

F17

- High lead: Lead 40
- Origin on the non-motor side is selectable

Note. Upper robot cable (U) on models with brakes is a special order item, so please consult our sales office or sales representative for assistance.
(External dimensions: overall length + 20 mm)

Ordering method

F17

Model	Lead designation	Brake	Cable entry location	Origin position change	Grease type	Stroke	Cable length
	40: 40mm 20: 20mm 10: 10mm	No entry: No brakes BK: Brakes provided	No entry: Standard (S) U: From the top R: From the right L: From the left	None: Standard Z: Non-motor side	None: Standard GC: Clean	Lead 20/10: 200 to 1250 (50mm pitch) Lead 40: 200 to 1450 (50mm pitch)	3L: 3.5m 5L: 5m 10L: 10m 3K/5K/10K (Flexible cable)

- Note 1. The model with a lead of 40mm cannot select specifications with brake (vertical specifications).
Note 2. Upper robot cable (U) on models equipped with brake is a special-order item.
Note 3. 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 4. See P.600 for DIN rail mounting bracket.
Note 5. The robot with the high lead specifications (lead 40) needs a regenerative unit.
Note 6. Select this selection when using the gateway function.

TSX

Positioner
TSX: TS-X

220

Driver: Power-supply voltage
Power capacity
220: 200V/400 to 600W

Regenerative unit

No entry: None
R: With RGT

LCD monitor

No entry: None
L: With LCD

I/O selection

NP: NPN
PN: PNP
CC: CC-Link
DN: DeviceNet™
EP: EtherNet/IP™
PT: PROFINET
GW: No I/O board

Battery

B: With battery (Absolute)
N: None (Incremental)

SR1-X

Controller

Driver: Power capacity
20: 400 to 600W

Usable for CE

No entry: Standard
E: CE marking

Regenerative unit

No entry: None
R: With RGT

I/O selection

N: NPN
P: PNP
CC: CC-Link
DN: DeviceNet™
PB: PROFIBUS

Battery

B: With battery (Absolute)
N: None (Incremental)

RDV-X

Driver

Power-supply voltage
2: AC200V

20

Driver: Power capacity
20: 600W or less

Regenerative unit

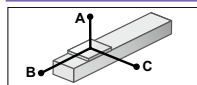
No entry: None
RBR1 (Horizontal)
RBR2 (Vertical)

Specifications

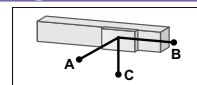
AC servo motor output (W)	400
Repeatability (mm)	+/-0.01
Deceleration mechanism	Ball screw $\phi 20$
Ball screw lead (mm)	40 20 10
Maximum speed (mm/sec)	2400 1000 (1200) 600
Maximum payload (kg)	Horizontal 40 80 120 Vertical 15 35
Rated thrust (N)	169 339 678
Stroke (mm)	200 to 1450 (50mm pitch)
Overall length (mm)	Horizontal Stroke+375 Stroke+365 Vertical Stroke+395
Maximum dimensions of cross section of main unit (mm)	W168 x H100
Cable length (m)	Standard: 3.5 / Option: 5.10
Linear guide type	4 rows of circular arc grooves x 2 rail
Position detector	Resolvers
Resolution (Pulse/rotation)	16384

- Note 1. Repeatability for single oscillation.
Note 2. When the stroke exceeds 800mm, although depending on the moving range, the ball screw may resonate (critical speed). In that case, make adjustment to lower the speed on the program using the maximum speed given in the below table as a guide.
Note 3. To operate the unit at a speed exceeding 1,000mm/sec. (Max. speed), a regeneration unit RG1 is required.
Note 4. Longer than 1250mm stroke can be handled by the high lead specification (Lead 40) only.
Note 5. Position detectors (resolvers) are common to incremental and absolute specifications. If the controller has a backup function then it will be absolute specifications.

