

N15



Ordering method

N15- 20

Model	Lead designation	Cable carrier entry location ^{Note 1}	Cable carrier specification	Origin position change	Grease type	Stroke	Cable length ^{Note 2}
		RH: Horizontal, right LH: Horizontal, left RW: Wall, right LW: Wall, left	S: Standard M: Optional C: Cable carrier	Hori- zontal None R side (Standard) Z: L side None L side (Standard) Z: R side	None: Standard GC: Clean	500 to 2000 [100mm pitch]	3L: 3.5m 5L: 5m 10L: 10m 3K/5K/10K [Flexible cable]

TSX	220	R			
Positioner ^{Note 3} TSX: TS-X	Driver: Power-supply voltage / Power capacity 220: 200V/400 to 600W	Regenerative unit R: With RGT	LCD monitor No entry: None L: With LCD	I/O selection NP: NPN PN: PNP CC: CC-Link DN: DeviceNet TM EP: EtherNet/IP TM PT: PROFINET GW: No I/O board ^{Note 4}	Battery B: With battery (Absolute) N: None (Incremental)
SR1-X	20		R		
Controller	Driver: Power capacity 20: 400 to 600W	Usable for CE No entry: Standard E: CE marking	Regenerative unit R: With RG1	I/O selection N: NPN P: PNP CC: CC-Link DN: DeviceNet TM PB: PROFIBUS	Battery B: With battery (Absolute) N: None (Incremental)
RDV-X	2		20	RBR1	
Driver	Power-supply voltage 2: AC200V		Driver: Power capacity 20: 600W or less	Regenerative unit	

Note 1. To find information on cable carrier extraction directions see P.293.
Note 2. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable.
See P.692 for details on robot cable.
Note 3. See P.600 for DIN rail mounting bracket.
Note 4. Select this selection when using the gateway function.

Specifications

AC servo motor output (W)	400
Repeatability ^{Note 1} (mm)	+/-0.01
Deceleration mechanism	Ball screw $\phi 15$
Ball screw lead (mm)	20
Maximum speed ^{Note 2} (mm/sec)	1200
Maximum payload (kg)	50
Rated thrust (N)	339
Stroke (mm)	500 to 2000 (100mm pitch)
Overall length (mm)	Stroke+330
Maximum dimensions of cross section of main unit (mm)	W145 x H120
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. 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^{Note}

	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)		
	A	B	C	A	B	C
Lead 20						
10kg	3048	2322	1259	1258	1823	2449
30kg	1489	841	500	428	545	1039
50kg	1278	544	344	248	289	749

