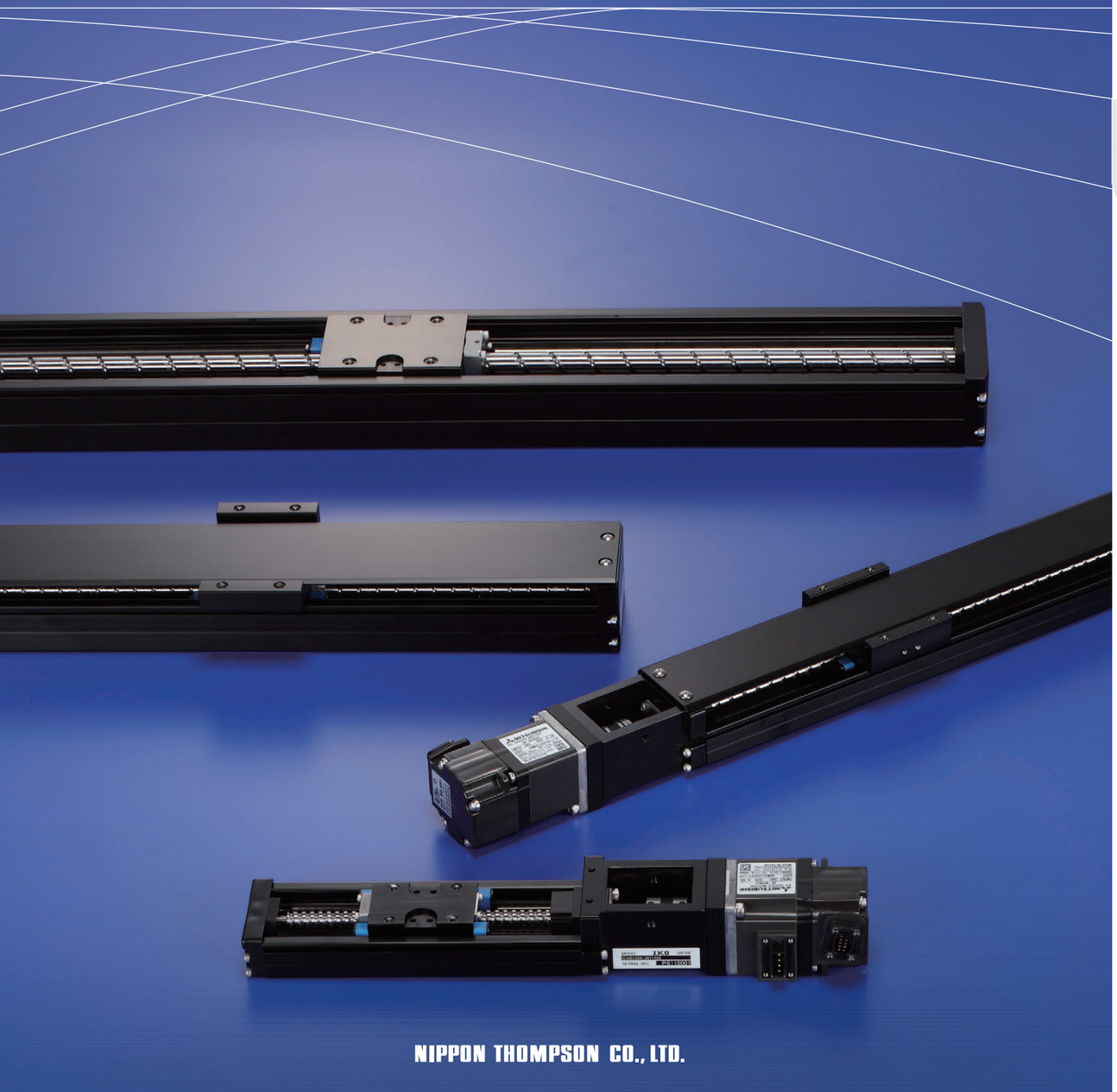
IKO
Innovation, Know-how & Originality

Precision positioning table

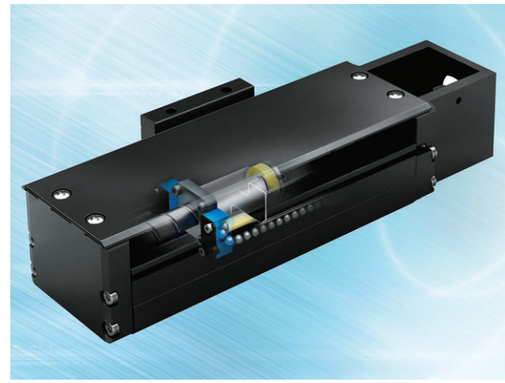
TE

With high-strength aluminum alloy bed



NIPPON THOMPSON CO., LTD.

TE···B



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Oil Minimum
IKO Gentle to The Earth

ISO 9001 Certified
ISO 14001 Certified

ISO 9001 & 14001 Quality system registration certificate

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Light weight, low profile and high-precision positioning table!

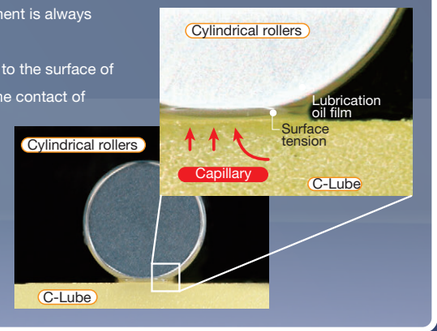
High-precision ball screw ensures accurate positioning.

Long term maintenance free operation using built-in C-Lube!

C-Lube integrated

Lubrication oil is directly supplied to surfaces of the rolling elements

The surface of capillary lubricating element is always covered with the lubrication oil.
Lubrication oil is continuously supplied to the surface of rolling elements by surface tension in the contact of capillary lubricating element surface and rolling elements.
On the surface of capillary lubricating element with which the rolling elements make contact, new lubrication oil is always supplied from the other sections.



TE60…B

Bed width 60mm,
Height 33mm
Bed length 150mm~600mm
6 options available

TE86…B

Bed width 86mm, Height 46mm
Bed length 340mm~940mm
7 options available

TE50…B

Bed width 50mm,
Height 26mm
Bed length 150mm~300mm
4 options available

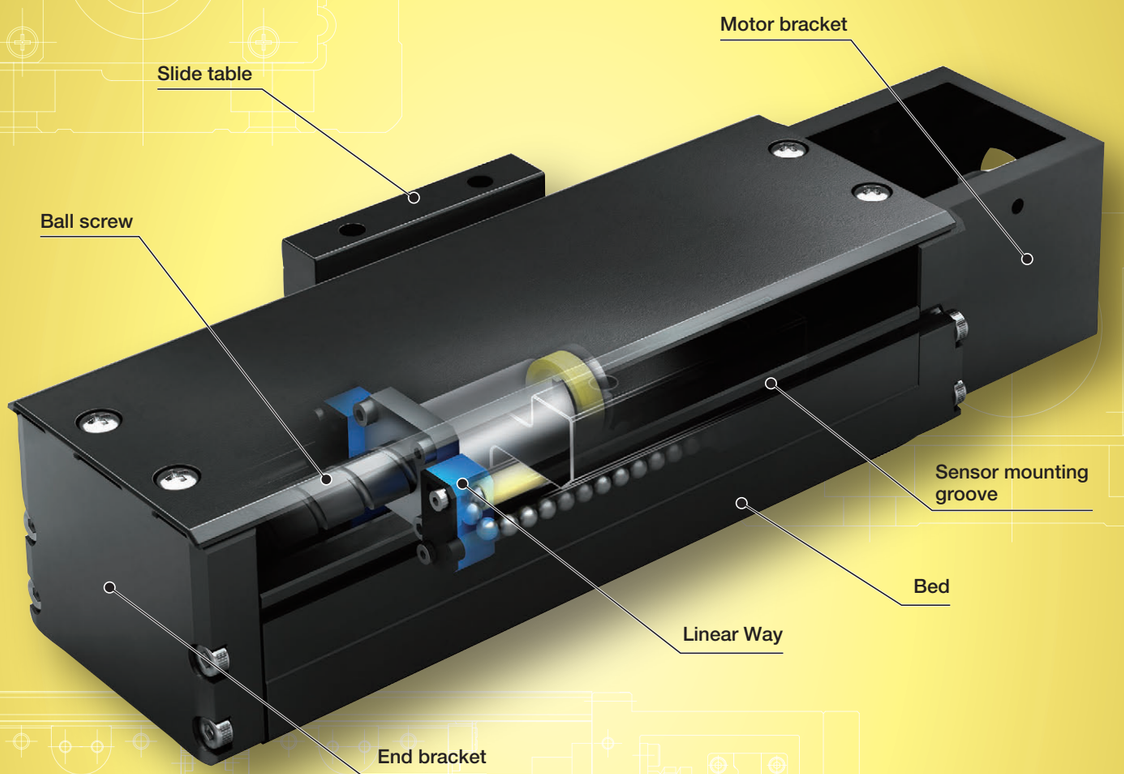
IKO C-Lube Maintenance-free

TE···B

Ball screw

Linear

IKO C-Lube Maintenance-free



Major product specifications

Driving method	Precision ball screw
Linear motion rolling guide	Linear Way（ball type）
Built-in lubrication part	Lubrication part "C-Lube" is built-in
Material of table and bed	High-strength aluminum alloy
Sensor	Select by identification number

Accuracy

unit: mm

Positioning repeatability	±0.002～0.020
Positioning accuracy	0.035～0.065
Parallelism in table motion B	0.008～0.016
Backlash	0.005

Points

● Light weight, low profile and high-precision positioning table

1 Light weight, low profile and compact positioning table using high-strength aluminum alloy for its main components with a slide table assembled inside a U-shaped bed.
The mass of the entire table is reduced to about 40% of TU series. Low cross sectional height (26mm for TE50B, 33mm for TE60B, and 46mm for TE86B). Moreover, the structure of various sensors directly installable on sensor mounting groove of the bed contributes to the miniaturization.

● Table specification is selectable according to your use

2 There are two types in the shape of slide table: standard and with flange. The number of slide tables, motor folding back specification, ball screw lead, with or without a dust protection cover, installation of various sensors can be selected, you can select an optimal product for the specifications of your machine and device.

● Excellent cost performance

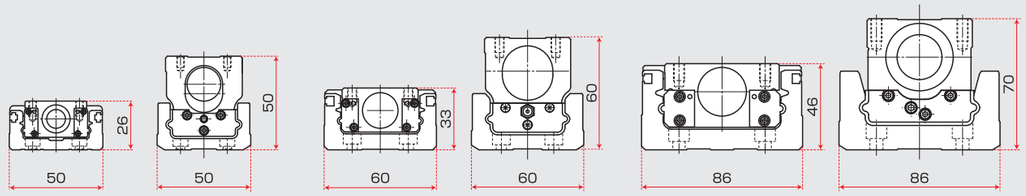
3 The excellent cost performance is realized by reducing the number of parts, and optimizing the part shapes.

