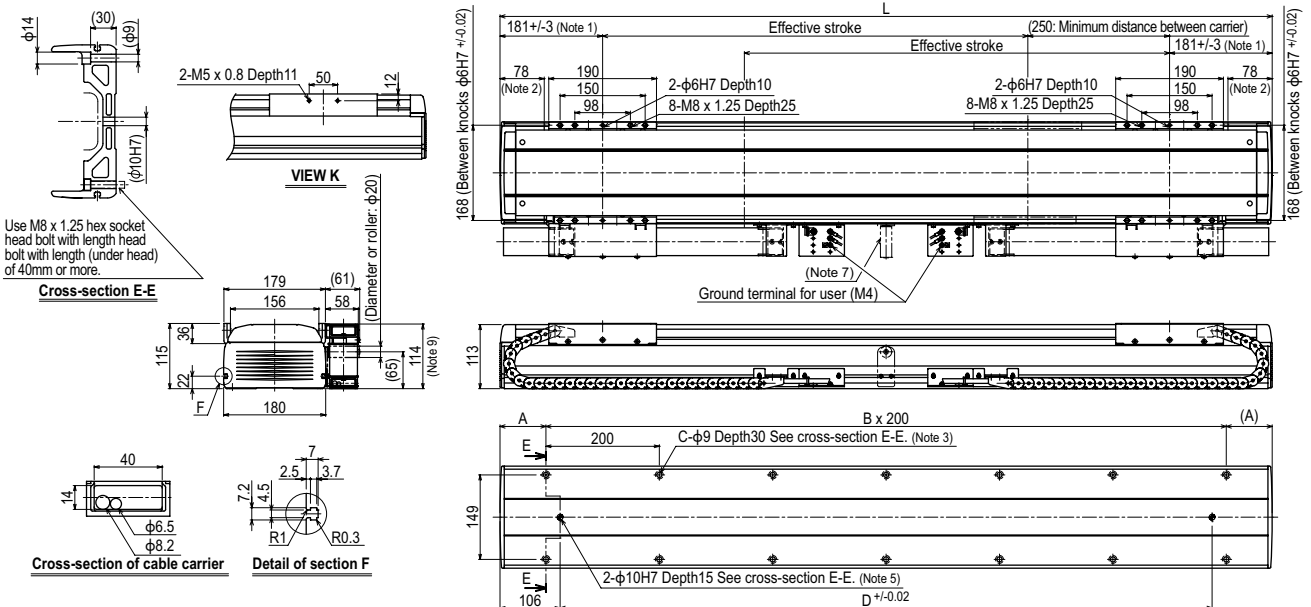
(Unit: N·m)		
MY	MP	MR
1161	1163	1021

## Controller

Controller	Operation method
RCX320-R RCX222HP-R	Programming / I/O point trace / Remote command / Operation using RS-232C communication
SR1-X20-R <sup>Note</sup>	I/O point trace / Remote command
TS-X220-R <sup>Note</sup>	I/O point trace / Remote command
RDV-X20-RBR1 <sup>Note</sup>	Pulse train control

Note. 2 units are required when using SR1-X, TS-X or RDV-X.

## N18D: Horizontal installation / Standard Cable carrier specification



Note 1. Position of table carriage when searched to the origin.

Note 2. Stop positions are determined by the mechanical stoppers at both ends.

Note 3. When using  $\phi 9$  holes for installation, do not use a washer, spring washer, etc. in the main unit.

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 2,050 stroke, a roller to prevent the cable carrier from hanging is provided.

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.

Note 9. Depending on the stroke and the operating conditions, the cable carrier bending radius might be larger, making it higher than the dimensions shown in the diagram.

Effective stroke	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250
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) <sup>Note 8</sup>	35	37	39	41	43	45	47	48	50	52	54	56	58	60	62	64	66	68	70	72	74

