T5L

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

Ordering method

T5L – [ ] – [ ] – [ ] – [ ] – [ ] – [ ] – **ERCD** – [ ]

Model	Lead designation	Brake	Origin position change	Grease type	Stroke	Cable length Note 1	Controller	I/O connector specification
	20: 20mm 12: 12mm 6: 6mm	No entry: No brakes BK: Brakes provided	None: Standard Z: Non-motor side	None: Standard GC: Clean	50 to 800 (50mm pitch)	3L: 3.5m 5L: 5m 10L: 10m 3K/5K/10K (Flexible cable)		CN1: I/O flat cable 1m (Standard) CN2: Twisted-pair cable 2m (pulse train function)

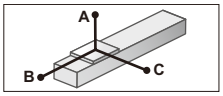
Note 1. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable.

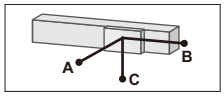
Specifications

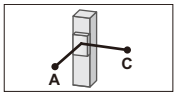
AC servo motor output (W)		30		
Repeatability Note 1 (mm)		+/-0.02		
Deceleration mechanism		Ball screw ϕ12 (Class C10)		
Ball screw lead (mm)		20	12	6
Maximum speed Note 2 (mm/sec)		1200	800	400
Maximum payload (kg)	Horizontal	3	5	9
	Vertical	-	1.2	2.4
Rated thrust (N)		19	32	64
Stroke (mm)		50 to 800 (50mm pitch)		
Overall length (mm)	Horizontal	Stroke+201.5		
	Vertical	Stroke+239.5		
Maximum dimensions of cross section of main unit (mm)		W55×H52		
Cable length (m)		Standard: 3.5 / Option: 5,10		
Linear guide type		2 rows of gothic arch grooves × 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 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 Note







Horizontal installation (Unit: mm)

		A	B	C
Lead 20	1kg	600	323	683
	3kg	675	103	247
Lead 12	2kg	1170	159	406
	5kg	555	59	155
Lead 6	3kg	1498	104	294
	9kg	628	31	89

Wall installation (Unit: mm)

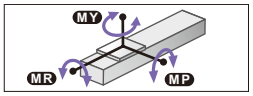
		A	B	C
Lead 20	1kg	600	291	600
	3kg	215	73	589
Lead 12	2kg	368	127	1082
	5kg	127	30	449
Lead 6	3kg	263	73	970
	9kg	54	0	400

Vertical installation (Unit: mm)

		A	C
Lead 12	1.2kg	242	240
Lead 6	2.4kg	113	113

Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.
Note. Service life is calculated for 600mm stroke models.

Static loading moment



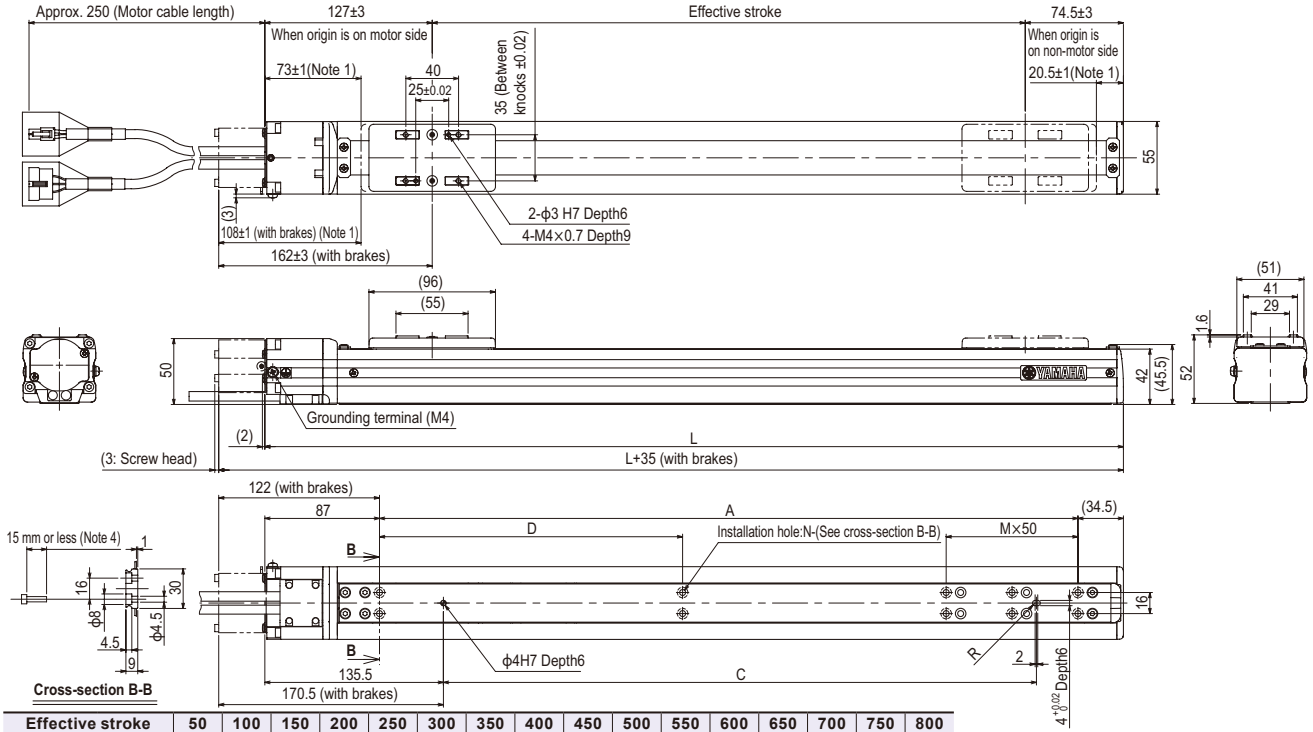
(Unit: N·m)

MY	MP	MR
30	34	40

Controller

Controller	Operation method
ERCD	Pulse train control / Programming / I/O point trace / Remote command / Operation using RS-232C communication

T5L



Effective stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L		251.5	301.5	351.5	401.5	451.5	501.5	551.5	601.5	651.5	701.5	751.5	801.5	851.5	901.5	951.5	1001.5
A		130	180	230	280	330	380	430	480	530	580	630	680	730	780	830	880
C		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
D		-	-	-	-	-	-	230	230	230	230	230	230	230	230	230	230
M		0	1	2	3	4	5	0	1	2	3	4	5	6	7	8	9
N		4	6	8	10	12	14	6	8	10	12	14	16	18	20	22	24
Weight (kg) Note 3		1.7	1.8	2.0	2.2	2.3	2.5	2.7	2.8	3.0	3.2	3.3	3.5	3.7	3.8	4.0	4.2
Maximum speed for each stroke Note 5 (mm/sec)	Lead 20	1200												960	840	720	660
	Lead 12	800												640	560	480	440
	Lead 6	400												320	280	240	220
	Speed setting	-												80%	70%	60%	55%

Note 1. Distance from both ends to the mechanical stopper.
Note 2. Minimum bend radius of motor cable is R30.
Note 3. Weight of models with no brake. The weight of brake-attached models is 0.2 kg heavier than the models with no brake shown in the table.
Note 4. The under-head length of the hex socket-head bolt (M4×0.7) to be used for the installation work is 15mm or less.
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 at the left.
Note 6. External view of T5LH is identical to T5L.