Comparison with Precision Positioning Table TU

TU features a U-shaped track rail which greatly increases of the rigidity of the track rail under moment load and torsion.
Both TE and TU have equivalent width dimensions, however, the height dimensions differ per the following table.

● Sectional height

TE50B TU50 TE60B TU60 TE86B TU86



● Mass

Model and size	Stroke length(mm)	Overall length(mm)	Mass(kg)	Mass / 100mm(kg)
TE50B	60	218	0.52	0.24
TU50	60	226	1.8	0.80
TE60B	100	269	1.0	0.37
TU60	100	298	3.3	1.11
TE86B	300	523	3.7	0.71
TU86	250	498	10.9	2.19

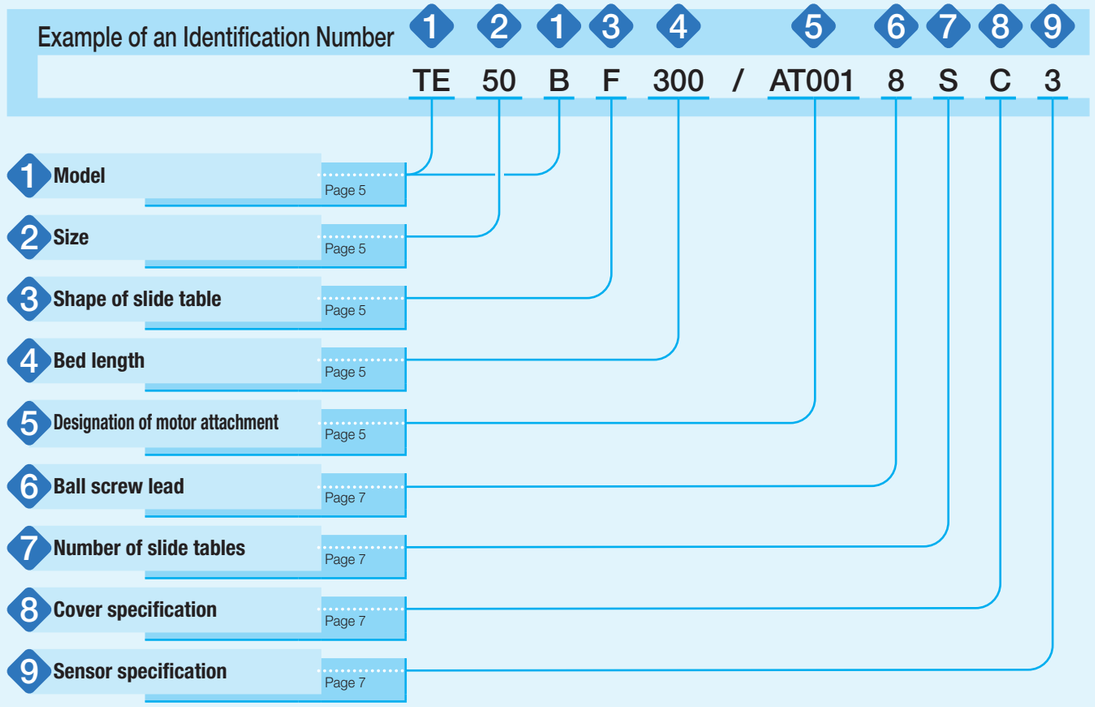
For further information, please check the general catalog, or contact IKO.

Variation

Shape	Model	Bed width（mm）		
		50	60	86
Standard 	TE···BS	☆	☆	☆
With flange 	TE···BF	☆	☆	☆

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

Identification Number



Identification Number and Specification

1 Model

TE···B: Precision Positioning Table TE

2 Size

Size indicates bed width.
Select a size from the list of Table 1.

3 Shape of slide table

S: Standard table
F: Flange type standard table

4 Bed length

Select a bed length from the list of Table 1.

Table 1 Sizes and bed lengths unit: mm

Model and size	Bed width	Bed length
TE50B	50	150, 200, 250, 300
TE60B	60	150, 200, 300, 400, 500, 600
TE86B	86	340, 440, 540, 640, 740, 840, 940

Remark: For stroke length, please see the dimension tables shown in pages of 17 or later.

5 Designation of motor attachment

AT000 : Motor inline specification Without motor attachment
AT001 to AT011 : Motor inline specification With motor attachment
AR000 : Motor folding back specification Without motor attachment
AR001 to AR008 : Motor folding back specification With motor attachment
To specify the motor attachment, select it from the list of Table 2.1 and Table 2.2.

- Please specify motor folding back specification and motor attachment applicable to motor for use.
- If motor inline specification with motor attachment is specified, the main body is shipped with a coupling indicated in the Table 3 mounted. However, the final position adjustment should be made by customer since it is only temporarily fixed. For a product without motor attachment (AT000), no coupling is attached.
- If motor folding back specification with motor attachment is specified, "housing applicable to the specified motor, pulley (on motor side and ball screw side), cover, motor bracket, belt and bolts necessary for assembly" are supplied. Motor mounting bolts should be prepared by customer.

Identification Number and Specification

Table 2.1 Application of motor attachment (motor inline specification)

Motor to be used					Flange size mm	Motor attachment		
Type	Manufacturer	Series	Model	Rated output W		TE50B	TE60B	TE86B
AC servo motor	YASKAWA ELECTRIC CORPORATION	Σ-V	SGMJV-A5A	50	□40	AT001	AT002	–
			SGMAV-A5A			AT001	AT002	–
			SGMJV-01A	100		–	AT002	–
			SGMAV-01A			–	AT002	–
			SGMJV-02A	200	□60	–	–	AT003
			SGMAV-02A			–	–	AT003
	Mitsubishi Electric Corporation	J3, J4	HF-MP053, HG-MR053	50	□40	AT001	AT002	–
			HF-KP053, HG-KR053			AT001	AT002	–
			HF-MP13, HG-MR13	100		–	AT002	–
			HF-KP13, HG-KR13			–	AT002	–
			HF-MP23, HG-MR23	200	□60	–	–	AT003
			HF-KP23, HG-KR23			–	–	AT003
	Panasonic Corporation	MINAS A5	MSMD5A	50	□38	AT004	AT005	–
			MSME5A			AT004	AT005	–
			MSMD01	100		–	AT005	–
			MSME01			–	AT005	–
			MSMD02	200	□60	–	–	AT006
			MSME02			–	–	AT006
	Hitachi Industrial Equipment Systems Co., Ltd	AD	ADMA-R5L	50	□40	AT001	AT002	–
			ADMA-01L	100		–	AT002	–
			ADMA-02L	200	□60	–	–	AT003
	Allen-Bradley	TLY (metric)	TLY-A110 (AA type)			AT001	AT002	
			TLY-A120 (AA type)			AT001	AT002	
			TLY-A130 (AA type)			AT001	AT002	
			TLY-A220 (AA type)					AT003
			TLY-A230 (AA type)					AT003
		TLY (NEMA)	TLY-A120 (AN type)			TAE9043-ATE137(2)		
			TLY-A130 (AN type)			TAE9043-ATE137(2)		
			TLY-A220 (AN type)					TAE9017-ATE135(2)
			TLY-A230 (AN type)					TAE9017-ATE135(2)
			TLY-A2530 (AN type)					TAE9056-ATE134(2)
			TLY-A2540 (AN type)					TAE9056-ATE134(2)
Stepper motor	ORIENTAL MOTOR Co., Ltd.	α step	AR46		□42	AT007	–	–
			AR66		□60	–	–	AT008
			AR69		□60	–	–	AT008
			AS46		□42	AT009	–	–
			AS66		□60	–	AT010	AT011
			AS69		□60	–	AT010	AT011
		RK CRK	RK54 · CRK54		□42	AT009	–	–
			RK56 · CRK56 (1)		□60	–	AT010	AT011
Servo or Stepper	NEMA17C					TAE9043-ATE110(2)		
	NEMA23D					TAE9017-ATE096(2)	TAE9017-ATE096(2)	
							TAE9017-ATE097(2)	
	NEMA34D							TAE9056-ATE095(2)

Note (1) Applicable to the outer diameter ϕ8 of motor output shaft.
Note (2) The TAE part numbers are the part number of motor attachment component sold separately. In the TE part number, please choose motor attachment code AT000. No Coupling is included.
Remark: For detailed motor specifications, please see respective motor manufacturer's catalog.
Motor attachment for NEMA, please see the page 13.

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

Identification Number and Specification

Table 2.2 Application of motor attachment (motor folding back specification)

Motor to be used					Flange size mm	Motor attachment		
Type	Manufacturer	Series	Model	Rated output W		TE50B	TE60B	TE86B
AC servo motor	YASKAWA ELECTRIC CORPORATION	Σ-V	SGMJV-A5A	50	□40	AR001	AR002	–
			SGMAV-A5A			AR001	AR002	–
			SGMJV-01A	100		–	AR002	–
			SGMAV-01A			–	AR002	–
			SGMJV-02A	200	□60	–	–	AR003
			SGMAV-02A			–	–	AR003
	Mitsubishi Electric Corporation	J3, J4	HF-MP053, HG-MR053	50	□40	AR001	AR002	–
			HF-KP053, HG-KR053			AR001	AR002	–
			HF-MP13, HG-MR13	100		–	AR002	–
			HF-KP13, HG-KR13			–	AR002	–
			HF-MP23, HG-MR23	200	□60	–	–	AR003
			HF-KP23, HG-KR23			–	–	AR003
	Panasonic Corporation	MINAS A5	MSMD5A	50	□38	AR004	AR005	–
			MSME5A			AR004	AR005	–
			MSMD01	100		–	AR005	–
			MSME01			–	AR005	–
			MSMD02	200	□60	–	–	AR006
			MSME02			–	–	AR006
	Hitachi Industrial Equipment Systems Co., Ltd	AD	ADMA-R5L	50	□40	AR001	AR002	–
			ADMA-01L	100		–	AR002	–
			ADMA-02L	200	□60	–	–	AR003
Stepper motor	ORIENTAL MOTOR Co., Ltd.	α step	AR46		□42	AR007	–	–
			AS46		□42	AR008	–	–
		RK CRK	RK54 · CRK54		□42	AR008	–	–

Remark: For detailed motor specifications, please see respective motor manufacturer's catalog.