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

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

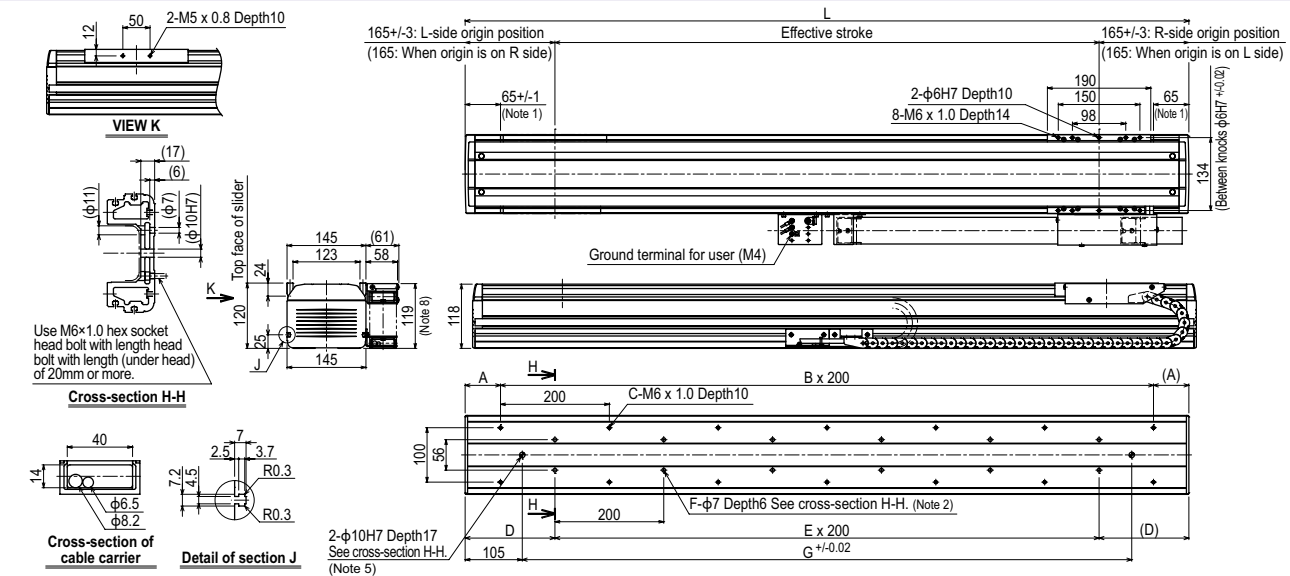
Static loading moment

	MY	MP	MR
(Unit: N·m)	691	692	608

Controller

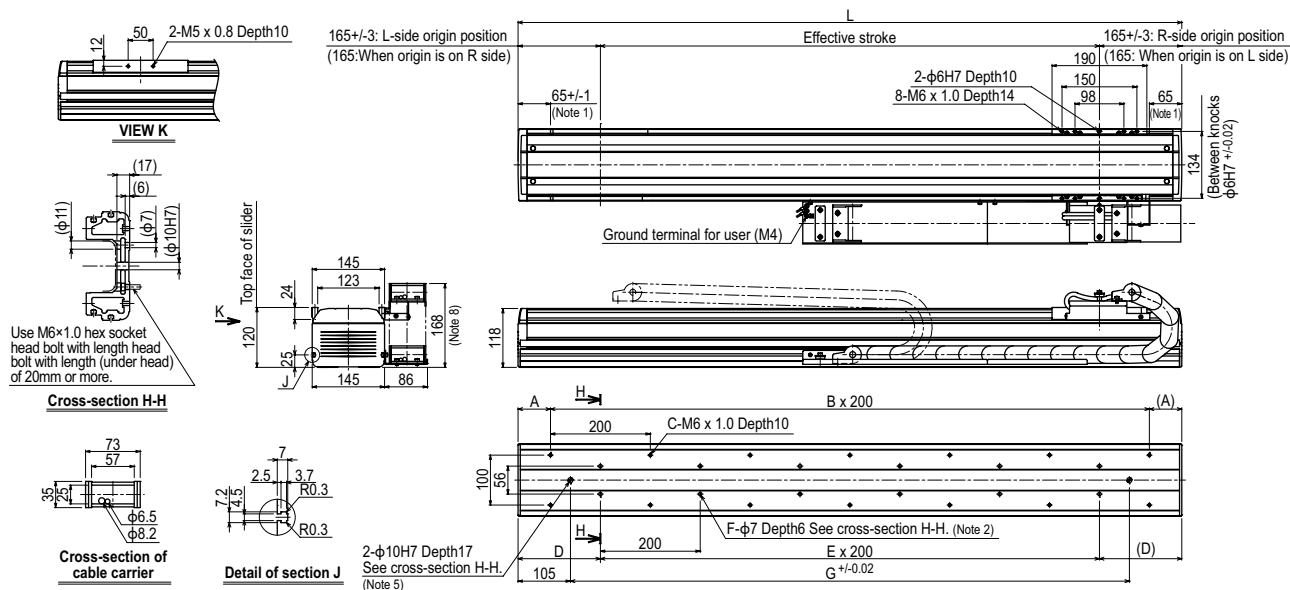
