

**The answer for diversified needs,
Low profile type has been newly introduced!**

U.S. PATENTED



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New concept

U-shaped track rail

Large increase in rigidity and stable high accuracy have been realized !

IKD
Precision Positioning Table



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Low profile type has newly debuted.

IKO Precision Positioning Table TU is a compact and slim type positioning table with a slide table assembled inside a U-shaped track rail.

The slide table is an integral part of a linear motion rolling guide mechanism, in which large diameter steel balls are arranged in two rows and make four-point contact with the raceways. Stable high accuracy and rigidity can thus be obtained even under loads fluctuating in direction and magnitude or complex loads. Also, by adopting a U-shaped structure, the rigidity of the track rail under moment load and torsion is greatly increased.

IKO Precision Positioning Table TU comes in eight sizes, with a track rail width ranging from 25 mm to 130 mm. For each of them, slide tables with different lengths are available. Also, the type and lead of ball screw, motor type, sensor installation specifications, etc. can be selected to obtain the optimal positioning table for each specific application.



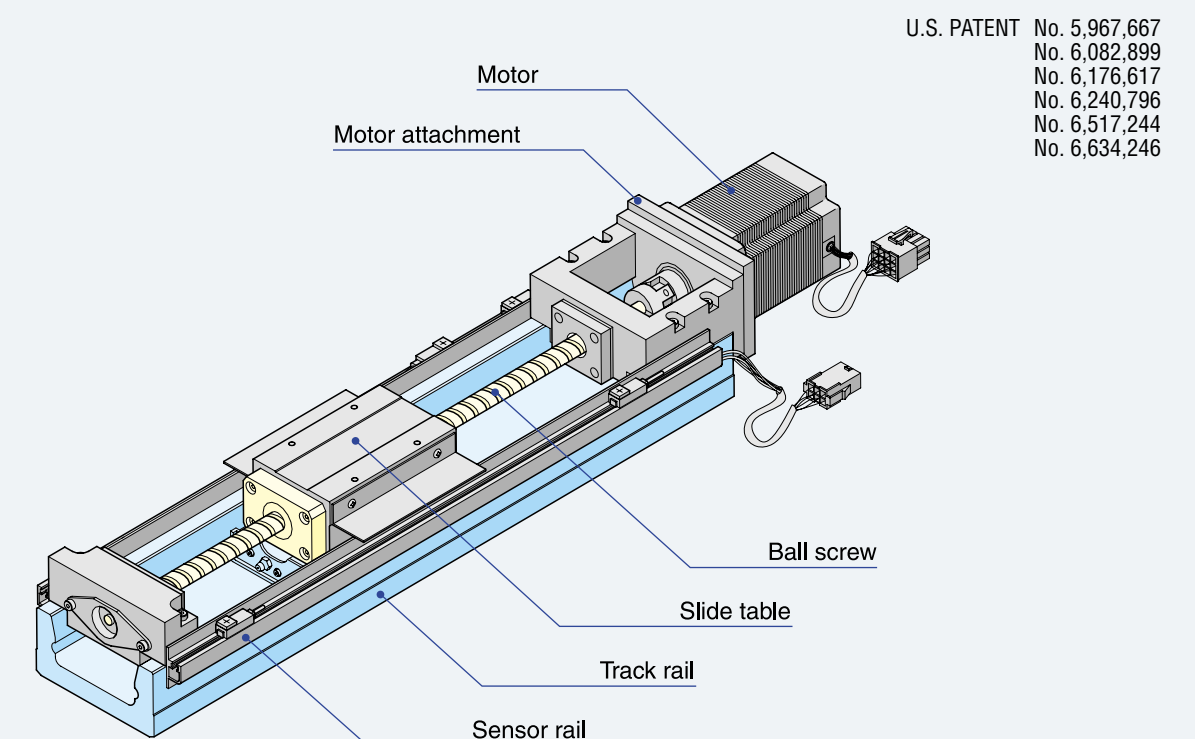
Low profile type
TU...YF

Features of IKO Precision Positioning Table TU

- 1 U-shaped track rail is adopted.**
By adopting a U-shaped track rail, the rigidity of the track rail under moment load and torsion is greatly increased.
- 2 Abundant sizes**
IKO precision positioning Table TU comes in eight sizes, with a track rail width ranging from 25 mm to 130 mm.
- 3 Abundant options**
The type and lead of ball screw, motor type, sensor installation specifications, surface treatment specifications, bellows specification, etc. can be selected. Thus, IKO Positioning Table TU can be applied to many kind of usage.
- 4 Lubrication part Capillary plate can be applied.**
By adopting Capillary plate to slide unit and ball screw, re-lubrication interval can be made longer, and maintenance and inspection time can be reduced.



Small-sized tables with rail width of
25 mm and 30 mm are also available.



Structure of Precision Positioning Table TU

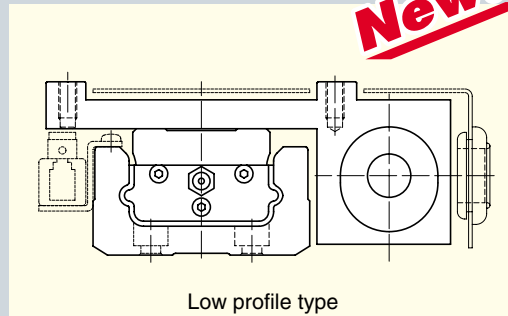
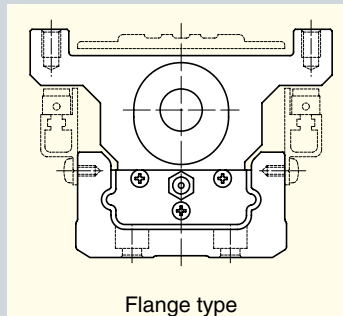
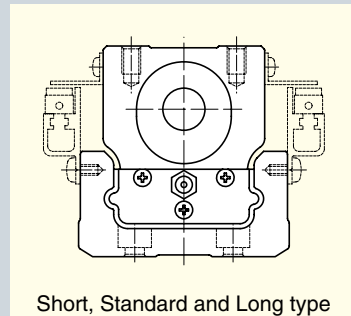
Note: The specifications and dimensions of products in this catalog are subject to change without prior notice.

Simple and easy ordering

Just specify the identification number for the required functions and performance.

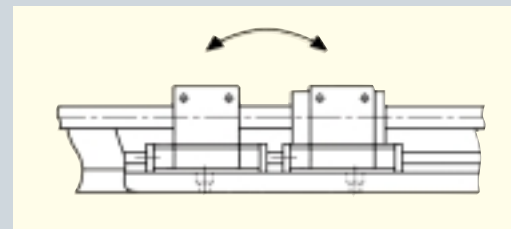
Slide table types and lengths

Slide tables with three different lengths, namely, short, standard, and long, are available with the same sectional shape. A bridge cover and/or X-Y bracket can be attached to the flange type table.



Number of slide tables

Two slide tables can be mounted on a track rail in applications where the magnitude of applied load/or moment is large.



Motor types

Either stepping motor or AC servo motor can be selected. A motor with brake can also be specified for a vertical shaft application.

Ball screw types and leads

Either rolled screw or ground screw can be selected according to the accuracy requirement. The ball screw lead can also be specified. A table without ball screw can be used as a follower table of a set of two parallel positioning tables.

Sensor installation specifications

Various sensors including limit sensors and origin sensors are available for installation.

Motor folding back specification

The table of motor folding back specification is effective in space-saving because the overall length of the table can be shortened.

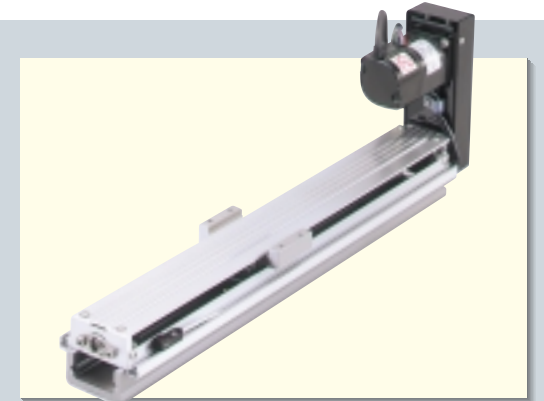
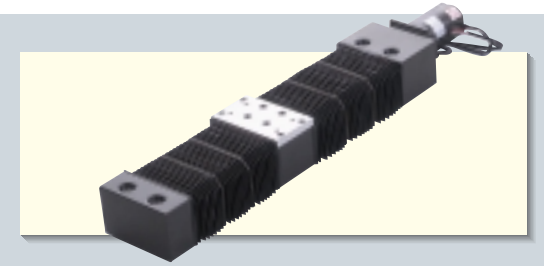


Table with bridge cover

A bridge cover can be attached to the flange type tables.

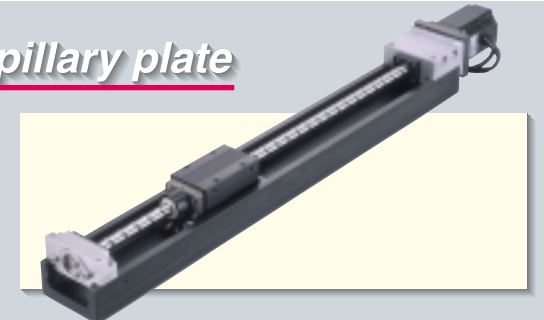
Table with bellows

A series of tables with bellows is available for preventing foreign matters from intruding into the table.



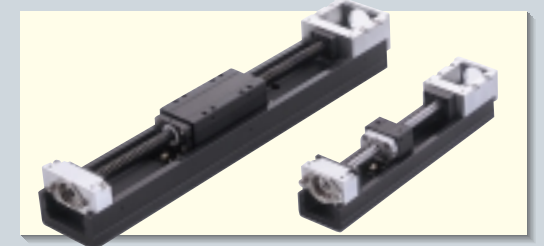
Precision Positioning Table with Capillary plate

When Capillary plates that impregnate lubrication oil are attached, re-lubrication interval of ball screw and Linear Motion Rolling Guide can be made longer, and maintenance and inspection time can be reduced.



Black chrome surface treatment

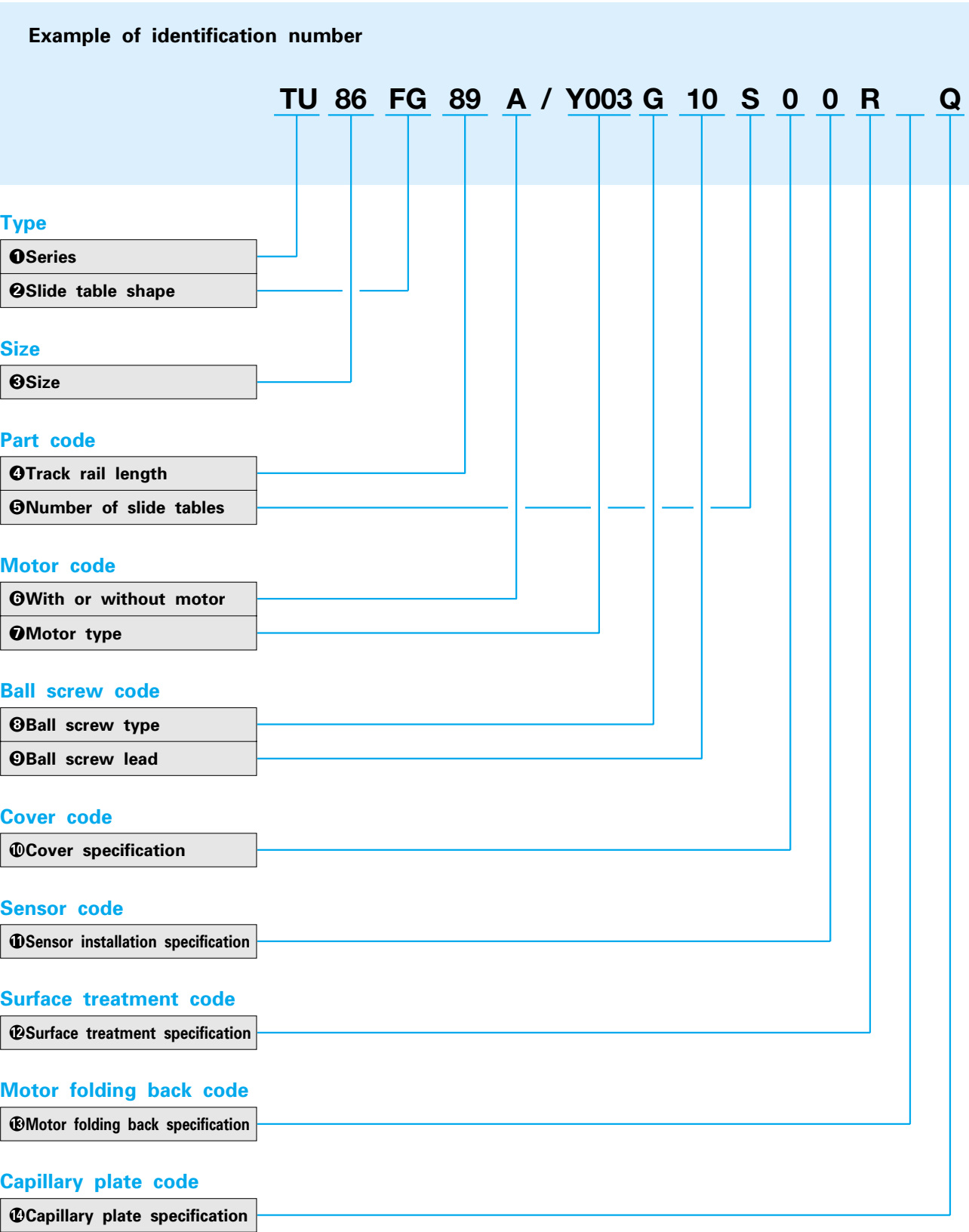
A black permeable film is formed on the surfaces of slide table, track rail, and ball screw to improve corrosion resistance.



X-Y bracket

A series of X-Y brackets is prepared. The X-Y brackets can be used for assembling X-Y tables in any desired configuration.

Identification Number and Specification



Type

①Series	TU : Precision Positioning Table TU
②Slide table shape For applications, see Table 1.	C : Short table (applicable to size 40, 50, 60, and 86) S : Standard table G : Long table (applicable to size 40, 50, 60, and 86) FC : Flange type short table (applicable to size 60 and 86) F : Flange type standard table FG : Flange type long table (applicable to size 60 and 86) YF : Low profile type (applicable to size 50, 60, and 86)

Size

③Table size For applications, see Table 1.	25, 30, 40, 50, 60, 86, 100, 130
---	----------------------------------

Table 1 Combination of slide table shapes and sizes

Model	Shape						
	TU...C	TU...S	TU...G	TU...FC	TU...F	TU...FG	TU...YF
TU 25	—	○	—	—	○	—	—
TU 30	—	○	—	—	○	—	—
TU 40	○	○	○	—	○	—	—
TU 50	○	○	○	—	○	—	○
TU 60	○	○	○	○	○	○	○
TU 86	○	○	○	○	○	○	○
TU100	—	○	—	—	○	—	—
TU130	—	○	—	—	○	—	—

Part code

④Track rail length For applications, see Table 2.1, Table 2.2, and Table 2.3.	Specify the track rail length in cm.	
⑤Number of slide tables	S : 1 C : 2	Specify the number of tables. For Low profile type, only code “S” is available.

Table 2.1 Track rail length

Model	Track rail length [Length code]										
	[13] 130	[16] 165	[20] 200	—	—	—	—	—	—	—	—
TU 25	[13] 130	[16] 165	[20] 200	—	—	—	—	—	—	—	—
TU 30	[14] 140	[18] 180	[22] 220	[26] 260	[30] 300	[34] 340	—	—	—	—	—
TU 40	[18] 180	[24] 240	[30] 300	[36] 360	[42] 420	—	—	—	—	—	—
TU 50	[22] 220	[30] 300	[38] 380	[46] 460	[54] 540	[62] 620	[70] 700	—	—	—	—
TU 60	[29] 290	[39] 390	[49] 490	[59] 590	[69] 690	[79] 790	[99] 990	[119] 1190	—	—	—
TU 86	[49] 490	[59] 590	[69] 690	[79] 790	[89] 890	[99] 990	[109] 1090	[119] 1190	[139] 1390	[159] 1590	—
TU100	[101] 1010	[116] 1160	[131] 1310	[146] 1460	—	—	—	—	—	—	—
TU130	[101] 1010	[116] 1160	[131] 1310	[146] 1460	[161] 1610	—	—	—	—	—	—

Remark 1 : For the stroke length, see the dimension table on and after page 44.
2 : For the motor folding back specification, see Table 2.2.
3 : For the Low profile type, see Table 2.3.

Table 2.2 Track rail length (Motor folding back specification)

unit : mm
[] : Length code

Model	Track rail length [Length code]							
TU 40	[14] 140	[20] 200	[26] 260	[32] 320	[38] 380	—	—	—
TU 50	[18] 180	[26] 260	[34] 340	[42] 420	[50] 500	[58] 580	[66] 660	—
TU 60	[24] 244	[34] 344	[44] 444	[54] 544	[64] 644	[74] 744	—	—
TU 86	[44] 442	[54] 542	[64] 642	[74] 742	[84] 842	[94] 942	[104]1042	[114]1142

Remark : For the stroke length, see the dimension table on and after page 47.

Table 2.3 Track rail length (Low profile type)

unit : mm
[] : Length code

Model	Track rail length [Length code]		
TU 50 YF	[24] 240	[32] 320	[40] 400
TU 60 YF	[40] 400	[50] 500	[60] 600
TU 86 YF	[40] 400	[60] 600	[80] 800

Remark : For the stroke length, see the dimension table on and after page 50.

Motor code

Electric Device⇒P.39

⑥With or without motor	No symbol : Without motor A : With motor	If the motor is prepared on the customer side, specify “Without motor”. (no symbol)
⑦Motor type For applications, see page 40~43.	No symbol : Without motor attachment Y○ : AC servo motor P○ : AC servo motor J○ : AC servo motor A○ : AC servo motor H○ : AC servo motor K○ : Stepping motor	When “Without motor” (no symbol) is selected in item ⑥, · When A○, Y○, P○, J○, or K○ is selected, the motor attachment and coupling applicable to each motor are mounted at delivery. · When No symbol is selected, the motor attachment and coupling are not mounted at delivery. (For specifications, see page 13. For TU40 and TU50, the specification is for the AC servo motor.)

Ball screw code

Ball screw specifications⇒P.15

③Ball screw type For applications, see Table 3.	No symbol : Rolled screw G : Ground screw N : Without ball screw	When N is selected, · Select “No symbol” in items ⑥, ⑦, ⑨, and ⑩. · For sensor installation specification in ⑪, select “Without sensor” (select 0). · “With bellows” cannot be selected in item ⑩. For Low profile type, only “Rolled screw” (No symbol) is available.
⑨Ball screw lead	4, 5, 8, 10, 20, 25	

Table 3 Ball screw leads

Model	Ball screw type	Ball screw lead mm					
		4	5	8	10	20	25
TU 25	Ground screw	○	—	—	—	—	—
TU 30	Ground screw	—	○	—	—	—	—
TU 40	Ground screw	○	—	○	—	—	—
TU 50	Rolled screw	—	○	—	○	—	—
	Ground screw	—	○ ^(?)	—	○ ^(?)	—	—
TU 60	Rolled screw	—	○	—	○	—	—
	Ground screw	—	○ ⁽¹⁾ ^(?)	—	○ ⁽¹⁾ ^(?)	○ ⁽¹⁾ ^(?)	—
TU 86	Rolled screw	—	—	—	○ ^(?)	○ ^(?)	—
	Ground screw	—	—	—	○ ^(?) ^(?)	○ ^(?)	—
TU100	Ground screw	—	—	—	—	○	—
TU130	Ground screw	—	—	—	—	—	○

Note⁽¹⁾ : Not applicable to track rail lengths 990mm and 1190mm.
^(?) : Not applicable to track rail lengths 1390mm and 1590mm.
^(?) : Not applicable to Low profile type. (TU···YF)

Cover code

Cover specification⇒P.17

⑩Cover	0 : Without cover C : With bridge cover (Applicable to TU···FC, TU···F, TU···FG, and TU···YF) J : With bellows (Applicable to TU60S and TU86S)	When “With bellows” (select J) is selected, · Select code S (one side unit) for Number of slide tables in item ⑤. For track rail lengths 1190mm of TU60 and 1590mm of TU86, “With bridge cover” is not available. For Low profile type, only “ With bridge cover” (code “C”) is available. And black chrome surface treatment is performed on its bridge cover.
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Sensor code

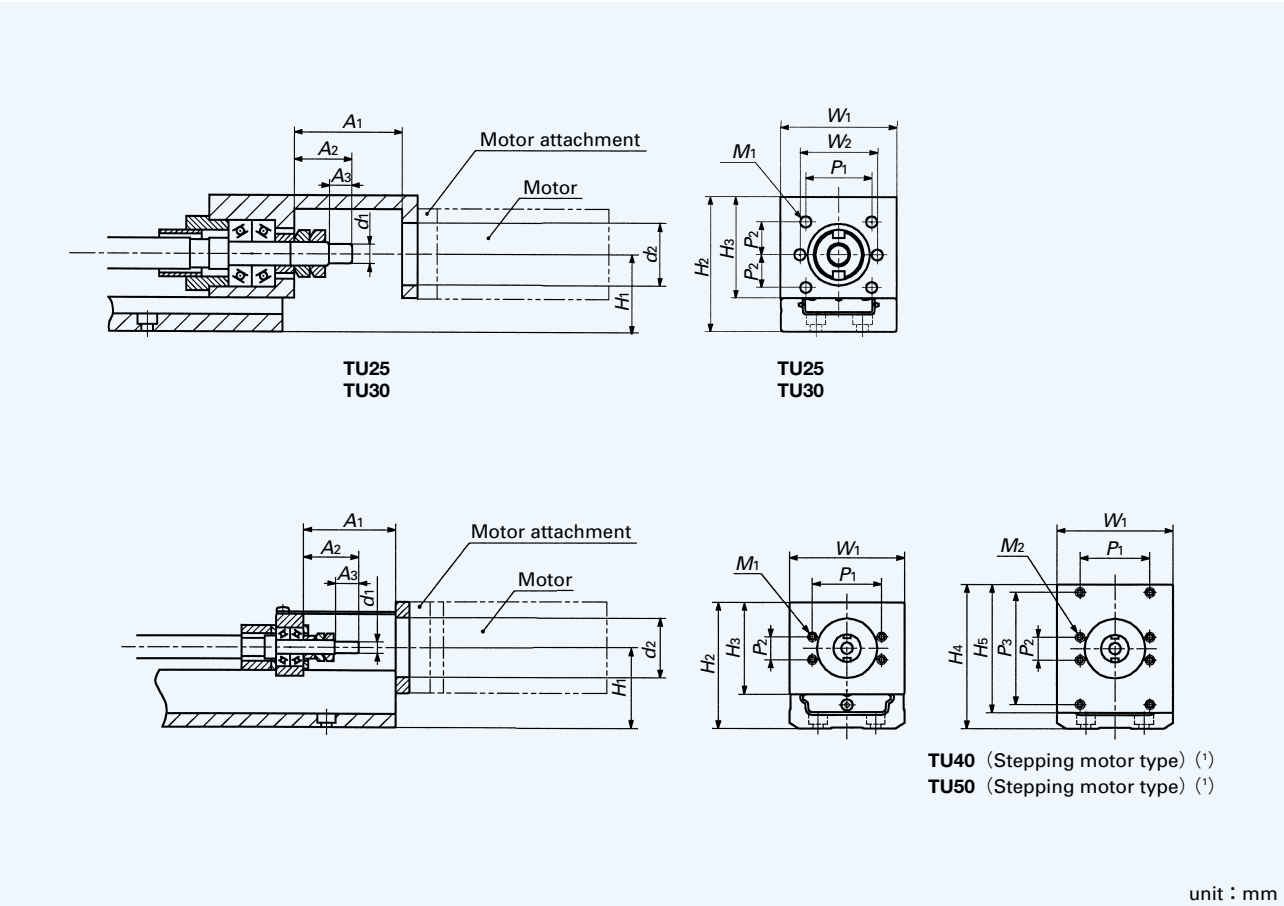
Sensor specification⇒P.19

⑪Sensor	0 : Without sensor and without sensor rail 2 : Two sensors (limit sensors) and with sensor rails 3 : Three sensors (limit and pre-origin sensors) and with sensor rails 4 : Four sensors (limit, pre-origin, and origin) and with sensor rails 9 : Without sensor and with sensor rails	Specify the number of sensors and whether or not to attach the sensor rail to fix the sensors. For Low profile type, four sensors specification (code “4”) is not available.
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Surface treatment code