Table 3 Coupling models (motor inline specification)

Motor attachment	Coupling models	Manufacturer	Coupling inertia J_c $\times 10^{-3}$kg · m²
AT001	XGS-19C- 5× 8	Nabeya Bi-tech Kaisha	0.062
AT002	XGS-19C- 5× 8	Nabeya Bi-tech Kaisha	0.062
AT003	XGS-30C- 8×14	Nabeya Bi-tech Kaisha	0.55
AT004	XGS-19C- 5× 8	Nabeya Bi-tech Kaisha	0.062
AT005	XGS-19C- 5× 8	Nabeya Bi-tech Kaisha	0.062
AT006	XGS-30C- 8×11	Nabeya Bi-tech Kaisha	0.55
AT007	XGS-19C- 5× 6	Nabeya Bi-tech Kaisha	0.062
AT008	XGS-30C- 8×10	Nabeya Bi-tech Kaisha	0.55
AT009	XGS-19C- 5× 5	Nabeya Bi-tech Kaisha	0.062
AT010	XGS-19C- 5× 8	Nabeya Bi-tech Kaisha	0.062
AT011	XGS-30C- 8× 8	Nabeya Bi-tech Kaisha	0.55
TAE9043-ATE137	XGS-19C- 5× 6.35	Nabeya Bi-tech Kaisha	0.062
TAE9017-ATE135	XGS-30C- 8×12.7	Nabeya Bi-tech Kaisha	0.55
TAE9056-ATE134	XGS-34C- 8×15.875	Nabeya Bi-tech Kaisha	1

Remark: For detailed coupling specification, please see the manufacturer's catalog.

6 Ball screw lead

4: Lead 4mm (applied to TE50B)
5: Lead 5mm (applied to TE60B)
8: Lead 8mm (applied to TE50B)
10: Lead 10mm (applied to TE60B and TE86B)
20: Lead 20mm (applied to TE86B)

7 Number of slide table

S: One unit
C: Two units

8 Cover specification

0: Without cover
C: With bridge cover (applied to TE···BF)

9 Specification of sensor

0: Without sensor
2: Two units of sensor mounted (limit)
3: Three units of sensor mounted (limit, pre-origin)
4: Four units of sensor mounted (limit, pre-origin, origin)
5: Two sensors attached (limit)
6: Three sensors attached (limit, pre-origin)
7: Four sensors attached (limit, pre-origin and origin sensors)

If sensor mounting (symbol 2, 3, or 4) is specified, the sensor is mounted into the mounting groove on the side of bed, and two detecting plates are attached onto the slide table.
If sensor attachment (symbol 5, 6, or 7) is specified, specified number of sensors are attached including mounting screws for sensors, nuts, two detecting plates, and mounting screws for the detecting plates.

Specifications

Table 4 Accuracy

unit: mm

Model and size	Bed length	Positioning repeatability	Positioning accuracy (1)	Parallelism in table motion B	Backlash (1)
TE50B	150	±0.002 (±0.020)	0.035	0.008	0.005
	200				
	250		0.040		
	300				
TE60B	150	±0.002 (±0.020)	0.035	0.008	0.005
	200				
	300		0.040		
	400		0.045		
	500			0.010	
	600		0.050		
TE86B	340	±0.002 (±0.020)	0.040	0.008	0.005
	440		0.045	0.010	
	540		0.050		
	640			0.012	
	740		0.055		
	840		0.065	0.014	
	940			0.016	

Note (1) This does not apply to table of motor folding back specification.
Remark: The values in ( ) are reference values provided that the timing belt tension is properly adjusted in motor folding back specification table.

Table 5 Maximum speed

Motor type	Model and size	Bed length mm	Maximum speed mm/s				
			Lead 4mm	Lead 5mm	Lead 8mm	Lead 10mm	Lead 20mm
AC servomotor	TE50B	–	400	–	800	–	–
	TE60B	500 or less	–	500	–	1 000	–
		600	–	350	–	710	–
	TE86B	540 or less	–	–	–	930	1 860
		640	–	–	–	830	1 630
		740	–	–	–	590	1 170
		840	–	–	–	440	880
		940	–	–	–	340	690
Stepper motor	TE50B	–	120	–	240	–	–
	TE60B	–	–	150	–	300	–
	TE86B	840 or less	–	–	–	300	600
		940	–	–	–	300	600

Remark: To measure the practical maximum speed, it is required to consider operation patterns based on the motor to be used and load conditions.

Table 6 Allowable moment

Model and size	Allowable moment N · m		
	T_0	T_X	T_Y
TE50B	9.8		
TE60B	16.7		
TE86B	49.0		

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

Table 7 Maximum carrying mass

Model and size	Ball screw lead mm	Maximum carrying mass kg	
		Horizontal	Vertical
TE50B	4	12	11
	8	12	7
TE60B	5	17	13
	10	17	8
TE86B	10	36	18
	20	29	10

Remark: The value is for one flange type standard table.

Table 8 Load rating of linear motion rolling guide

Model and size	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
TE50B	8 490	12 500	211 (422)	99.5 (508)	99.5 (508)
TE60B	12 400	17 100	354 (708)	151 (795)	151 (795)
TE86B	26 800	35 900	1 110 (2 220)	472 (2 400)	472 (2 400)

Note (1) In directions indicated in the following figures, the value in ( ) is for two slide tables in close contact.

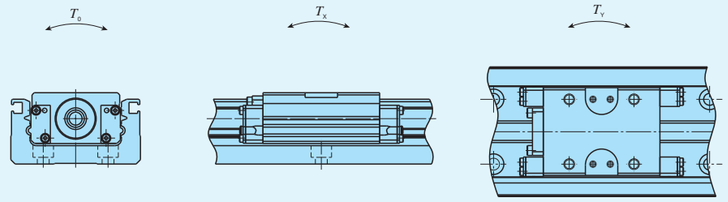


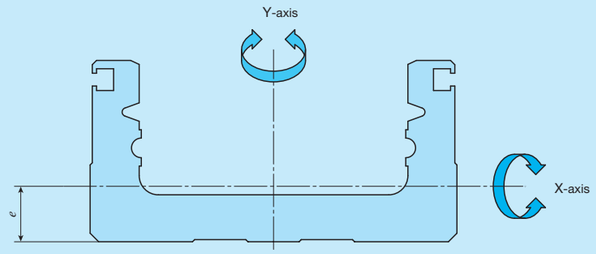
Table 9.1 Specifications of ball screw 1

Model and size	Lead mm	Shaft dia. mm	Basic dynamic load rating C N	Basic static load rating C_0 N
TE50B	4	8	2 290	3 575
	8		1 450	2 155
TE60B	5	10	2 730	4 410
	10		1 720	2 745
TE86B	10	12	3 820	6 480
	20		2 300	3 920

Table 9.2 Specifications of ball screw 2 unit: mm

Model and size	Bed length	Shaft dia.	Overall length
TE50B	150	8	192.5
	200		242.5
	250		292.5
	300		342.5
TE60B	150	10	194
	200		244
	300		344
	400		444
	500		544
	600		644
TE86B	340	12	395
	440		495
	540		595
	640		695
	740		795
	840		895
	940		995

Table 10 Moment of inertia of sectional area of bed



Model and size	Moment of inertia of sectional area mm⁴		Center of gravity e mm
	I_X	I_Y	
TE50B	1.3×10^4	1.2×10^5	6.4
TE60B	4.7×10^4	3.2×10^5	8.8
TE86B	2.0×10^5	1.3×10^6	13.0

Table 11 Table inertia and starting torque

Model and size	Bed length mm	Table inertia J_T (2) $\times10^{-5}$kg · m²										Starting torque T_S (1) N · m
		Standard table					Flange type standard table					
		Lead					Lead					
		4mm	5mm	8mm	10mm	20mm	4mm	5mm	8mm	10mm	20mm	
TE50B	150	0.057	–	0.071	–	–	0.060	–	0.084	–	–	0.03
	200	0.069	–	0.083	–	–	0.072	–	0.096	–	–	
	250	0.085	–	0.099	–	–	0.088	–	0.112	–	–	
	300	0.097	–	0.111	–	–	0.100	–	0.124	–	–	
TE60B	150	–	0.13	–	0.17	–	–	0.14	–	0.20	–	0.03
	200	–	0.19	–	0.23	–	–	0.20	–	0.26	–	
	300	–	0.26	–	0.30	–	–	0.27	–	0.33	–	
	400	–	0.33	–	0.36	–	–	0.34	–	0.40	–	
	500	–	0.40	–	0.44	–	–	0.41	–	0.47	–	
	600	–	0.47	–	0.51	–	–	0.48	–	0.54	–	
TE86B	340	–	–	–	0.73	1.19	–	–	–	0.81	1.50	0.05
	440	–	–	–	0.88	1.35	–	–	–	0.95	1.64	
	540	–	–	–	1.03	1.50	–	–	–	1.11	1.80	
	640	–	–	–	1.18	1.64	–	–	–	1.25	1.95	
	740	–	–	–	1.33	1.79	–	–	–	1.41	2.10	
	840	–	–	–	1.48	1.94	–	–	–	1.56	2.25	
	940	–	–	–	1.63	2.10	–	–	–	1.71	2.40	

Notes (1) When two units of slide table are used, it is about 1.5 times as long as that of one unit, and when table of motor folding back specification is used, it is about twice.
(2) For motor folding back specification, please add the following value to the value in the table.
TE50B: 0.17×10^{-5}kg·m², TE60B: 0.39×10^{-5}kg·m², TE86B: 0.86×10^{-5}kg·m²

Mounting

For the processing accuracy of the Precision Positioning Table mounting surface and the tightening torque of the fixing screws, see page Ⅲ-29 of the general catalog.

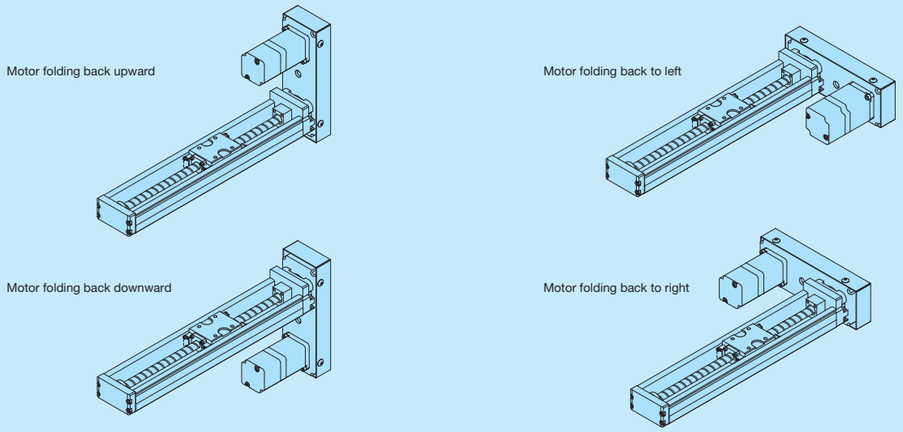
1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

Motor Folding Back Specification

Motor folding back specification is available for Precision Positioning Table TE, space can be saved by folding back the motor and reducing the overall length of the table. For dimensions of motor folding back specification, please refer to respective dimension table.

