

# F17L

● Origin at non-motor side



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.

## Ordering method

### F17L-50

Model	Lead designation	Brake	Cable entry location	Origin position change	Grease type	Stroke	Cable length (mm)
		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	1100 to 2050 (50mm pitch)	3L: 3.5m 5L: 5m 10L: 10m 3K/5K/10K (Flexible cable)

<b>TSX</b> Positioner <sup>Note 2</sup> TS-X	<b>220</b> Driver: Power-supply voltage <sup>Note 3</sup> Power capacity <sup>Note 3</sup> 220: 200V/400 to 600W	<b>R</b> Regenerative unit R: With RGT	<b>LCD monitor</b> No entry: None L: With LCD	<b>I/O selection</b> NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ GW: No I/O board <sup>Note 4</sup>	<b>Battery</b> B: With battery (Absolute) N: None (Incremental)
<b>SR1-X</b> Controller	<b>20</b> Driver: Power capacity <sup>Note 3</sup> 20: 400 to 600W	<b>R</b> Usable for CE No entry: Standard E: CE marking	<b>Regenerative unit</b> R: With RGT1	<b>I/O selection</b> N: NPN P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS	<b>Battery</b> B: With battery (Absolute) N: None (Incremental)
<b>RDV-X</b> Driver	<b>2</b> Power-supply voltage 2: AC200V	<b>20</b> Driver: Power capacity <sup>Note 3</sup> 20: 600W or less	<b>Regenerative unit</b> RBR1 (Horizontal) RBR2 (Vertical)		

Note 1. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable. See P.510 for details on robot cable.  
 Note 2. See P.446 for DIN rail mounting bracket.  
 Note 3. Acceleration / deceleration is different depending the Positioner or Controller or Driver.  
 Note 4. Select this selection when using the gateway function. For details, see P.439.

## Specifications

<b>AC servo motor output (W)</b>	600
<b>Repeatability<sup>Note 1</sup> (mm)</b>	+/-0.02
<b>Deceleration mechanism</b>	Ball screw (Class C10)
<b>Ball screw lead (mm)</b>	50
<b>Maximum speed (mm/sec)<sup>Note 2</sup></b>	2200
<b>Maximum payload (kg)</b>	Horizontal: 50 Vertical: 10
<b>Rated thrust (N)</b>	204
<b>Stroke (mm)</b>	1100 to 2050 (50mm pitch)
<b>Overall length (mm)</b>	Horizontal: Stroke+475 Vertical: Stroke+505
<b>Maximum dimensions of cross section of main unit (mm)</b>	W168 x H100
<b>Cable length (m)</b>	Standard: 3.5 / Option: 5.10
<b>Linear guide type</b>	4 rows of circular arc grooves x 2 rail
<b>Position detector</b>	Resolvers <sup>Note 3</sup>
<b>Resolution (Pulse/rotation)</b>	16384

Note 1. Positioning repeatability in one direction.  
 Note 2. When the stroke is longer than 1200mm, 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<sup>Note</sup>

Lead 50	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)		
	A	B	C	A	B	C	A	C	
10kg	4000	2755	2608	2720	2681	4000	2kg	1200	1200
30kg	3045	895	1175	1185	821	3045	5kg	3000	3000
50kg	2602	523	715	680	449	2602	10kg	2650	2650