⑫Surface treatment	No symbol : No treatment R : Black chrome surface treatment “R” Black chrome surface treatment is performed on the surface of the slide table and the track rail. L : Black chrome surface treatment “L” In addition to black chrome surface treatment “R”, the treatment is performed on the ball screw shaft and the nut.	Specify the surface treatment specification. A black permeable film is performed on the surface to increase corrosion resistance.
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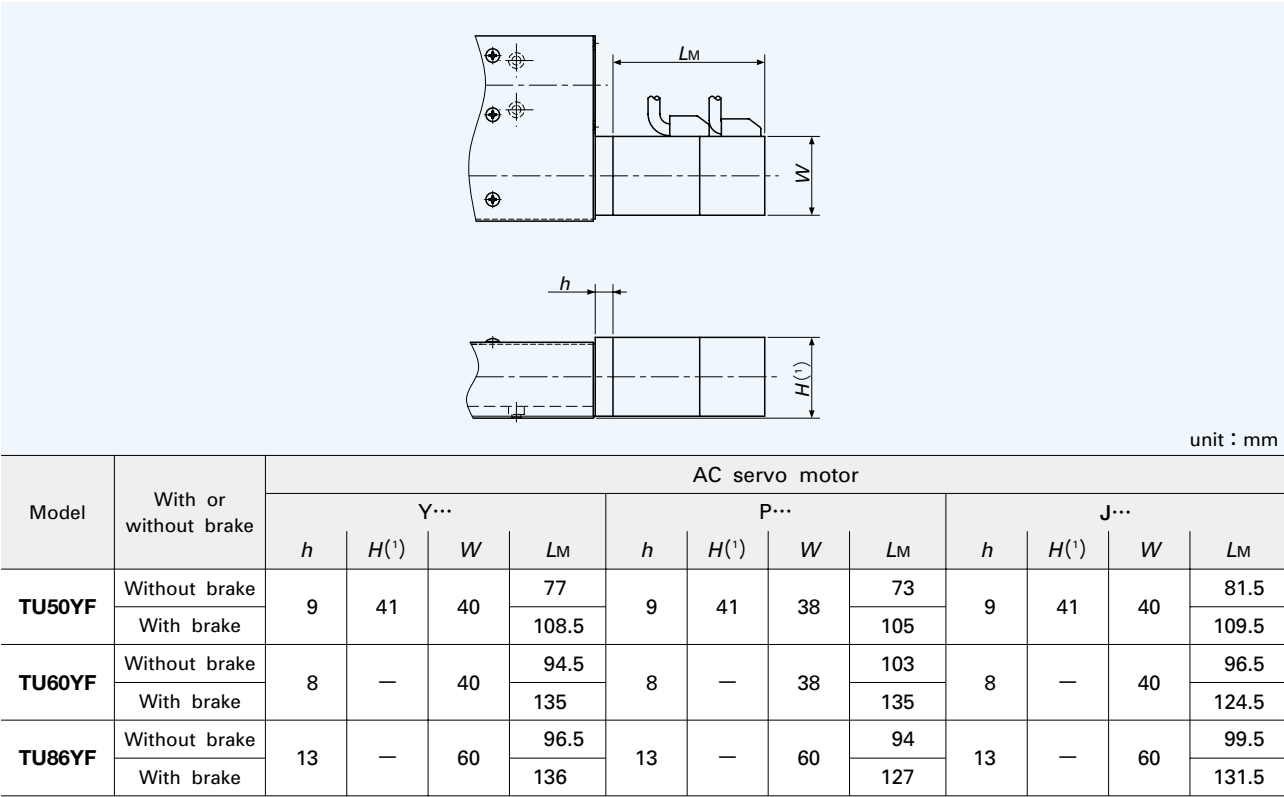
Table 7 Dimensions of the table without motor attachment



Model	A ₁	A ₂	A ₃	d ₁	d ₂	H ₁	H ₂	H ₃	H ₄	H ₅
TU 25	28	15	6	$\phi 5 \begin{smallmatrix} 0 \\ -0.008 \end{smallmatrix}$	$\phi 16 \begin{smallmatrix} +0.04 \\ +0.02 \end{smallmatrix}$	16	31	26.3	—	—
TU 30	28	15	6	$\phi 5 \begin{smallmatrix} 0 \\ -0.008 \end{smallmatrix}$	$\phi 16 \begin{smallmatrix} +0.04 \\ +0.02 \end{smallmatrix}$	20	35	26.3	—	—
TU 40	40	24	10	$\phi 5 \begin{smallmatrix} 0 \\ -0.008 \end{smallmatrix}$	$\phi 26 \begin{smallmatrix} +0.04 \\ +0.02 \end{smallmatrix}$	28.5	43.5	30	56.5	56
TU 50	40	24	10	$\phi 5 \begin{smallmatrix} 0 \\ -0.008 \end{smallmatrix}$	$\phi 26 \begin{smallmatrix} +0.04 \\ +0.02 \end{smallmatrix}$	35	55	40	63	56
TU 60	46	29	15	$\phi 8 \begin{smallmatrix} 0 \\ -0.009 \end{smallmatrix}$	$\phi 32 \begin{smallmatrix} +0.04 \\ +0.02 \end{smallmatrix}$	42	62	40	—	—
TU 86	48	29	15	$\phi 8 \begin{smallmatrix} 0 \\ -0.009 \end{smallmatrix}$	$\phi 39 \begin{smallmatrix} +0.04 \\ +0.02 \end{smallmatrix}$	49.5	74.5	50	—	—
TU100	72	44	22	$\phi 12 \begin{smallmatrix} 0 \\ -0.011 \end{smallmatrix}$	$\phi 59 \begin{smallmatrix} +0.04 \\ +0.02 \end{smallmatrix}$	58	93	70	—	—
TU130	72	44	20	$\phi 15 \begin{smallmatrix} 0 \\ -0.011 \end{smallmatrix}$	$\phi 59 \begin{smallmatrix} +0.04 \\ +0.02 \end{smallmatrix}$	72.5	107.5	70	—	—
Model	W ₁	W ₂	P ₁	P ₂	P ₃	M ₁	M ₂			
TU 25	25	20	17	8.5	—	6- ϕ 2.9	—			
TU 30	30	20	17	8.5	—	6- ϕ 2.9	—			
TU 40	40	—	30	10	49	4-M3 depth 6	8-M3 depth 6			
TU 50	50	—	30	10	49	4-M3 depth 6	8-M3 depth 6			
TU 60	57.7	—	50	20	—	4-M4 depth 8	—			
TU 86	83.6	—	50	20	—	4-M4 depth 8	—			
TU100	98	—	72	40	—	4-M5 depth 10	—			
TU130	128	—	72	40	—	4-M5 depth 10	—			

Note(1) : When the stepping motor type without motor attachment is required, consult for further information.
Remark 1 : For dimensions of the slide table and track rail, see the dimension tables from page 44.
2 : For Low profile type, see Table 9.

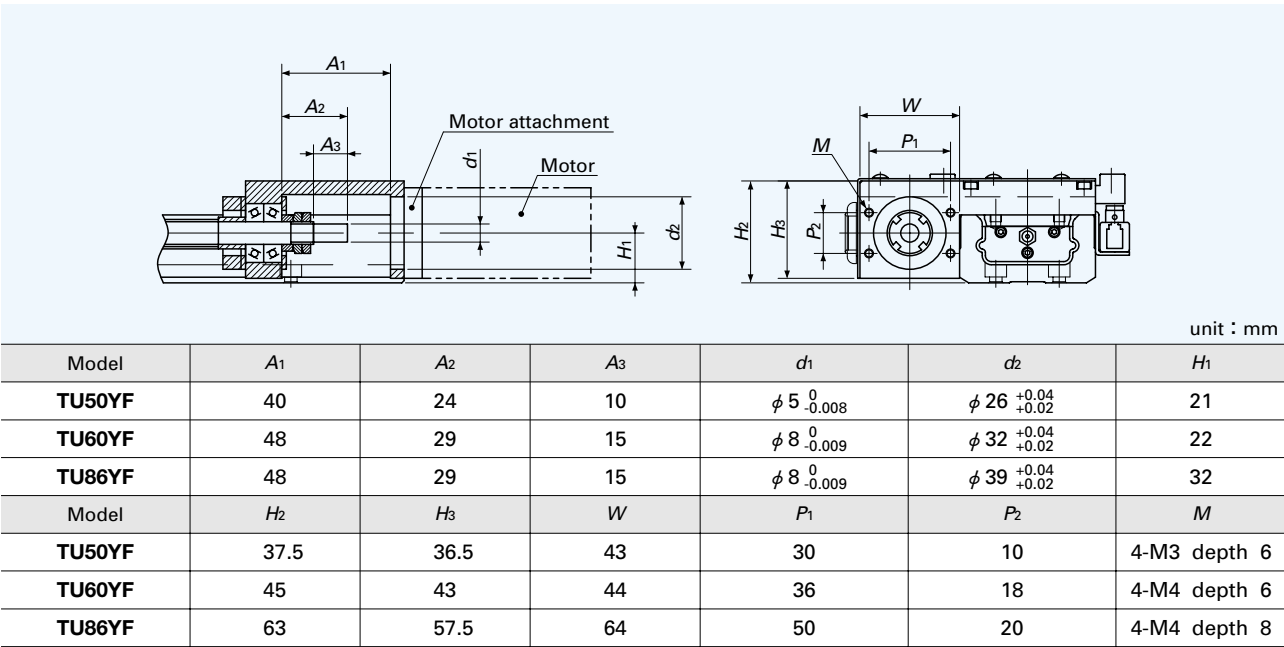
Table 8 Dimensions of motor (for Low profile type)



Model	With or without brake	AC servo motor											
		Y...				P...				J...			
		h	H(1)	W	LM	h	H(1)	W	LM	h	H(1)	W	LM
TU50YF	Without brake	9	41	40	77	9	41	38	73	9	41	40	81.5
	With brake				108.5				105				109.5
TU60YF	Without brake	8	—	40	94.5	8	—	38	103	8	—	40	96.5
	With brake				135				135				124.5
TU86YF	Without brake	13	—	60	96.5	13	—	60	94	13	—	60	99.5
	With brake				136				127				131.5

Note(1) : The dimension H of TU60YF and TU86YF is lower than table height.
Remark : For dimensions of the slide table and track rail, see the dimension tables from page 44.

Table 9 Dimensions of the table without motor attachment (for Low profile type)



Model	A1	A2	A3	d1	d2	H1
TU50YF	40	24	10	$\phi 5 \begin{smallmatrix} 0 \\ -0.008 \end{smallmatrix}$	$\phi 26 \begin{smallmatrix} +0.04 \\ +0.02 \end{smallmatrix}$	21
TU60YF	48	29	15	$\phi 8 \begin{smallmatrix} 0 \\ -0.009 \end{smallmatrix}$	$\phi 32 \begin{smallmatrix} +0.04 \\ +0.02 \end{smallmatrix}$	22
TU86YF	48	29	15	$\phi 8 \begin{smallmatrix} 0 \\ -0.009 \end{smallmatrix}$	$\phi 39 \begin{smallmatrix} +0.04 \\ +0.02 \end{smallmatrix}$	32
Model	H2	H3	W	P1	P2	M
TU50YF	37.5	36.5	43	30	10	4-M3 depth 6
TU60YF	45	43	44	36	18	4-M4 depth 6
TU86YF	63	57.5	64	50	20	4-M4 depth 8

Remark : For dimensions of the slide table and track rail, see the dimension tables from page 44.

Ball Screw Specification

In  Precision Positioning Table TU, three types of ball screw specifications which are ground screw, rolled screw, and without ball screw can be selected. The table without ball screw can be used as a guide track rail in the use of two parallel tables. Table 10.1 shows ball screw specifications. Table 10.2 shows load ratings and Table 11 shows dimensions of the type without ball screw.

Table 10.1 Ball screw specifications

unit : mm

Model	Ball screw type	Lead	Outside dia. of screw	Axial clearance
TU 25	Ground screw	4	6	0.005max.
TU 30	Ground screw	5	8	0.005max.
TU 40	Ground screw	4	8	0.005max.
		8		
TU 50	Rolled screw	5	10	0.05 max.
		10		
	Ground screw	5	10	0.005max.
		10		
TU 60	Rolled screw	5	12	0.05 max.
		10		
	Ground screw ⁽¹⁾	5	12	0.005max.
		10		
		20		
TU 86	Rolled screw ⁽²⁾	10	15	0.05 max.
		20		
	Ground screw	10	15	0.005max.
		20		
	Ground screw ⁽³⁾	20	20	0.005max.
TU100	Ground screw	20	20	0.005max.
TU130	Ground screw	25	25	0.005max.

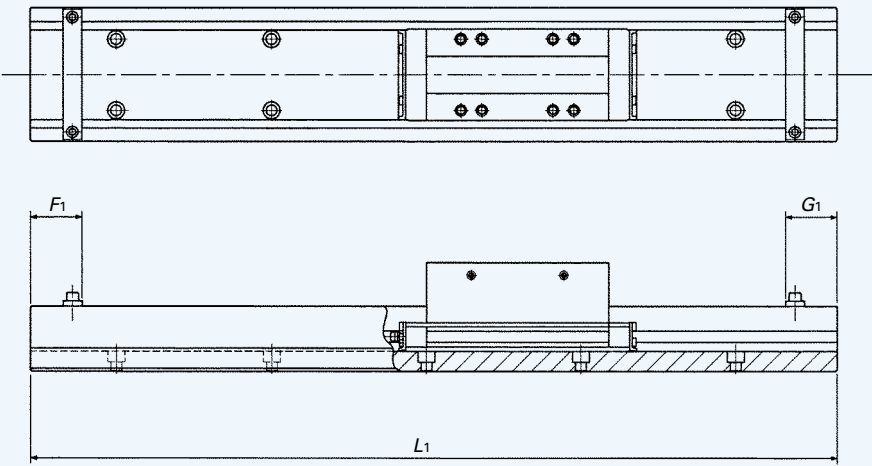
Note⁽¹⁾ : Not applicable to track rail length 990mm and 1190mm.
⁽²⁾ : Not applicable to track rail length 1390mm and 1590mm.
⁽³⁾ : Ball screw to be used for track rail length 1390mm and 1590mm.

Table 10.2 Load ratings of ball screw

Model	Ball screw type	Lead mm	Basic dynamic load rating C N	Basic static load rating C ₀ N
TU 25	Ground screw	4	950	1 630
TU 30	Ground screw	5	1 080	2 160
TU 40	Ground screw	4	2 290	3 575
		8	1 450	2 155
TU 50	Rolled screw	5	2 300	4 800
		10	1 850	3 200
	Ground screw	5	2 730	4 410
		10	1 720	2 745
TU 60	Rolled screw	5	2 800	5 000
		10	1 800	3 200
	Ground screw	5	3 230	6 320
		10	2 300	3 920
		20	2 300	3 920
TU 86	Rolled screw	10	4 900	9 100
		20	3 900	5 050
	Ground screw	10	6 080	12 600
		20	4 510 (6 960)	7 850 (13 000)
TU100	Ground screw	20	6 960	13 000
TU130	Ground screw	25	10 100	20 000

Remark : The value in () is for the ball screw with outside diameter of 20mm. (Track rail length : 1390mm and 1590mm)

Table 11 Specifications of the type without ball screw



unit : mm

Model	Track rail specification	Track rail length L ₁	Without bridge cover		With bridge cover	
			F ₁	G ₁	F ₁	G ₁
TU 25	For without motor folding back	130, 165, 200	14	14	14	14
TU 30	For without motor folding back	140, 180, 220, 260, 300, 340	14	14	14	14
TU 40	For without motor folding back	180, 240, 300, 360, 420	20	18	20	18
	For with motor folding back	140, 200, 260, 320, 380	20	18	20	18
TU 50	For without motor folding back	220, 300, 380, 460, 540, 620, 700	20	18	20	18
	For with motor folding back	180, 260, 340, 420, 500, 580, 660	20	18	20	18
TU 60	For without motor folding back	290, 390, 490, 590, 690, 790, 990	32	17	35	29
		1190	32	17	—	—
	For with motor folding back	244, 344, 444, 544, 644, 744	32	28	35	29
TU 86	For without motor folding back	490, 590, 690, 790, 890, 990, 1090, 1190, 1390	32	19	35	29
		1590	32	19	—	—
	For with motor folding back	442, 542, 642, 742, 842, 942, 1042, 1142	32	28	35	29
TU100	For without motor folding back	1010, 1160, 1310, 1460	35	34	35	34
TU130	For without motor folding back	1010, 1160, 1310, 1460, 1610	35	38	35	38

Remark : For dimensions of the slide table and track rail, see the dimension tables from page 44.

Cover specification

For Precision Positioning Table TU, bridge cover and bellow are prepared for dust protection. Table 12.1 and Table 12.2 show dimensions of the table with bellows.

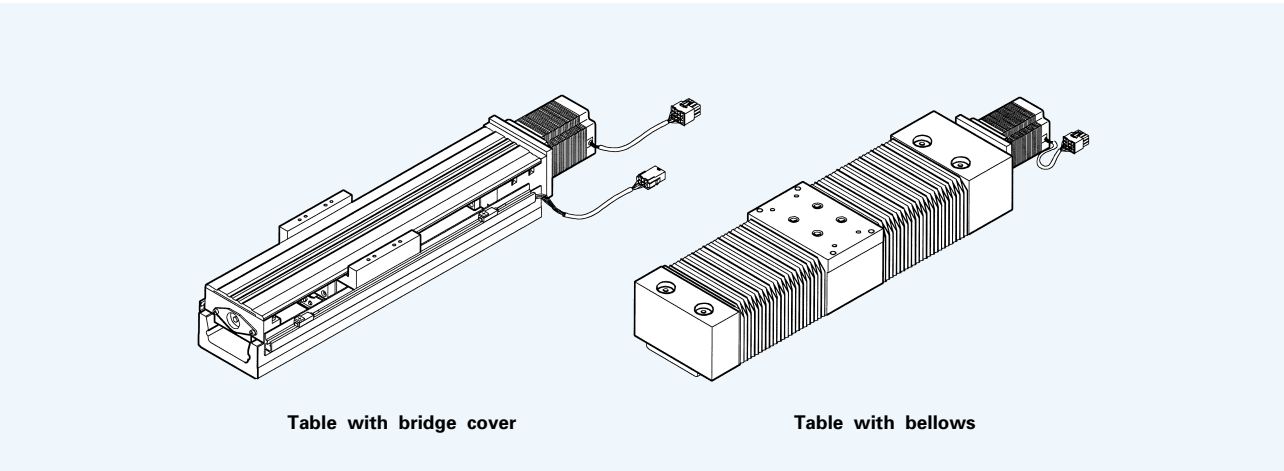
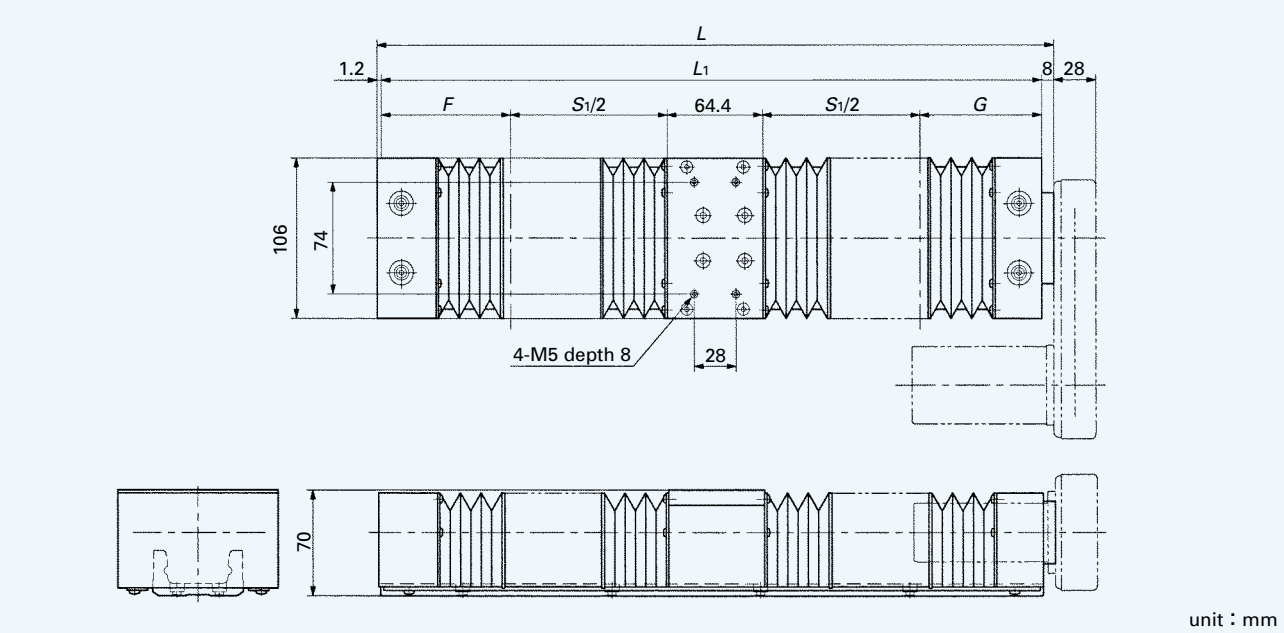


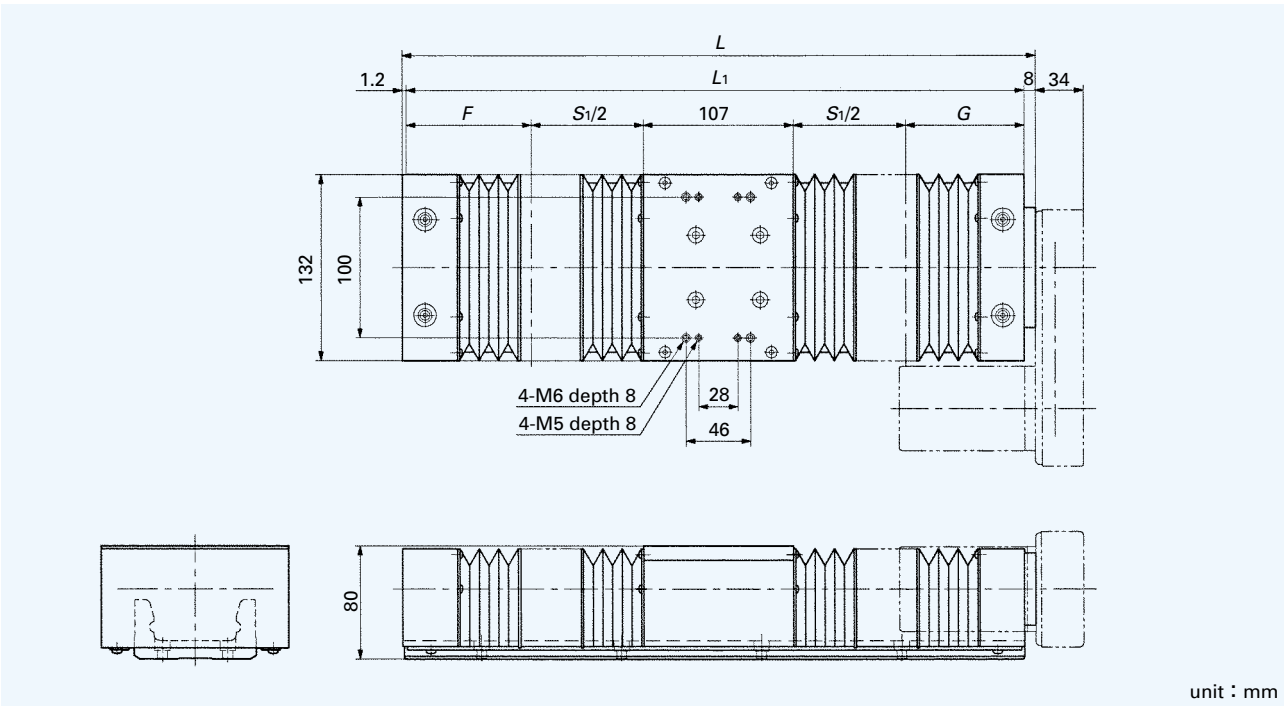
Table 12.1 Table with bellows (TU60S)



Track rail length L_1	Total length L	Limit stroke length ⁽¹⁾ S_1	Stroke length ⁽²⁾ S	F	G
290(244)	299.2(253.2)	73.6(68.6)	65(60)	59(59)	93(52)
390(344)	399.2(353.2)	147.6(142.6)	140(135)	72(72)	106(65)
490(444)	499.2(453.2)	219.6(214.6)	210(205)	86(86)	120(79)
590(544)	599.2(553.2)	293.6(288.6)	285(280)	99(99)	133(92)
690(644)	699.2(653.2)	393.6(388.6)	380(375)	99(99)	133(92)
790(744)	799.2(753.2)	465.6(460.6)	455(450)	113(113)	147(106)

Note⁽¹⁾ : Limit stroke length means the limit value of stroke range over which the slide table can travel.
Note⁽²⁾ : Stroke length means the limit stroke length when limit sensors are attached.
Remark 1 : The dimensions in () are applicable to the table with bellows of the motor folding back specification.
2 : For the mounting dimensions of the track rail, see the dimension table of TU60
3 : The dimensions above are also applicable to the table with Capillary plates.

Table 12.2 Table with bellows (TU86S)



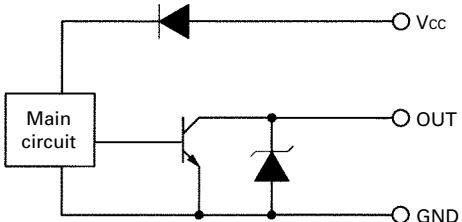
Track rail length L_1	Total length L	Limit stroke length ⁽¹⁾ S_1	Stroke length ⁽²⁾ S	F	G
490(442)	499.2(451.2)	203(198)	195(190)	72(72)	108(65)
590(542)	599.2(551.2)	275(270)	265(260)	86(86)	122(79)
690(642)	699.2(651.2)	349(344)	340(335)	99(99)	135(92)
790(742)	799.2(751.2)	421(416)	410(405)	113(113)	149(106)
890(842)	899.2(851.2)	521(516)	510(505)	113(113)	149(106)
990(942)	999.2(951.2)	593(588)	580(575)	127(127)	163(120)
1090(1042)	1099.2(1051.2)	667(662)	655(650)	140(140)	176(133)
1190(1142)	1199.2(1151.2)	739(734)	730(725)	154(154)	190(147)

Note⁽¹⁾ : Limit stroke length means the limit value of stroke range over which the slide table can travel.
Note⁽²⁾ : Stroke length means the limit stroke length when limit sensors are attached.
Remark 1 : The dimensions in () are applicable to the table with bellows of the motor folding back specification.
2 : For the mounting dimensions of the track rail, see the dimension table of TU86.
3 : The dimensions above are also applicable to the table with Capillary plates.

Sensor specification

The sensor specification for  Precision Positioning Table TU indicates the number of sensors and whether or not a sensor rail for fastening the sensor is attached. Table 13 shows the specifications of sensors. Table 14 shows the specifications of sensor connectors. Note that, when two sensors (limit) and three sensors (limit, pre-origin) are specified in the identification number, sensor will not be wired unless specified. The sectional shape of sensor rail is shown in Fig. 1. The timing charts for the case where the number of sensors is set to 4 are shown in Table 15.1 and Table 15.2. In the tables of motor folding back specification, the CW and CCW movements of the slide table will be opposite to those of the table without motor folding back.

Table 13 Specifications of sensors

Item	Type	Limit, pre-origin	Origin
Type	proximity sensor (NPN type ⁽¹⁾)		
Power supply voltage	DC12~24V ±10%		
Current consumption	10mA or less		
Output	Open collector • Max. current : 100mA • Applied voltage : DC30V or less • Residual voltage : 1.0V or less at 100mA in-flow current 0.4V or less at 16mA in-flow current		
Output operation	When approaching : OFF		When approaching : ON
Operation indicator	LED (red)		
Circuit diagram			

Note⁽¹⁾ : If PNP type is required, please consult .

