

F8LH

Origin on the non-motor side is selectable

Ordering method

F8LH	Model	Lead designation 20: 20mm 10: 10mm 5: 5mm	Origin position change None: Standard Z: Non-motor side	Grease type None: Standard GC: Clean	Stroke 150 to 1050 (50mm pitch)	Cable length ^{Note 1} 3L: 3.5m 5L: 5m 10L: 10m 3K/5K/10K (Flexible cable)	TSX	Positioner ^{Note 2} TS-X	Driver: Power-supply voltage / Power capacity 105: 100V/100W or less 205: 200V/100W or less	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 ^{Note 3}	Battery B: With battery (Absolute) N: None (Incremental)	
	SR1-X	05					Controller	Driver: Power capacity 05: 100W or less	Usable for CE No entry: Standard E: CE marking	I/O selection N: NPN P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS	Battery B: With battery (Absolute) N: None (Incremental)		
	RDV-X	2					Driver	Power-supply voltage 2: AC200V		05	Driver: Power capacity 05: 100W or less	RBR1	Regenerative unit

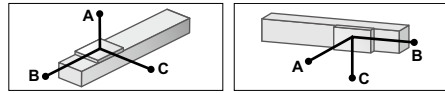
Note 1. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable. See P.594 for details on robot cable.
 Note 2. See P.498 for DIN rail mounting bracket.
 Note 3. Select this selection when using the gateway function. For details, see P.60.

Specifications

AC servo motor output (W)	100
Repeatability ^{Note 1} (mm)	+/-0.01
Deceleration mechanism	Ball screw (Class C7)
Ball screw lead (mm)	20 10 5
Maximum speed ^{Note 2} (mm/sec)	1200 600 300
Maximum payload (kg)	Horizontal 30 60 80
Rated thrust (N)	84 169 339
Stroke (mm)	150 to 1050 (50mm pitch)
Overall length (mm)	Horizontal Stroke+368
Maximum dimensions of cross section of main unit (mm)	W80 x H65
Cable length (m)	Standard: 3.5 / Option: 5.10
Linear guide type	4 rows of circular arc grooves x 1 rail
Position detector	Resolvers ^{Note 3}
Resolution (Pulse/rotation)	16384

Note 1. Positioning repeatability in one direction.
 Note 2. 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 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.

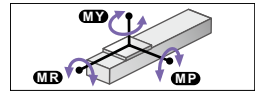
Allowable overhang^{Note}



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

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

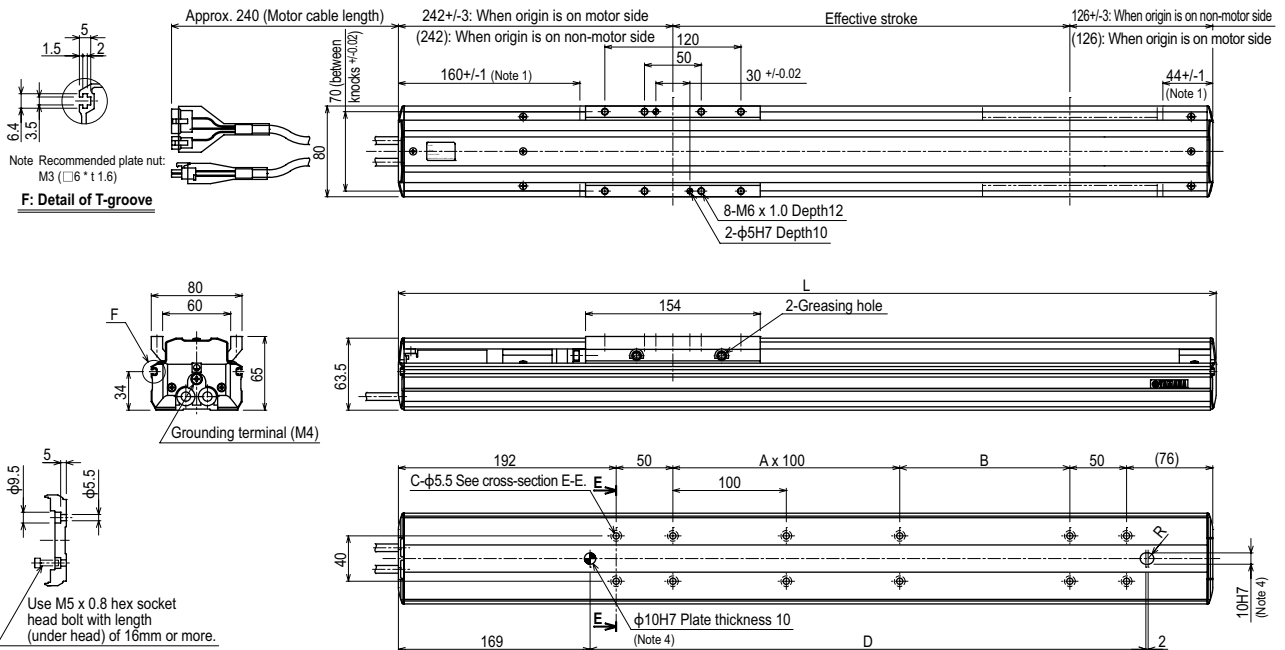


(Unit: N·m)		
MY	MP	MR
128	163	143

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		
L	518	568	618	668	718	768	818	868	918	968	1018	1068	1118	1168	1218	1268	1318	1368	1418		
A	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9		
B	150	100	150	100	150	100	150	100	150	100	150	100	150	100	150	100	150	100	150		
C	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26		
D	290	340	390	440	490	540	590	640	690	740	790	840	890	940	990	1040	1090	1140	1190		
Weight (kg)	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		
Maximum speed ^{Note 5} (mm/sec)	Lead 20	1200										1020	900	780	720	660	600	540	480	420	
	Lead 10	600										510	450	390	360	330	300	270	240	210	
	Lead 5	300										255	225	195	180	165	150	135	120	105	
	Speed setting	-										85%	75%	65%	60%	55%	50%	45%	40%	35%	

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. When using this φ10 knock-in hole to position the robot body, the knock-pin must not protrude more than 10mm inside the robot body.
 Note 5. 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 above.