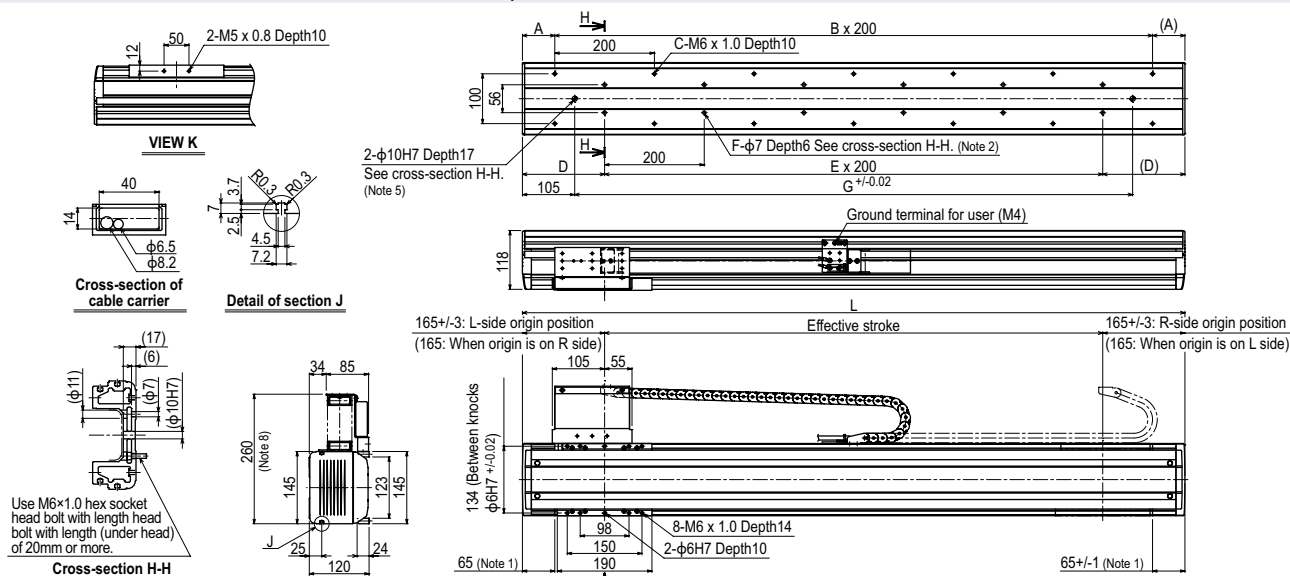
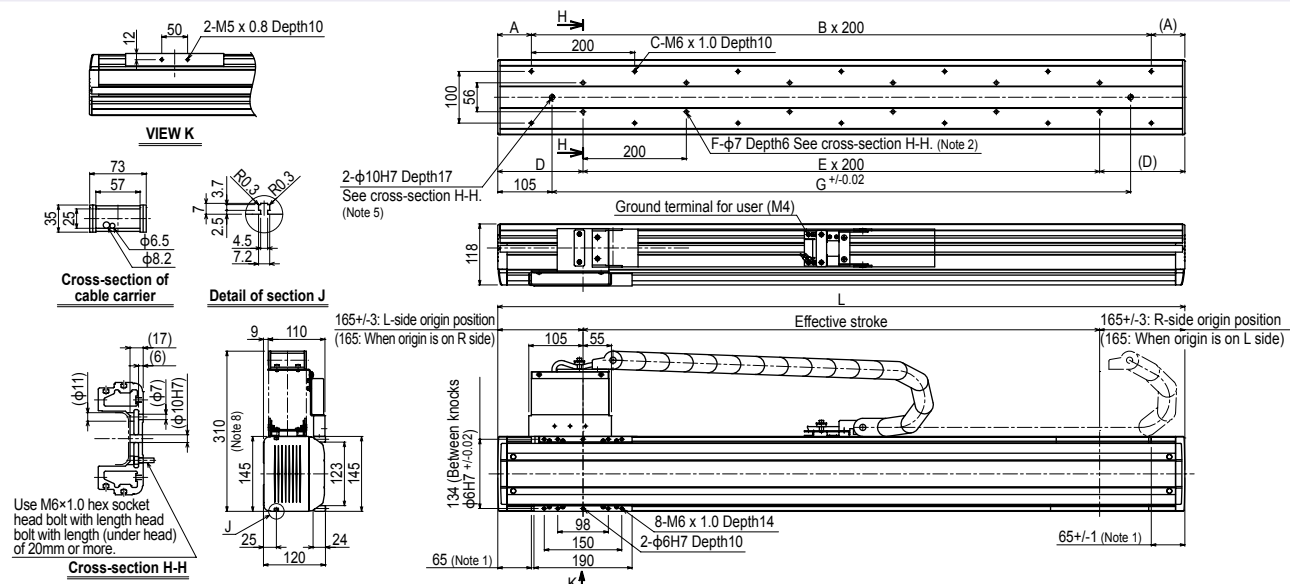
Controller	Operation method
SR1-X20-R RCX320 RCX340	Programming / I/O point trace / Remote command / Operation using RS-232C communication
TS-X220-R	I/O point trace / Remote command
RDV-X220-RBR1	Pulse train control