Table 14 Specifications of connectors

Pin No.	Signal name	Sensor-side connector type	Opposite-side connector type
1	Origin	Cap housing 172160-1	Plug housing 172168-1
2	Pre-origin		
3	CW limit		
4	CCW limit	Contactora 170365-1	Contactora 170363-1
5	Power input		
6	GND		

Remark : Manufactured by Taiko Electronics AMP Co., Ltd.

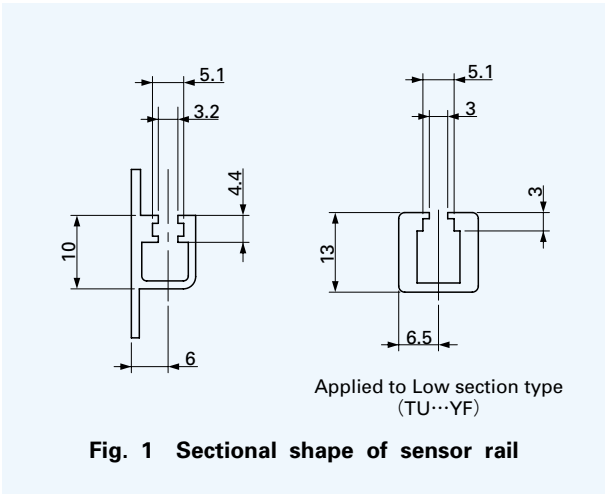


Fig. 1 Sectional shape of sensor rail

Table 15.1 Sensor timing chart (except motor folding back)

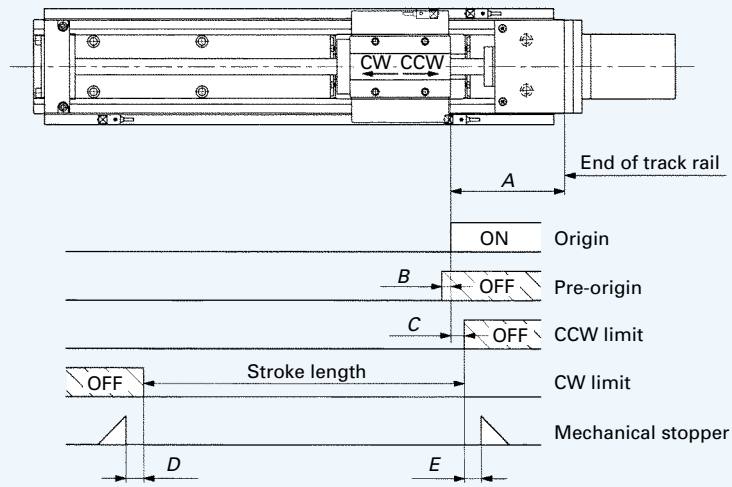
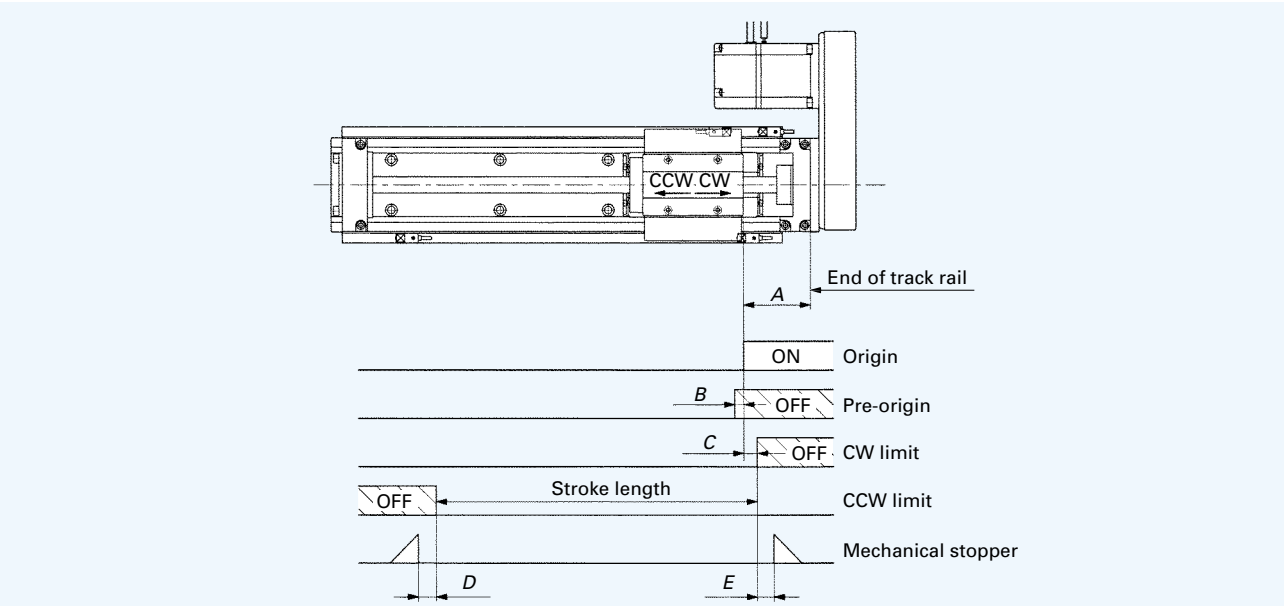
									
unit : mm									
Model	Slide table shape	Ball screw lead	A	B	C	D ⁽¹⁾	E		
TU 25	S, F	4	50	2	10	8.4 (6)	8		
TU 30	S, F	5	50	3	10	10.9 (6.4)	8		
TU 40	C	4	85	2	10	7.5 (5.5)	4.5		
		8		6					
	S, F	4	2	10.5 (8.5)		8			
		8	6						
	G	4	2	4.5 (7.5)		8			
		8	6						
TU 50	C	5	85	3	10	7.2 (6.2)	3.8		
		10		7					
	S, F	5	3	8.2 (7.2)		8			
		10	7						
	G	5	3	4.2 (3.2)		8			
		10	7						
	YF ⁽⁴⁾	5	88	3		4.2	5		
		10		7					
TU 60	C, FC	5	110	3	20	14.6 (19.6)	10.4		
		10		7					
		20		14					
	S, F	5	100	3		9.6 (9.6)	8		
		10		7					
		20		14					
	G, FG	5	100	3		9 (8.5)	8		
		10		7					
		20		14					
	YF ⁽⁴⁾	5	105	3		20	4.6	5	
		10		7					
	TU 86	C, FC	10	105 ⁽²⁾		7	20	13 (14)	11
20			14		12 (14) ⁽³⁾	4			
S, F		10	105	7	13 (14)	11			
		20		14	12 (14)				
G, FG		10	105	7	13 (14)	11			
		20		14	12 (14)				
YF ⁽⁴⁾		10	107	7	20	5		5	
		20		14					
TU100		S, F	20	150	14	20		22 (19)	20
TU130		S, F	25	160	18	20		18 (23)	20

Table 15.2 Sensor timing chart (motor folding back specification)



※For the tables of motor folding back specification, the CW and CCW movements of the slide table is opposite to those of the table without motor folding back.

Model	Slide table shape	Ball screw lead	A	B	C	D ⁽¹⁾	E
TU 40	C	4	45	2	10	7.5 (5.5)	4.5
		8		6			
	S, F	4	45	2		10.5 (8.5)	8
		8		6			
	G	4	45	2		4.5 (7.5)	8
		8		6			
TU 50	C	5	45	3	10	7.2 (6.2)	3.8
		10		7			
	S, F	5	45	3		8.2 (7.2)	8
		10		7			
	G	5	45	3		4.2 (3.2)	8
		10		7			
TU 60	C, FC	5	64	3	20	14.6(19.6)	10.4
		10		7			
		20		14			
	S, F	5	59	3		9.6 (9.6)	8
		10		7			
		20		14			
	G, FG	5	59	3		9 (8.5)	8
		10		7			
		20		14			
		20		14			
TU 86	C, FC	10	62	7	20	13 (14)	11
		20		14		12 (14)	4
	S, F	10	62	7		13 (14)	11
		20		14		12 (14)	
	G, FG	10	62	7		13 (14)	11
		20		14		12 (14)	
		20		14		13 (14)	
		20		14		12 (14)	

Note⁽¹⁾ : The dimensions in () are for the case the number of slide tables is two.

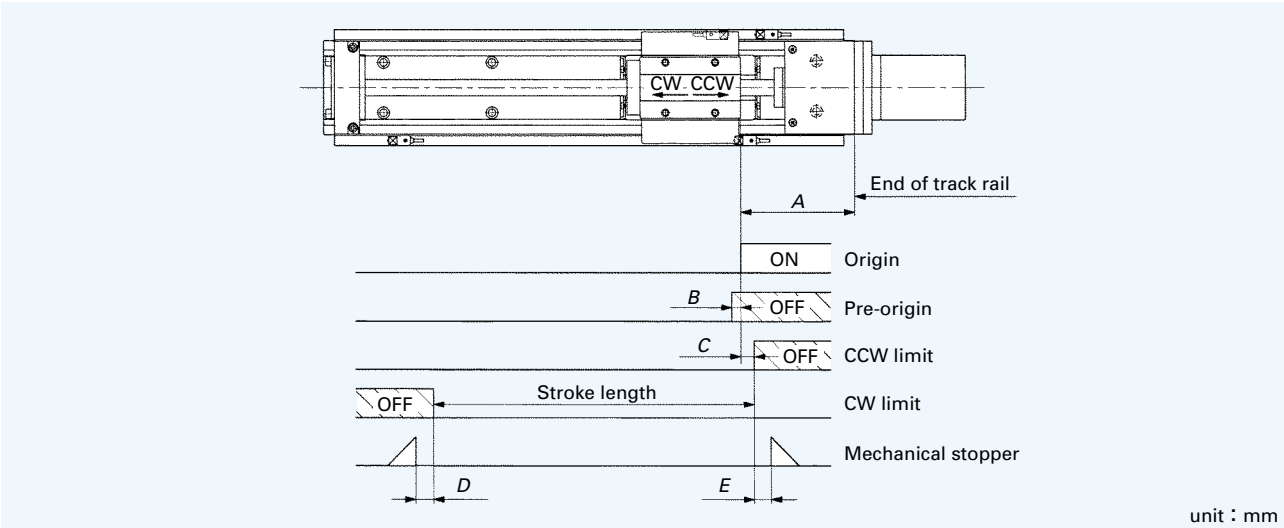
Remark 1 : For sensor mounting specification, specify in the identification number.

2 : To the table with bellows, this table is not applicable.

3 : For the code of slide table shape, see page 8.

4 : For the table with Capillary plate, see Table 15.4.

Table 15.3 Sensor timing chart (with Capillary plate, except motor folding back)



Model	Slide table shape	Ball screw lead	A	B	C	D ⁽¹⁾	E
TU 25	S, F	4	50	2	10	8.4 (6)	8
TU 30	S, F	5	50	3	10	10.9 (6.4)	8
TU 40	C	4	100	2	10	7.5 (5.5)	9
		8		6			
	S, F	4	100	2		5.5 (8.5)	9
		8		6			
	G	4	100	2		9.5 (7.5)	9
		8		6			
TU 50	C	5	100	3	10	7.2 (6.2)	8
		10		7			
	S, F	5	100	3		8.2 (7.2)	8
		10		7			
	G	5	100	3		9.2 (8.2)	8
		10		7			
TU 60	C, FC	5	120	3	20	9.6 (9.6)	5.4
		10		7			
		20		14			
	S, F	5	100	3		4.6 (9.6)	8
		10		7			
		20		14			
	G, FG	5	100	3		4 (9)	8
		10		7			
		20		14			
		20		14			
TU 86	C, FC	10	130	7	20	8 (14)	19
		20		14		7 (14)	9
	S, F	10	105	7		13 (9)	11
		20		14		12 (9)	
	G, FG	10	105	7		8 (9)	11
		20		14		7 (9)	
		20		14		8 (9)	
		20		14		7 (9)	
TU100	S, F	20	150	14	20	17 (14)	20
TU130	S, F	25	160	18	20	18 (18)	20

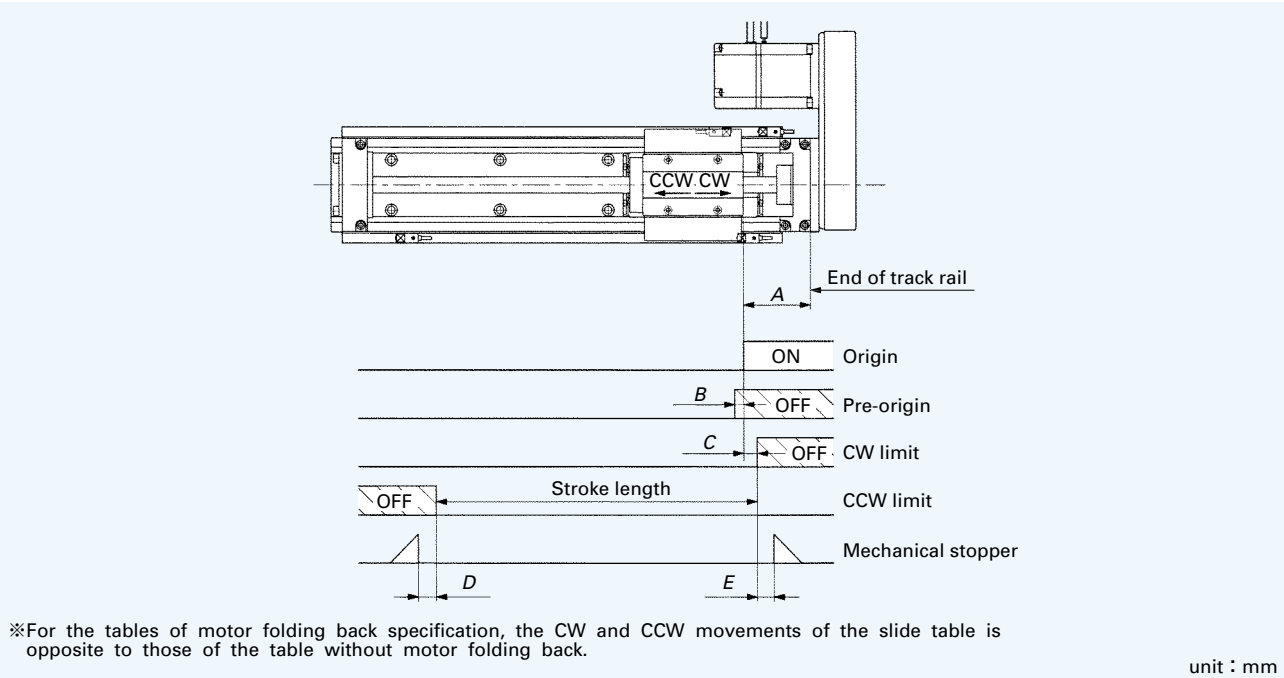
Note⁽¹⁾ : The dimensions in () are for the case the number of slide tables is two.

Remark 1 : For sensor mounting specification, specify in the identification number.

2 : To the table with bellows, this table is not applicable.

3 : For the code of slide table shape, see page 8.

Table 15.4 Sensor timing chart (motor folding back with Capillary plate)



Model	Slide table shape	Ball screw lead	A	B	C	D ⁽¹⁾	E
TU 40	C	4	60	2	10	7.5 (5.5)	9
		8		6			
	S, F	4	60	2		5.5 (8.5)	9
		8		6			
	G	4	60	2		9.5 (7.5)	9
		8		6			
TU 50	C	5	60	3	10	7.2 (6.2)	8
		10		7			
	S, F	5	60	3		8.2 (7.2)	8
		10		7			
	G	5	60	3		9.2 (8.2)	8
		10		7			
TU 60	C, FC	5	75	3	20	8.6 (8.6)	6.4
		10		7		9.6 (9.6)	5.4
		20		14		9.6 (9.6)	5.4
	S, F	5	60	3		8.6 (3.6)	9
		10		7		9.6 (4.6)	5.4
		20		14		9.6 (4.6)	5.4
	G, FG	5	60	3		8 (3)	9
		10		7		8 (3)	9
TU 86	C, FC	5	75	3	20	8.6 (8.6)	6.4
		10		7		9.6 (9.6)	5.4
		20		14		9.6 (9.6)	5.4
	S, F	5	60	3		8.6 (3.6)	9
		10		7		9.6 (4.6)	5.4
		20		14		9.6 (4.6)	5.4
	G, FG	5	60	3		8 (3)	9
		10		7		8 (3)	9

Note⁽¹⁾ : The dimensions in () are for the case the number of slide tables is two.

Remark 1 : For sensor mounting specification, specify in the identification number.

2 : To the table with bellows, this table is not applicable.

3 : For the code of slide table shape, see page 8.

Motor Folding Back Specification

The motor folding back specification is available for IICO Precision Positioning Table TU. Space can be saved by folding back the motor and reducing the total length of the table. For the motor folding back specification, see the respective dimension tables.

Note that the track rail lengths of motor folding back specification are different from these of tables without motor folding back.

Table without motor folding back unit is the resultant table after removing the motor folding back unit from the motor folding back table. Table 16 shows dimensions of the table without motor folding back unit.

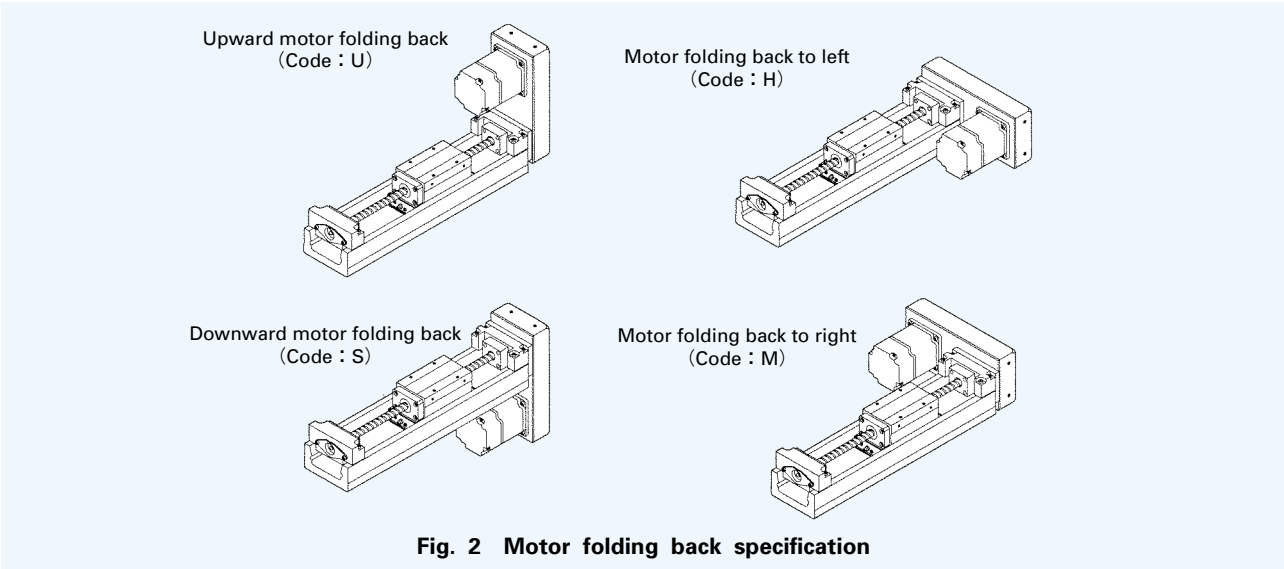


Table 16 Without motor folding back unit (Code : T, for designing the motor unit at customer.)

Model	A ₂	A ₃	d ₁	H ₁	H ₂	H ₃	W ₁	P ₁	P ₂	M ₁
TU40	18	10	φ 5 ⁰ _{-0.008}	28.5	43.5	30	40	24	24	4-M4 depth 6
TU50	18	10	φ 5 ⁰ _{-0.008}	35	50	30	40	24	24	4-M4 depth 6
TU60	21	15	φ 8 ⁰ _{-0.009}	42	62	40	60	42	20	4-M4 depth 8
TU86	21	15	φ 8 ⁰ _{-0.009}	49.5	69.5	40	85	42	20	4-M4 depth 8

unit : mm

Remark : For the dimensions of the slide table and track rail, see the dimension table of the respective models.

Capillary Plate Specification

Capillary plates are assembled inside of the end seals in the slide table and one end of ball screw nut. Lubrication oil impregnated in the Capillary plate is continuously fed to the raceways, when the slide table and ball screw nut travel along the raceways in uniform contact with the raceways of track rail and ball screw. Re-lubrication interval can be made longer, and maintenance and inspection time can be reduced.

Table 17.1 and Table 17.2 show dimensions of the table with Capillary plates.

Table 17.1 Table with Capillary plates (except motor folding back)

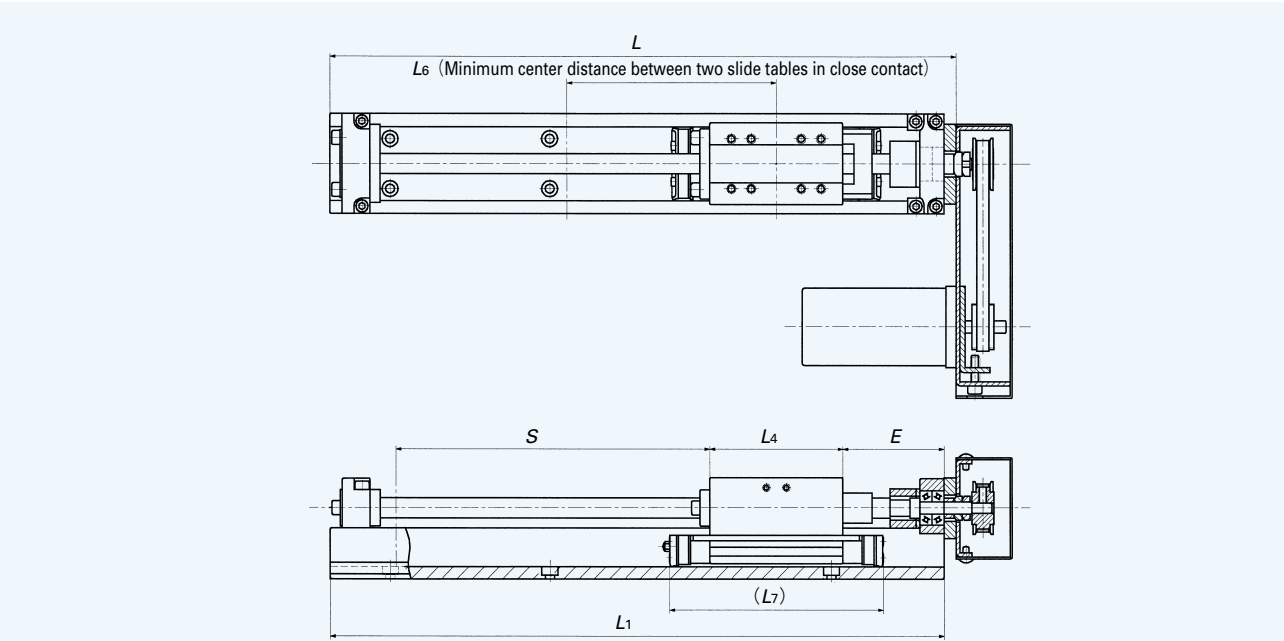
Technical drawing of a slide table assembly. The top view shows the overall length L and the minimum center distance between two slide tables in close contact, L6. The side view shows the stroke length S, the distance from the end seal to the center of the stroke L4, the distance from the end seal to the end of the track rail E, the track rail length L1, and the distance from the end seal to the end of the slide table L7.

Model	Track rail length L ₁	Total length L	Stroke length ⁽¹⁾ S	E	L ₄	L ₆	L ₇
TU 40C	180	186	30 (—)	90	19.5	60	55
	240	246	90 (40)				
	300	306	150 (100)				
	360	366	210 (160)				
	420	426	270 (220)				
TU 40S TU 40F	240	246	80 (—)	90	31.5	70	67
	300	306	140 (75)				
	360	366	200 (135)				
	420	426	260 (195)				
TU 40G	240	246	60 (—)	90	47.5	85	83
	300	306	120 (—)				
	360	366	180 (105)				
	420	426	240 (165)				
TU 50C	220	226	65 (—)	90	23.8	65	63
	300	306	145 (90)				
	380	386	225 (170)				
	460	466	305 (250)				
	540	546	385 (330)				
	620	626	465 (410)				
	700	706	545 (490)				
TU 50S TU 50F	220	226	45 (—)	90	42.8	85	82
	300	306	125 (50)				
	380	386	205 (130)				
	460	466	285 (210)				
	540	546	365 (290)				
	620	626	445 (370)				
TU 50G	300	306	100 (—)	90	66.8	110	106
	380	386	180 (80)				
	460	466	260 (160)				
	540	546	340 (240)				
	620	626	420 (320)				
	700	706	500 (400)				

unit : mm									
Model	Track rail length L ₁	Total length L	Stroke length ⁽¹⁾ S		E		L ₄	L ₆	L ₇
			Lead Lead	5mm 10mm	Lead Lead	5mm 10mm			
TU 60C TU 60FC	290	298	90 (40)	70 (—)	100	120	27.4	75	70
	390	398	190 (140)	170 (120)					
	490	498	290 (240)	270 (220)					
	590	598	390 (340)	370 (320)					
	690	698	490 (440)	470 (420)					
TU 60S TU 60F	290	298	90 (—)	70 (—)	80	95	52.4	100	95
	390	398	190 (110)	170 (100)					
	490	498	290 (210)	270 (200)					
	590	598	390 (310)	370 (300)					
	690	698	490 (410)	470 (400)					
TU 60G TU 60FG	290	298	60 (—)	— (—)	80	85	83	130	125
	390	398	160 (50)	155 (—)					
	490	498	260 (150)	255 (150)					
	590	598	360 (250)	355 (250)					
	690	698	460 (350)	455 (350)					
TU 86C TU 86FC	490	498	260 (190)	110	43	95	92		
	590	598	360 (290)						
	690	698	460 (390)						
	790	798	560 (490)						
	890	898	660 (590)						
TU 86S TU 86F	490	498	230 (120)	85	93	145	142		
	590	598	330 (220)						
	690	698	430 (320)						
	790	798	530 (420)						
	890	898	630 (520)						
TU 86G TU 86FG	490	498	210 (70)	85	118	170	167		
	590	598	310 (170)						
	690	698	410 (270)						
	790	798	510 (370)						
	890	898	610 (470)						
TU100S TU100F	490	498	210 (70)	130	111	170	166		
	590	598	310 (170)						
	690	698	410 (270)						
	790	798	510 (370)						
	890	898	610 (470)						
TU130S TU130F	490	498	210 (70)	140	132	195	190		
	590	598	310 (170)						
	690	698	410 (270)						
	790	798	510 (370)						
	890	898	610 (470)						

Note⁽¹⁾ : The limit stroke length when limit sensors are attached is indicated. The values in () are for two slide tables in close contact.
Remark : For the dimension of the slide table and track rail, see the respective dimension table.

