

F14H

- High lead: Lead 30
- Origin at non-motor side: Lead 10-20-30

Note. Strokes longer than 1050mm are special order items. Please consult us for delivery time.



Ordering method

F14H								TSX							
Model	Lead designation	Brake	Cable entry location	Origin position change	Grease type	Stroke	Cable length	Positioner	Driver: Power-supply voltage	Regenerative unit	LCD monitor	I/O selection	Battery		
	30: 30mm 20: 20mm 10: 10mm 5: 5mm	No entry: No brakes BK: Brakes provided	No entry: Location: 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 20-10-5: 150 to 1050 (50mm pitch) Lead 30: 150 to 1250 (50mm pitch)	3L: 3.5m 5L: 5m 10L: 10m 3K/5K/10K (Flexible cable)	TS-X	110: 100V/200V 210: 200V/200W	No entry: None R: With RGT	No entry: None L: With LCD	NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ GW: No I/O board	B: With battery (Absolute) N: None (Incremental)		
								SR1-X	10						
								Controller	Driver: Power capacity	Usable for CE	Regenerative unit	I/O selection	Battery		
									10: 200W	No entry: Standard E: CE marking	No entry: None R: With RGT1	N: NPN P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS	B: With battery (Absolute) N: None (Incremental)		
								RDV-X	2		10	RBR1			
								Driver	Power-supply voltage		Driver: Power capacity	Regenerative unit			
									2: AC200V		10: 200W or less				

- Note 1. The model with a lead of 30mm cannot select specifications with brake (vertical specifications).
 Note 2. If selecting 5mm lead specifications then the origin point cannot be changed to the non-motor side.
 Note 3. 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 4. See P.446 for DIN rail mounting bracket.
 Note 5. Select this selection when using the gateway function. For details, see P.439.

Specifications

AC servo motor output (W)	200
Repeatability (mm)	+/-0.01
Deceleration mechanism	Ball screw (Class C7)
Ball screw lead (mm)	30 20 10 5
Maximum speed (mm/sec)	1800 1200 600 300
Maximum payload (kg)	Horizontal: 25 40 80 100 Vertical: - 8 20 30
Rated thrust (N)	113 170 341 683
Stroke (mm)	150 to 1250 (50mm pitch)
Overall length (mm)	Horizontal: Stroke+320 Vertical: Stroke+350
Maximum dimensions of cross section of main unit (mm)	W136 x H83
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. Positioning repeatability in one direction.
 Note 2. When the stroke is longer than 700mm, 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. Strokes longer than 1050mm are available only for high lead (Lead 30). (Special order item)
 Note 4. 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

Installation	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)				
	Lead	A	B	C	Lead	A	B	C	Lead	A	C
Lead 30	10kg	2152	1673	934	10kg	975	1219	1625	4kg	2400	2016
	25kg	1847	691	533	25kg	482	426	1257	6kg	1699	1364
	10kg	2265	1674	961	10kg	999	1220	1711	8kg	1301	1051
	20kg	1402	855	537	20kg	515	558	987	10kg	1370	1106
Lead 20	40kg	1047	445	324	40kg	263	227	635	15kg	906	732
	10kg	1953	583	485	30kg	419	338	1282	20kg	678	548
	50kg	1655	365	328	50kg	240	162	934	20kg	767	619
	80kg	1720	242	238	80kg	134	62	756	25kg	612	494
Lead 10	80kg	2443	311	317	60kg	209	117	1398	30kg	503	407
	80kg	2193	242	253	80kg	135	62	1120			
	100kg	2000	202	214	100kg	90	29	900			

