

F8

- High lead: Lead 20
- Origin at non-motor side



Ordering method

F8	Model	Lead designation 20: 20mm 12: 12mm 6: 6mm	Brake ^{Note 1} No entry: No brakes BK: Brakes provided	Origin position change None: Standard Z: Non-motor side	Grease type None: Standard GC: Clean	Stroke 150 to 800 (50mm pitch)	Cable length ^{Note 2} 3L: 3.5m 5L: 5m 10L: 10m 3K/5K/10K (Flexible cable)	TSX	Positioner ^{Note 3} TS-X	Driver: Power-supply voltage / Power capacity 10S: 100V/100W or less 20S: 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™ GW: No I/O board ^{Note 4}	Battery B: With battery (Absolute) N: None (Incremental)		
								SR1-X	Controller	05	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	Driver	2	Power-supply voltage 2: AC200V	05	Driver: Power capacity 05: 100W or less	RBR1	Regenerative unit

Note 1. The model with a lead of 20mm cannot select specifications with brake (flexible specifications).
 Note 2. 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 3. See P.446 for DIN rail mounting bracket.
 Note 4. Select this selection when using the gateway function. For details, see P.439.

Specifications

AC servo motor output (W)	100
Repeatability ^{Note 1} (mm)	+/-0.02
Deceleration mechanism	Ball screw (Class C10)
Ball screw lead (mm)	20 12 6
Maximum speed ^{Note 2} (mm/sec)	1200 720 360
Maximum payload (kg)	Horizontal 12 20 40 Vertical - 4 8
Rated thrust (N)	84 141 283
Stroke (mm)	150 to 800 (50mm pitch)
Overall length (mm)	Horizontal Stroke+286 Vertical Stroke+316
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 550mm, 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)			Vertical installation (Unit: mm)				
	A	B	C	A	B	C	A	C			
Lead 20	5kg	197	76	120	5kg	104	67	174	5kg	447	448
	10kg	100	32	54	10kg	37	23	72	10kg	214	216
	12kg	85	25	43	12kg	27	15	55	12kg	137	138
Lead 12	5kg	364	89	188	5kg	171	81	340	5kg	98	99
	10kg	203	39	87	10kg	69	32	172	10kg	244	245
	15kg	139	22	51	15kg	33	15	100	15kg	113	113
Lead 6	10kg	403	43	113	10kg	94	36	369	10kg	69	69
	20kg	214	16	43	20kg	25	9	157	20kg	46	46
	30kg	140	6	20	30kg	0	0	14	30kg	0	0
40kg	113	0	8	40kg	0	0	0	40kg	0	0	

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

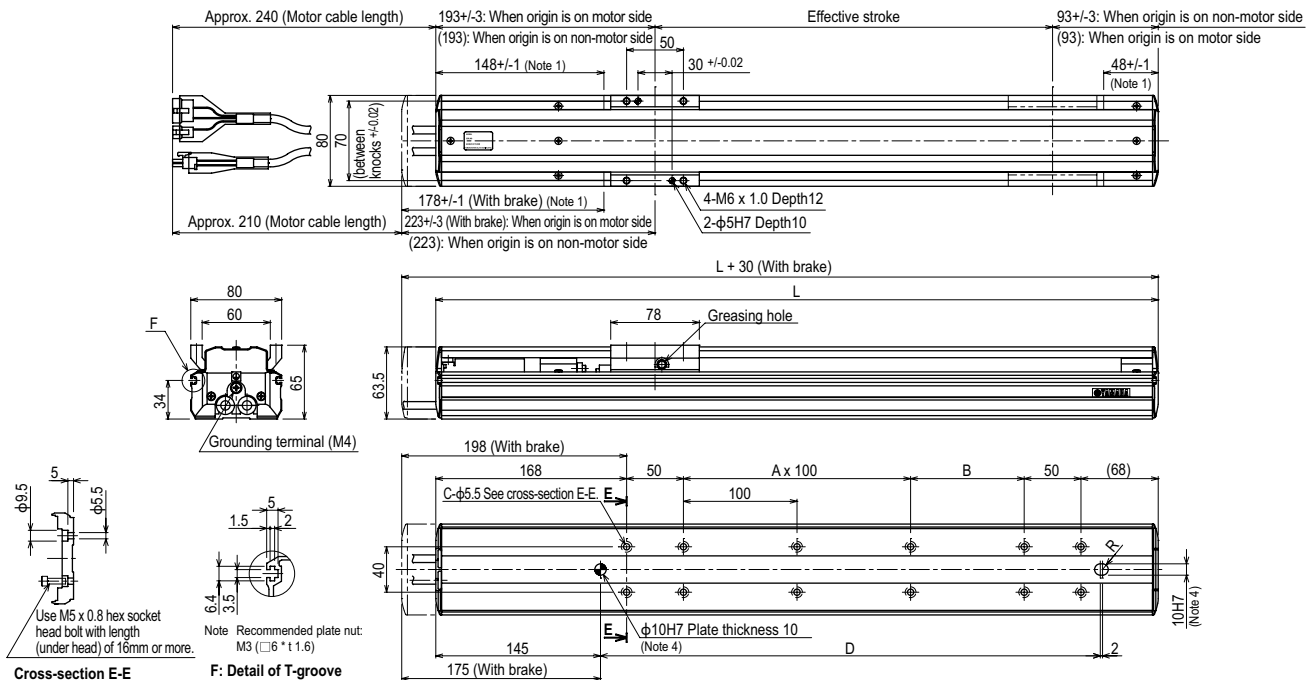
Static loading moment

(Unit: N·m)		
MY	MP	MR
70	95	110

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

F8



Cross-section E-E

F: Detail of T-groove

Effective stroke	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
L	436	486	536	586	636	686	736	786	836	886	936	986	1036	1086	
A	0	0	1	1	2	2	3	3	4	4	5	5	6	6	
B	100	150	100	150	100	150	100	150	100	150	100	150	100	150	
C	8	8	10	10	12	12	14	14	16	16	18	18	20	20	
D	240	290	340	390	440	490	540	590	640	690	740	790	840	890	
Weight (kg) ^{Note 5}	3.6	3.9	4.2	4.4	4.7	5.0	5.3	5.6	5.9	6.2	6.4	6.7	7.0	7.3	
Maximum speed ^{Note 6} (mm/sec)	Lead 20	1200													
	Lead 12	720													
	Lead 6	360													
	Speed setting	-													
Maximum speed (mm/sec)	Lead 20	1080	900	780	720	600	648	540	468	432	360	324	270	234	216
	Lead 12	648	540	468	432	360	324	270	234	216	180	162	144	135	
	Lead 6	324	270	234	216	180	162	144	135	126	117	108	100	95	
	Speed setting	90%	75%	65%	60%	50%									
	Speed setting	90%	75%	65%	60%	50%									

Note 6. When the stroke is longer than 550mm, 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.