Articulated robots  
YA

Linear conveyor modules  
LCM

Single-axis robots  
CX

Multi-axis single axis actuator  
Robotomy

Compact single-axis robots  
TRANSERO

Single-axis robots  
FLIP-X

Linear motor single-axis robots  
PHASER

Cartesian robots  
XY-X

SCARA robots  
YK-X

Pick & place robots  
YP-X

CLEAN

CONTROLLER

INFORMATION

T type

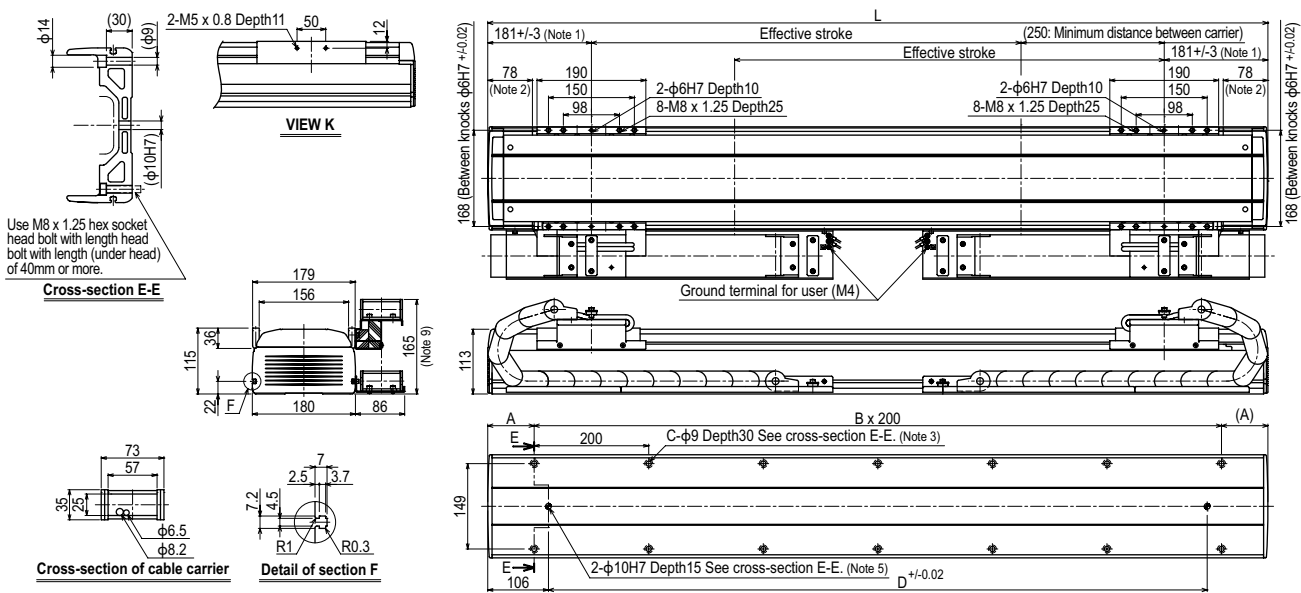
F type

GF type

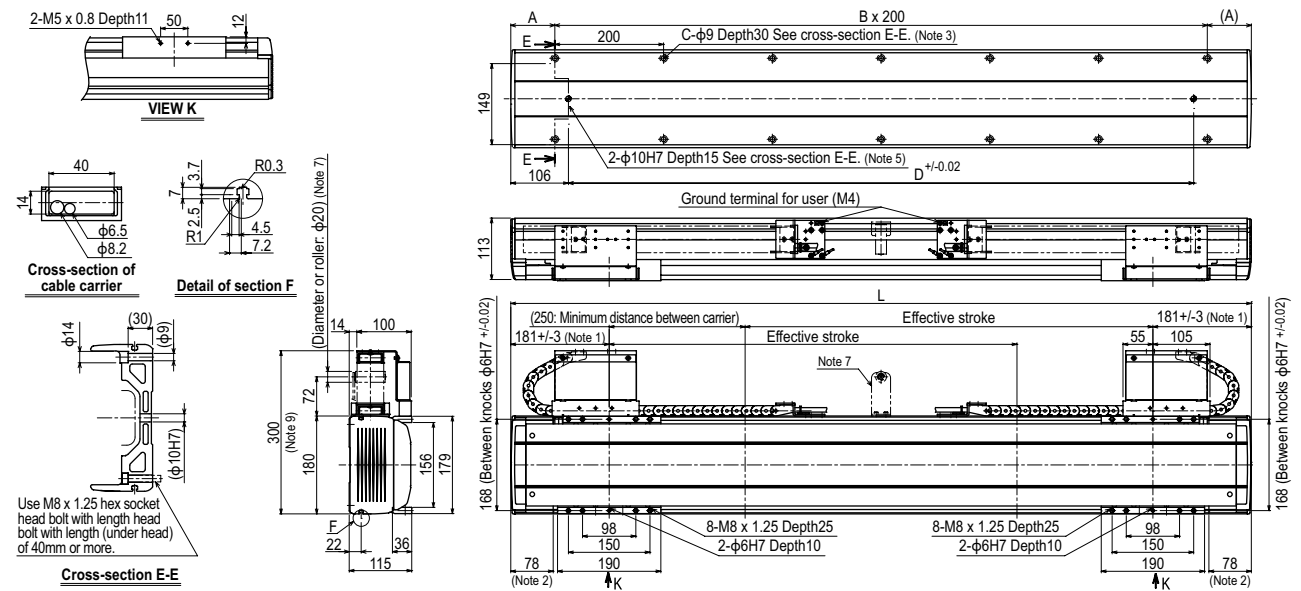
N type

BR type

N18D: Horizontal installation / Optional Cable carrier specification



N18D: Wall installation / Standard Cable carrier specification



N18D: Wall installation / Optional Cable carrier specification