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

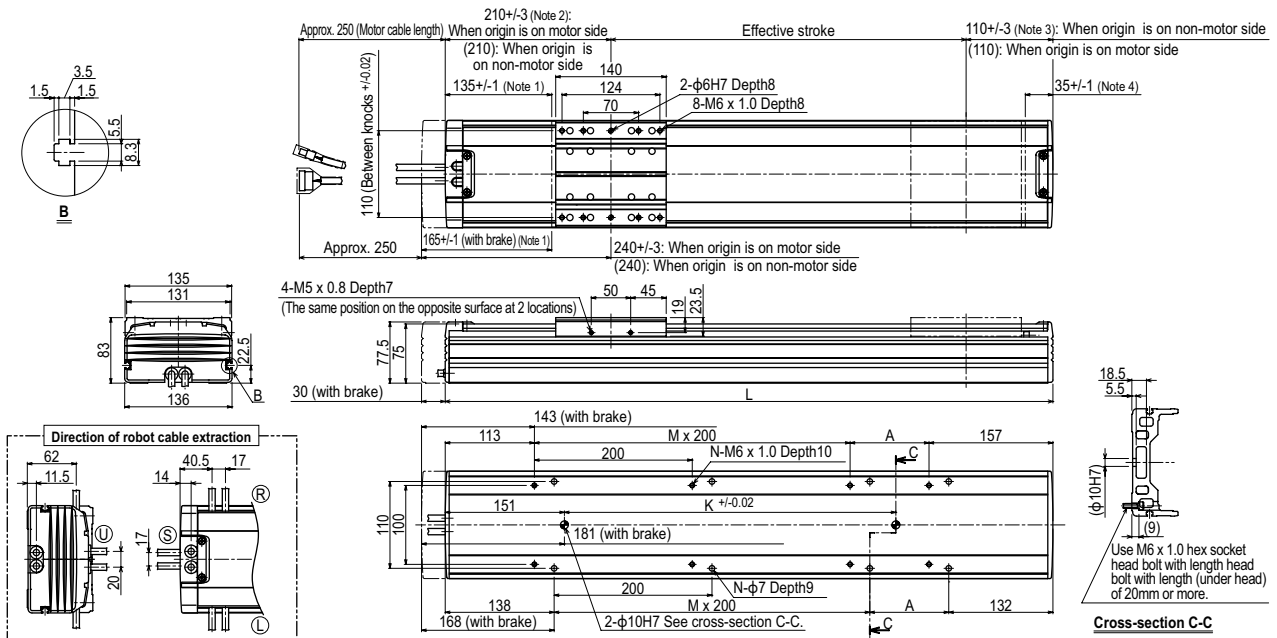
(Unit: N·m)		
MY	MP	MR
551	552	485

Controller

Controller	Operation method
SR1-X10 RCX221/222 RCX240/340	Programming / I/O point trace / Remote command / Operation using RS-232C communication
TS-X110 TS-X210 RDV-X210-RBR1	I/O point trace / Remote command / Pulse train control

Note. When using the unit vertically, a regeneration unit is required.

F14H



- Note 1. Distance from both ends to the mechanical stopper.
 Note 2. 212.5+/-4 when the high lead specification (Lead 30) is used.
 Note 3. 110+/-4 when the high lead specification (Lead 30) is used.
 Note 4. 32.5+/-1 when the high lead specification (Lead 30) is used.
 Note 5. Minimum bend radius of motor cable is R50.
 Note 6. Weight of models with no brake. The weight of brake-attached models is 0.7 kg heavier than the models with no brake shown in the table.
 Note 7. When the stroke is longer than 700mm, 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 8. Strokes longer than 1050mm are special order items. Please contact us for speed setting.

Effective stroke	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
	L	470	520	570	620	670	720	770	820	870	920	970	1020	1070	1120	1170	1220	1270	1320	1370	1420	1470	1520
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	5	5	5	5	5	6	6
N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	14	14	14	14	14	16	16
K	240	240	240	420	420	420	600	600	600	600	600	780	780	960	960	960	960	960	1140	1140	1140	1140	1320
Weight (kg)	7.5	8.2	8.8	9.5	10.1	10.8	11.4	12.1	12.7	13.4	13.9	14.6	15.2	15.9	16.5	17.2	17.8	18.5	19.1	19.8	20.4	21.1	21.7
Maximum speed (mm/sec)	Lead 30	1800																					
	Lead 20	1200																					
	Lead 10	600																					
	Lead 5	300																					
Speed setting	Lead 30	80%																					
	Lead 20	65%																					
	Lead 10	50%																					
	Lead 5	45%																					