N15: Horizontal installation / Standard Cable carrier specification RH



Note 1. Stop positions are determined by the mechanical stoppers at both ends.
Note 2. When using $\phi 7$ 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. 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 8. 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	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
L	830	930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330
A	15	65	15	65	15	65	15	65	15	65	15	65	15	65	15	65
B	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11
C	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24
D	115	165	115	165	115	165	115	165	115	165	115	165	115	165	115	165
E	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10
F	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22
G	620	720	820	920	1020	1120	1220	1320	1420	1520	1620	1720	1820	1920	2020	2120
Weight (kg) ^{Note 7}	19	20	22	23	24	26	27	29	30	32	33	35	36	38	39	40

N15: Horizontal installation / Optional Cable carrier specification **RH**N15: Wall installation / Standard Cable carrier specification **RW**N15: Wall installation / Optional Cable carrier specification **RW**

N18



Ordering method

N18- 20							TSX	220	R					
Model	Lead designation	Cable carrier entry location ^{Note1}	Cable carrier specification	Origin position change	Grease type	Stroke	Positioner ^{Note3} TSX: TS-X	Driver: Power-supply voltage / Power capacity 220: 200V/400 to 600W	Regenerative unit R: With RGT	LCD monitor No entry: None L: With LCD	I/O selection	Battery		
		RH: Horizontal, right LH: Horizontal, left RW: Wall, right LW: Wall, left	S: Standard C: Cable carrier M: Optional C: Cable carrier	Horizontal None: R side (Standard) Z: L side Wall None: L side (Standard) Z: R side	None: Standard GC: Clean	500 to 2500 (100mm pitch)					NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ PT: PROFINET GW: No I/O board ^{Note4}	B: With battery (Absolute) N: None (Incremental)		
						Cable length ^{Note2} 3L: 3.5m 5L: 5m 10L: 10m 3K/5K/10K (Flexible cable)								
							SR1-X	20		R				
							Controller	Driver: Power capacity 20: 400 to 600W	Usable for CE No entry: Standard E: CE marking	Regenerative unit R: With RG1	I/O selection	Battery		
											N: NPN P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS	B: With battery (Absolute) N: None (Incremental)		
							RDV-X	2		20		RBR1		
							Driver	Power-supply voltage 2: AC200V		Driver: Power capacity 20: 600W or less	Regenerative unit			

Note 1. To find information on cable carrier extraction directions see P.293.
 Note 2. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable.
 See P.692 for details on robot cable.
 Note 3. See P.600 for DIN rail mounting bracket.
 Note 4. Select this selection when using the gateway function.

Specifications

AC servo motor output (W)	400
Repeatability ^{Note1} (mm)	±0.01
Deceleration mechanism	Ball screw φ20
Ball screw lead (mm)	20
Maximum speed ^{Note2} (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 × H115
Cable length (m)	Standard: 3.5 / Option: 5.10
Linear guide type	4 rows of circular arc grooves × 2 rail
Position detector	Resolvers ^{Note3}
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}

Horizontal installation (Unit: mm)				Wall installation (Unit: mm)			
	A	B	C		A	B	C
Lead 20				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

S type	Standard cable carrier	M type	Optional cable carrier
	Note. Cannot pass more than 3 urethane hoses (φ6 × 4).	Space for optional cable for users	