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

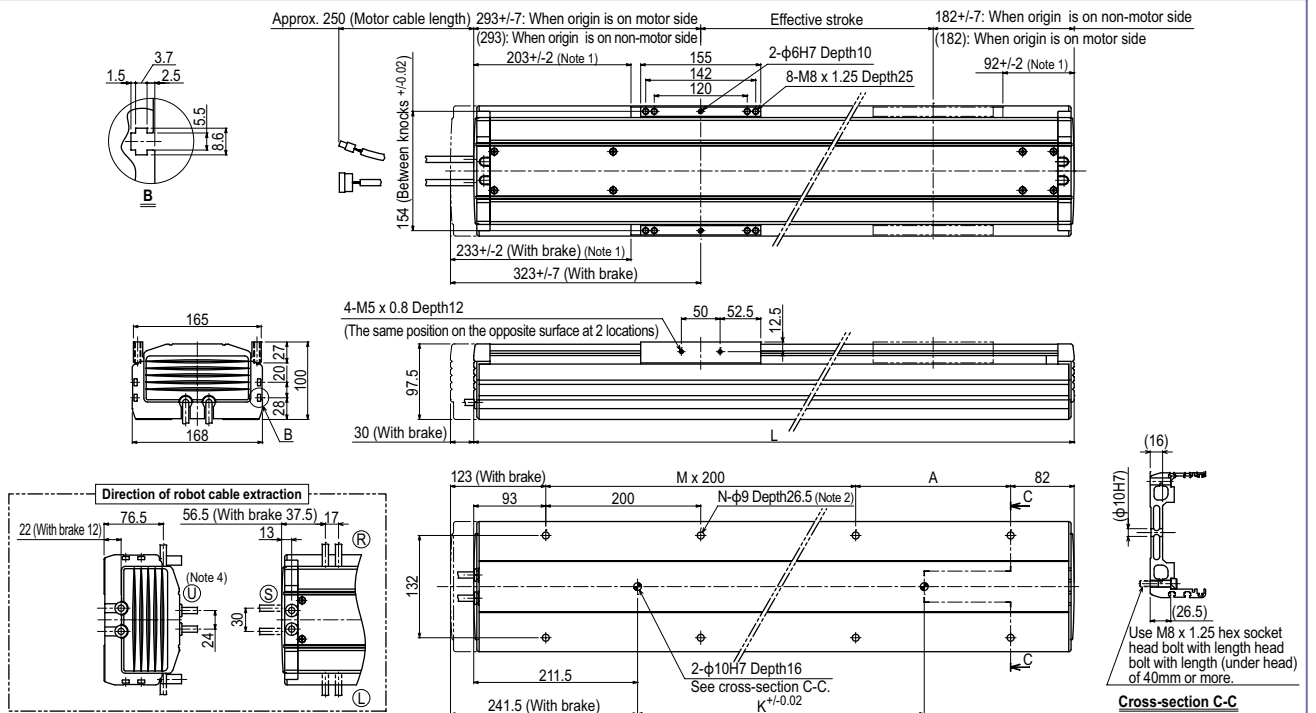
## Static loading moment

(Unit: N·m)		
MY	MP	MR
1032	1034	908

## Controller

Controller	Operation method
SR1-X20-R RCX221/222 RCX240/340	Programming / I/O point trace / Remote command / Operation using RS-232C communication
TS-X220-R RDV-X220-RBR1 (Horizontal) RDV-X220-RBR2 (Vertical)	I/O point trace / Remote command / Pulse train control

## F17L



Note 1. Length from both ends to mechanical stopper position.  
 Note 2. It is not allowed to use a counter bore washer, etc. when installing the main unit.  
 Note 3. This is the weight of the model without a brake. The weight of the model equipped with a brake is 1.2kg heavier than this value.  
 Note 4. Make a separate consultation with us regarding robot cable (brake specifications) U extraction.

Effective stroke	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050
<b>L</b>	1575	1625	1675	1725	1775	1825	1875	1925	1975	2025	2075	2125	2175	2225	2275	2325	2375	2425	2475	2525
<b>A</b>	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
<b>M</b>	6	7	7	7	7	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11
<b>N</b>	16	18	18	18	18	20	20	20	22	22	22	22	22	24	24	24	24	26	26	26
<b>K</b>	1140	1140	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320
<b>Weight (kg)<sup>Note 3</sup></b>	34.1	34.9	35.8	36.7	37.6	38.4	39.3	40.2	41.1	42	42.9	43.8	44.7	45.6	46.5	47.3	48.2	49.1	50	50.9
<b>Maximum speed<sup>Note 5</sup> (mm/sec)</b>	2200				1900				1500				1200				900		800	
<b>Speed setting</b>	-				86%				68%				54%				40%		36%	

Note 5. When the stroke exceeds 1200mm, 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 above table as a guide.

Controller

**SR1-X ▶ 464 TS-X ▶ 438 RDV-X ▶ 455**