For motor folding back specification, assembly should be made by customer since "housing applicable to the specified motor, pulley (on motor side and ball screw side), cover, motor bracket, belt and bolts necessary for assembly" are supplied. However, motor mounting bolts should be prepared by customer. The motor attachment can be attached in 4 directions as indicated in the following figure.

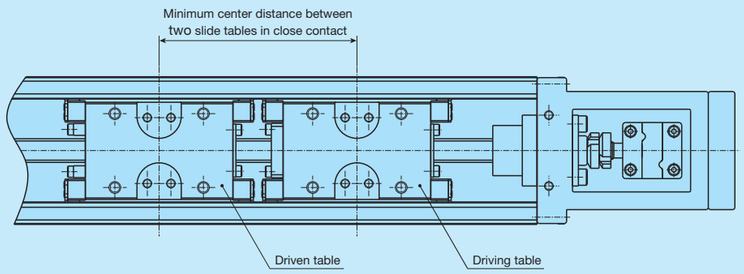
There is difference in dimension between where the motor attachment or the motor is lower than the bottom of the bed depending on the motor folding back direction. Do the design ensuring that the peripheral components do not interfere and that enough allowance is provided according to the approximate values in the dimension table shown in Page 23 to 28.



Two Slide Table Specification

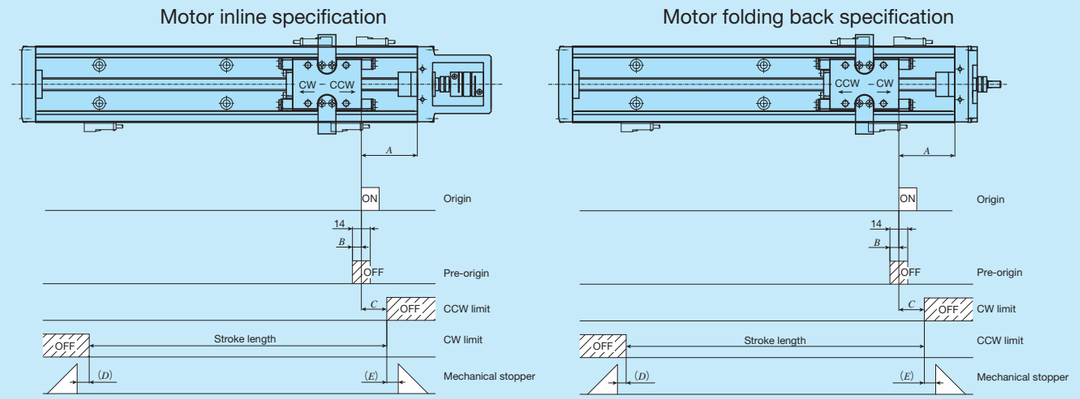
Two slide table specification is available for Precision Positioning Table TE. Ball screw nuts are mounted on slide table at the motor side, and it can be driven by the motor (driving table). Ball screw nuts are not mounted on slide table at the opposite motor side, and it is free condition (driven table).

It is possible to make the structure resistant to moment load by using two slide tables in combination (Table 8). When combining slide tables, allow more clearance than "Minimum center distance between two slide tables in close contact" described in the dimension table shown in pages 17 to 28. (Enlarging the span will shorten the stroke.)



Sensor Specification

Table 12 Sensor timing chart

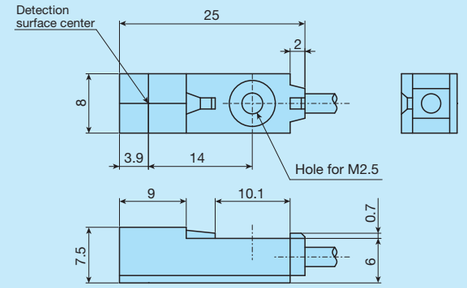
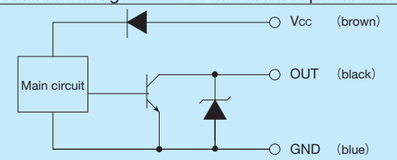


unit: mm

Model and size	Ball screw lead	A	B	C	D(1)	E
TE50B	4	33	2	10	6 (9)	5
	8		6			
TE60B	5	44	3	20	9.5(8.5)	9
	10		7			
TE86B	10	50	7	20	11 (11)	10
	20		12			

Note (1) The value in ( ) represents dimensions for two slide tables.
Remarks 1. Mounting a sensor is specified using the corresponding identification number.
2. For the specifications of respective sensors, please see the section of sensor specification in General Explanation.
3. For the motor folding back specification, CW and CCW will invert.

Table 13 Specifications of proximity sensor

Item		Contents
Manufacturer		Azbil Corporation
Model(1)	Pre-origin	APM-D3B1-S APM-D3B1F-S
	CW limit	APM-D3B1-S
	CCW limit	
	Origin	APM-D3A1-S
Shape mm		
Power supply voltage		DC12~24V ±10%
Current consumption		10mA or less
Output		NPN open collector ・Maximum input current : 30mA or less (resistance load) ・Applied voltage : DC26.4V or less ・Residual voltage : 1V or less at input current of 30mA
Circuit diagram		

Remarks: 1. Wire the sensor cords on your own.
2. Lead runs off by at least 200mm from the table end. Actual length varies depending on stroke length.
Note (1) Model numbers apply to manufacturer standard products. Depending on the total length of the product, the cable length may be a different from that of standard products.

For information about PNP sensor options, please contact IKO.

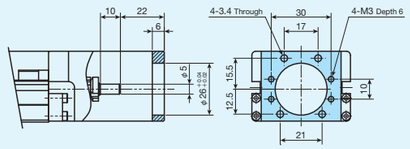
1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

Dimensions of Motor Attachment

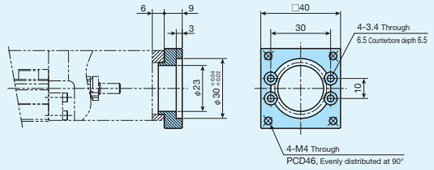
■ Motor inline specification

TE50B

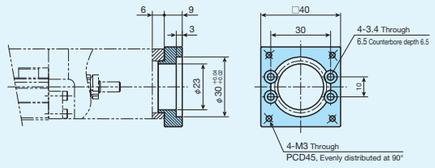
AT000
(without attachment)



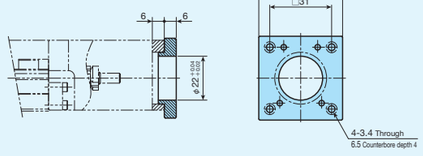
AT001



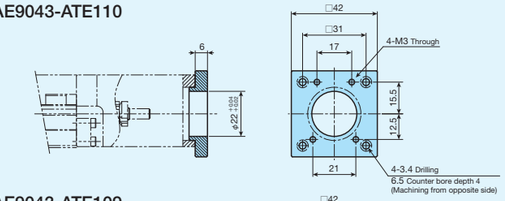
AT004



AT007
AT009



TAE9043-ATE110



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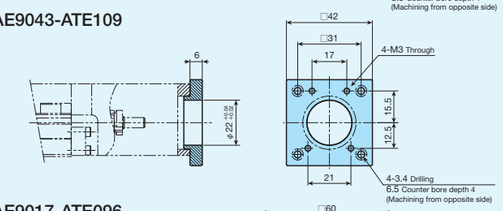

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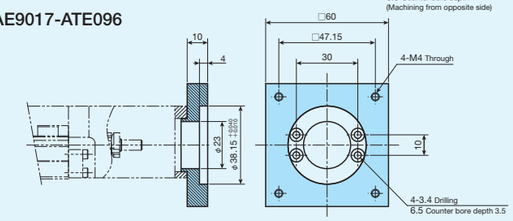

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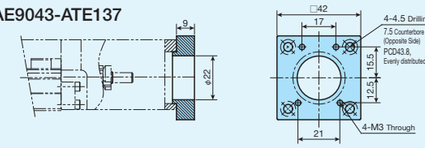
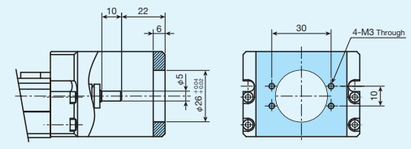
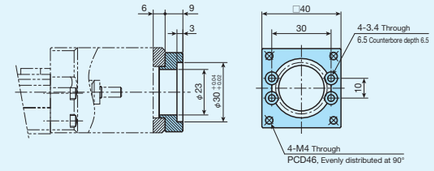


TE60B

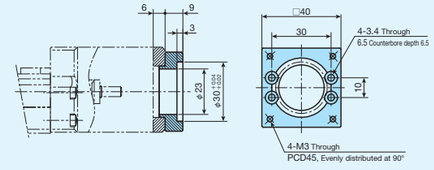
AT000
(without attachment)



AT002



AT005



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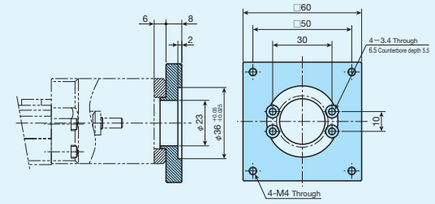

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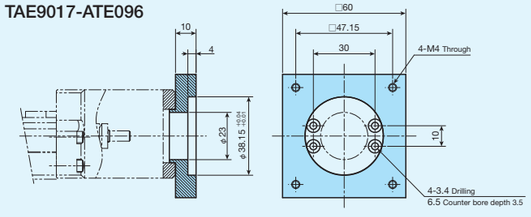

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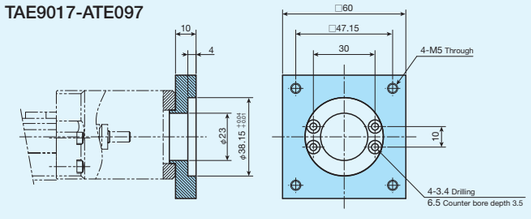


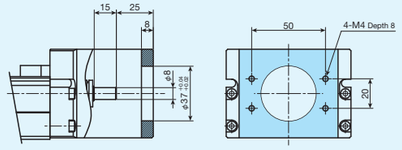
Remark For further information, please contact IKO.

Remark For further information, please contact IKO.