Table 17.2 Table with Capillary plates (Motor folding back specification)



unit : mm

Model	Track rail length L_1	Total length L	Stroke length ⁽¹⁾ S	E	L_4	L_6	L_7
TU40C	140	146	30 (—)	50	19.5	60	55
	200	206	90 (40)				
	260	266	150 (100)				
	320	326	210 (160)				
	380	386	270 (220)				
TU40S TU40F	200	206	80 (—)	50	31.5	70	67
	260	266	140 (75)				
	320	326	200 (135)				
	380	386	260 (195)				
TU40G	200	206	60 (—)	50	47.5	85	83
	260	266	120 (—)				
	320	326	180 (105)				
	380	386	240 (165)				
TU50C	180	186	65 (—)	50	23.8	65	63
	260	266	145 (90)				
	340	346	225 (170)				
	420	426	305 (250)				
	500	506	385 (330)				
	580	586	465 (410)				
TU50S TU50F	660	666	545 (490)	50	42.8	85	82
	180	186	45 (—)				
	260	266	125 (50)				
	340	346	205 (130)				
	420	426	285 (210)				
	500	506	365 (290)				
TU50G	580	586	445 (370)	50	66.8	110	106
	660	666	525 (450)				
	260	266	100 (—)				
	340	346	180 (80)				
	420	426	260 (160)				
	500	506	340 (240)				
TU50G	580	586	420 (320)	50	66.8	110	106
	660	666	500 (400)				
	260	266	100 (—)				
	340	346	180 (80)				
	420	426	260 (160)				

Model	Track rail length L_1	Total length L	Stroke length ⁽¹⁾ S		E		L_4	L_6	L_7
			Lead	5mm Lead 10mm	Lead	5mm Lead 10mm			
			Lead	5mm Lead 10mm	Lead	5mm Lead 10mm			
TU 60C TU 60FC	244	252	90 (40)	70 (—)	55	74	27.4	75	70
	344	352	190 (140)	170 (120)					
	444	452	290 (240)	270 (220)					
	544	552	390 (340)	370 (320)					
	644	652	490 (440)	470 (420)					
TU 60S TU 60F	744	752	590 (540)	570 (520)	40	49	52.4	100	95
	244	252	80 (—)	70 (—)					
	344	352	180 (110)	170 (100)					
	444	452	280 (210)	270 (200)					
	544	552	380 (310)	370 (300)					
TU 60G TU 60FG	644	652	480 (410)	470 (400)	40	39	83	130	125
	744	752	580 (510)	570 (500)					
	344	352	150 (50)	155 (—)					
	444	452	250 (150)	255 (150)					
	544	552	350 (250)	355 (250)					
TU 86C TU 86FC	644	652	450 (350)	455 (350)	70	74	83	130	125
	744	752	550 (450)	555 (450)					
	442	450	250 (190)	255 (150)					
	542	550	350 (290)	355 (250)					
	642	650	450 (390)	455 (350)					
TU 86S TU 86F	742	750	550 (490)	555 (450)	40	49	52.4	100	95
	842	850	650 (590)	655 (550)					
	942	950	750 (690)	755 (650)					
	1042	1050	850 (790)	855 (750)					
	1142	1150	950 (890)	955 (850)					
TU 86G TU 86FG	442	450	230 (120)	235 (120)	40	39	83	130	125
	542	550	330 (220)	335 (220)					
	642	650	430 (320)	435 (320)					
	742	750	530 (420)	535 (420)					
	842	850	630 (520)	635 (520)					
TU 86G TU 86FG	942	950	730 (620)	735 (620)	40	39	83	130	125
	1042	1050	830 (720)	835 (720)					
	1142	1150	930 (820)	935 (820)					
	442	450	210 (70)	215 (70)					
	542	550	310 (170)	315 (170)					
TU 86G TU 86FG	642	650	410 (270)	415 (270)	40	39	83	130	125
	742	750	510 (370)	515 (370)					
	842	850	610 (470)	615 (470)					
	942	950	710 (570)	715 (570)					
	1042	1050	810 (670)	815 (670)					
TU 86G TU 86FG	1142	1150	910 (770)	915 (770)	40	39	83	130	125
	442	450	210 (70)	215 (70)					
	542	550	310 (170)	315 (170)					
	642	650	410 (270)	415 (270)					
	742	750	510 (370)	515 (370)					

Note⁽¹⁾ : The limit stroke length when limit sensors are attached is indicated. The values in () are for two slide tables in close contact.
Remark : For the dimension of the slide table and track rail, see the dimension tables from page 44.

Accuracy

Accuracy of  Precision Positioning Table TU depends on the types of ball screw specified. Accuracy of the table with rolled type ball screw is shown in Table 18 and that with ground type ball screw is shown in Table 19.

Table 18 Accuracy (Rolled type ball screw) unit : mm

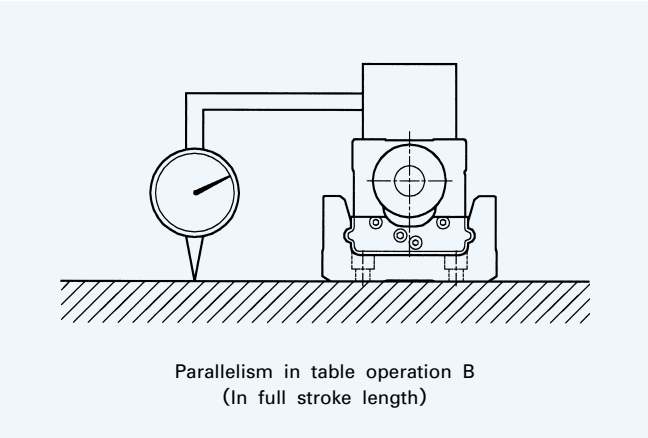
Track rail length		Repeatability	Parallelism in table operation B	Backlash(')
Over	Incl.			
—	500	±0.025 (±0.040)	0.015	0.050
500	800		0.020	
800	1200		0.025	

Note(') : Not applicable to tables of motor folding back specification.
Remark 1 : The values in () are applicable to tables of motor folding back specification.
2 : The accuracy for tables of motor folding back specification are applicable provided that the tension in the timing belt is appropriately adjusted.

Table 19 Accuracy (Ground type ball screw) unit : mm

Track rail length		Repeatability		Positioning accuracy(')		Parallelism in table operation B		Backlash(')
Over	Incl.	Short table	Standard table and long table	Short table	Standard table and long table	Short table	Standard table and long table	
—	400(350)	±0.004 (±0.020)	±0.002 (±0.020)	0.030	0.020	0.015	0.008	0.003
400(350)	500(500)			0.035	0.025	0.020	0.010	
500(500)	600(550)						0.012	
600(550)	700(700)			0.040	0.030	0.025	0.014	
700(700)	800(800)							
800(800)	900(900)			0.045	0.035		0.016	
900(900)	1000(1000)							
1000(1000)	1100(1100)			0.050	0.040		0.030	
1100(1100)	1200							
1200	1400			—	—			
1400	1500			—	0.045			
1500	1610			—	0.050	—		

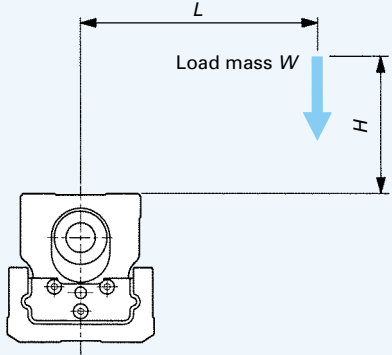
Note(') : Not applicable to tables of motor folding back specification.
Remark 1 : The values in () are applicable to tables of motor folding back specification.
2 : The accuracy for tables of motor folding back specification are applicable provided that the tension in the timing belt is appropriately adjusted.



Maximum Load Mass

Maximum load masses of  Precision Positioning Table TU are shown in Table 20.1 and 20.2. The maximum load mass is a reference value for the maximum mass that can be mounted on a table used in a horizontal position and varies very much depending on the load mass position.

Table 20.1 Maximum load mass



unit : kg

Model	Slide table length	Height H mm	Length L mm								
			0	100	200	300	400	500	600	800	1000
TU 25	S, F	0	17	1.2	0.61	—	—	—	—	—	—
		200	3.6	0.99	0.56	—	—	—	—	—	—
		400	2.0	0.83	0.51	—	—	—	—	—	—
		600	1.4	0.71	—	—	—	—	—	—	—
TU 30	S, F	0	20	1.7	0.90	0.61	—	—	—	—	—
		200	4.1	1.3	0.79	0.56	—	—	—	—	—
		400	2.2	1.1	0.69	0.51	—	—	—	—	—
		600	1.5	0.89	0.61	—	—	—	—	—	—
TU 40	C	0	35	5.0	2.7	1.9	1.4	1.1	1.0	—	—
		200	5.5	3.0	2.0	1.5	1.2	1.0	—	—	—
		400	3.0	2.1	1.5	1.2	1.0	—	—	—	—
		600	2.0	1.6	1.3	1.0	—	—	—	—	—
	S, F	0	49	7.4	4.0	2.7	2.1	1.7	1.4	1.1	—
		200	11	5.0	3.2	2.3	1.8	1.5	1.3	1.0	—
		400	5.8	3.7	2.6	2.0	1.6	1.4	1.2	—	—
		600	4.0	2.9	2.2	1.8	1.5	1.3	1.1	—	—
	G	0	49	10	5.4	3.7	2.8	2.3	1.9	1.4	1.2
		200	19	7.6	4.6	3.3	2.6	2.1	1.8	1.4	1.1
		400	11	5.9	4.0	3.0	2.4	2.0	1.7	1.3	1.1
		600	7.3	4.8	3.5	2.7	2.2	1.9	1.6	1.3	1.0
	C	0	41	7.6	4.2	2.9	2.2	1.8	1.5	1.1	—
		200	6.7	4.0	2.8	2.2	1.8	1.5	1.3	1.0	—
		400	3.7	2.7	2.1	1.7	1.5	1.3	1.1	—	—
		600	2.5	2.0	1.7	1.4	1.2	1.1	1.0	—	—
	S, F	0	44	13	7.1	4.9	3.7	3.0	2.5	1.9	1.5
		200	15	8.0	5.3	4.0	3.2	2.7	2.3	1.8	1.4
		400	8.5	5.7	4.2	3.4	2.8	2.4	2.1	1.6	1.4
		600	5.9	4.4	3.5	2.9	2.4	2.1	1.9	1.5	1.3
	G	0	44	19	10	7.0	5.3	4.3	3.6	2.7	2.2
		200	29	13	8.3	6.1	4.8	3.9	3.4	2.6	2.1
		400	16	9.8	6.9	5.3	4.3	3.6	3.1	2.4	2.0
		600	11	7.8	5.9	4.7	3.9	3.3	2.9	2.3	1.9
TU 50	YF	0	44	13	7.1	4.9	3.7	3	2.5	1.9	1.5
		200	15	8.0	5.3	4	3.2	2.7	2.3	1.8	1.4
		400	8.5	5.7	4.2	3.4	2.8	2.4	2.1	1.6	1.4
		600	5.9	4.4	3.5	2.9	2.4	2.1	1.9	1.5	1.3

Remark 1 : The above values are obtained by calculating the mass for which the rating life of the ball screw or linear motion rolling guide becomes 18,000 hours when the table is operated continuously at the maximum speed (for each size), and 0.2s each, at acceleration, and at deceleration. For the column of blank, please consult with .
2 : For the code of slide table shape, see page 8.

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

30

Load Rating of Linear Motion Rolling Guide

Load rating of the linear motion rolling guide of Precision Positioning Table TU are shown in Table 21.

Table 20.2 Maximum load mass

unit : kg

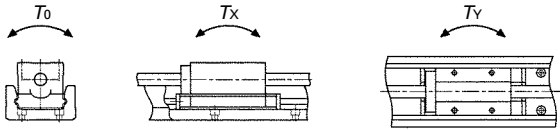
Model	Slide table length	Height H mm	Length L mm								
			0	100	200	300	400	500	600	800	1000
TU 60	C, FC	0	57	12	6.5	4.5	3.4	2.8	2.3	1.8	1.4
		200	11	6.3	4.4	3.4	2.8	2.3	2.0	1.6	1.3
		400	5.8	4.2	3.3	2.7	2.3	2.0	1.8	1.4	1.2
		600	4.0	3.2	2.6	2.3	2.0	1.7	1.6	1.3	1.1
	S, F	0	59	20	11	7.5	5.7	4.6	3.9	2.9	2.4
		200	24	12	8.3	6.2	4.9	4.1	3.5	2.7	2.2
		400	13	8.9	6.6	5.2	4.3	3.7	3.2	2.5	2.1
		600	9.3	6.9	5.5	4.5	3.8	3.3	2.9	2.4	2.0
	G, FG	0	59	30	16	11	8.6	7.0	5.9	4.4	3.6
		200	49	22	14	10	7.9	6.5	5.5	4.2	3.4
		400	29	17	12	8.9	7.2	6.0	5.2	4.0	3.3
		600	20	13	10	7.9	6.5	5.6	4.8	3.8	3.2
	YF	0	59	20	11	7.5	5.7	4.6	3.9	2.9	2.4
		200	24	12	8.3	6.2	4.9	4.1	3.5	2.7	2.2
		400	13	8.9	6.6	5.2	4.3	3.7	3.2	2.5	2.1
		600	9.3	6.9	5.5	4.5	3.8	3.3	2.9	2.4	2.0
TU 86	C, FC	0	58	17	9.6	6.6	5.1	4.1	3.4	2.6	2.1
		200	12	7.9	6.0	4.8	4.0	3.5	3.0	2.4	1.9
		400	6.4	5.1	4.2	3.6	3.1	2.8	2.5	2.1	1.8
		600	4.4	3.7	3.3	2.9	2.6	2.3	2.1	1.8	1.6
	S, F	0	58	39	23	16	12	9.9	8.4	6.4	5.1
		200	36	22	16	12	9.9	8.3	7.2	5.7	4.7
		400	20	15	12	9.7	8.2	7.1	6.3	5.1	4.3
		600	14	11	9.4	8.0	7.0	6.2	5.6	4.6	3.9
	G, FG	0	58	51	29	20	16	13	11	8.2	6.6
		200	53	31	21	16	13	11	9.5	7.4	6.1
		400	30	22	17	13	11	9.7	8.5	6.8	5.7
		600	21	17	13	11	9.8	8.6	7.6	6.3	5.3
	YF	0	58	39	23	16	12	9.9	8.4	6.4	5.1
		200	36	22	16	12	9.9	8.3	7.2	5.7	4.7
		400	20	15	12	9.7	8.2	7.1	6.3	5.1	4.3
		600	14	11	9.4	8	7	6.2	5.6	4.6	3.9
TU100	S, F	0	89	57	33	23	18	15	12	9.4	7.6
		200	53	32	23	18	15	12	11	8.4	6.9
		400	30	22	18	14	12	11	9.4	7.6	6.4
		600	21	17	14	12	11	9.3	8.3	6.9	5.9
TU130	S, F	0	98	71	43	31	24	19	16	12	9.9
		200	55	37	27	22	18	16	14	11	9.0
		400	32	25	20	17	15	13	12	9.5	8.1
		600	22	18	16	14	12	11	10	8.5	7.3

Remark 1 : The above values are obtained by calculating the mass for which the rating life of the ball screw or linear motion rolling guide becomes 18,000 hours when the table is operated continuously at the maximum speed (for each size), and 0.2s each, at acceleration, and at deceleration.
2 : For the code of slide table shape, see page 8.

Table 21 Load rating of linear motion rolling guide

Model number	Basic dynamic load rating C N	Basic static load rating C ₀ N	Static moment rating ⁽¹⁾ N · m		
			T ₀	T _x	T _y
TU 25S, TU 25F	1 580	2 940	21.0 42.0	10.4 55.7	8.70 46.7
TU 30S, TU 30F	2 010	3 960	36.2 72.4	17.5 93.4	14.7 78.4
TU 40C	5 530	6 340	86.9 174	23.7 202	23.7 202
TU 40S, TU 40F	7 570	10 100	139 278	54.9 403	54.9 403
TU 40G	9 910	15 200	208 417	117 716	117 716
TU 50C	8 110	9 130	162 323	40.9 358	40.9 358
TU 50S, TU 50F, TU 50YF	12 000	16 400	291 582	118 799	118 799
TU 50G	16 100	25 600	452 905	270 1 580	270 1 580
TU 60C, TU 60FC	11 200	12 400	245 490	65.0 576	65.0 576
TU 60S, TU 60F, TU 60YF	16 600	22 400	441 881	187 1 310	187 1 310
TU 60G, TU 60FG	23 300	37 300	734 1 470	489 2 760	489 2 760
TU 86C, TU 86FC	21 500	24 700	703 1 410	190 1 530	190 1 530
TU 86S, TU 86F, TU 86YF	35 900	53 400	1 520 3 040	792 4 650	792 4 650
TU 86G, TU 86FG	43 000	69 800	1 990 3 980	1 320 6 990	1 320 6 990
TU100S, TU100F	47 100	71 000	2 310 4 620	1 250 6 750	1 250 6 750
TU130S, TU130F	60 200	92 100	4 070 8 140	1 900 10 100	1 900 10 100

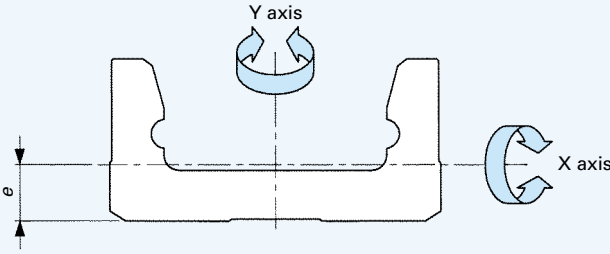
Note⁽¹⁾ : Directions are shown in the following figures, the values in the lower row are for two slide tables in close contact.
The specification of two slide tables is not applicable to Low profile type. (TU···YF)



Rigidity

 Precision Positioning Table TU is designed to achieve high rigidity by adopting a U-shaped track rail. Moment of inertia of sectional area of the track rail is shown in Table 22. The deformation characteristics of the tables under downward load (actual measurements) are shown in Fig. 3.

Table 22 Moment of inertia of sectional area of track rail



Model	Moment of inertia of sectional area mm ⁴		Center of gravity e mm
	I _x	I _y	
TU 25	3.7×10 ²	7.5×10 ³	2.6
TU 30	9.3×10 ²	1.7×10 ⁴	3.3
TU 40	1.0×10 ⁴	6.8×10 ⁴	6.6
TU 50	2.8×10 ⁴	1.7×10 ⁵	8.7
TU 60	6.4×10 ⁴	3.8×10 ⁵	10.9
TU 86	2.4×10 ⁵	1.6×10 ⁶	14.6
TU100	5.9×10 ⁶	3.3×10 ⁶	18.8
TU130	1.4×10 ⁶	8.8×10 ⁶	23.0

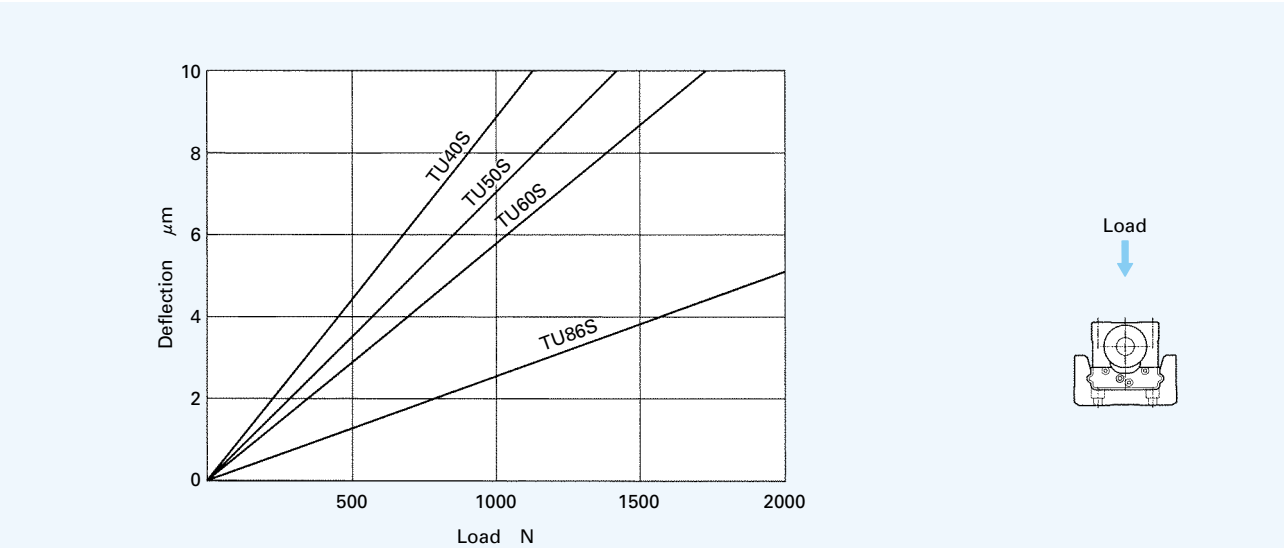


Fig. 3 Deflection vs. downward load

Maximum Speed

Maximum speeds of  Precision Positioning Table TU are shown in Table 23. The maximum speeds shown in Table 23 are applicable when the standard motor is used. The actual maximum speeds must be determined by examining the operating pattern considering the motor type used, load conditions, etc.

Table 23 Maximum speed

Motor type	Model	Track rail length mm	Motor speed r/min	Maximum speed mm/s					
				Lead 4mm	Lead 5mm	Lead 8mm	Lead 10mm	Lead 20mm	Lead 25mm
AC servo motor	TU 25	200 or less	3000	200	—	—	—	—	—
	TU 30	340 or less	3000	—	250	—	—	—	—
	TU 40	—	3000	200	—	400	—	—	—
	TU 50	—	3000	—	250	—	500	—	—
	TU 60	690 or less	3000	—	250	—	500	1000	—
		790	2910	—	243	—	485	970	—
		990	1940	—	162	—	323	—	—
		1190	1290	—	108	—	215	—	—
	TU 86	790 or less	3000	—	—	—	500	1000	—
		890	2760	—	—	—	460	920	—
		990	2180	—	—	—	363	727	—
		1090	1770	—	—	—	295	590	—
		1190	1460	—	—	—	243	487	—
	TU100	1390	1610	—	—	—	—	537	—
		1590	1200	—	—	—	—	400	—
		1010	3000	—	—	—	—	1000	—
		1160	2320	—	—	—	—	773	—
	TU130	1310	1780	—	—	—	—	593	—
		1460	1400	—	—	—	—	467	—
		1010	2690	—	—	—	—	—	1121
		1160	2690	—	—	—	—	—	1121
		1310	2190	—	—	—	—	—	913
Stepping motor	TU 25	200 or less	1800	120	—	—	—	—	—
		340 or less	1800	—	150	—	—	—	—
		—	1800	120	—	240	—	—	—
		—	1800	—	150	—	300	—	—
	TU 60	790 or less	1800	—	—	—	—	600	—
		990 or less	1800	—	150	—	300	—	—
		1190	1290	—	108	—	215	—	—
	TU 86	990 or less	1800	—	—	—	300	600	—
		1090	1770	—	—	—	295	590	—
		1190	1460	—	—	—	243	487	—
		1390	1610	—	—	—	—	537	—
		1590	1200	—	—	—	—	400	—
	TU100	1160 or less	1800	—	—	—	—	600	—
		1310	1780	—	—	—	—	593	—
		1460	1400	—	—	—	—	467	—
	TU130	1310 or less	1800	—	—	—	—	—	750
		1460	1720	—	—	—	—	—	717
		1610	1390	—	—	—	—	—	579

Table inertia and starting torque

The table inertia and starting torque of IJKO Precision Positioning Table TU are shown in Table 24.