Static loading moment

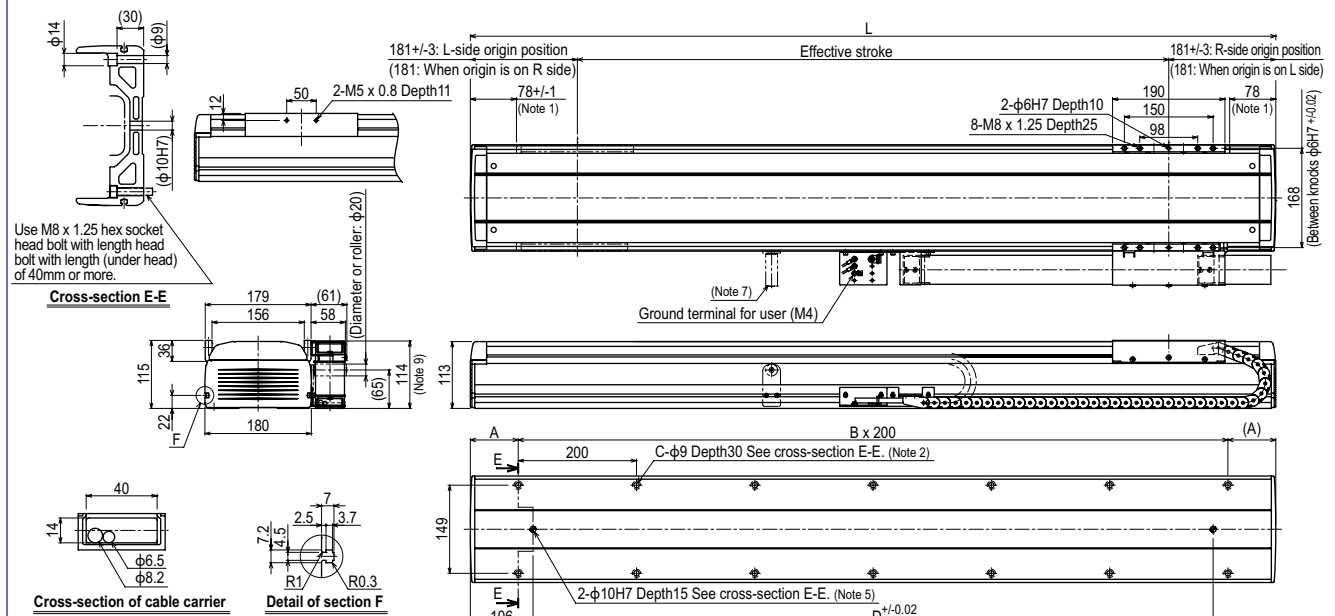
(Unit: N·m)		
MY	MP	MR
1161	1163	1021

Controller

Controller	Operation method
SR1-X20-R RCX320 RCX340	Programming / I/O point trace / Remote command / Operation using RS-232C communication
TS-X220-R	I/O point trace / Remote command
RDV-X220-RBR1	Pulse train control