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

TE86B

AT000
(without attachment)



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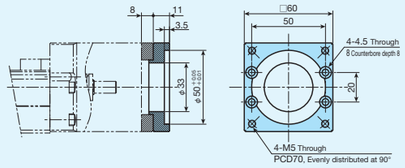

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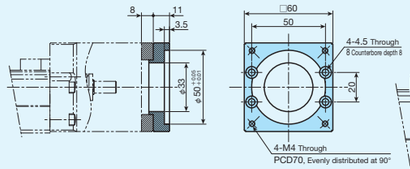
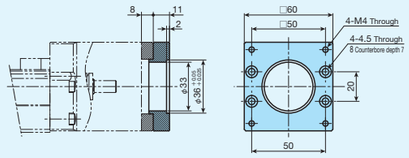


AT008
AT011



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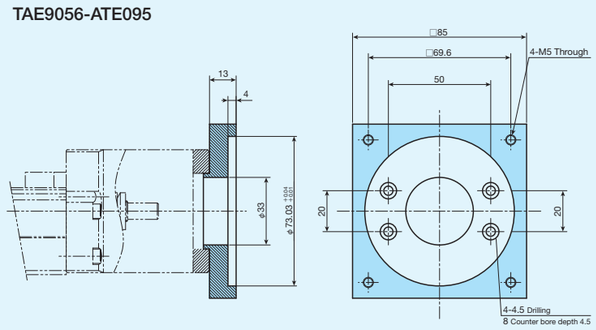

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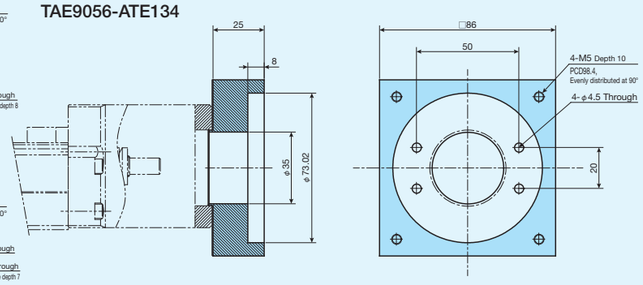

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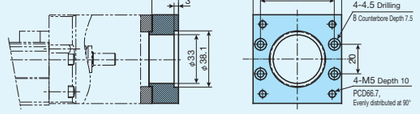
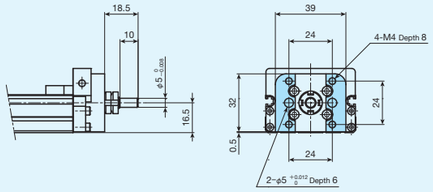


Remark For further information, please contact IKO.

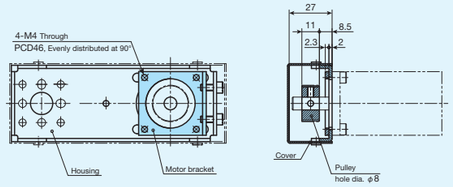
■ Motor folding back specification

TE50B

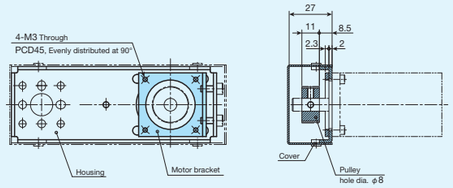
AR000
(without attachment)



AR001



AR004



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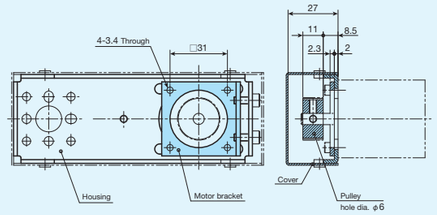

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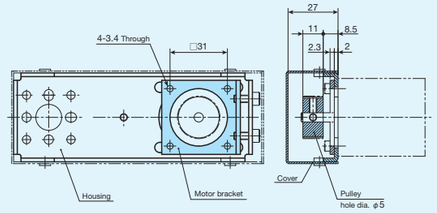
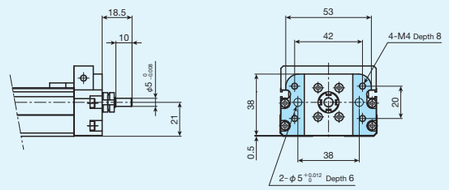
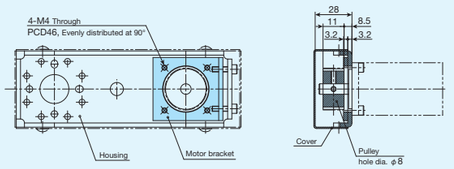


TE60B

AR000
(without attachment)



AR002



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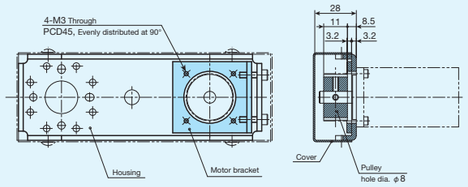

TE86B

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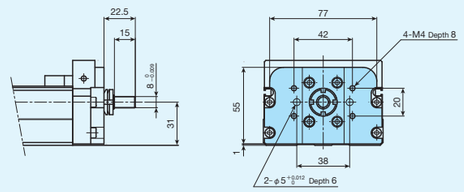
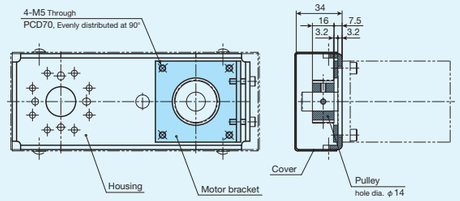
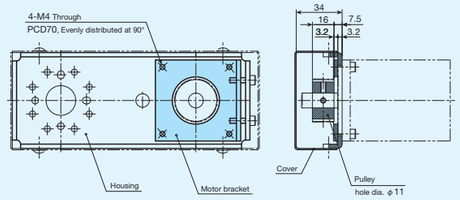


AR003



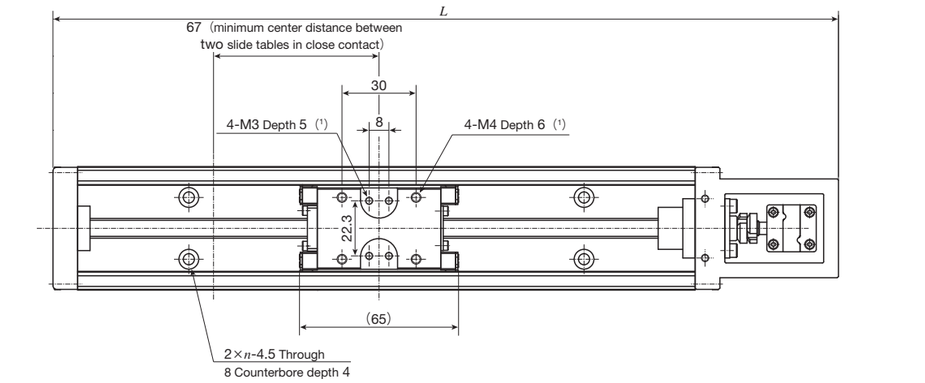
AR006

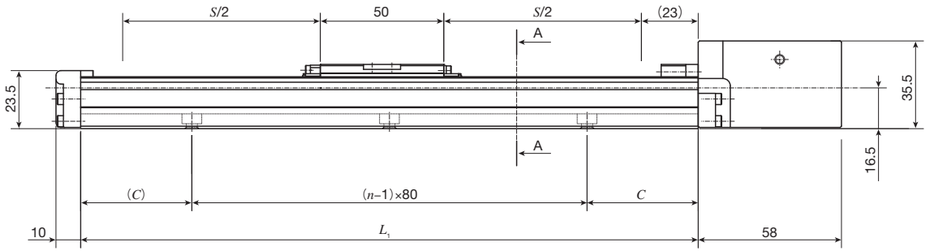


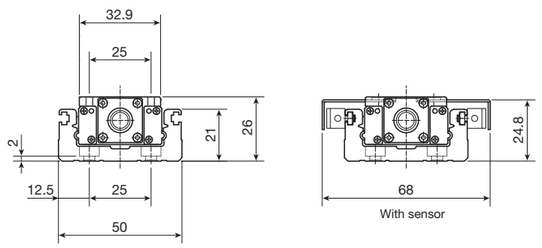
Remark For further information, please contact IKO.

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

TE50BS (Motor inline specification)







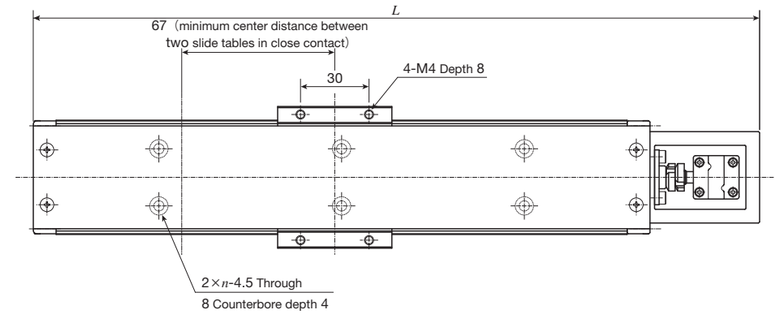
A−A Sectional dimension

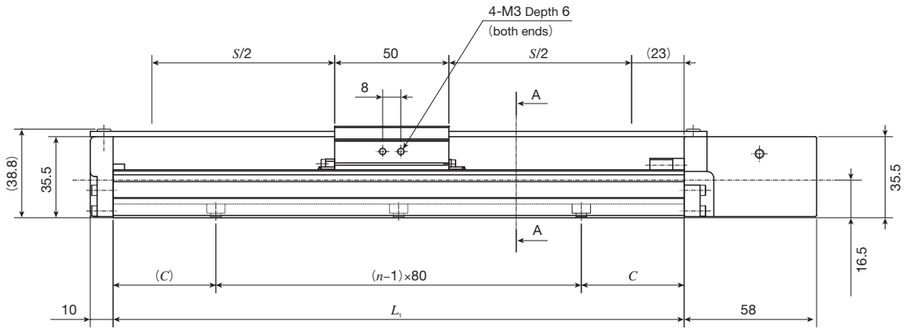
unit: mm

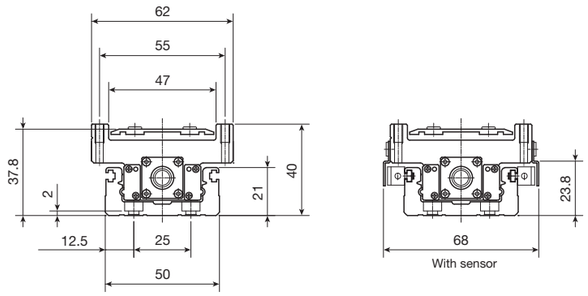
Bed length L_1	Overall length L	Stroke length S(2)	Mounting holes of bed C	Mounting holes of bed n	Mass (Ref.) kg(3)
150	218	60(−)	35	2	0.52
200	268	110(40)	20	3	0.62
250	318	160(90)	45	3	0.72
300	368	210(140)	30	4	0.82

Notes (1) Too deep insertion depth of the mounting bolt may affect the running performance of the slide table, so never insert a bolt longer than the depth of the through hole.
(2) The value indicates the allowable stroke when limit sensors are mounted. The value in ( ) represents dimension for two slide tables in close contact.
(3) The value shows the mass of the entire table with one slide table, and it is 0.07kg heavier with two slide tables.
Remarks 1. Motor attachment for AC servomotor is 3.5mm lower than the bottom of the bed.
2. Motor attachment for stepper motor is 4.5mm lower than the bottom of the bed.