Table 24 Table inertia and starting torque

Model	Track rail length mm	Table inertia $J_T^{(3)} \times 10^{-5} \text{kg} \cdot \text{m}^2$							Starting torque $T_0^{(2)}$ N · m						
		Slide table shape S, F													
		Lead 4mm							Ground screw						
TU 25	130	0.018							0.02						
	165	0.021													
	200	0.024													
Model	Track rail length mm	Table inertia $J_T^{(3)} \times 10^{-5} \text{kg} \cdot \text{m}^2$							Starting torque $T_0^{(2)}$ N · m						
		Slide table shape S, F													
		Lead 5mm							Ground screw						
TU 30	140	0.057							0.02						
	180	0.069													
	220	0.082													
	260	0.095													
	300	0.107													
	340	0.120													
Model	Track rail length ⁽¹⁾ mm	Table inertia $J_T^{(3)} \times 10^{-5} \text{kg} \cdot \text{m}^2$							Starting torque $T_0^{(2)}$ N · m						
		Slide table shape													
		C		S, F		G									
TU 40		Lead 4mm	Lead 8mm	Lead 4mm	Lead 8mm	Lead 4mm	Lead 8mm	Ground screw							
	180(140)	0.05	0.07	0.06	0.09	—	—	0.06 (0.065)							
	240(200)	0.07	0.09	0.08	0.11	0.08	0.12								
	300(260)	0.09	0.11	0.10	0.12	0.10	0.14								
	360(320)	0.11	0.13	0.12	0.14	0.12	0.16								
	420(380)	0.13	0.15	0.13	0.16	0.14	0.18								
Model	Track rail length ⁽¹⁾ mm	Table inertia $J_T^{(3)} \times 10^{-5} \text{kg} \cdot \text{m}^2$								Starting torque $T_0^{(2)}$ N · m					
		Slide table shape													
		C		S, F		G		YF		Rolled screw	Ground screw				
TU 50		Lead 5mm	Lead 10mm	Lead 5mm	Lead 10mm	Lead 5mm	Lead 10mm	Lead 5mm	Lead 10mm						
	220(180) [240]	0.17	0.21	0.18	0.27	—	—	0.18	0.32	0.08	0.08 (0.085)				
	300(260) [320]	0.23	0.28	0.24	0.33	0.26	0.40	0.24	0.38						
	380(340) [400]	0.29	0.34	0.30	0.39	0.32	0.46	0.30	0.44						
	460(420)	0.35	0.40	0.36	0.45	0.38	0.53	—	—						
	540(500)	0.41	0.46	0.43	0.51	0.44	0.59	—	—						
	620(580)	0.47	0.52	0.49	0.57	0.51	0.65	—	—						
700(660)	0.54	0.58	0.55	0.63	0.57	0.71	—	—							
Model	Track rail length ⁽¹⁾ mm	Table inertia $J_T^{(3)} \times 10^{-5} \text{kg} \cdot \text{m}^2$										Starting torque $T_0^{(2)}$ N · m			
		Slide table shape													
		C, FC			S, F			G, FG			YF		Rolled screw	Ground screw	
TU 60		Lead 5mm	Lead 10mm	Lead 20mm	Lead 5mm	Lead 10mm	Lead 20mm	Lead 5mm	Lead 10mm	Lead 20mm	Lead 5mm	Lead 10mm		Lead 5mm 10mm	Lead 20mm
	290(244)	0.45	0.53	1.03	0.47	0.61	1.43	0.49	0.71	1.94	—	—	0.10	0.12 (0.13)	0.16 (0.20)
	390(344) [400]	0.60	0.69	1.19	0.62	0.77	1.59	0.65	0.87	2.10	0.61	0.84			
	490(444) [500]	0.76	0.85	1.34	0.78	0.93	1.75	0.81	1.0	2.26	0.77	1.00			
	590(544) [600]	0.92	1.0	1.50	0.94	1.1	1.90	0.97	1.2	2.41	0.93	1.16			
	690(644)	1.1	1.2	1.66	1.1	1.2	2.06	1.1	1.3	2.57	—	—			
	790(744)	1.2	1.3	1.82	1.3	1.4	2.22	1.3	1.5	2.73	—	—			
	990	1.6	1.7	—	1.6	1.7	—	1.6	1.8	—	—	—	0.10	—	
1190	1.9	2.0	—	1.9	2.1	—	1.9	2.2	—	—	—				

Note⁽¹⁾ : The values in () are applicable to tables of motor folding back specification and the value in [] are applicable to Low profile type. (TU---YF)

⁽²⁾ : In case of two slide tables, the values are multiplied by 1.5 approx. In case of the motor folding back specification, the values are multiplied 2 approx. The values in () are applicable to the table with capillary plate.

⁽³⁾ : In case of the table of motor folding back specification, the following values are added to the values in the table.

TU40 and TU50 : 0.28×10⁻⁵kg · m², TU60 : 1.5×10⁻⁵kg · m²

Model	Track rail length ⁽¹⁾ mm	Table inertia $J_T^{(3)} \times 10^{-5} \text{kg} \cdot \text{m}^2$								Starting torque $T_0^{(2)}$ N · m	
		Slide table shape									
		C, FC		S, F		G, FG		YF		Rolled screw	Ground screw
Lead 10mm	Lead 20mm	Lead 10mm	Lead 20mm	Lead 10mm	Lead 20mm	Lead 10mm	Lead 20mm				
TU 86	490 (442) [400]	2.1	2.9	2.3	3.9	2.4	4.4	2.25	5.28	0.16	0.16 (0.20)
	590 (542) [600]	2.4	3.2	2.7	4.3	2.8	4.8	3.03	6.06		
	690 (642)	2.8	3.6	3.1	4.6	3.2	5.1	—	—		
	790 (742) [800]	3.2	4.0	3.5	5.0	3.6	5.5	3.80	6.83		
	890 (842)	3.6	4.4	3.9	5.4	4.0	5.9	—	—		
	990 (942)	4.0	4.8	4.2	5.8	4.4	6.3	—	—		
	1090 (1042)	4.4	5.2	4.6	6.2	4.8	6.7	—	—		
	1190 (1142)	4.8	5.6	5.0	6.6	5.1	7.1	—	—		
	1390	—	18	—	19	—	19	—	—	—	0.30
1590	—	20	—	21	—	22	—	—			
Model	Track rail length mm	Table inertia $J_T \times 10^{-5} \text{kg} \cdot \text{m}^2$								Starting torque $T_0^{(2)}$ N · m	
		Slide table shape S, F								Rolled screw	Ground screw
		Lead 20mm									
TU100	1010	15								0.30 (0.36)	
	1160	17									
	1310	19									
	1460	20									
Model	Track rail length mm	Table inertia $J_T \times 10^{-5} \text{kg} \cdot \text{m}^2$								Starting torque $T_0^{(2)}$ N · m	
		Slide table shape S, F								Rolled screw	Ground screw
		Lead 25mm									
TU130	1010	39								0.60 (0.70)	
	1160	43									
	1310	48									
	1460	52									
	1610	57									

Note⁽¹⁾ : The values in () are applicable to tables of motor folding back specification and the value in [] are applicable to Low profile type. (TU---YF)

⁽²⁾ : In case of two slide tables, the values are multiplied by 1.5 approx. In case of the motor folding back specification, the values are multiplied 2 approx. The values in () are applicable to the table with capillary plate.

⁽³⁾ : In case of the table of motor folding back specification, the following values are added to the values in the table.

TU86 : 1.5×10⁻⁵kg · m²

X-Y bracket

X-Y bracket can be used for  Precision Positioning Table TU to construct two axes tables in various combinations. X-Y bracket is made of light-weight aluminum alloy and can be assembled on a flange type table. Table 25 shows types of X-Y brackets. Specify the identification number shown in the table for ordering.

Table 25 Combinations of two axes and types of X-Y brackets

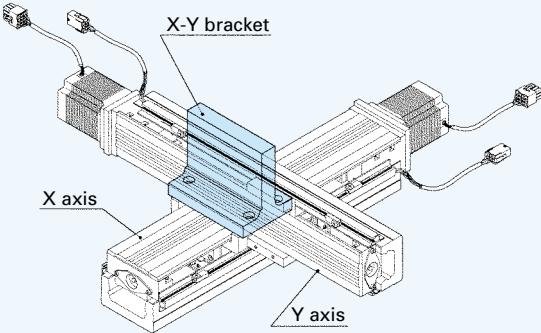
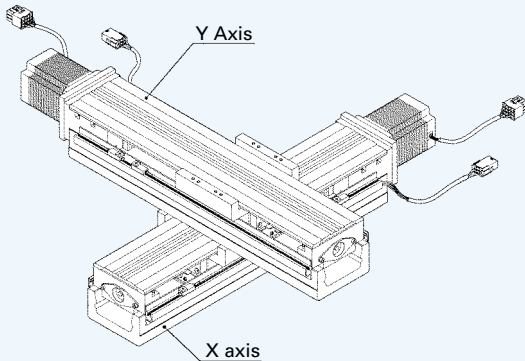
Combinations with X-Y bracket			Combinations without X-Y bracket		
					
X axis	Y axis	Identification number of X-Y bracket	X axis	Y axis	Identification number of X-Y bracket
—	—	—	TU 25F	TU 25	Not required
—	—	—	TU 30F	TU 30	Not required
TU40F	TU40	TAE0412-BR	—	—	—
TU50F	TU40	TAE0413-BR	—	—	—
TU50F	TU50	TAE0414-BR	—	—	—
TU60F	TU50	TAE0415-BR	—	—	—
TU60F	TU60	TAE0409-BR	—	—	—
TU86F	TU60	TAE0410-BR	TU 86F	TU 60	Not required
TU86F	TU86	TAE0411-BR	TU 86F	TU 86	Not required
—	—	—	TU130F	TU100	Not required

Table 26.1 Dimensions of X-Y bracket

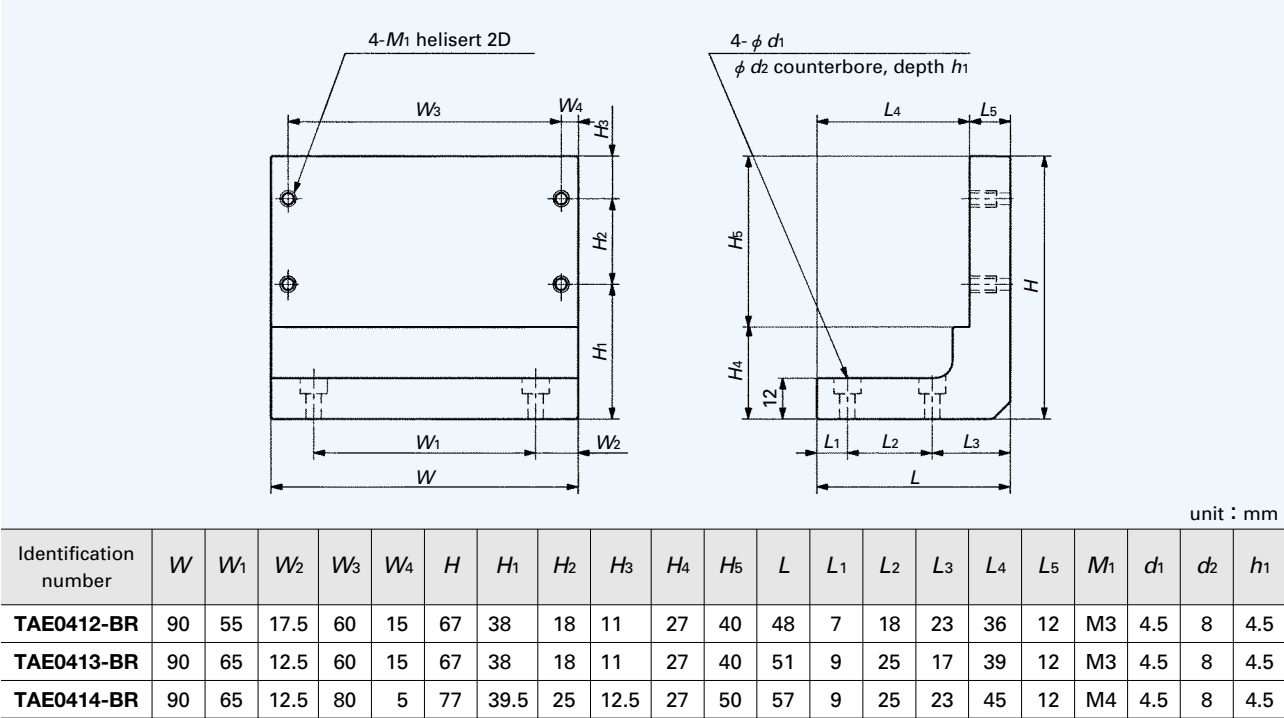
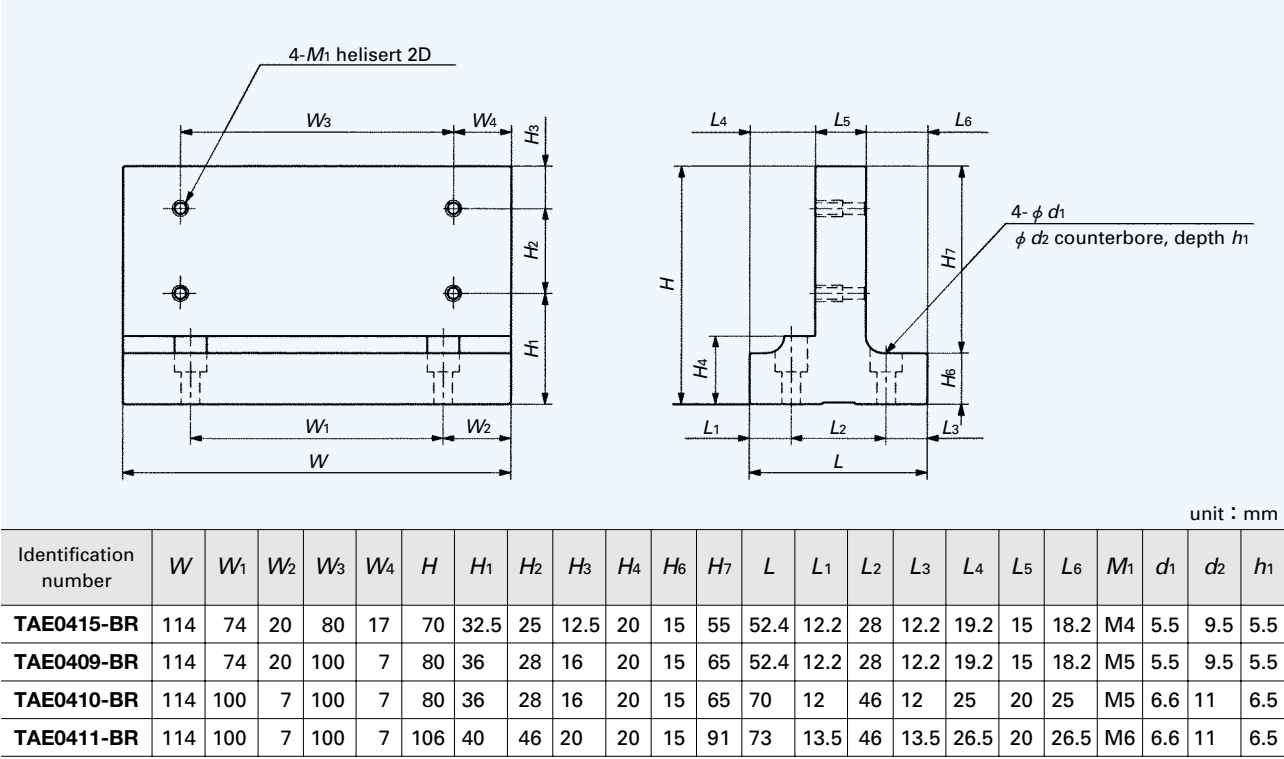


Table 26.2 Dimensions of X-Y bracket

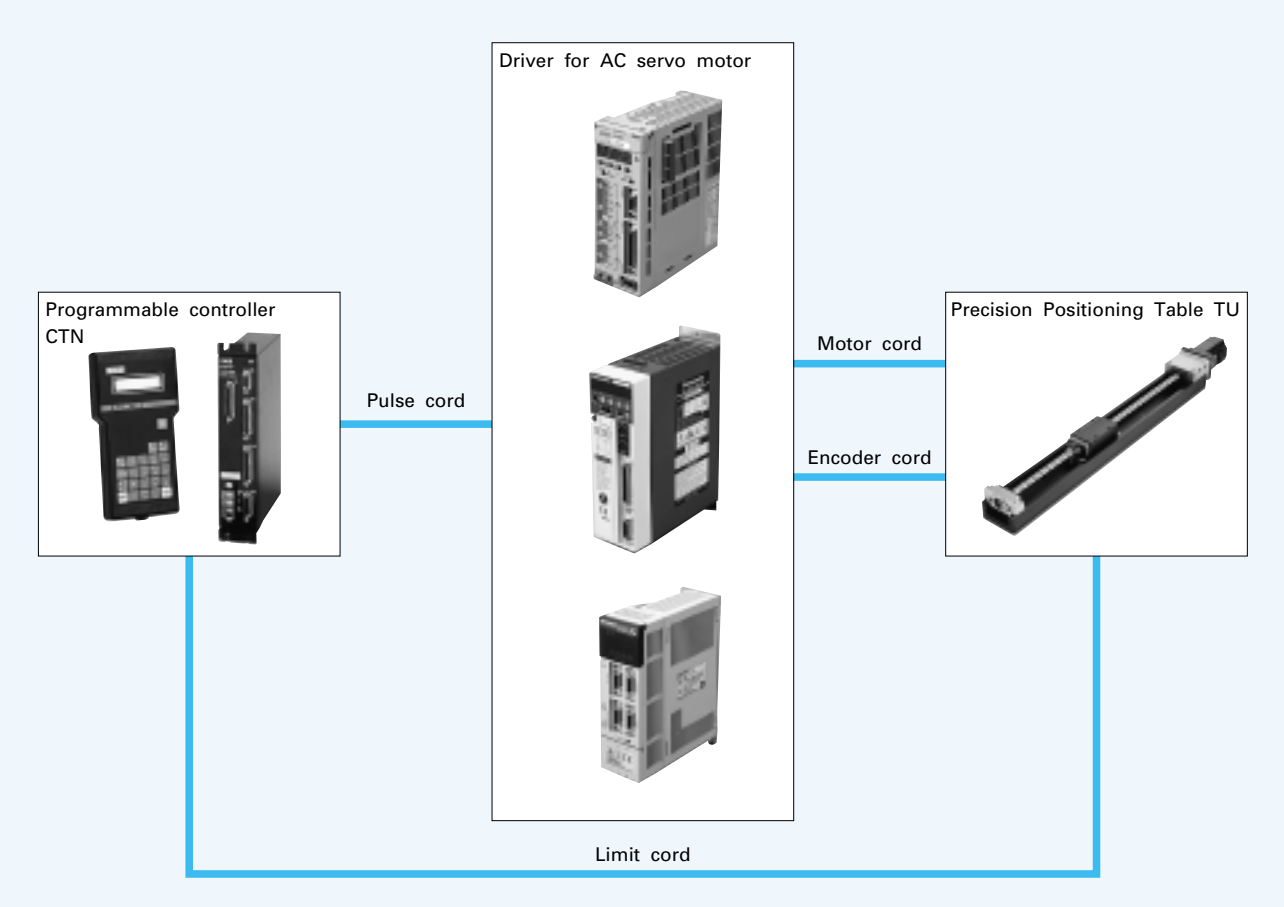


System configuration

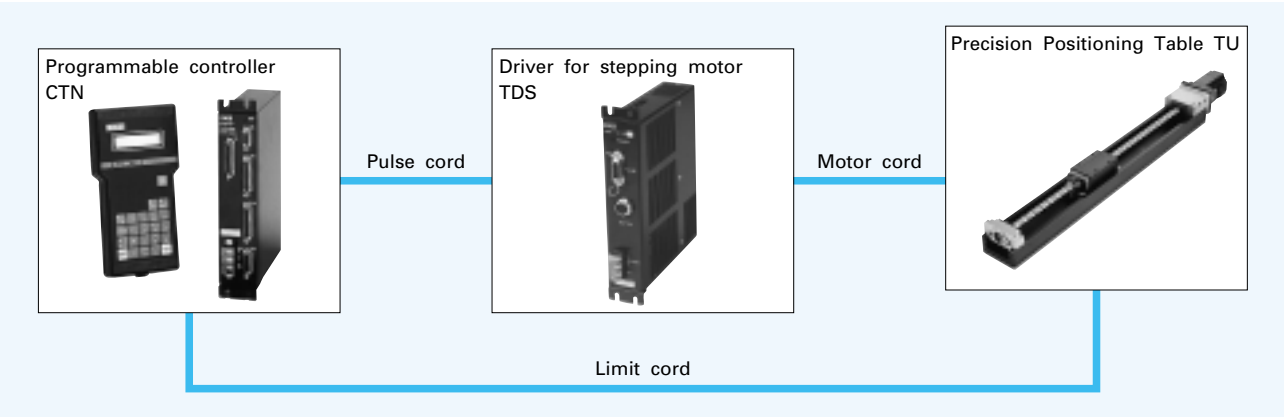
The electrical device made of each motor manufacturer is applied for the AC servo motor. The electrical device designed for exclusive use is prepared for the stepping motor. A well-balanced system can be constructed by using these devices with the table.

Table 27 to 29 show system configurations with AC servo motor and Table 30 shows system configurations with stepping motor.

System configuration of the table with AC servo motor (configuration with a driver and a programmable controller)



System configuration of the table with stepping motor



The system configurations for AC servo motor and driver that are manufactured by Yaskawa Electric Corporation are shown in Table 27.1 and Table 27.2.

Table 27.1 Models of programmable controller, teaching box, pulse cord and limit cord

Number of axis	Programmable controller	Teaching box	Pulse cord	Limit cord
For single axis	CTN120G ⁽¹⁾	TAE1005-TB	TAE10B8-LD□□ (TAE10B9-LD□□)	
	CTN130G	TAE1016-TB	TAE10C4-PC	(TAE1042-LC□□)
	CTN140G	TAE1025-TB	TAE10C7-PC	TAE1027-LCA□□ (TAE1083-RLCA□□)
	CTN150S	TAE1048-TB	TAE10D0-LD□□ (TAE10D1-LD□□)	
For two axes	CTN220G ⁽¹⁾	TAE1005-TB	TAE10D2-LYY□□ (TAE10D3-LYY□□)	
	CTN230G	TAE1016-TB	TAE10D8-PCY	TAE10A0-LCY□□ (TAE1043-LCY□□)
	CTN240G	TAE1025-TB	TAE10F1-PCY	TAE1029-LCAY□□ (TAE1086-RLCAY□□)

Note⁽¹⁾ : The origin sensor is required. And combination with Low profile type (TU...YF) is not available.

Remark 1 : The cord in () have high bending resistance.

2 : The length of limit cord is specified in end of model number □□ by 1m pitch, maximum length is 20m.
※Code is specified by two digits even if length of cord is less than 10m. (Example for case of 3m : TAE10B8-LD03)

3 : The length of pulse cord is 1.5m.

4 : The above table is not applied to TU25 and TU30. For TU25 and TU30, consult with .

Table 27.2 Models of motor, driver, motor cord and encoder cord

With or without brake	Table	Motor code	Model number of motor	Model number of driver	Motor cord	Encoder cord
Without brake	TU 25 TU 30	AL6	SGMM-A2C312	SGDF-A2CP	TAE20J6-AM□□ (TAE20J5-AM□□) Max. length is 5m	TAE20K0-EC□□ (TAE20J9-EC□□) Max. length is 5m
	TU 40 TU 50	Y001	SGMAH-A5AAA21	SGDH-A5AE	TAE20G2-AM□□ (TAE20G1-AM□□)	TAE20G6-EC□□ (TAE20G5-EC□□)
	TU 60	Y002	SGMAH-01AAA21	SGDH-01AE		
	TU 86	Y003	SGMAH-02AAA21	SGDH-02AE		
	TU100	Y004	SGMAH-04AAA21	SGDH-04AE		
	TU130	Y005	SGMAH-08AAA21	SGDH-08AE		
With brake ⁽¹⁾	TU 25 TU 30	AL6B	SGMM-A2C312C	SGDF-A2CP	TAE20J8-AMB□□ (TAE20J7-AMB□□) Max. length is 5m	TAE20K0-EC□□ (TAE20J9-EC□□) Max. length is 5m
	TU 40 TU 50	Y006	SGMAH-A5AAA2C	SGDH-A5AE	TAE20G4-AMB□□ (TAE20G3-AMB□□)	TAE20G6-EC□□ (TAE20G5-EC□□)
	TU 60	Y007	SGMAH-01AAA2C	SGDH-01AE		
	TU 86	Y008	SGMAH-02AAA2C	SGDH-02AE		
	TU100	Y009	SGMAH-04AAA2C	SGDH-04AE		
	TU130	Y010	SGMAH-08AAA2C	SGDH-08AE		

Note⁽¹⁾ : In case of with brake type, the power supply for brake release unit is required.

Remark 1 : The cord in () have high bending resistance.

2 : Model number of motor, driver, motor cord, and encoder cord is common in single axis and two axes.

3 : The length of limit cord is specified in the end of model number □□ by 1m pitch, maximum length is 20m.
※Code is specified by two digits even if length of cord is less than 10m. (Example for case of 3m : TAE20J6-AM03)

The system configurations for AC servo motor and driver that are manufactured by Matsushita Electric Industrial Co., Ltd. are shown in Table 28.1 and Table 28.2.

Table 28.1 Models of programmable controller, teaching box, pulse code and limit cord

Number of axis	Programmable controller	Teaching box	Pulse cord	Limit cord
For single axis	CTN120G	TAE1005-TB	TAE10C0-LD□□ (TAE10C1-LD□□)	
	CTN130G	TAE1016-TB	TAE10C5-PC	(TAE1042-LC□□)
	CTN140G	TAE1025-TB	TAE10C8-PC	TAE1027-LCA□□ (TAE1083-RLCA□□)
	CTN150S	TAE1048-TB	TAE10C0-LD□□ (TAE10C1-LD□□)	
For two axes	CTN220G	TAE1005-TB	TAE10D4-LYY□□ (TAE10D5-LYY□□)	
	CTN230G	TAE1016-TB	TAE10D9-PCY	TAE10A0-LCY□□ (TAE1043-LCY□□)
	CTN240G	TAE1025-TB	TAE10F2-PCY	TAE1029-LCAY□□ (TAE1086-RLCAY□□)

Remark 1 : The cord in () have high bending resistance.
2 : The length of limit cord is specified in the end of model number □□ by 1m pitch, maximum length is 20m.
※Code is specified by two digits even if length of cord is less than 10m. (Example for case of 3m : TAE10C0-LD03)
3 : The length of pulse cord is 1.5m.

Table 28.2 Models of motor, driver, motor cord and encoder cord

With or without brake	Table	Motor code	Model number of motor	Model number of driver	Motor cord	Encoder cord
Without brake	TU 25 TU 30	—	—	—	TAE20G8-AM□□ (TAE20G7-AM□□)	TAE20H2-EC□□ (TAE20H1-EC□□)
	TU 40 TU 50	P001	MSMA5AZA1A	MSDA5A5A1A		
	TU 60	P002	MSMA012A1A	MSDA015A1A		
	TU 86	P003	MSMA022A1A	MSDA023A1A		
	TU100	P004	MSMA042A1A	MSDA043A1A		
	TU130	P005	MSMA082A1A	MSDA083A1A		
With brake ⁽¹⁾	TU 25 TU 30	—	—	—	TAE20H0-AMB□□ (TAE20G9-AMB□□)	TAE20H2-EC□□ (TAE20H1-EC□□)
	TU 40 TU 50	P006	MSMA5AZA1B	MSDA5A5A1A		
	TU 60	P007	MSMA012A1B	MSDA015A1A		
	TU 86	P008	MSMA022A1B	MSDA023A1A		
	TU100	P009	MSMA042A1B	MSDA043A1A		
	TU130	P010	MSMA082A1B	MSDA083A1A		

Note⁽¹⁾ : In case of with brake type, the power supply for brake release unit is required.
Remark 1 : The cord in () have high bending resistance.
2 : Model number of motor, driver, motor cord, and encoder cord is common in single axis and two axes.
3 : The length of limit cord is specified in the end of model number □□ by 1m pitch, maximum length is 20m.
※Code is specified by two digits even if length of cord is less than 10m. (Example for case of 3m : TAE20G8-AM03)

The system configurations for AC servo motor and driver that are manufactured by Mitsubishi Electric Corporation are shown in Table 29.1 and Table 29.2.

