

# T9H

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

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

## Ordering method

<b>T9H</b>	<b>Model</b>	<b>Lead designation</b> 30: 30mm 20: 20mm 10: 10mm 5: 5mm	<b>Brake</b> <sup>Note 1</sup> No entry: No brakes BK: Brakes provided	<b>Origin position change</b> None: Standard Z: Non-motor side <sup>Note 2</sup>	<b>Grease type</b> None: Standard GC: Clean	<b>Stroke</b> Lead 20/10/5: 150 to 1050 (50mm pitch) Lead 30: 150 to 1250 (50mm pitch)	<b>Cable length</b> <sup>Note 3</sup> 3L: 3.5m 5L: 5m 10L: 10m 3K/5K/10K (Flexible cable)	<b>TSX</b>	<b>Positioner</b> <sup>Note 4</sup> TS-X	<b>Driver: Power-supply voltage</b> Power capacity 110: 100V/200W 210: 200V/200W	<b>Regenerative unit</b> No entry: None 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 5</sup>	<b>Battery</b> B: With battery (Absolute) N: None (Incremental)
	<b>SR1-X</b>	<b>Controller</b>	<b>10</b>	<b>Driver: Power capacity</b> 10: 200W	<b>Usable for CE</b> No entry: Standard E: CE marking	<b>Regenerative unit</b> No entry: None R: With RGT	<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>	<b>Driver</b>	<b>2</b>	<b>Power-supply voltage</b> 2: AC200V		<b>10</b>	<b>Driver: Power capacity</b> 10: 200W or less	<b>RBR1</b>	<b>Regenerative unit</b>					

- Note 1. The model with a lead of 30mm cannot select specifications with brake (vertical specifications).  
 Note 2. If selecting 10mm-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

<b>AC servo motor output (W)</b>	200		
<b>Repeatability</b> <sup>Note 1</sup> (mm)	+/-0.01		
<b>Deceleration mechanism</b>	Ball screw (Class C7)		
<b>Ball screw lead (mm)</b>	30	20	10
	5		
<b>Maximum speed</b> <sup>Note 2</sup> (mm/sec)	1800	1200	600
	300		
<b>Maximum payload (kg)</b>	<b>Horizontal</b>	<b>Vertical</b>	
	25	40	80
	100	100	100
<b>Rated thrust (N)</b>	113	170	341
	683		
<b>Stroke (mm)</b>	150 to 1250 <sup>Note 3</sup> (50mm pitch)		
<b>Overall length (mm)</b>	<b>Horizontal</b>	Stroke+273	
	<b>Vertical</b>	Stroke+303	
<b>Maximum dimensions of cross section of main unit (mm)</b>	W94 × H98		
<b>Cable length (m)</b>	Standard: 3.5 / Option: 5.10		
<b>Linear guide type</b>	4 rows of circular arc grooves × 1 rail		
<b>Position detector</b>	Resolvers <sup>Note 4</sup>		
<b>Resolution (Pulse/rotation)</b>	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

	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)			
	A	B	C	A	B	C	A	B	C	
<b>Lead 30</b>										
10kg	415	286	183	10kg	140	120	323	4kg	515	515
20kg	270	105	93	20kg	41	0	123	6kg	334	334
<b>Lead 20</b>								8kg	244	244
10kg	667	244	225	10kg	170	128	549	<b>Lead 10</b>		
20kg	330	112	107	20kg	46	0	182	10kg	217	217
40kg	162	42	47	40kg	0	0	0	15kg	133	133
<b>Lead 10</b>								<b>Lead 5</b>		
30kg	392	75	81	20kg	52	0	335	20kg	90	90
50kg	297	40	44	25kg	24	0	235	15kg	135	135
80kg	265	21	24	30kg	0	0	108	20kg	92	92
60kg	477	22	37	20kg	54	0	710	20kg	92	92
80kg	412	22	25	25kg	25	0	505	30kg	49	49
100kg	362	16	18	30kg	0	0	355			

