

## Ordering method

F8LH					TSX					
<b>Model</b>	<b>Lead designation</b> 20: 20mm 10: 10mm 5: 5mm	<b>Origin position change</b> None: Standard Z: Non-motor side	<b>Grease type</b> None: Standard GC: Clean	<b>Stroke</b> 150 to 1050 (50mm pitch)	<b>Cable length</b> <sup>Note 2</sup> 3L: 3.5m 5L: 5m 10L: 10m 3K/5K/10K (Flexible cable)	<b>Positioner</b> <sup>Note 2</sup> TS-X	<b>Driver: Power-supply voltage / Power capacity</b> 105: 100V/100W or less 205: 200V/100W or less	<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 3</sup>	<b>Battery</b> B: With battery (Absolute) N: None (Incremental)
					SR1-X					
					RDV-X					
					RBR1					
					Controller					
					Driver					
					Power-supply voltage					
					Driver: Power capacity					
					Usable for CE					
					I/O selection					
					Battery					

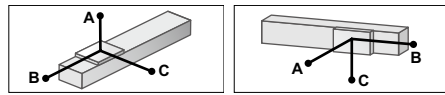
Note 1. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable. See P.510 for details on robot cable.  
 Note 2. See P.446 for DIN rail mounting bracket.  
 Note 3. Select this selection when using the gateway function. For details, see P.439.

## Specifications

<b>AC servo motor output (W)</b>	100
<b>Repeatability</b> <sup>Note 1</sup> (mm)	+/-0.01
<b>Deceleration mechanism</b>	Ball screw (Class C7)
<b>Ball screw lead (mm)</b>	20 10 5
<b>Maximum speed</b> <sup>Note 2</sup> (mm/sec)	1200 600 300
<b>Maximum payload (kg)</b>	Horizontal 30 60 80
<b>Rated thrust (N)</b>	84 169 339
<b>Stroke (mm)</b>	150 to 1050 (50mm pitch)
<b>Overall length (mm)</b>	Horizontal Stroke+368
<b>Maximum dimensions of cross section of main unit (mm)</b>	W80 x H65
<b>Cable length (m)</b>	Standard: 3.5 / Option: 5.10
<b>Linear guide type</b>	4 rows of circular arc grooves x 1 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 600mm, 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.

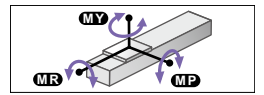
## Allowable overhang



	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)		
	A	B	C	A	B	C
<b>Lead 20</b>	573	256	176	147	215	515
10kg	334	116	81	53	75	255
20kg	279	70	50	20	29	160
<b>Lead 10</b>	629	137	111	80	99	545
20kg	479	57	47	15	19	270
<b>Lead 5</b>	382	30	25	-	-	-
20kg	1094	148	127	96	112	1005
40kg	851	63	54	22	26	604
60kg	714	34	29	-	-	-
80kg	601	20	17	-	-	-

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

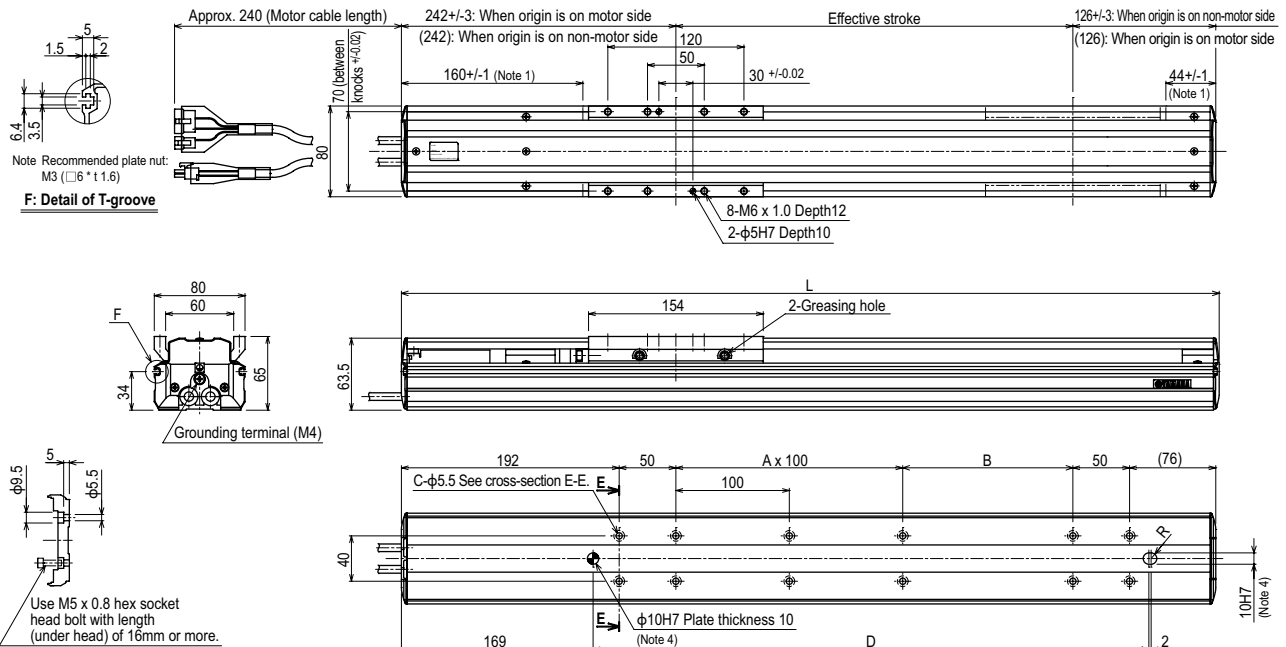


(Unit: N·m)		
MY	MP	MR
128	163	143

## Controller

Controller	Operation method
SR1-X05	Programming / I/O point trace / Remote command / Operation using RS-232C communication
RCX221/222	
RCX240/340	
TS-X105	I/O point trace / Remote command
TS-X205	
RDV-X205-RBR1	Pulse train control

## F8LH



### Cross-section E-E

Effective stroke	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	
<b>L</b>	518	568	618	668	718	768	818	868	918	968	1018	1068	1118	1168	1218	1268	1318	1368	1418	
<b>A</b>	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	
<b>B</b>	150	100	150	100	150	100	150	100	150	100	150	100	150	100	150	100	150	100	150	
<b>C</b>	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	
<b>D</b>	290	340	390	440	490	540	590	640	690	740	790	840	890	940	990	1040	1090	1140	1190	
<b>Weight (kg)</b>	4.7	5.0	5.3	5.6	5.9	6.2	6.6	6.9	7.2	7.5	7.8	8.1	8.4	8.7	9.0	9.3	9.7	10.0	10.3	
<b>Maximum speed</b> <sup>Note 5</sup> (mm/sec)	<b>Lead 20</b>	1200																		
	<b>Lead 10</b>	600																		
	<b>Lead 5</b>	300																		
	<b>Speed setting</b>	-																		

Note 1. Distance from both ends to the mechanical stopper.  
 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. When using this φ10 knockpin hole to position the robot body, the knockpin must not protrude more than 10mm inside the robot body.