N18: Horizontal installation / Standard Cable carrier specification

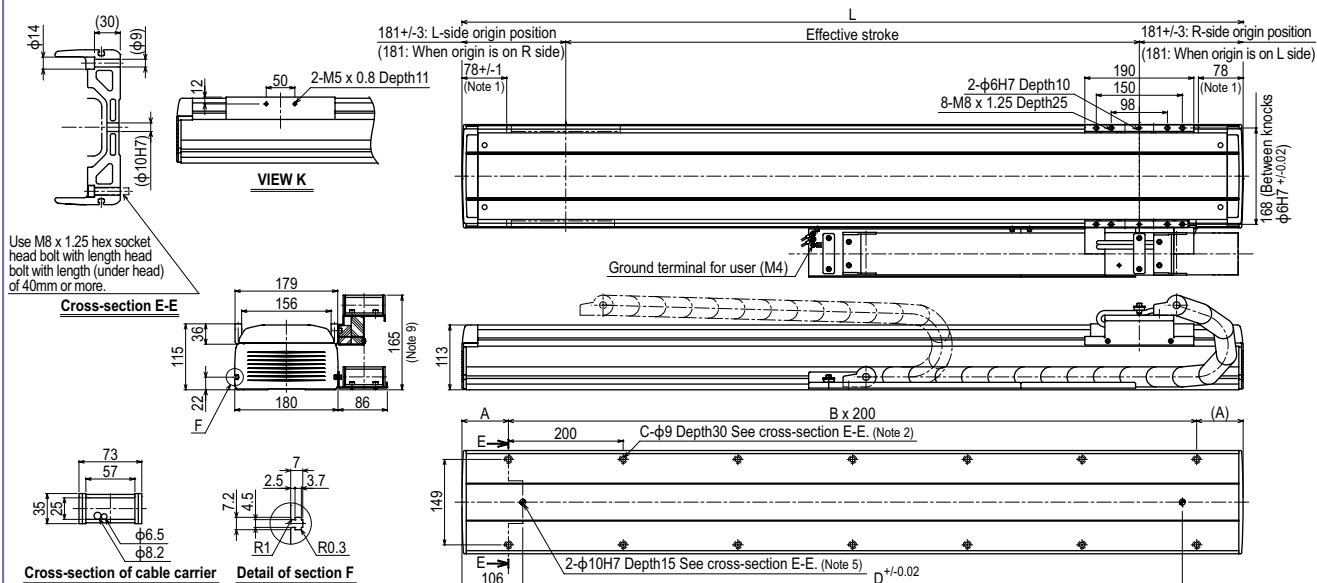
RH



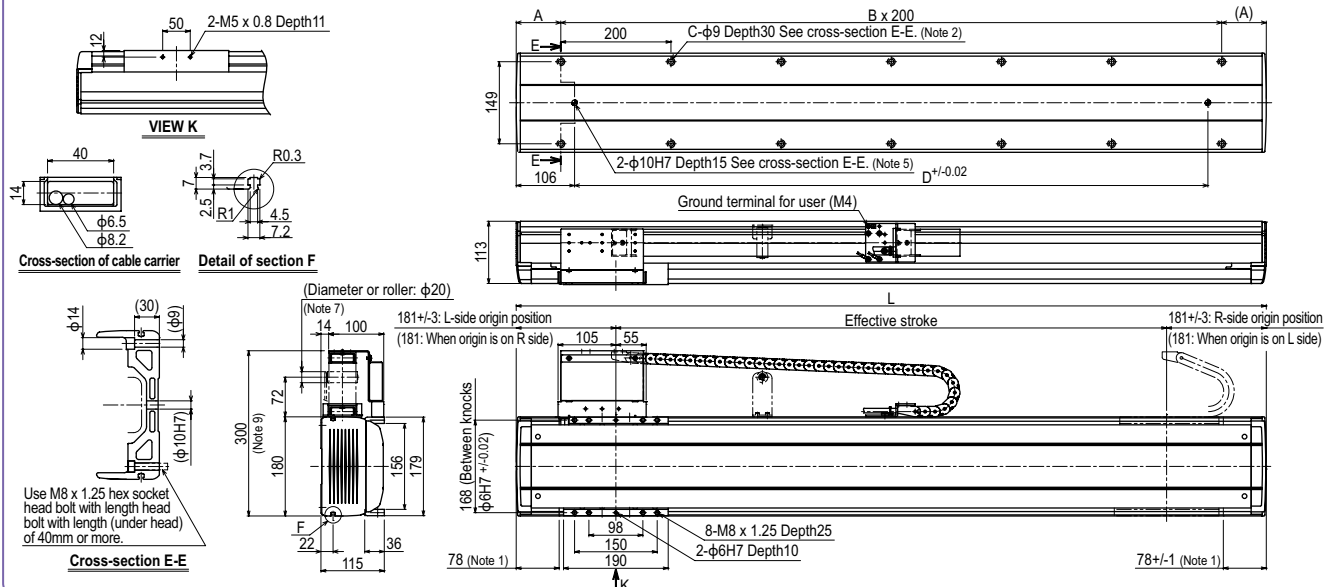
Note 1. Stop positions are determined by the mechanical stoppers at both ends.
 Note 2. When using φ9 holes for installation, do not use a washer, spring washer, etc. in the main unit.
 Note 3. When shipped from the factory, the horizontal model has the origin on the right side and the wall model has 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 φ6 × 4 urethane air hoses.
 Note 5. When using a φ10H7 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.
 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	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) ^{Note8}	27	29	31	33	35	37	39	41	43	45	47	48	50	52	54	56	58	60	62	64	66