TE50BF (Motor inline specification)







A−A Sectional dimension

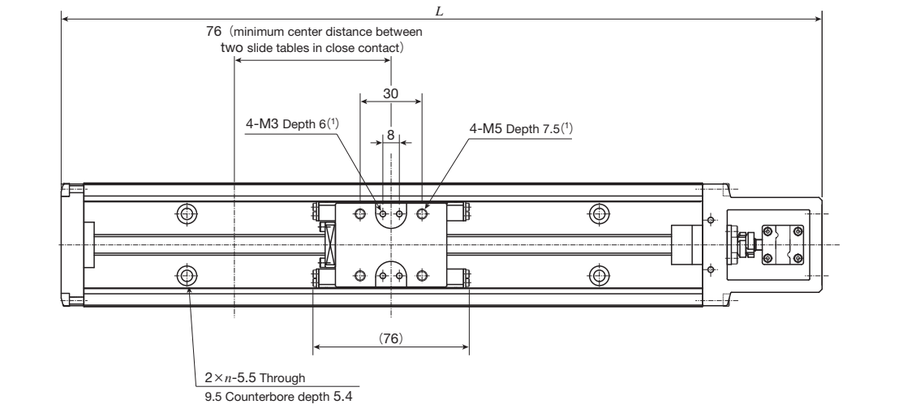
unit: mm

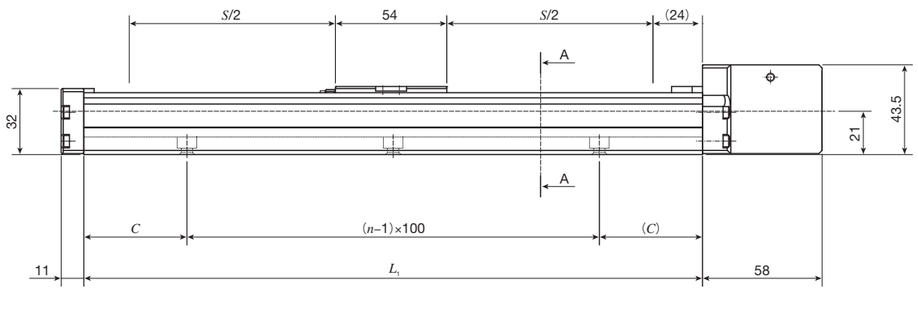
Bed length L_1	Overall length L	Stroke length S(1)	Mounting holes of bed C	Mounting holes of bed n	Mass (Ref.) kg(2)
150	218	60(−)	35	2	0.65
200	268	110(40)	20	3	0.75
250	318	160(90)	45	3	0.85
300	368	210(140)	30	4	0.94

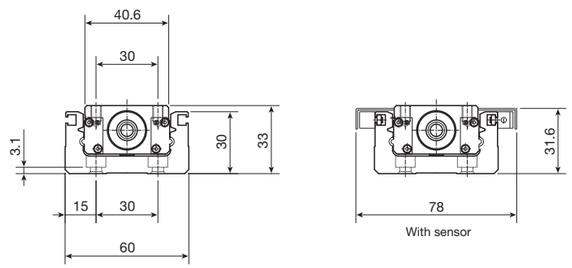
Notes (1) The value indicates the allowable stroke when limit sensors are mounted. The value in ( ) represents dimension for two slide tables in close contact.
(2) The value shows the mass of the entire table with one slide table, and it is 0.16kg heavier with two slide tables.
Remarks 1. Motor attachment for AC servomotor is 3.5mm lower than the bottom of the bed.
2. Motor attachment for stepper motor is 4.5mm lower than the bottom of the bed.

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

TE60BS (Motor inline specification)







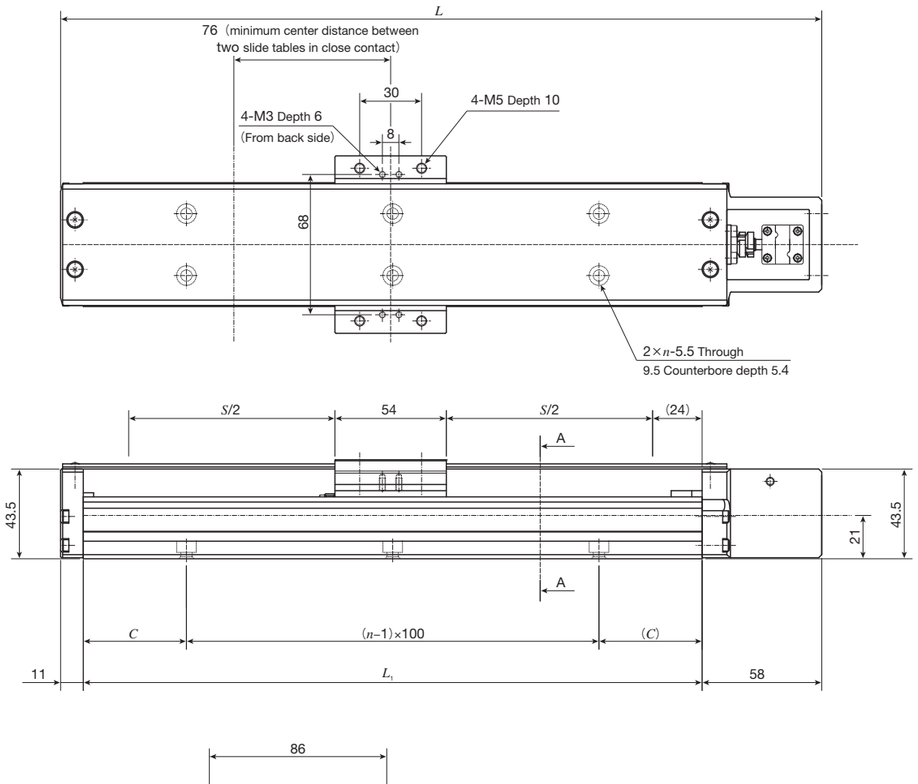
A—A Sectional dimension

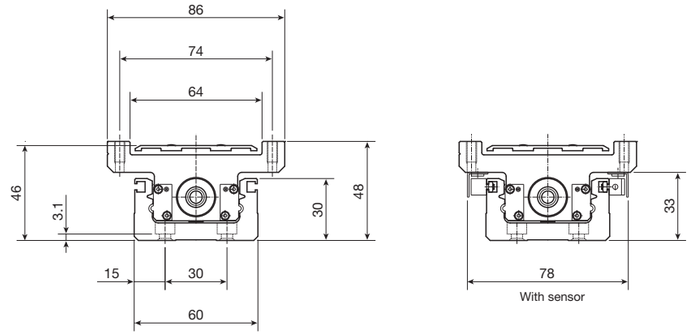
unit: mm

Bed length L_1	Overall length L	Stroke length S(2)	Mounting holes of bed C	Mounting holes of bed n	Mass (Ref.) kg(3)
150	219	50(−)	25	2	0.9
200	269	100(−)	50	2	1.0
300	369	200(125)	50	3	1.3
400	469	300(225)	50	4	1.6
500	569	400(325)	50	5	1.9
600	669	500(425)	50	6	2.2

Notes (1) Too deep a fixing thread depth of the mounting bolt may affect the running performance of the slide table, so never insert a bolt longer than the depth of the tapped hole.
(2) The value indicates the allowable stroke when limit sensors are mounted. The value in ( ) represents dimension for two slide tables in close contact.
(3) The value shows the mass of the entire table with one slide table, and it is 0.1kg heavier with two slide tables.
Remark: Motor attachment for stepper motor is 9mm lower than the bottom of the bed.

TE60BF (Motor inline specification)





A—A Sectional dimension

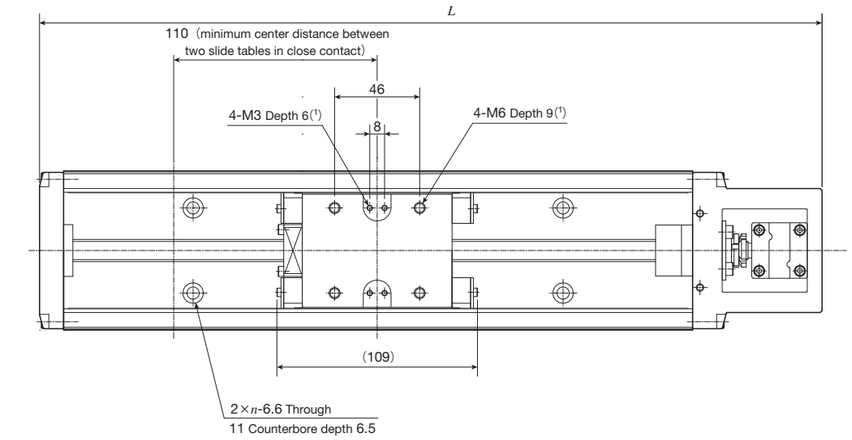
unit: mm

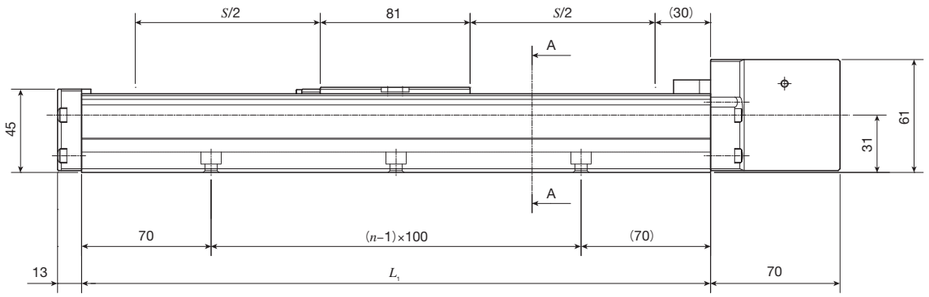
Bed length L_1	Overall length L	Stroke length S(1)	Mounting holes of bed C	Mounting holes of bed n	Mass (Ref.) kg(2)
150	219	50(−)	25	2	1.1
200	269	100(−)	50	2	1.2
300	369	200(125)	50	3	1.5
400	469	300(225)	50	4	1.9
500	569	400(325)	50	5	2.2
600	669	500(425)	50	6	2.5

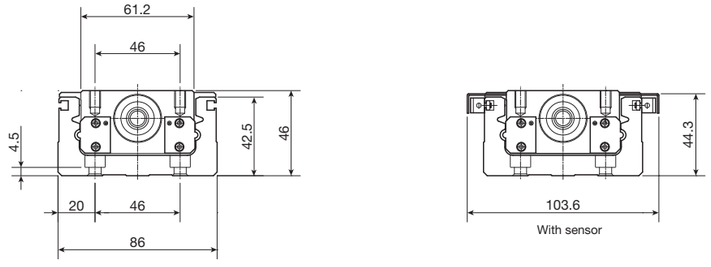
Notes (1) The value indicates the allowable stroke when limit sensors are mounted. The value in ( ) represents dimension for two slide tables in close contact.
(2) The value shows the mass of the entire table with one slide table, and it is 0.2kg heavier with two slide tables.
Remark: Motor attachment for stepper motor is 9mm lower than the bottom of the bed.