Table 29.1 Models of programmable controller, teaching box, pulse and limit cord

Number of axis	Programmable controller	Teaching box	Pulse cord	Limit cord
For single axis	CTN120G	TAE1005-TB	TAE10C2-LD□□ (TAE10C3-LD□□)	
	CTN130G	TAE1016-TB	TAE10C6-PC	(TAE1042-LC□□)
	CTN140G	TAE1025-TB	TAE10C9-PC	TAE1027-LCA□□ (TAE1083-RLCA□□)
	CTN150S	TAE1048-TB	TAE10C2-LD□□ (TAE10C3-LD□□)	
For two axes	CTN220G	TAE1005-TB	TAE10D6-LYY□□ (TAE10D7-LYY□□)	
	CTN230G	TAE1016-TB	TAE10F0-PCY	TAE10A0-LCY□□ (TAE1043-LCY□□)
	CTN240G	TAE1025-TB	TAE10F3-PCY	TAE1029-LCAY□□ (TAE1086-RLCAY□□)

Remark 1 : The cord in () have high bending resistance.
2 : The length of limit cord is specified in the end of model number □□ by 1m pitch, maximum length is 20m.
※Code is specified by two digits even if length of cord is less than 10m. (Example for case of 3m : TAE10C20-LD03)
3 : The length of pulse cord is 1.5m.
4 : The above table is not applied to TU25 and TU30. For TU25 and TU30, consult to .

Table 29.2 Models of motor, driver, motor cord and encoder cord

With or without brake	Table	Motor code	Model number of motor	Model number of driver	Motor cord	Encoder cord
Without brake	TU 25 TU 30	HL6	HC-AQ0235D	MR-J2-03A5	TAE20K2-AME□□ (TAE20K1-AME□□)	
	TU 40 TU 50	J001	HC-KFS053	MR-J2S-10A	TAE20H4-AM□□ (TAE20H3-AM□□)	TAE20H8-EC□□ (TAE20H7-EC□□)
	TU 60	J002	HC-KFS13	MR-J2S-10A		
	TU 86	J003	HC-KFS23	MR-J2S-20A		
	TU100	J004	HC-KFS43	MR-J2S-40A		
	TU130	J005	HC-KFS73	MR-J2S-70A		
With brake ⁽¹⁾	TU 25 TU 30	HL6B	HC-AQ0235BD	MR-J2-03A5	TAE20K4-AMBE□□ (TAE20K3-AMBE□□)	
	TU 40 TU 50	J006	HC-KFS053B	MR-J2S-10A	TAE20H6-AMB□□ (TAE20H5-AMB□□)	TAE20H8-EC□□ (TAE20H7-EC□□)
	TU 60	J007	HC-KFS13B	MR-J2S-10A		
	TU 86	J008	HC-KFS23B	MR-J2S-20A		
	TU100	J009	HC-KFS43B	MR-J2S-40A		
	TU130	J010	HC-KFS73B	MR-J2S-70A		

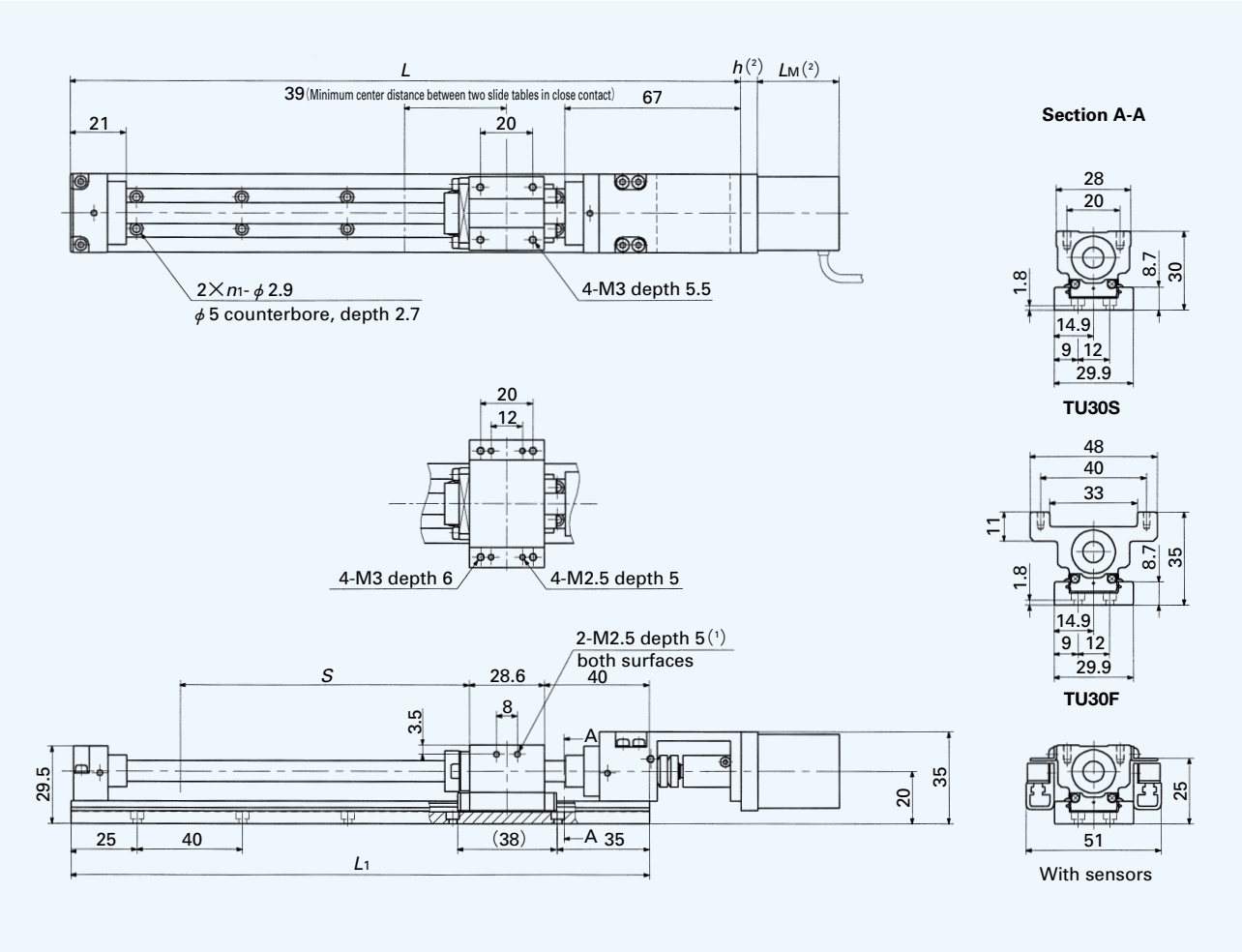
Note⁽¹⁾ : In case of with brake type, the power supply for brake release unit is required.
Remark 1 : The cord in () have high bending resistance.
2 : Model number of motor, driver, motor cord, and encoder cord is common in single axis and two axes.
3 : The length of limit cord is specified in the end of model number □□ by 1m pitch, maximum length is 20m.
※Code is specified by two digits even if length of cord is less than 10m. (Example for case of 3m : TAE20K2-AME03)

Model	With or without brake	Motor code	Type of applicable electric devices					
			Driver		Programmable controller			
			Main body	Motor cord	Main body	Teaching box	Pulse cord	Limit cord
TU 40 TU 50	Without brake	K3	TDS1-5071	TAE2055-SMC03 (TAE2057-SNC03)	CTN120G	TAE1005-TB	TAE1056-LD03	
					CTN130G	TAE1016-TB	TAE1023-PC	TAE1042-LC03
					CTN140G	TAE1025-TB	TAE1026-PCA	TAE1027-LCA03
					CTN150S	TAE1048-TB	TAE1056-LD03	
			TDS1-5145	TAE2045-SML03 (TAE2059-SNL03)	CTN120G	TAE1005-TB	TAE1022-LD03	
					CTN130G	TAE1016-TB	TAE1012-PC	TAE1042-LC03
					CTN140G	TAE1025-TB	TAE1030-PC	TAE1027-LCA03
					CTN150S	TAE1048-TB	TAE1022-LD03	
	With brake	K3B	TDS1-5145BK	TAE2061-SMBL03 (TAE2062-SNBL03)	CTN120G	TAE1005-TB	TAE1022-LD03	
					CTN130G	TAE1016-TB	TAE1012-PC	TAE1042-LC03
					CTN140G	TAE1025-TB	TAE1030-PC	TAE1027-LCA03
					CTN150S	TAE1048-TB	TAE1022-LD03	
TU 60 TU 86 TU100 TU130	Without brake	K6 K8	TDS1-5145	TAE2045-SML03 (TAE2059-SNL03)	CTN120G	TAE1005-TB	TAE1022-LD03	
					CTN130G	TAE1016-TB	TAE1012-PC	TAE1042-LC03
					CTN140G	TAE1025-TB	TAE1030-PC	TAE1027-LCA03
					CTN150S	TAE1048-TB	TAE1022-LD03	
	With brake	K6B K8B	TDS1-5145BK	TAE2061-SMBL03 (TAE2062-SNBL03)	CTN120G	TAE1005-TB	TAE1022-LD03	
					CTN130G	TAE1016-TB	TAE1012-PC	TAE1042-LC03
					CTN140G	TAE1025-TB	TAE1030-PC	TAE1027-LCA03
					CTN150S	TAE1048-TB	TAE1022-LD03	

Note⁽¹⁾ : These threaded holes are not provided on **TU25F**.
⁽²⁾ : See the dimension table for the motor unit on page 12.

unit : mm

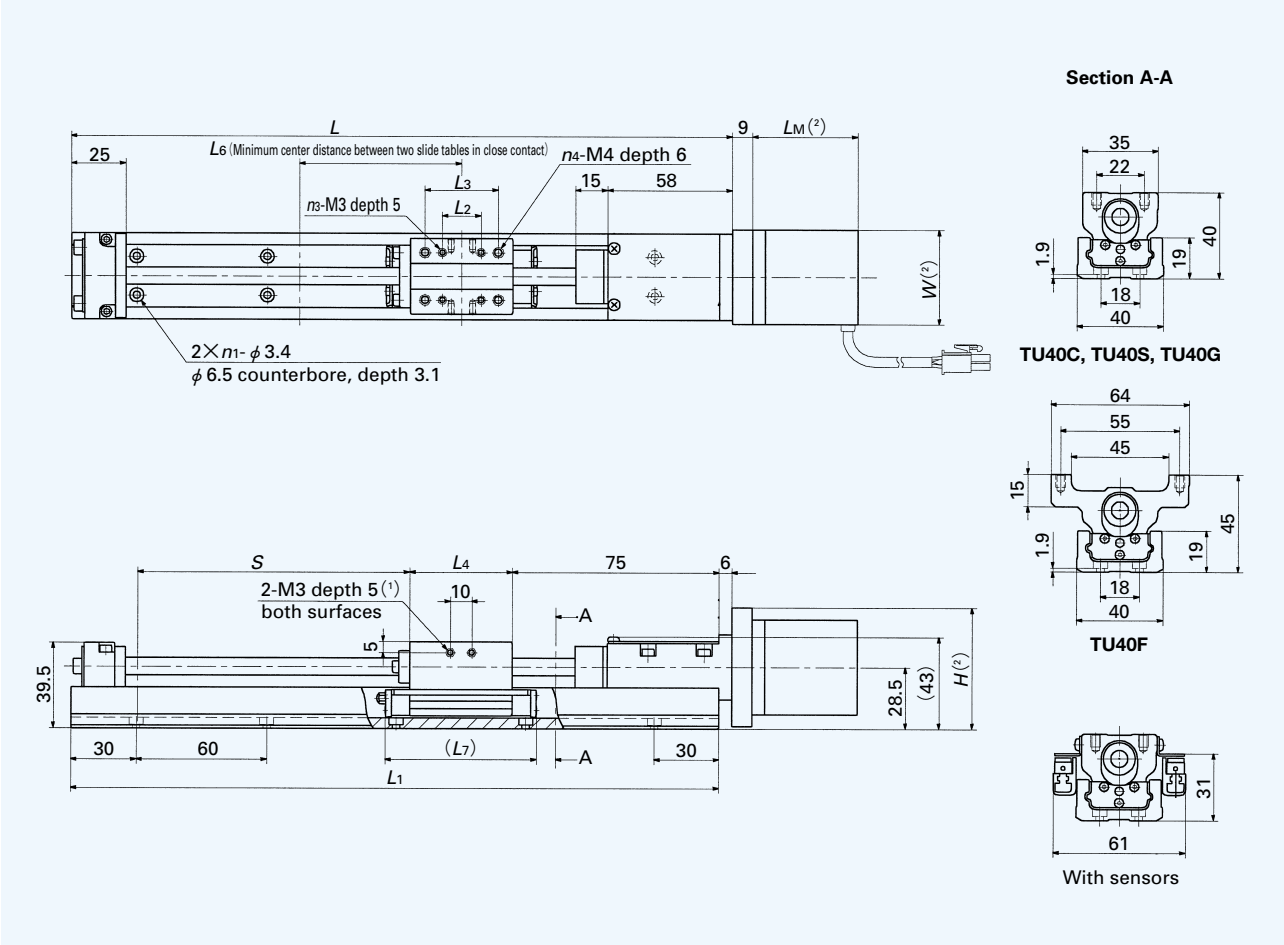
Note⁽¹⁾ : This indicates the limit stroke length when limit sensors are attached. The values in () are for two slide tables in close contact.
 Note⁽²⁾ : The values indicate the whole table mass when one slide table is attached. The mass of the motor is not included.
 Remark : The track rail and the casing are made of stainless steel.



Note⁽¹⁾ : These threaded holes are not provided on TU30F.
(²) : See the dimension table for the motor unit on page 12.

Dimensions									unit : mm	
Model number	Track rail length L ₁	Total length L	Stroke length S ⁽¹⁾	n ₁	Mass of slide table kg		Mass ⁽²⁾ kg			
					TU30S	TU30F	TU30S	TU30F		
TU30S TU30F	140	175	30 (—)	3	0.09	0.12	0.49	0.52		
	180	215	70 (45)	4			0.56	0.59		
	220	255	110 (85)	5			0.63	0.66		
	260	295	150 (125)	6			0.70	0.73		
	300	335	190 (165)	7			0.77	0.80		
	340	375	230 (205)	8			0.84	0.87		

Note⁽¹⁾ : This indicates the limit stroke length when limit sensors are attached. The values in () are for two slide tables in close contact.
(²) : The values indicate the whole table mass when one slide table is attached. The mass of the motor is not included.
Remark : The track rail and the casing are made of stainless steel.



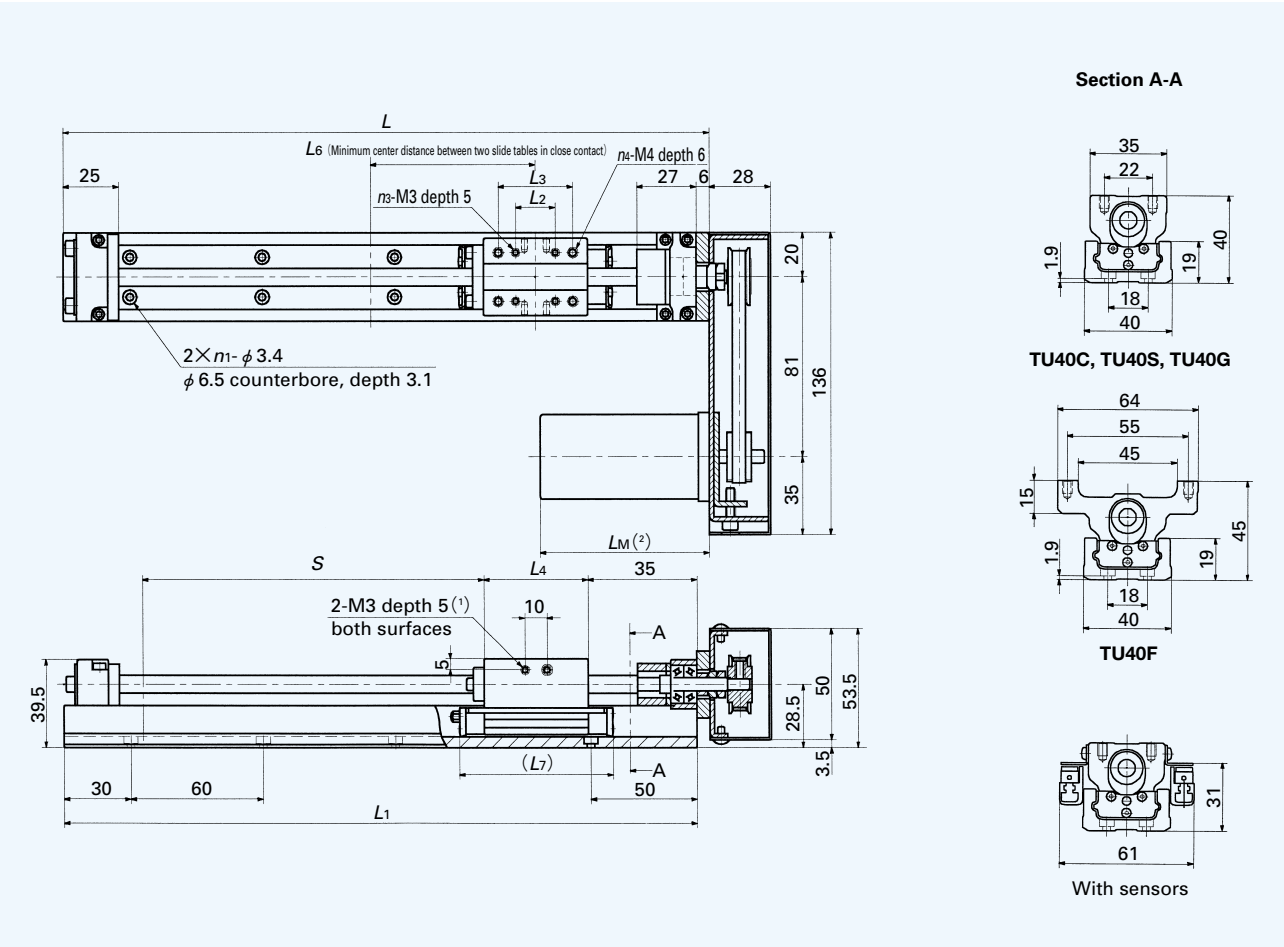
Note⁽¹⁾ : These threaded holes are not provided on TU40F.
(²) : See the dimension table for the motor unit on page 12.

Dimensions of slide table									unit : mm	
Model number	L ₂	L ₃	L ₄	L ₆	L ₇	n ₃	n ₄	Mass kg		
TU40C	—	—	19.5	45	43	—	2	0.1		
TU40S	—	18	31.5	60	55	—	4	0.2		
TU40G	18	34	47.5	75	71	4	4	0.3		
TU40F	—	18	31.5	60	55	—	4	0.3		

Dimensions of track rail										unit : mm	
Track rail length L ₁	Total length L	n ₁	Stroke length S ⁽¹⁾			Mass ⁽²⁾ kg					
			TU40C	TU40S TU40F	TU40G	TU40C	TU40S	TU40G	TU40F		
180	186	3	45 (—)	30 (—)	— (—)	0.9	1.0	—	1.1		
240	246	4	105 (70)	90 (40)	80 (—)	1.1	1.2	1.3	1.3		
300	306	5	165 (130)	150 (100)	140 (70)	1.2	1.3	1.4	1.4		
360	366	6	225 (190)	210 (160)	200 (130)	1.4	1.5	1.6	1.6		
420	426	7	285 (250)	270 (220)	260 (190)	1.6	1.7	1.8	1.8		

Note⁽¹⁾ : This indicates the limit stroke length when limit sensors are attached. The values in () are for two slide tables in close contact.
(²) : The values indicate the whole table mass when one slide table is attached. The mass of the motor is not included.

Motor folding back specification

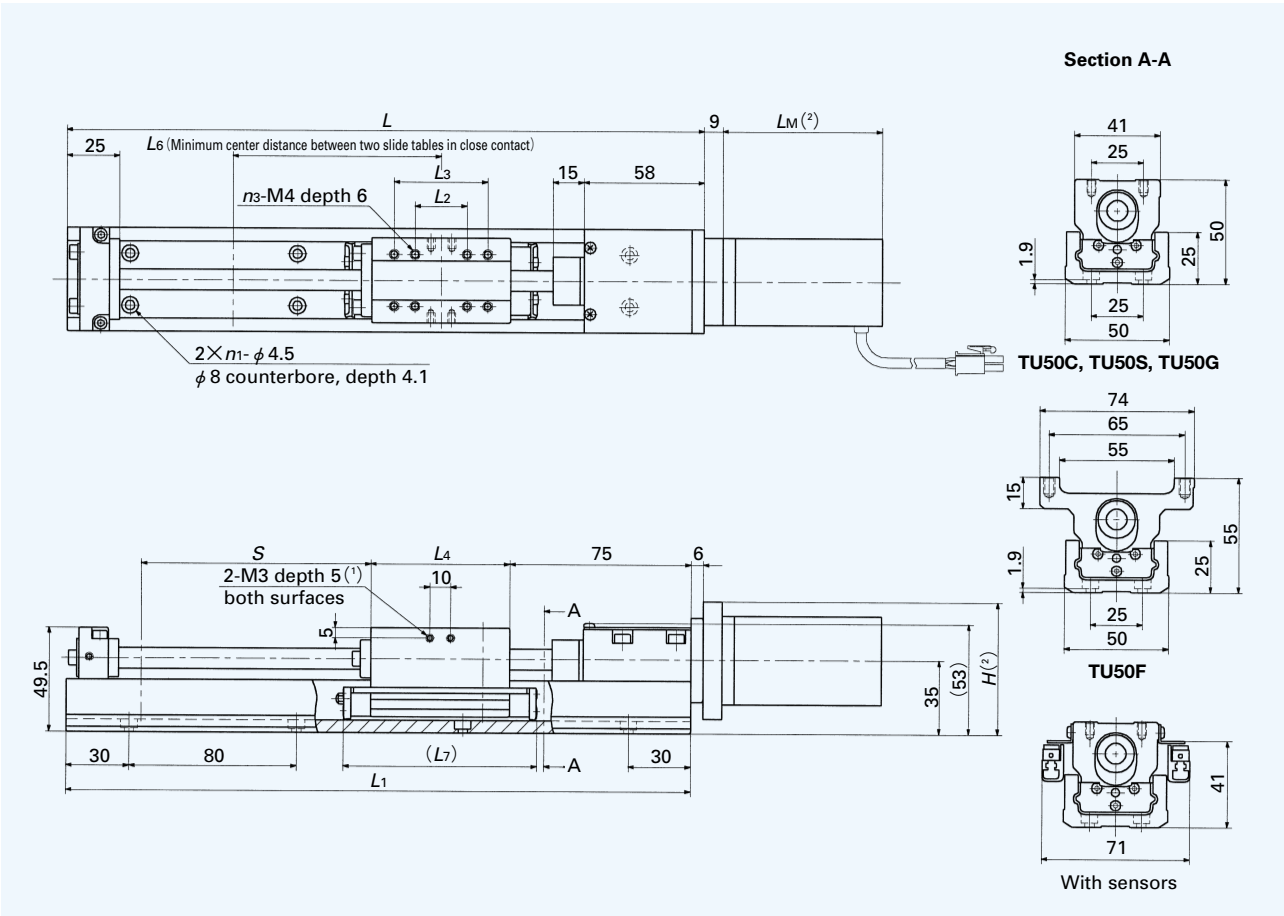


Note⁽¹⁾ : These threaded holes are not provided on TU40F.
(²) : See the dimension table for the motor unit on page 12.

Dimensions of slide table									unit : mm	
Model number	L ₂	L ₃	L ₄	L ₆	L ₇	n ₃	n ₄	Mass kg		
TU40C	—	—	19.5	45	43	—	2	0.1		
TU40S	—	18	31.5	60	55	—	4	0.2		
TU40G	18	34	47.5	75	71	4	4	0.3		
TU40F	—	18	31.5	60	55	—	4	0.3		

Dimensions of track rail										unit : mm	
Track rail length L ₁	Total length L	n ₁	Stroke length S ⁽¹⁾			Mass ⁽²⁾ kg					
			TU40C	TU40S TU40F	TU40G	TU40C	TU40S	TU40G	TU40F		
140	146	2	45(—)	30(—)	—(—)	1.0	1.1	—	1.2		
200	206	3	105(70)	90(40)	80(—)	1.2	1.3	1.4	1.4		
260	266	4	165(130)	150(100)	140(70)	1.4	1.5	1.6	1.6		
320	326	5	225(190)	210(160)	200(130)	1.6	1.7	1.8	1.8		
380	386	6	285(250)	270(220)	260(190)	1.8	1.9	2.0	2.0		

Note⁽¹⁾ : This indicates the limit stroke length when limit sensors are attached. The values in () are for two slide tables in close contact.
(²) : The values indicate the whole table mass when one slide table is attached. The mass of the motor is not included.