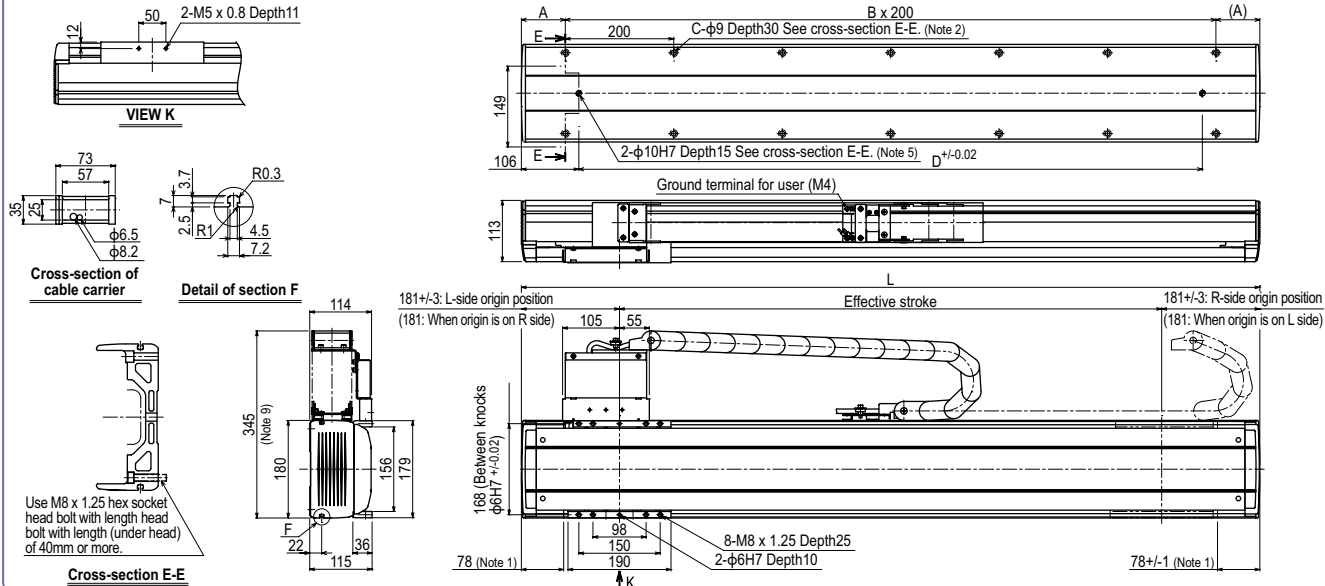
N18: Horizontal installation / Optional Cable carrier specification RH



N18: Wall installation / Standard Cable carrier specification RW



N18: Wall installation / Optional Cable carrier specification RW



N18D

Double carriage

Ordering method

N18D - 20

Model	Lead designation	Installation direction	Cable carrier specification	Option	Stroke	Cable length	Controller ^{Note 1}
		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) ^{Note 3}	RCX320 SR1-X (2 units) ^{Note 2} TS-X (2 units) ^{Note 2} RDV-X (2 units) ^{Note 2}

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 the standard cable is a flexible cable, so enter 3L/5L/10L when ordering.

Specifications

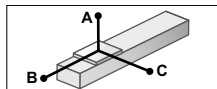
AC servo motor output (W)	400
Repeatability ^{Note 1} (mm)	+/-0.01
Deceleration mechanism	Ball screw $\phi 20$
Ball screw lead (mm)	20
Maximum speed ^{Note 2} (mm/sec)	1200
Maximum payload (kg)	80
Rated thrust (N)	339
Stroke (mm)	250 to 2250 (100 pitch)
Overall length (mm)	Stroke+362
Maximum dimensions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

Note 1. Positioning repeatability in one direction.