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

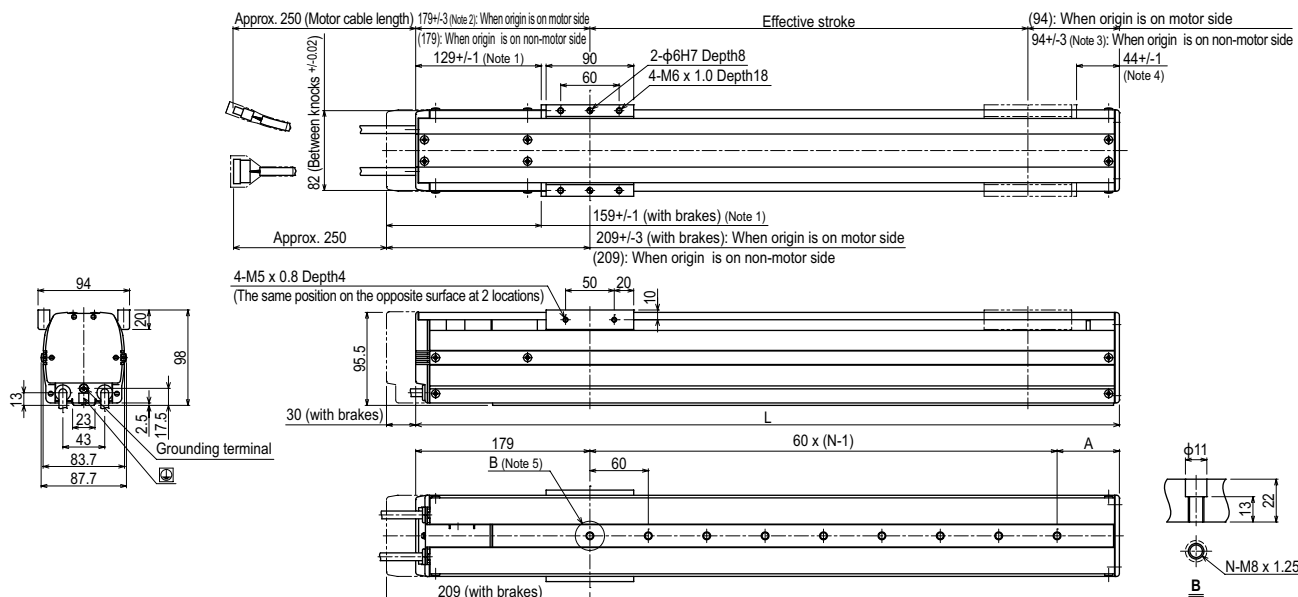
(Unit: N·m)		
MY	MP	MR
86	133	117

## Controller

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

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

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- Note 1. Distance from both ends to the mechanical stopper.  
 Note 2. 181.5+/-4 when the high lead specification (Lead 30) is used.  
 Note 3. 94+/-4 when the high lead specification (Lead 30) is used.  
 Note 4. 41.5+/-1 when the high lead specification (Lead 30) is used.  
 Note 5. When installing the unit, washers, etc., cannot be used in the φ11 counter bore hole.  
 Note 6. Minimum bend radius of motor cable is R5.  
 Note 7. Weight of models with no brake. The weight of brake-attached models is 0.5 kg heavier than the models with no brake shown in the table.

Effective stroke	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100 <sup>Note 9</sup>	1150 <sup>Note 9</sup>	1200 <sup>Note 9</sup>	1250 <sup>Note 9</sup>
	<b>L</b>	423	473	523	573	623	673	723	773	823	873	923	973	1023	1073	1123	1173	1223	1273	1323	1373	1423	1473
<b>A</b>	64	54	44	94	84	74	64	54	44	94	84	74	64	54	44	94	84	74	64	54	44	94	84
<b>N</b>	4	5	6	6	7	8	9	10	11	11	12	13	14	15	16	16	17	18	19	20	21	21	22
<b>Weight (kg)</b> <sup>Note 7</sup>	5.8	6.2	6.5	6.9	7.3	7.7	8.0	8.4	8.8	9.1	9.5	9.9	10.2	10.6	11.0	11.4	11.7	12.1	12.5	12.9	13.3	13.7	14.1
<b>Maximum speed</b> <sup>Note 8</sup> (mm/sec)	<b>Lead 30</b>	1800										1440		1170		900		810					
	<b>Lead 20</b>	1200										960		780		600		540					
	<b>Lead 10</b>	600										480		390		300		270					
	<b>Lead 5</b>	300										240		195		150		135					
<b>Speed setting</b>	-										80%		65%		50%		45%						

- Note 8. 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 9. Strokes longer than 1050mm are special order items. Please contact us for speed setting.