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

TE86BS (Motor inline specification)







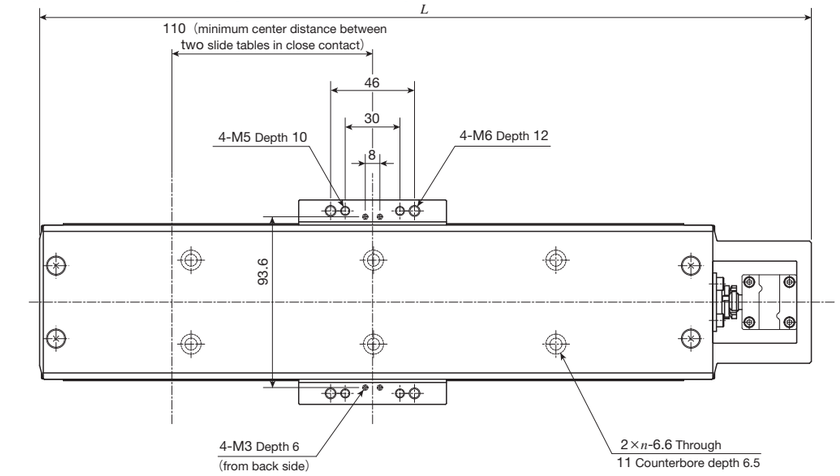
A—A Sectional dimension

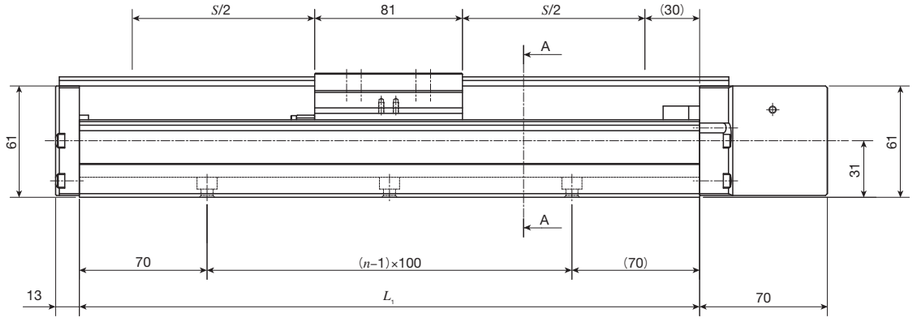
unit: mm

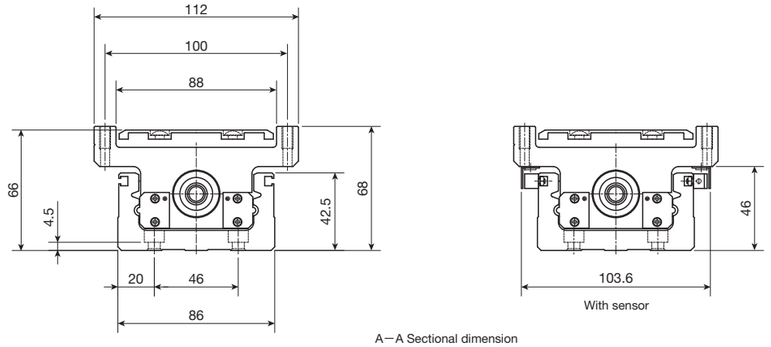
Bed length L_1	Overall length L	Stroke length S(2)	Mounting holes of bed n	Mass (Ref.) kg(3)
340	423	200(90)	3	3.1
440	523	300(190)	4	3.7
540	623	400(290)	5	4.2
640	723	500(390)	6	4.7
740	823	600(490)	7	5.2
840	923	700(590)	8	5.7
940	1 023	800(690)	9	6.3

Notes (1) Too deep a fixing thread depth of the mounting bolt may affect the running performance of the slide table, so never insert a bolt longer than the depth of the tapped hole.
(2) The value indicates the allowable stroke when limit sensors are mounted. The value in ( ) represents dimension for two slide tables in close contact.
(3) The value shows the mass of the entire table with one slide table, and it is 0.3kg heavier with two slide tables.

TE86BF (Motor inline specification)







A—A Sectional dimension

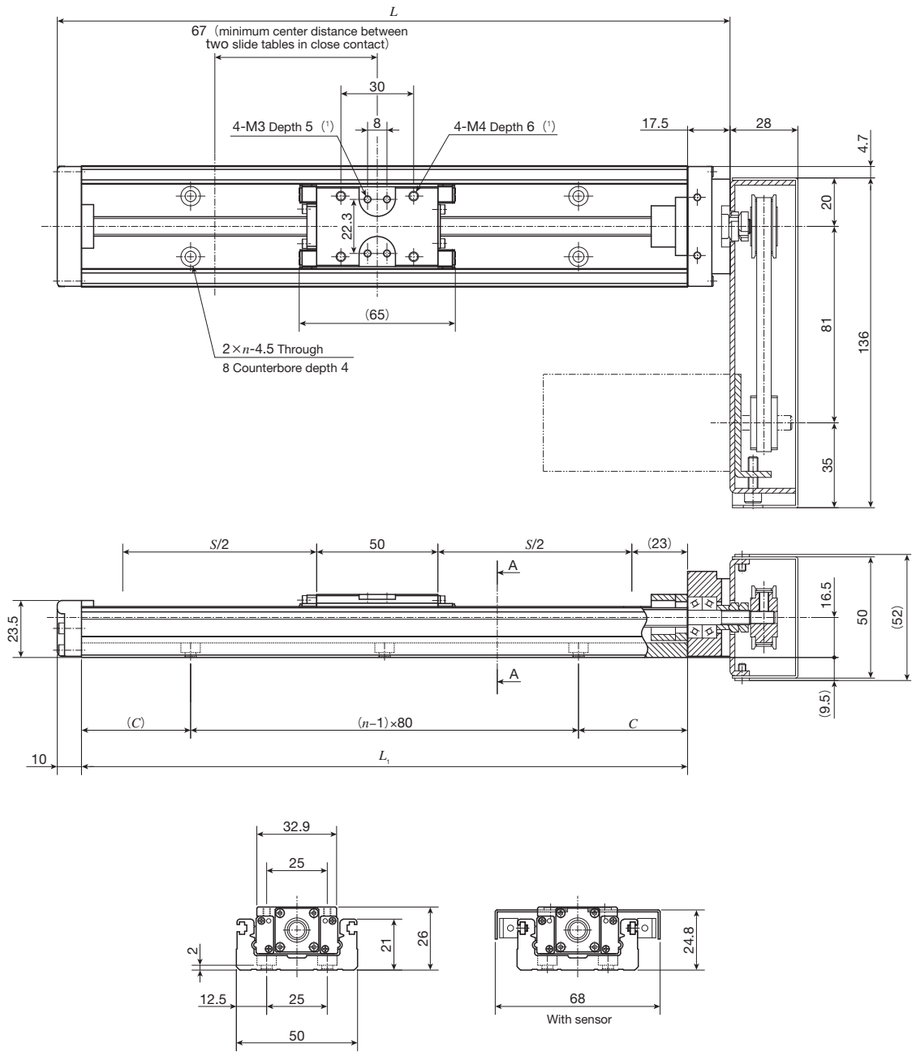
unit: mm

Bed length L_1	Overall length L	Stroke length S(1)	Mounting holes of bed n	Mass (Ref.) kg(2)
340	423	200(90)	3	3.7
440	523	300(190)	4	4.3
540	623	400(290)	5	4.9
640	723	500(390)	6	5.5
740	823	600(490)	7	6.1
840	923	700(590)	8	6.7
940	1 023	800(690)	9	7.2

Notes (1) The value indicates the allowable stroke when limit sensors are mounted. The value in ( ) represents dimension for two slide tables in close contact.
(2) The value shows the mass of the entire table with one slide table, and it is 0.6kg heavier with two slide tables.

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

TE50BS (Motor folding back specification)



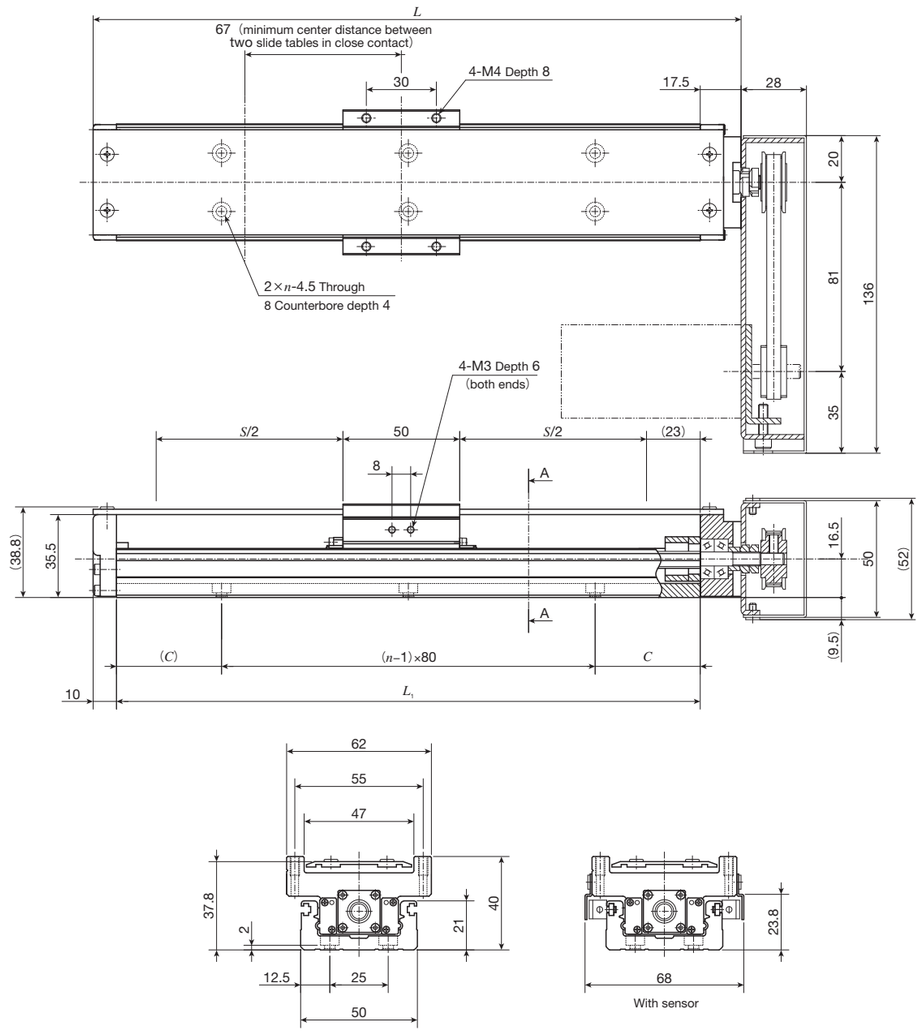
A—A Sectional dimension

unit: mm

Bed length L_1	Overall length L	Stroke length S(2)	Mounting holes of bed C	Mounting holes of bed n	Mass (Ref.) kg(3)
150	177.5	60(−)	35	2	0.72
200	227.5	110(40)	20	3	0.82
250	277.5	160(90)	45	3	0.92
300	327.5	210(140)	30	4	1.02

Notes (1) Too deep insertion depth of the mounting bolt may affect the running performance of the slide table, so never insert a bolt longer than the depth of the through hole.
(2) The value indicates the allowable stroke when limit sensors are mounted. The value in ( ) represents dimension for two slide tables in close contact.
(3) The value shows the mass of the entire table with one slide table, and it is 0.07kg heavier with two slide tables.
Remarks 1. Parts for motor attachment are appended, and this figure indicates a finished state after assembled by the customer.
2. If folded back to right and left, motor attachment is about 9.5mm lower than the bottom of the bed. In addition, it is about 2.5 to 3.5mm lower than the bottom of the bed if AC servomotor is mounted by customers, and about 4.5mm lower if stepper motor is mounted.
3. If folded back upward, motor attachment is about 3.5mm lower than the bottom of the bed.