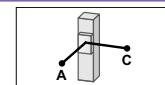
Allowable overhang



Horizontal installation			(Unit: mm)
		A	B
Lead 40	10kg	3540	2753
	20kg	2541	1357
	40kg	2639	661
	30kg	2647	894
	50kg	1770	521
	80kg	1391	312
	60kg	2443	430
	100kg	2000	243
	120kg	1841	197



Wall installation		(Unit: mm)		
		A	B	C
Lead 40 20 Lead 20 Lead 40 20 Lead 20 Lead 40 20 Lead 20 Lead 40	10kg	2022	2670	3501
	20kg	1202	1283	2483
	40kg	752	587	2516
	30kg	987	820	2578
	50kg	574	447	1685
	80kg	342	237	1263
	60kg	535	355	2443
	100kg	283	169	2000
	120kg	220	123	1841



Vertical installation (Unit: mm)		
	A	C
Lead 10	5kg	3000
	10kg	2447
	15kg	1650
	15kg	1782
	25kg	1054
	35kg	742

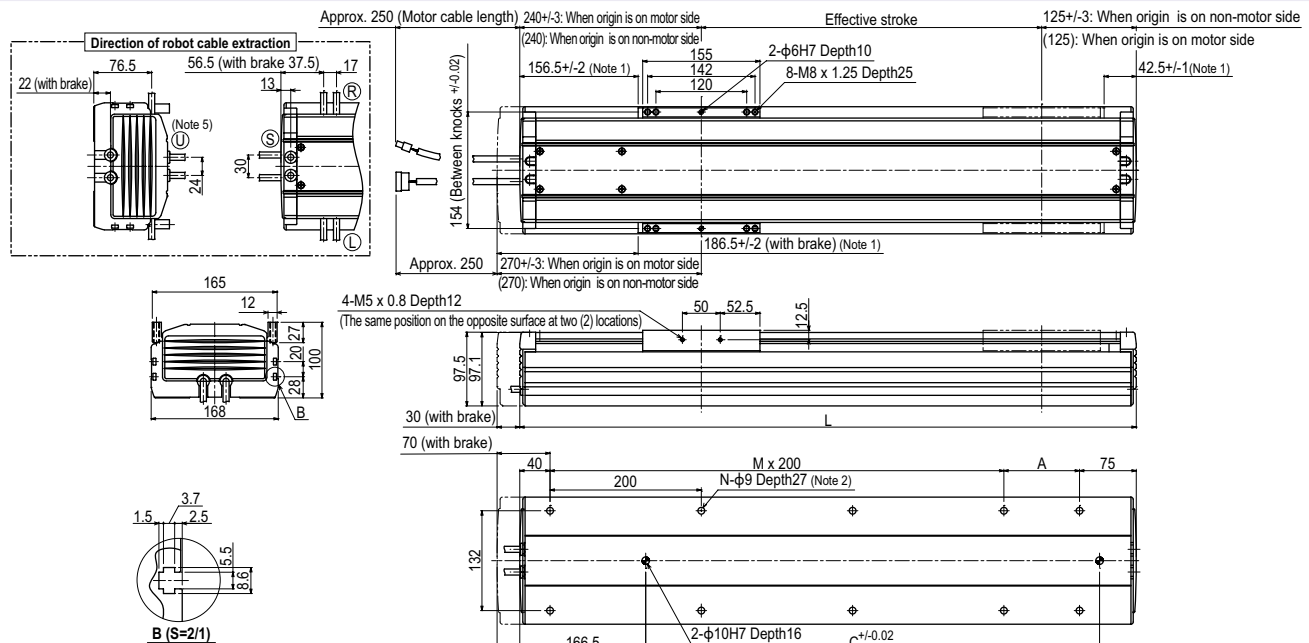
Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.

Controller

Controller	Operation method
SR1-X20	Programming / I/O point trace / Remote command / Operation using RS-232C communication
RCX320, RCX340	I/O point trace / Remote command
TS-X220	Pulse train control
RDV-X220-RBR1 (Horizontal)	
RDV-X220-RBR2 (Vertical)	

- Note. [The following arrangements require a regeneration unit.]
• Using in the upright position.
• To move at a speed exceeding 1,000 mm/sec horizontally.
• High lead (40) used horizontally.