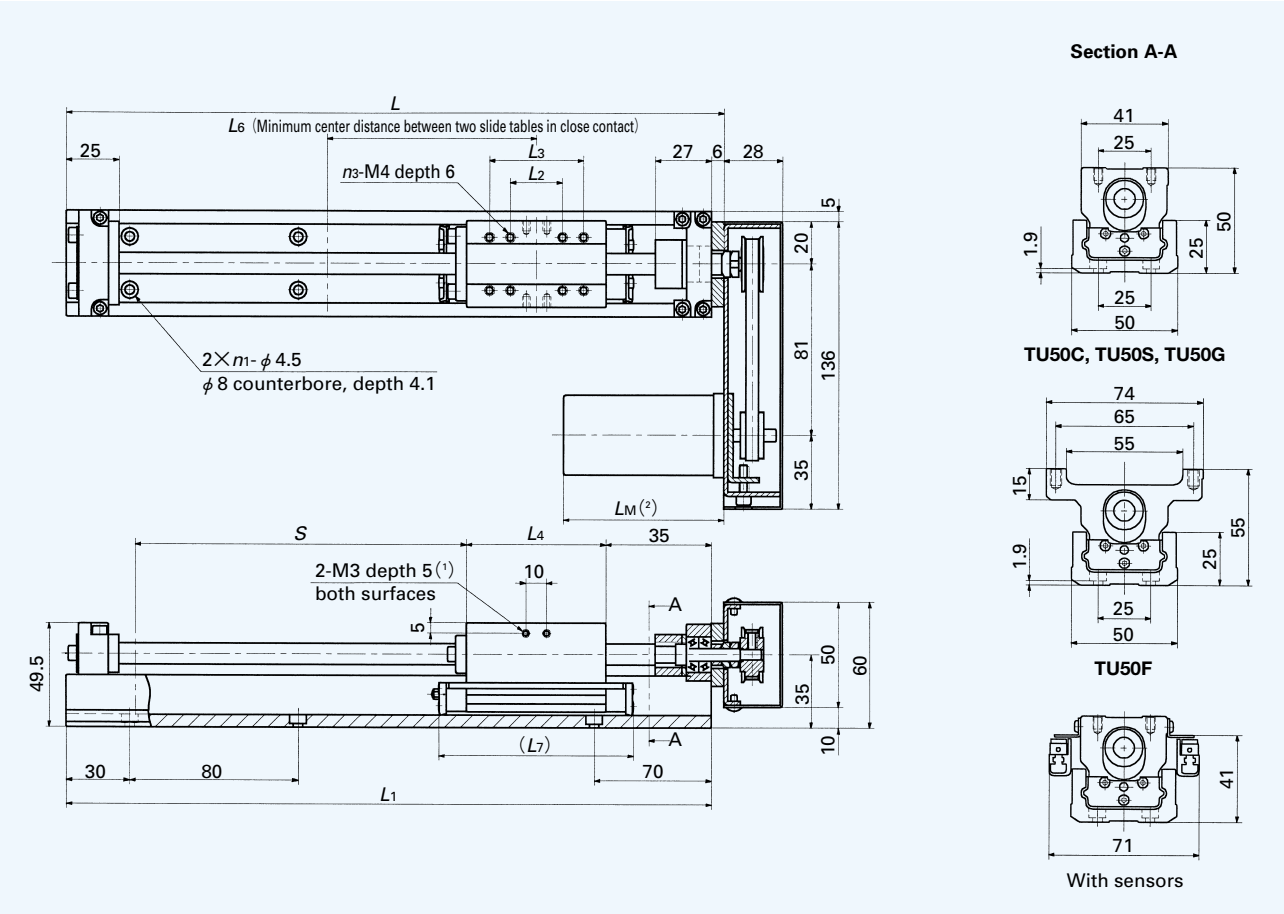
Note⁽¹⁾ : These threaded holes are not provided on TU50F.
(²) : See the dimension table for the motor unit on page 12.

Dimensions of slide table								unit : mm	
Model number	L ₂	L ₃	L ₄	L ₆	L ₇	n ₃	Mass kg		
TU50C	—	—	23.8	55	51	2	0.2		
TU50S	25	—	42.8	75	70	4	0.4		
TU50G	25	45	66.8	100	94	8	0.7		
TU50F	25	—	42.8	75	70	4	0.5		

Dimensions of track rail										unit : mm	
Track rail length L ₁	Total length L	n ₁	Stroke length S ⁽¹⁾			Mass ⁽²⁾ kg					
			TU50C	TU50S TU50F	TU50G	TU50C	TU50S	TU50G	TU50F		
220	226	3	80(—)	60(—)	—(—)	1.6	1.8	—	1.9		
300	306	4	160(115)	140(75)	120(—)	1.9	2.1	2.4	2.2		
380	386	5	240(195)	220(155)	200(110)	2.3	2.5	2.8	2.6		
460	466	6	320(275)	300(235)	280(190)	2.7	2.9	3.2	3.0		
540	546	7	400(355)	380(315)	360(270)	3.1	3.3	3.6	3.4		
620	626	8	480(435)	460(395)	440(350)	3.5	3.7	3.9	3.8		
700	706	9	560(515)	540(475)	520(430)	3.8	4.0	4.3	4.1		

Note⁽¹⁾ : This indicates the limit stroke length when limit sensors are attached. The values in () are for two slide tables in close contact.
(²) : The values indicate the whole table mass when one slide table is attached. The mass of the motor is not included.

Motor folding back specification

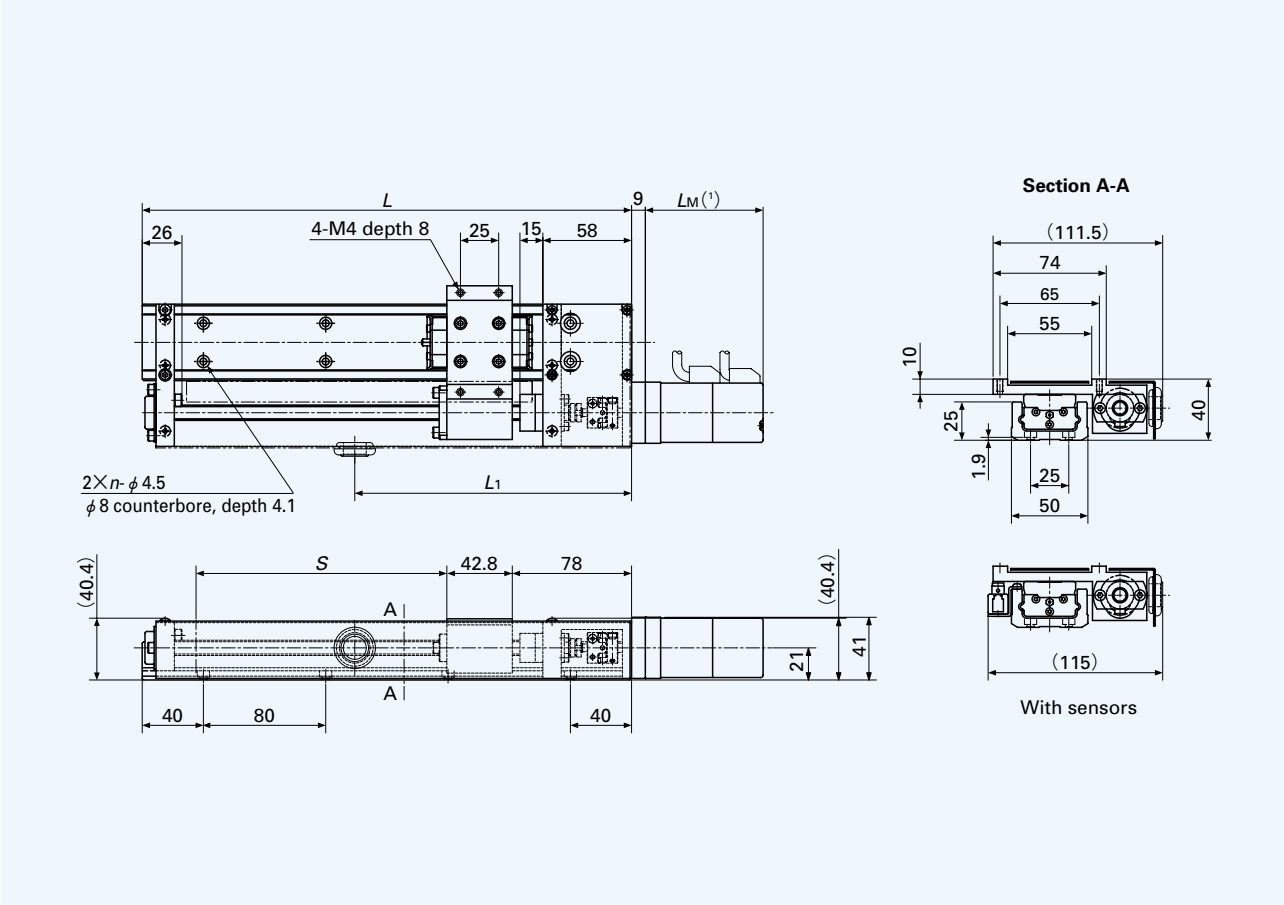


Note⁽¹⁾ : These threaded holes are not provided on TU50F.
(²) : See the dimension table for the motor unit on page 12.

Dimensions of slide table							
unit : mm							
Model number	L_2	L_3	L_4	L_6	L_7	n_3	Mass kg
TU50C	—	—	23.8	55	51	2	0.2
TU50S	25	—	42.8	75	70	4	0.4
TU50G	25	45	66.8	100	94	8	0.7
TU50F	25	—	42.8	75	70	4	0.5

Dimensions of track rail									
unit : mm									
Track rail length L_1	Total length L	n_1	Stroke length $S^{(1)}$			Mass ⁽²⁾ kg			
			TU50C	TU50S TU50F	TU50G	TU50C	TU50S	TU50G	TU50F
180	186	2	80 (—)	60 (—)	— (—)	1.6	1.8	—	1.9
260	266	3	160 (115)	140 (75)	120 (—)	1.9	2.1	2.4	2.2
340	346	4	240 (195)	220 (155)	200 (110)	2.3	2.5	2.8	2.6
420	426	5	320 (275)	300 (235)	280 (190)	2.7	2.9	3.2	3.0
500	506	6	400 (355)	380 (315)	360 (270)	3.1	3.3	3.6	3.4
580	586	7	480 (435)	460 (395)	440 (350)	3.5	3.7	3.9	3.8
660	666	8	560 (515)	540 (475)	520 (430)	3.8	4.0	4.3	4.1

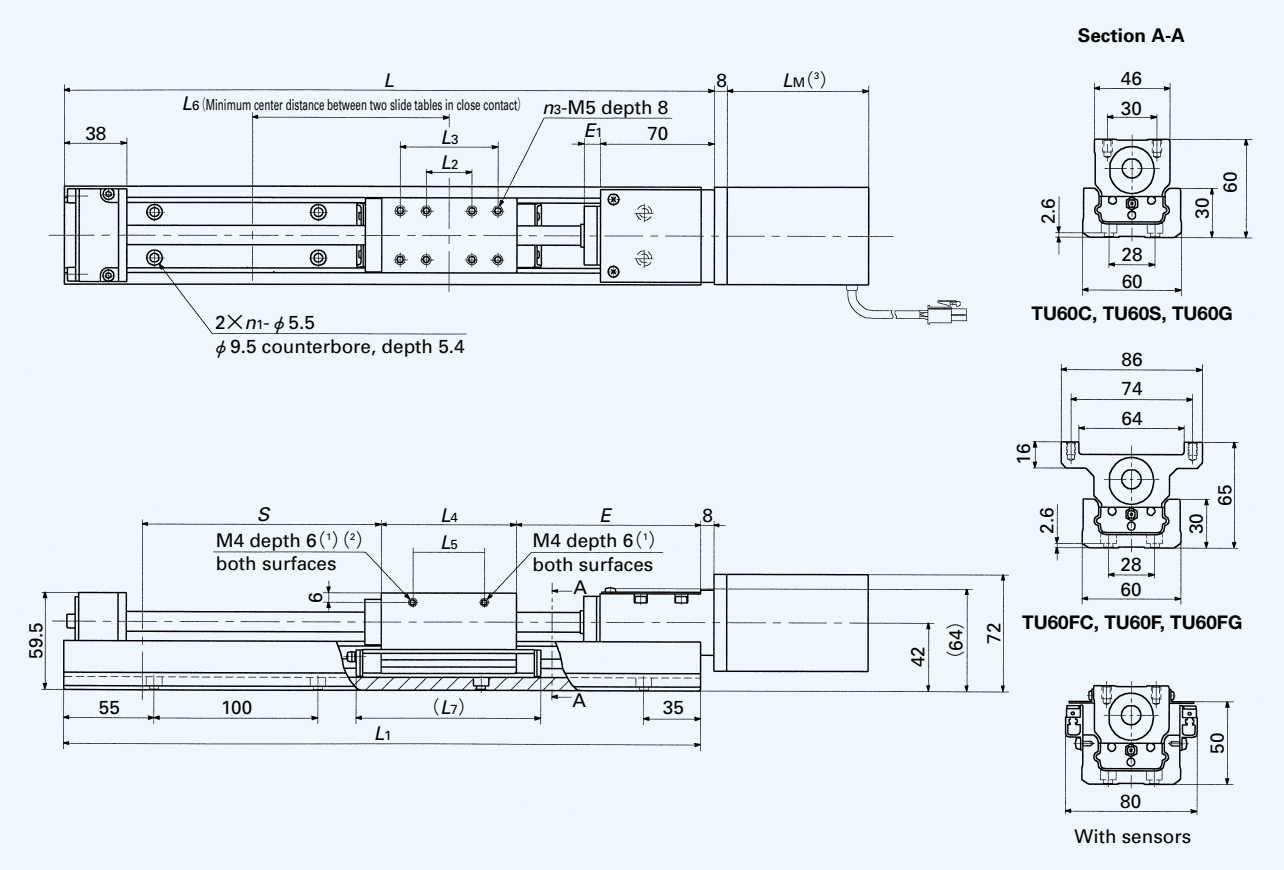
Note⁽¹⁾ : This indicates the limit stroke length when limit sensors are attached. The values in () are for two slide tables in close contact.
(²) : The values indicate the whole table mass when one slide table is attached. The mass of the motor is not included.



Note⁽¹⁾ : See the dimension table for the motor unit on page 14.

Dimensions					
unit : mm					
Track rail length L	L_1	n	Stroke length $S^{(1)}$	Mass of slide unit kg	Mass ⁽²⁾ kg
240	141	3	84	0.7	2.3
320	181	4	164		2.8
400	221	5	244		3.3

Note⁽¹⁾ : This indicates the limit stroke length when limit sensors are attached.
(²) : The mass of the motor is not included.



Note⁽¹⁾ : These threaded holes are not provided on TU60FC, TU60F and TU60FG.
(²) : $\phi 3$ depth 2 in the case of TU60C
(³) : See the dimension table for the motor unit on page 12.

Dimensions of slide table

unit : mm

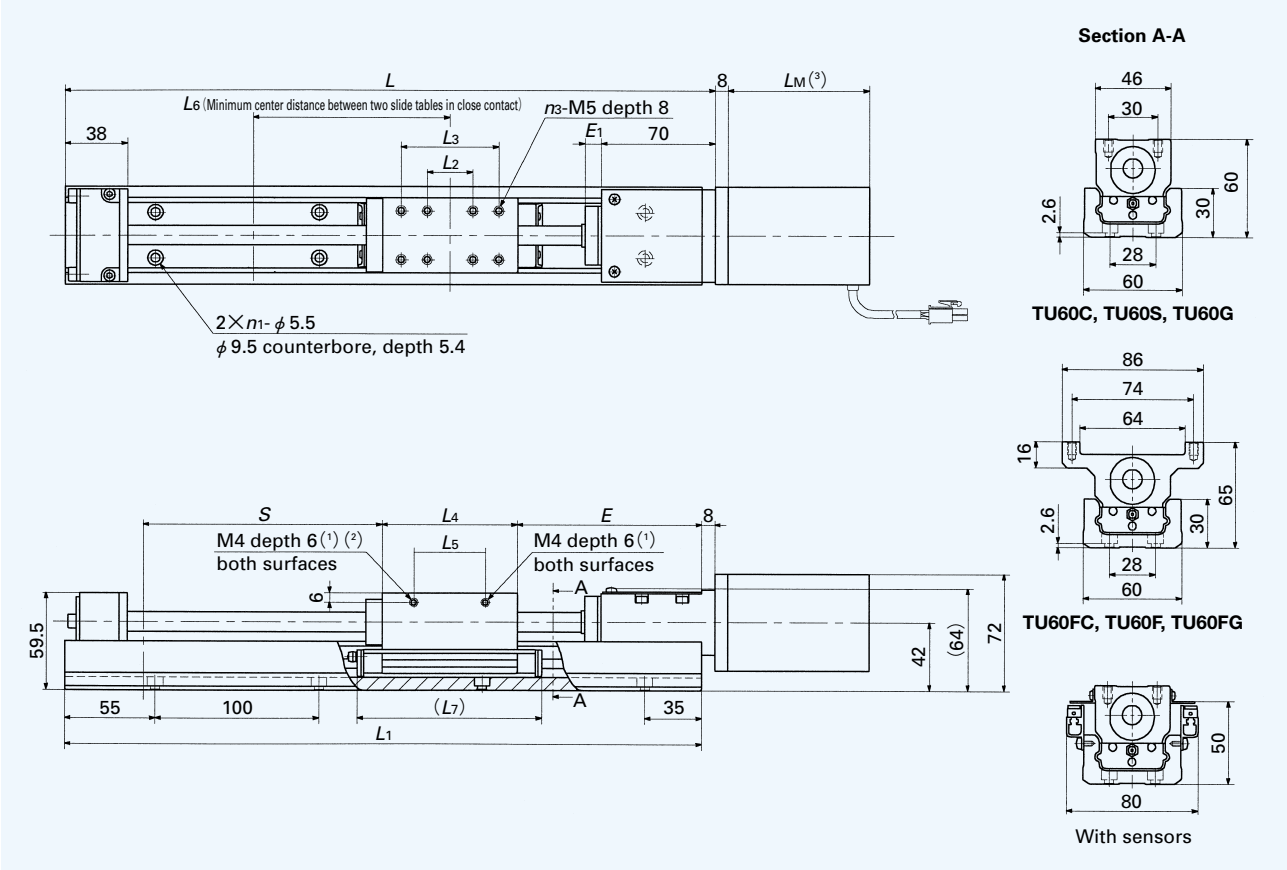
Model number	L ₂	L ₃	L ₄	L ₅	L ₆	L ₇	n ₃	E	E ₁	Mass kg
TU60C	—	—	27.4	17.4	65	58	2	90	15	0.3
TU60S	28	—	52.4	18	90	83	4	80	10	0.6
TU60G	28	60	83	44	120.5	113	8	80	10	1.0
TU60FC	—	—	27.4	—	65	58	2	90	15	0.4
TU60F	28	—	52.4	—	90	83	4	80	10	0.8
TU60FG	28	60	83	—	120.5	113	8	80	10	1.3

Dimensions of track rail

unit : mm

Track rail length L ₁	Total length L	n ₁	Stroke length S ⁽¹⁾			Mass ⁽²⁾ kg					
			TU60C TU60FC	TU60S TU60F	TU60G TU60FG	TU60C	TU60S	TU60G	TU60FC	TU60F	TU60FG
290	298	3	110 (50)	100 (—)	70 (—)	3.0	3.3	3.6	3.1	3.5	3.9
390	398	4	210 (150)	200 (120)	170 (60)	3.7	4.0	4.4	3.8	4.2	4.7
490	498	5	310 (250)	300 (220)	270 (160)	4.5	4.8	5.1	4.6	4.9	5.4
590	598	6	410 (350)	400 (320)	370 (260)	5.2	5.5	5.8	5.3	5.7	6.1
690	698	7	510 (450)	500 (420)	470 (360)	6.0	6.2	6.6	6.1	6.4	6.9
790	798	8	610 (550)	600 (520)	570 (460)	6.7	7.0	7.3	6.8	7.2	7.6
990	998	10	810 (750)	800 (720)	770 (660)	8.3	8.6	9.0	8.4	8.7	9.1
1190	1198	12	1010 (950)	1000 (920)	970 (860)	9.8	10.1	10.5	9.9	10.2	10.6

Note⁽¹⁾ : This indicates the limit stroke length when limit sensors are attached. The values in () are for two slide tables in close contact.
(²) : The values indicate the whole table mass when one slide table is attached. The mass of the motor is not included.



Note⁽¹⁾ : These threaded holes are not provided on TU60FC, TU60F and TU60FG.
(²) : $\phi 3$ depth 2 in the case of TU60C
(³) : See the dimension table for the motor unit on page 12.

Dimensions of slide table

unit : mm

Model number	L ₂	L ₃	L ₄	L ₅	L ₆	L ₇	n ₃	E	E ₁	Mass kg
TU60C	—	—	27.4	17.4	65	58	2	110	15	0.3
TU60S	28	—	52.4	18	90	83	4	85	15	0.6
TU60G	28	60	83	44	120.5	113	8	85	15	1.0
TU60FC	—	—	27.4	—	65	58	2	110	15	0.4
TU60F	28	—	52.4	—	90	83	4	85	15	0.8
TU60FG	28	60	83	—	120.5	113	8	85	15	1.3

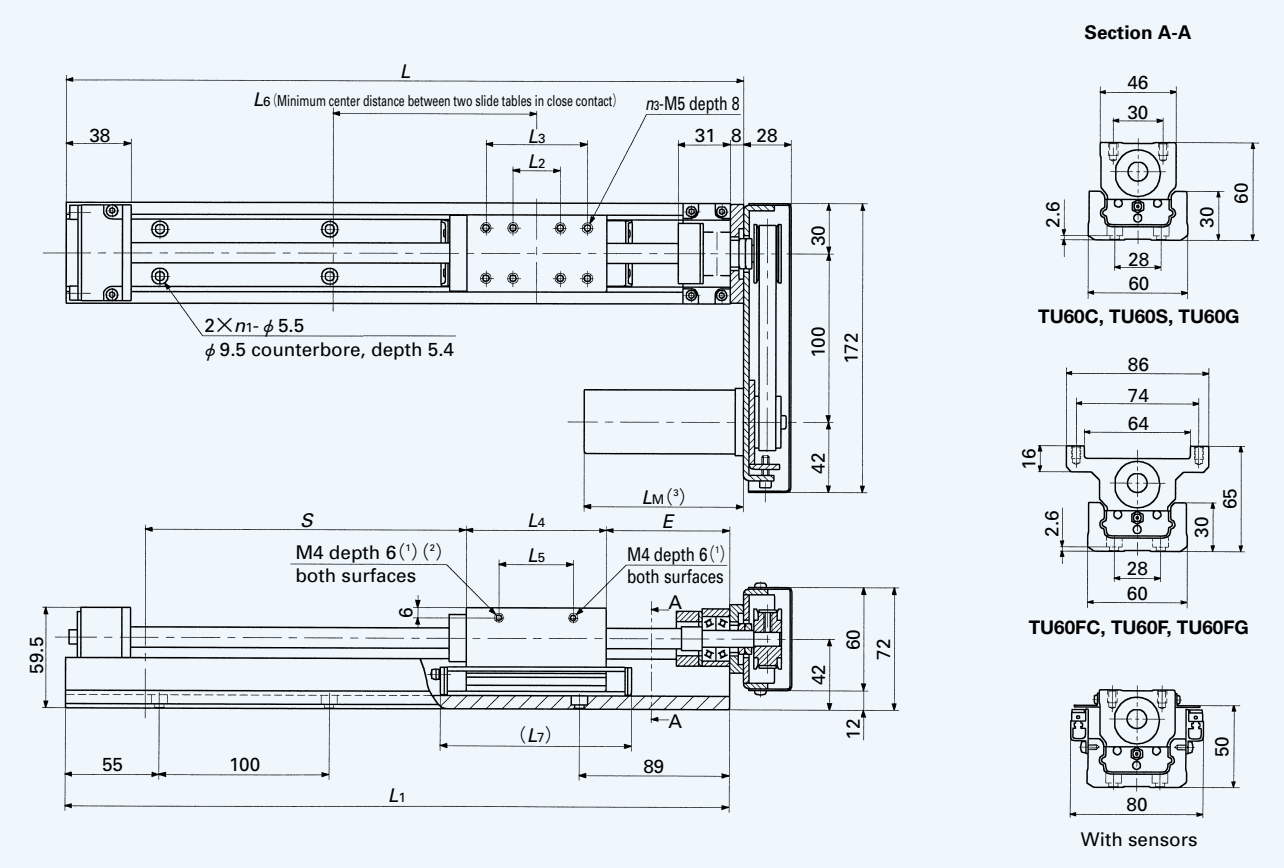
Dimensions of track rail

unit : mm

Track rail length L ₁	Total length L	n ₁	Stroke length S ⁽¹⁾			Mass ⁽²⁾ kg					
			TU60C TU60FC	TU60S TU60F	TU60G TU60FG	TU60C	TU60S	TU60G	TU60FC	TU60F	TU60FG
290	298	3	95 (—)	95 (—)	65 (—)	3.1	3.4	3.7	3.2	3.6	4.0
390	398	4	195 (135)	195 (115)	165 (—)	3.8	4.1	4.5	3.9	4.3	4.8
490	498	5	295 (235)	295 (215)	265 (155)	4.6	4.9	5.2	4.7	5.0	5.5
590	598	6	395 (335)	395 (315)	365 (255)	5.3	5.6	5.9	5.4	5.8	6.2
690	698	7	495 (435)	495 (415)	465 (355)	6.1	6.3	6.7	6.2	6.5	7.0
790	798	8	595 (535)	595 (515)	565 (455)	6.8	7.1	7.4	6.9	7.3	7.7

Note⁽¹⁾ : This indicates the limit stroke length when limit sensors are attached. The values in () are for two slide tables in close contact.
(²) : The values indicate the whole table mass when one slide table is attached. The mass of the motor is not included.

Motor folding back specification



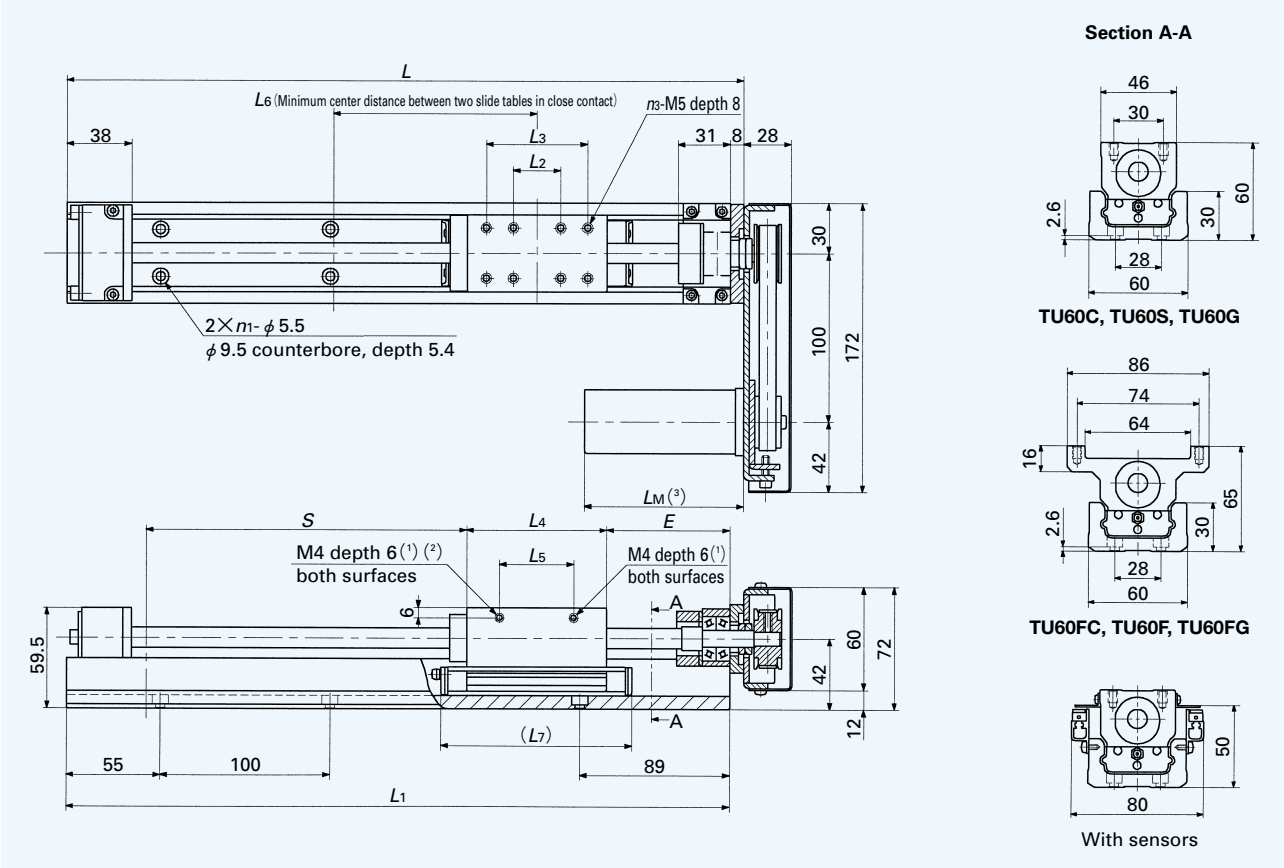
Note⁽¹⁾ : These threaded holes are not provided on TU60FC, TU60F and TU60FG.
(²) : $\phi 3$ depth 2 in the case of TU60C
(³) : See the dimension table for the motor unit on page 12.