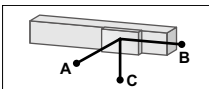
Note 2. The maximum speed may not be reached when the moving distance is short.

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^{Note}



Horizontal installation	(Unit: mm)			
	A	B	C	
Lead 20	3045	1629	1902	
30kg	3045	1629	1902	
50kg	2602	961	1150	
80kg	2193	586	716	



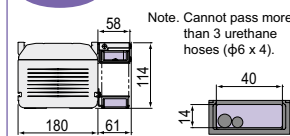
Wall installation	(Unit: mm)			
	A	B	C	
Lead 20	1928	1553	3045	
30kg	1928	1553	3045	
50kg	1157	885	2602	
80kg	707	509	2193	

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

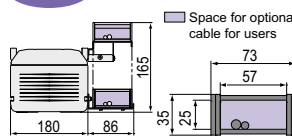
S type

Standard cable carrier

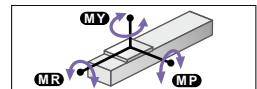


M type

Optional cable carrier



Static loading moment



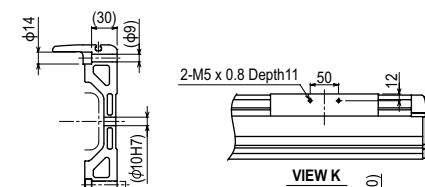
(Unit: N·m)			
MY	MP	MR	
1161	1163	1021	

Controller

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

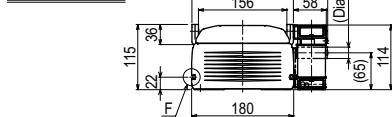
Note. 2 units are required when using SR1-X, TS-X or RDV-X.

N18D: Horizontal installation / Standard Cable carrier specification



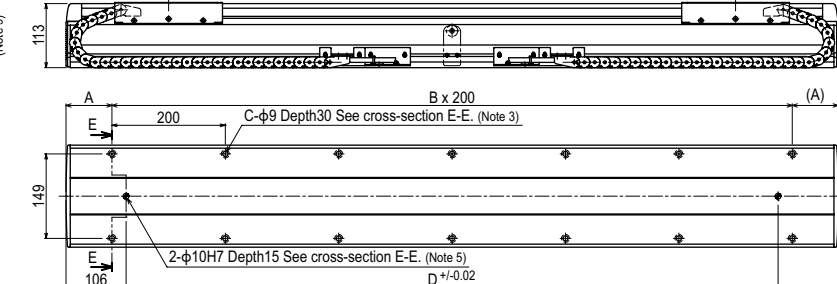
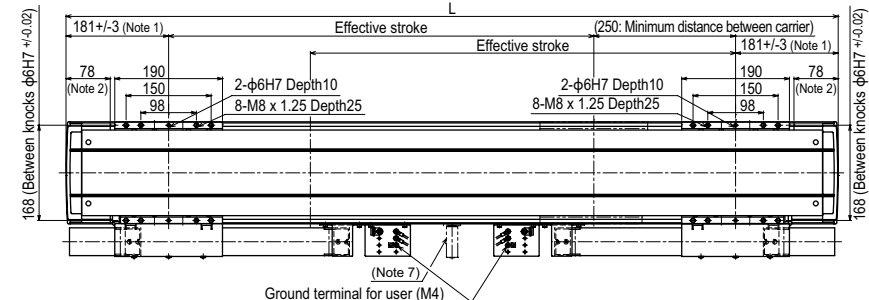
Use M8 x 1.25 hex socket head bolt with length head bolt with length (under head) of 40mm or more.

Cross-section E-E



Cross-section of cable carrier

Detail of section F



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 φ9 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 φ6 x 4 urethane air hoses.

Note 5. When using a φ10H7 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) ^{Note 8}	35	37	39	41	43	45	47	48	50	52	54	56	58	60	62	64	66	68	70	72	74

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