F17



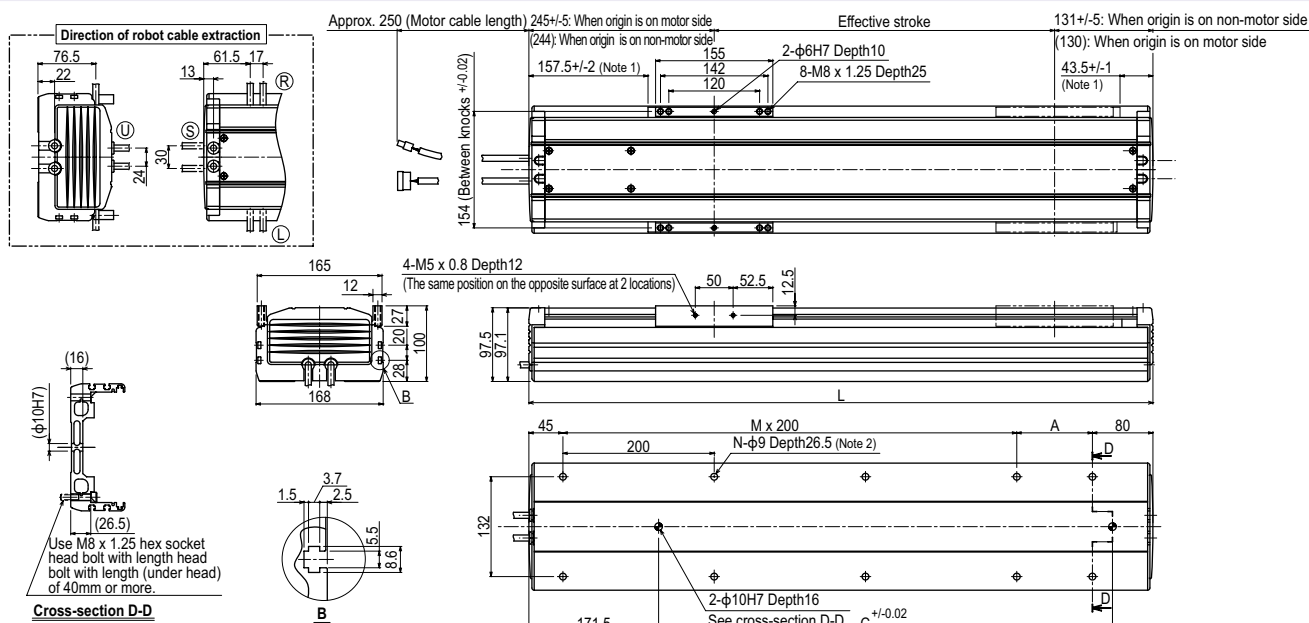
- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
Note 2. When installing the robot, do not use washers inside the robot body.
Note 3. Minimum bend radius of motor cable is R50.
Note 4. Weight of models with no brake. The weight of brake-attached models is 1.2 kg heavier than the models with no brake shown in the table.
Note 5. Make a separate consultation with us regarding robot cable (brake specifications) U extraction. (External dimensions: overall length + 20 mm)
Note 6. When the stroke is longer than 800mm, 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.
Note 7. To operate the unit at a speed exceeding 1,000mm/sec. (Max. speed), a regeneration unit RG1 is required.

Effective stroke	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
L	565	615	665	715	765	815	865	915	965	1015	1065	1115	1165	1215	1265	1315	1365	1415	1465	1515	1565	1615
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	7	7
N	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18
C	240	240	420	420	420	600	600	600	600	780	780	780	780	960	960	960	960	1140	1140	1140	1140	1320
Weight (kg) ^{Note 4}	14.5	15.3	16.2	17.0	17.8	18.6	19.5	20.3	21.1	21.9	22.8	23.6	24.4	25.2	26.1	26.9	27.7	28.5	29.4	30.2	31.0	31.8
Maximum speed ^{Note 6} (mm/sec)	Lead 20	1000(1200 ^{Note 7})										960										
	Lead 10	600										480										
	Speed setting	—										80%										

Controller

SR1-X ▶ 618 TS-X ▶ 592 RDV-X ▶ 606

F17 High lead type: Lead 40



Note 1. Stop positions are determined by the mechanical stoppers at both ends.
Note 2. When installing the robot, do not use washers inside the robot body.

Note 3. Minimum bend radius of motor cable is R50.

Effective stroke	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450
L	575	625	675	725	775	825	875	925	975	1025	1075	1125	1175	1225	1275	1325	1375	1425	1475	1525	1575	1625	1675	1725	1775	1825
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	7	7	7	7	8	8
N	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20
C	240	240	420	420	420	600	600	600	600	780	780	780	780	960	960	960	960	1140	1140	1140	1140	1320	1320	1320	1320	1320
Weight (kg)	14.7	15.5	16.4	17.2	18.0	18.8	19.7	20.5	21.3	22.1	23.0	23.8	24.6	25.4	26.3	27.1	27.9	28.7	29.6	30.4	31.2	32.0	32.8	33.6	34.4	35.2
Maximum speed (mm/sec)	Lead 40	2400												1920		1680		1440		1200		960		840		720
	Speed setting	—												80%		70%		60%		50%		40%		35%		30%

Note 4. When the stroke is longer than 800mm, 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.