Dimensions of slide table										unit : mm	
Model number	L ₂	L ₃	L ₄	L ₅	L ₆	L ₇	n ₃	E	Mass kg		
TU60C	—	—	27.4	17.4	65	58	2	44	0.3		
TU60S	28	—	52.4	18	90	83	4	39	0.6		
TU60G	28	60	83	44	120.5	113	8	39	1.0		
TU60FC	—	—	27.4	—	65	58	2	44	0.4		
TU60F	28	—	52.4	—	90	83	4	39	0.8		
TU60FG	28	60	83	—	120.5	113	8	39	1.3		

Dimensions of track rail												unit : mm	
Track rail length L ₁	Total length L	n ₁	Stroke length S ⁽¹⁾			Mass ⁽²⁾ kg							
			TU60C TU60FC	TU60S TU60F	TU60G TU60FG	TU60C	TU60S	TU60G	TU60FC	TU60F	TU60FG		
244	252	2	110 (50)	95 (—)	—	3.6	3.9	—	3.7	4.1	—		
344	352	3	210 (150)	195 (115)	165 (55)	4.3	4.6	5.0	4.4	4.8	5.3		
444	452	4	310 (250)	295 (215)	265 (155)	5.1	5.4	5.7	5.2	5.5	6.0		
544	552	5	410 (350)	395 (315)	365 (255)	5.8	6.1	6.4	5.9	6.3	6.7		
644	652	6	510 (450)	495 (415)	465 (355)	6.6	6.8	7.2	6.7	7.0	7.5		
744	752	7	610 (550)	595 (515)	565 (455)	7.5	7.6	7.9	7.6	7.8	8.2		

Note⁽¹⁾ : This indicates the limit stroke length when limit sensors are attached. The values in () are for two slide tables in close contact.
(²) : The values indicate the whole table mass when one slide table is attached. The mass of the motor is not included.

Motor folding back specification

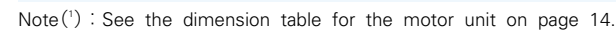


Note⁽¹⁾ : These threaded holes are not provided on TU60FC, TU60F and TU60FG.
(²) : $\phi 3$ depth 2 in the case of TU60C
(³) : See the dimension table for the motor unit on page 12.

Dimensions of slide table										unit : mm	
Model number	L ₂	L ₃	L ₄	L ₅	L ₆	L ₇	n ₃	E	Mass kg		
TU60C	—	—	27.4	17.4	65	58	2	64	0.3		
TU60S	28	—	52.4	18	90	83	4	39	0.6		
TU60G	28	60	83	44	120.5	113	8	39	1.0		
TU60FC	—	—	27.4	—	65	58	2	64	0.4		
TU60F	28	—	52.4	—	90	83	4	39	0.8		
TU60FG	28	60	83	—	120.5	113	8	39	1.3		

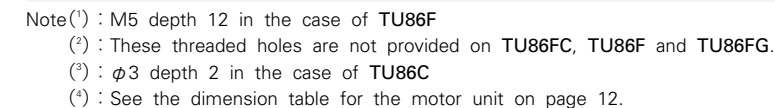
Dimensions of track rail												unit : mm	
Track rail length L ₁	Total length L	n ₁	Stroke length S ⁽¹⁾			Mass ⁽²⁾ kg							
			TU60C TU60FC	TU60S TU60F	TU60G TU60FG	TU60C	TU60S	TU60G	TU60FC	TU60F	TU60FG		
244	252	2	95 (—)	95 (—)	—	3.7	4.0	—	3.8	4.2	—		
344	352	3	195 (135)	195 (115)	165 (—)	4.4	4.7	5.1	4.5	4.9	5.4		
444	452	4	295 (235)	295 (215)	265 (155)	5.2	5.5	5.8	5.3	5.6	6.1		
544	552	5	395 (335)	395 (315)	365 (255)	5.9	6.2	6.5	6.0	6.4	6.8		
644	652	6	495 (435)	495 (415)	465 (355)	6.7	6.9	7.3	6.8	7.1	7.6		
744	752	7	595 (535)	595 (515)	565 (455)	7.6	7.7	8.0	7.7	7.9	8.3		

Note⁽¹⁾ : This indicates the limit stroke length when limit sensors are attached. The values in () are for two slide tables in close contact.
(²) : The values indicate the whole table mass when one slide table is attached. The mass of the motor is not included.



unit : mm

Note⁽¹⁾ : This indicates the limit stroke length when limit sensors are attached.
⁽²⁾ : The mass of the motor is not included.

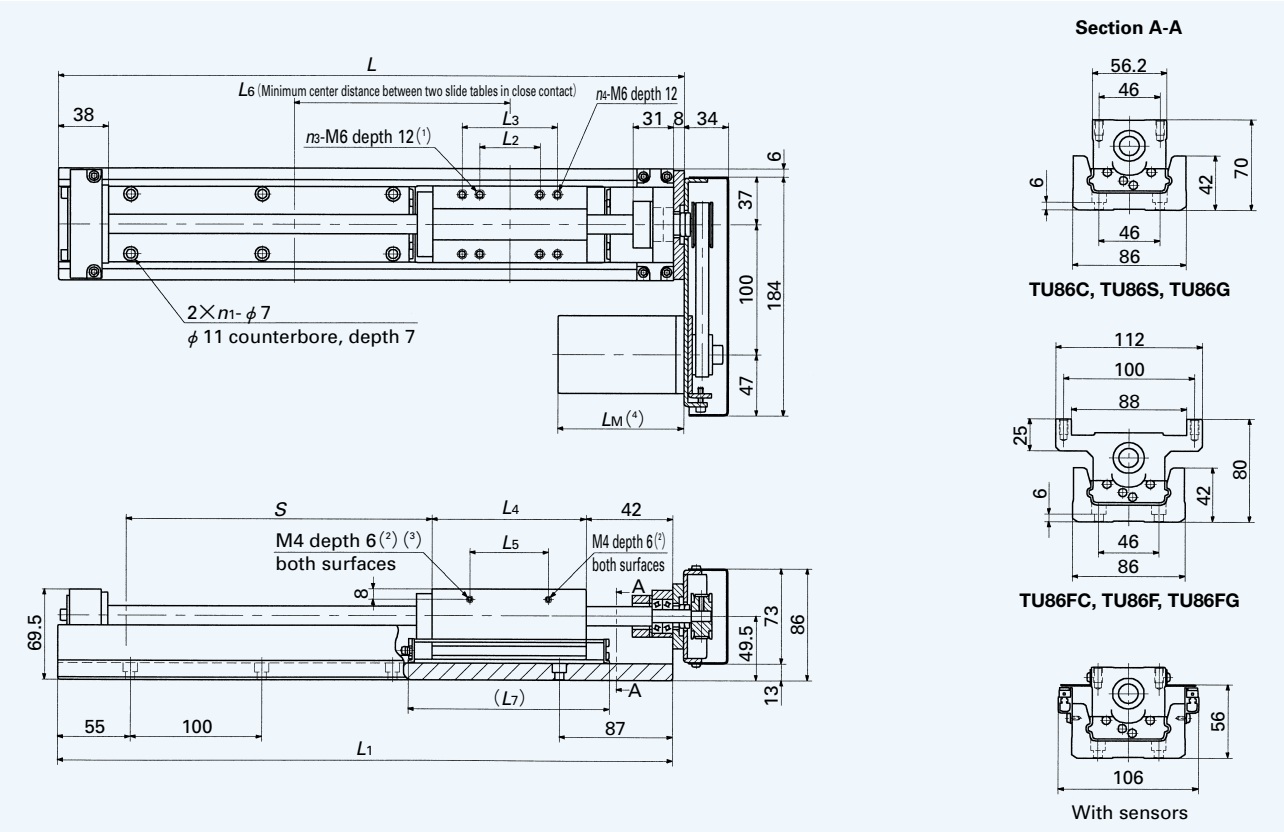


unit : mm

unit : mm

Note⁽¹⁾ : This indicates the limit stroke length when limit sensors are attached. The values in () are for two slide tables in close contact.
 Note⁽²⁾ : The values indicate the whole table mass when one slide table is attached. The mass of the motor is not included.

Motor folding back specification

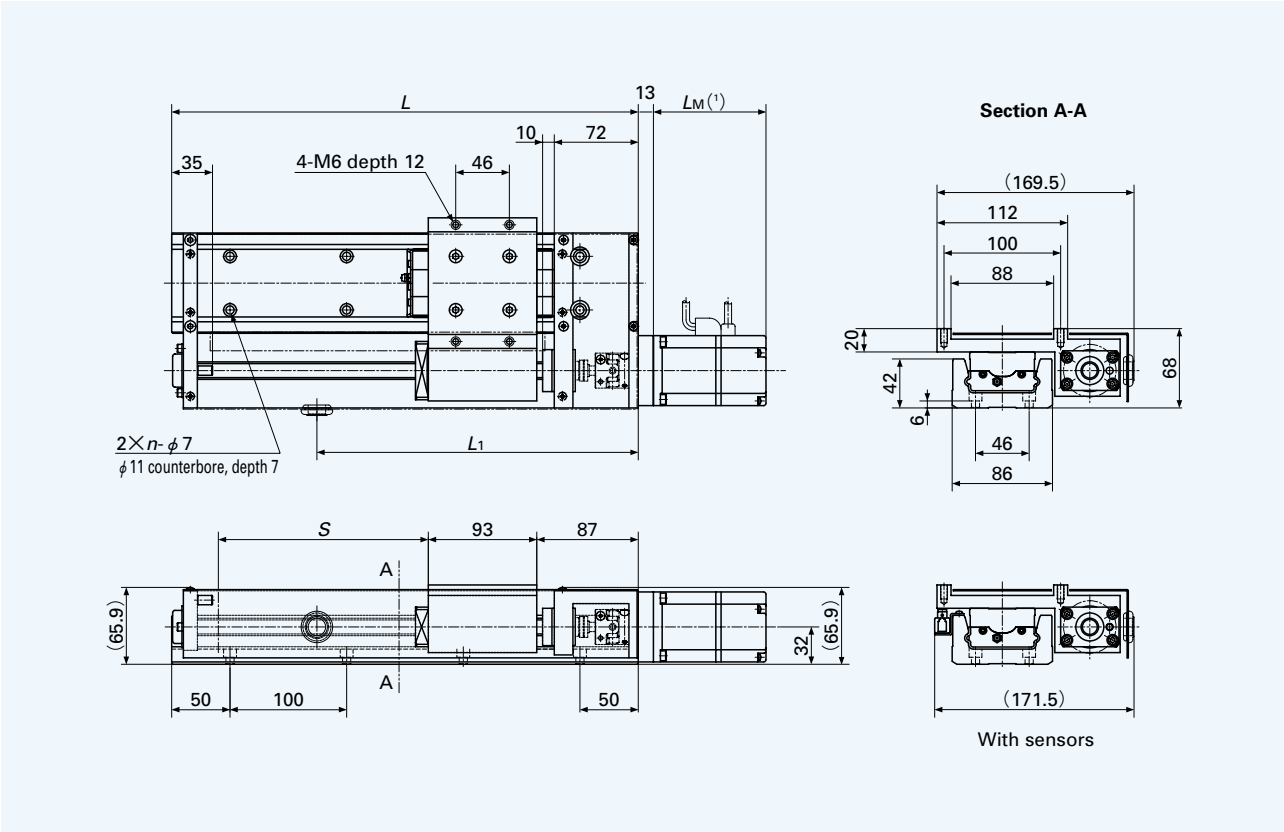


Note⁽¹⁾ : M5 depth 12 in the case of TU86F
⁽²⁾ : These threaded holes are not provided on TU86FC, TU86F and TU86FG.
⁽³⁾ : $\phi 3$ depth 2 in the case of TU86C
⁽⁴⁾ : See the dimension table for the motor unit on page 12.

Dimensions of slide table										unit : mm
Model number	L ₂	L ₃	L ₄	L ₅	L ₆	L ₇	n ₃	n ₄	Mass kg	
TU86C	—	—	43	30	90	80	2	—	0.7	
TU86S	46	—	93	63	140	130	4	—	1.7	
TU86G	46	73	118	60	165	155	4	4	2.2	
TU86FC	—	—	43	—	90	80	2	—	1.1	
TU86F	28	46	93	—	140	130	4	4	2.3	
TU86FG	46	73	118	—	165	155	4	4	3.0	

Dimensions of track rail												unit : mm
Track rail length L ₁	Total length L	n ₁	Stroke length S ⁽¹⁾			Mass ⁽²⁾ kg						
			TU86C TU86FC	TU86S TU86F	TU86G TU86FG	TU86C	TU86S	TU86G	TU86FC	TU86F	TU86FG	
442	450	4	295 (215)	245 (115)	220 (65)	10.3	11.3	11.8	10.7	11.9	12.6	
542	550	5	395 (315)	345 (215)	320 (165)	11.2	12.1	12.6	11.6	12.8	13.4	
642	650	6	495 (415)	445 (315)	420 (265)	12.7	13.6	14.2	13.1	14.3	15.0	
742	750	7	595 (515)	545 (415)	520 (365)	14.2	15.1	15.7	14.6	15.8	16.5	
842	850	8	695 (615)	645 (515)	620 (465)	15.4	16.3	16.8	15.8	17.0	17.6	
942	950	9	795 (715)	745 (615)	720 (565)	16.9	17.8	18.3	17.3	18.5	19.1	
1042	1050	10	895 (815)	845 (715)	820 (665)	18.4	19.3	19.8	18.8	20.0	20.6	
1142	1150	11	995 (915)	945 (815)	920 (765)	19.9	20.8	21.4	20.3	21.5	22.2	

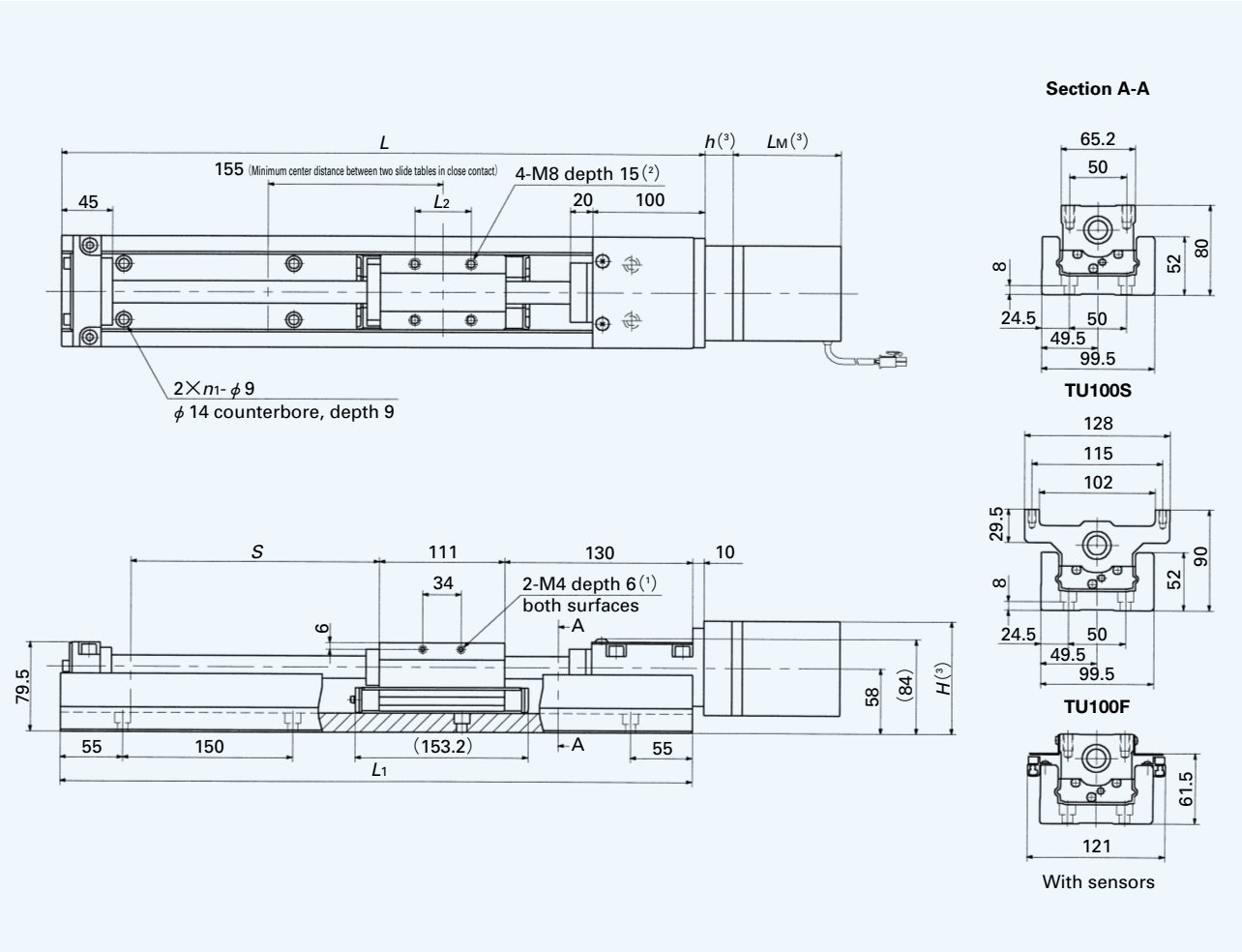
Note⁽¹⁾ : This indicates the limit stroke length when limit sensors are attached. The values in () are for two slide tables in close contact.
⁽²⁾ : The values indicate the whole table mass when one slide table is attached. The mass of the motor is not included.



Note⁽¹⁾ : See the dimension table for the motor unit on page 14.

Dimensions						unit : mm
Track rail length L	L ₁	n	Stroke length S ⁽¹⁾	Mass of slide unit kg	Mass ⁽²⁾ kg	
400	275.5	4	180	3.5	11.5	
600	375.5	6	380		14.9	
800	475.5	8	580		18.4	

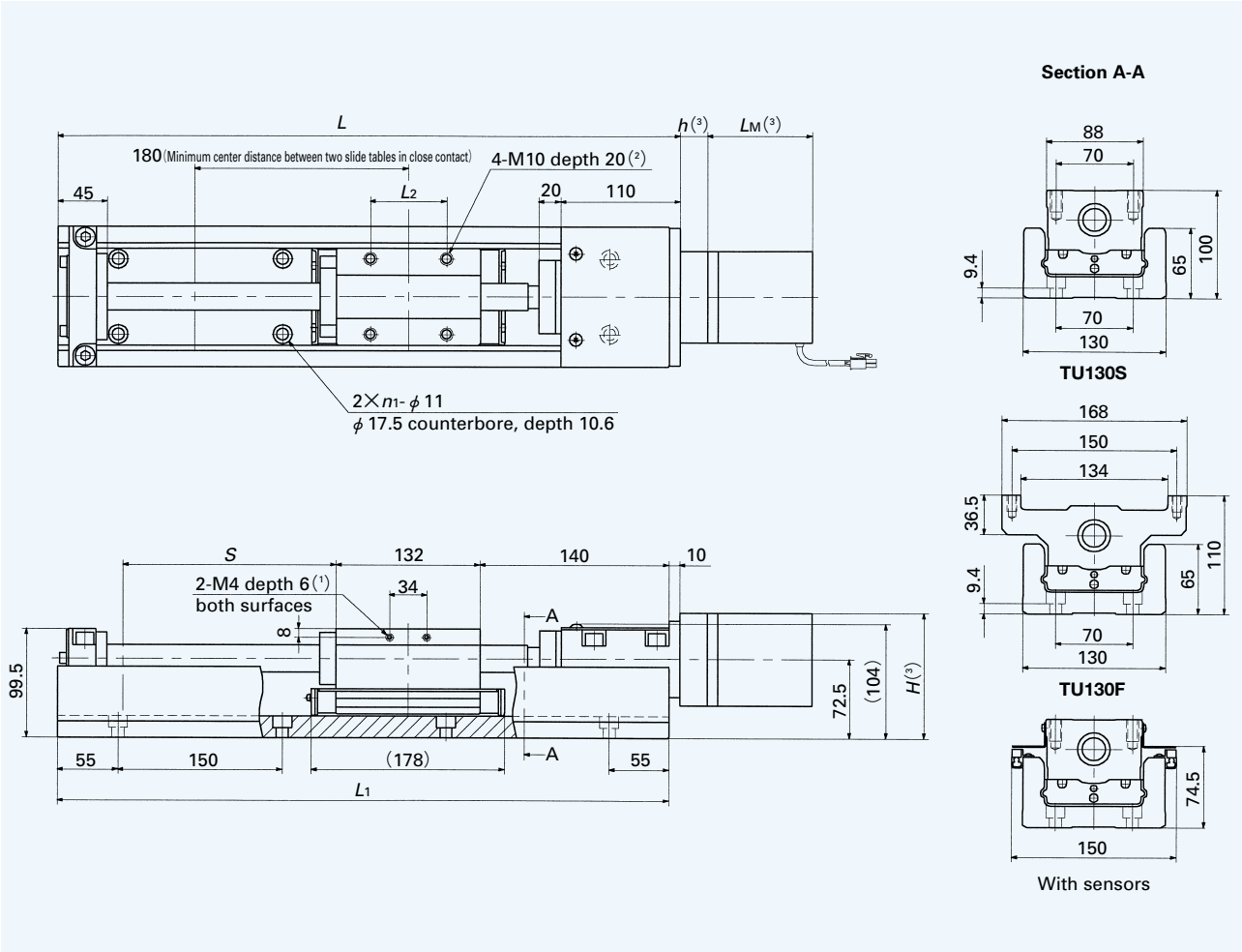
Note⁽¹⁾ : This indicates the limit stroke length when limit sensors are attached.
⁽²⁾ : The mass of the motor is not included.



Note(1) : These threaded holes are not provided on TU100F.
(2) : M6 depth 12 in the case of TU100F
(3) : See the dimension table for the motor unit on page 12.
Remark : The track rail is provided with threaded holes for M12 hanging bolts.

Dimensions						
unit : mm						
Model number	Track rail length L_1	Total length L	Stroke length $S^{(1)}$	n_1	L_2	Mass ⁽²⁾ kg
TU100S	1010	1020	690 (550)	7	50	28.0
	1160	1170	840 (700)	8		31.6
	1310	1320	990 (850)	9		35.1
	1460	1470	1140 (1000)	10		38.8
TU100F	1010	1020	690 (550)	7	46	29.1
	1160	1170	840 (700)	8		32.7
	1310	1320	990 (850)	9		36.2
	1460	1470	1140 (1000)	10		39.9

Note(1) : This indicates the limit stroke length when limit sensors are attached. The values in () are for two slide tables in close contact.
(2) : The values indicate the whole table mass when one slide table is attached. The mass of the motor is not included.
Mass of one slide table : TU100S 2.6kg, TU100F 3.7kg



Note(1) : These threaded holes are not provided on TU130F.
(2) : M8 depth 15 in the case of TU130F
(3) : See the dimension table for the motor unit on page 12.
Remark : The track rail is provided with threaded holes for M12 hanging bolts.

Dimensions						
unit : mm						
Model number	Track rail length L_1	Total length L	Stroke length $S^{(1)}$	n_1	L_2	Mass ⁽²⁾ kg
TU130S	1010	1020	660 (490)	7	70	45.2
	1160	1170	810 (640)	8		50.6
	1310	1320	960 (790)	9		56.2
	1460	1470	1110 (940)	10		61.8
	1610	1620	1260 (1090)	11		67.3
TU130F	1010	1020	660 (490)	7	50	47.6
	1160	1170	810 (640)	8		53.0
	1310	1320	960 (790)	9		58.6
	1460	1470	1110 (940)	10		64.2
	1610	1620	1260 (1090)	11		69.7

Note(1) : This indicates the limit stroke length when limit sensors are attached. The values in () are for two slide tables in close contact.
(2) : The values indicate the whole table mass when one slide table is attached. The mass of the motor is not included.
Mass of one slide table : TU130S 5.4kg, TU130F 7.8kg

Motor attachment for NEMA Specification

When NEMA specification is required, motor attachments shown below are available. Please consult  for further information.

Table 31 Motor attachment for NEMA specification

Model	NEMA Flange No.	Attachment part number	NEMA shaft No.	Motor shaft diameter	
				(mm)	(inch)
TU 25, TU 30	(11C)	/C1	020	5.00	0.1969
TU 40, TU 50	17C	TAE9065-ATE063			
TU 60	23D	/K3	025	6.35	0.2500
TU 86		TAE9059-ATE054			
TU100, TU130	34D	TAE9014-ATE41	038	9.53	0.3750
	42D	TAE9017-ATE058			
		TAE9056-ATE45	063	15.88	0.6250
		TAE9047-ATE062			
		TAE9047-ATE060			

●Motor attachment for NEMA specification