TE50BF (Motor folding back specification)



A—A Sectional dimension

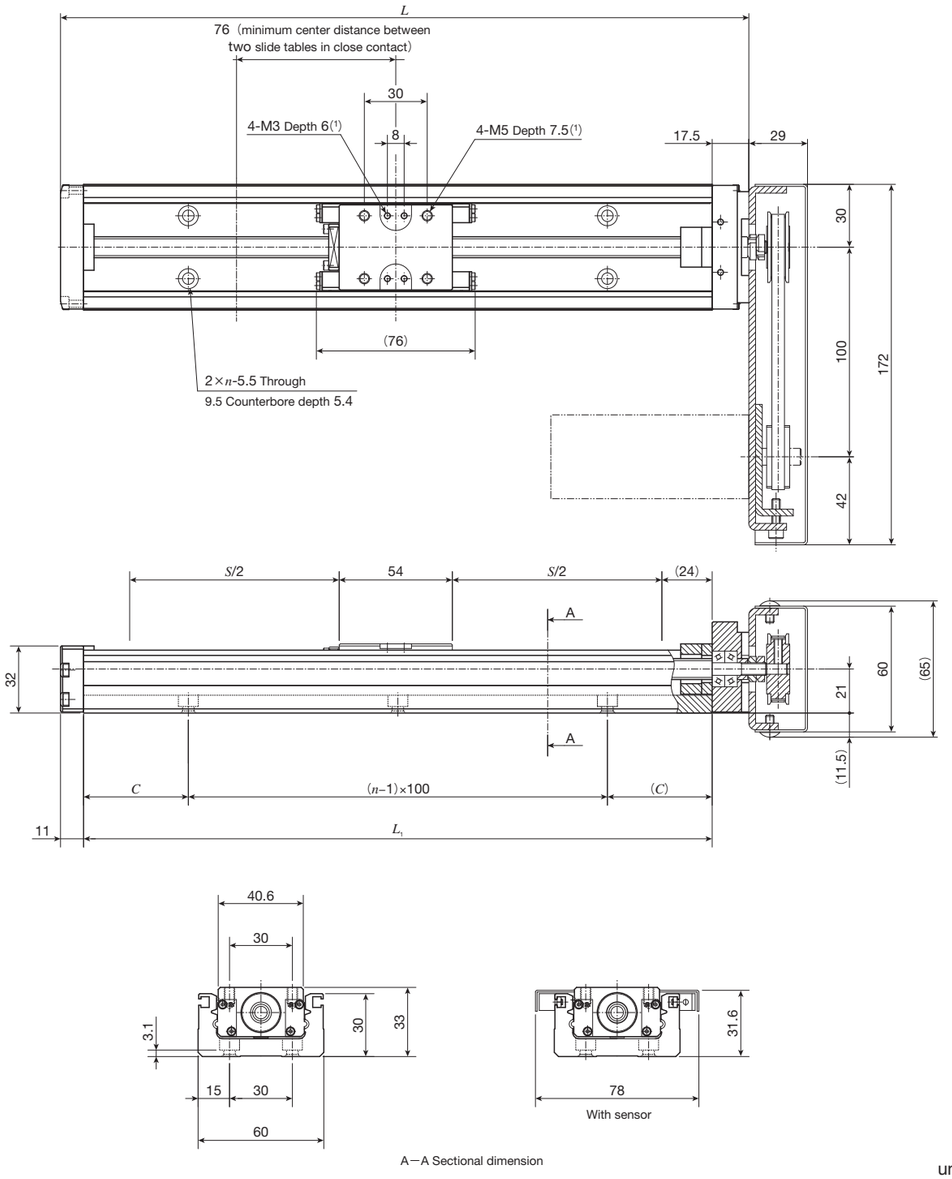
unit: mm

Bed length L_1	Overall length L	Stroke length S(1)	Mounting holes of bed C	Mounting holes of bed n	Mass (Ref.) kg(2)
150	177.5	60(−)	35	2	0.85
200	227.5	110(40)	20	3	0.95
250	277.5	160(90)	45	3	1.05
300	327.5	210(140)	30	4	1.15

Notes (1) The value indicates the allowable stroke when limit sensors are mounted. The value in ( ) represents dimension for two slide tables in close contact.
(2) The value shows the mass of the entire table with one slide table, and it is 0.16kg heavier with two slide tables.
Remarks 1. Parts for motor attachment are appended, and this figure indicates a finished state after assembled by the customer.
2. If folded back to right and left, motor attachment is about 9.5mm lower than the bottom of the bed. In addition, it is about 2.5 to 3.5mm lower than the bottom of the bed if AC servomotor is mounted by customers, and about 4.5mm lower if stepper motor is mounted.
3. If folded back upward, motor attachment is about 3.5mm lower than the bottom of the bed.

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

TE60BS (Motor folding back specification)

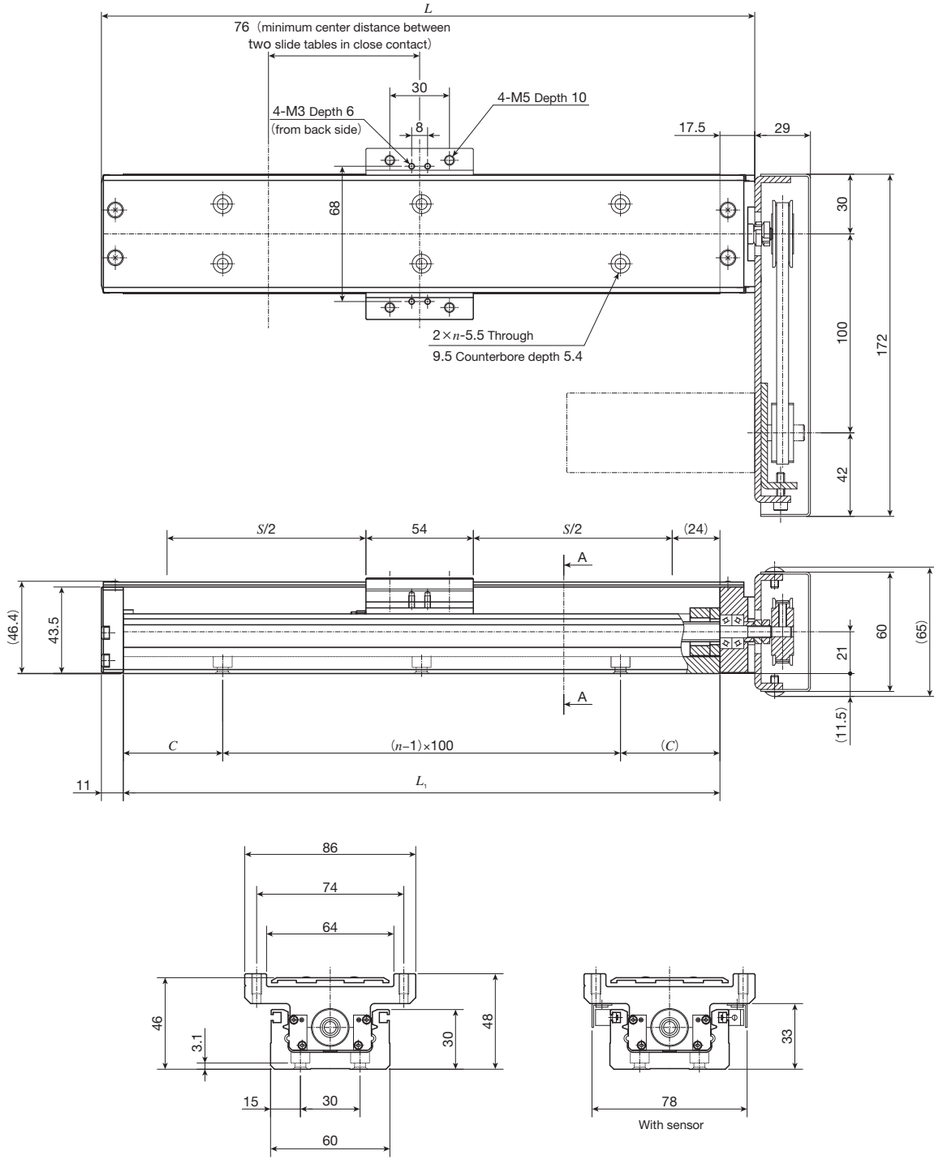


unit: mm

Bed length L_1	Overall length L	Stroke length S(2)	Mounting holes of bed C	Mounting holes of bed n	Mass (Ref.) kg(3)
150	178.5	50(−)	25	2	1.2
200	228.5	100(−)	50	2	1.3
300	328.5	200(125)	50	3	1.6
400	428.5	300(225)	50	4	1.9
500	528.5	400(325)	50	5	2.2
600	628.5	500(425)	50	6	2.5

Notes (1) Too deep a fixing thread depth of the mounting bolt may affect the running performance of the slide table, so never insert a bolt longer than the depth of the tapped hole.
(2) The value indicates the allowable stroke when limit sensors are mounted. The value in ( ) represents dimension for two slide tables in close contact.
(3) The value shows the mass of the entire table with one slide table, and it is 0.1kg heavier with two slide tables.
Remarks 1. Parts for motor attachment are appended, and this figure indicates a finished state after assembled by the customer.
2. If folded back to right and left, motor attachment is about 11.5mm lower than the bottom of the bed.
3. If folded back upward, motor attachment is about 9mm lower than the bottom of the bed.

TE60BF (Motor folding back specification)



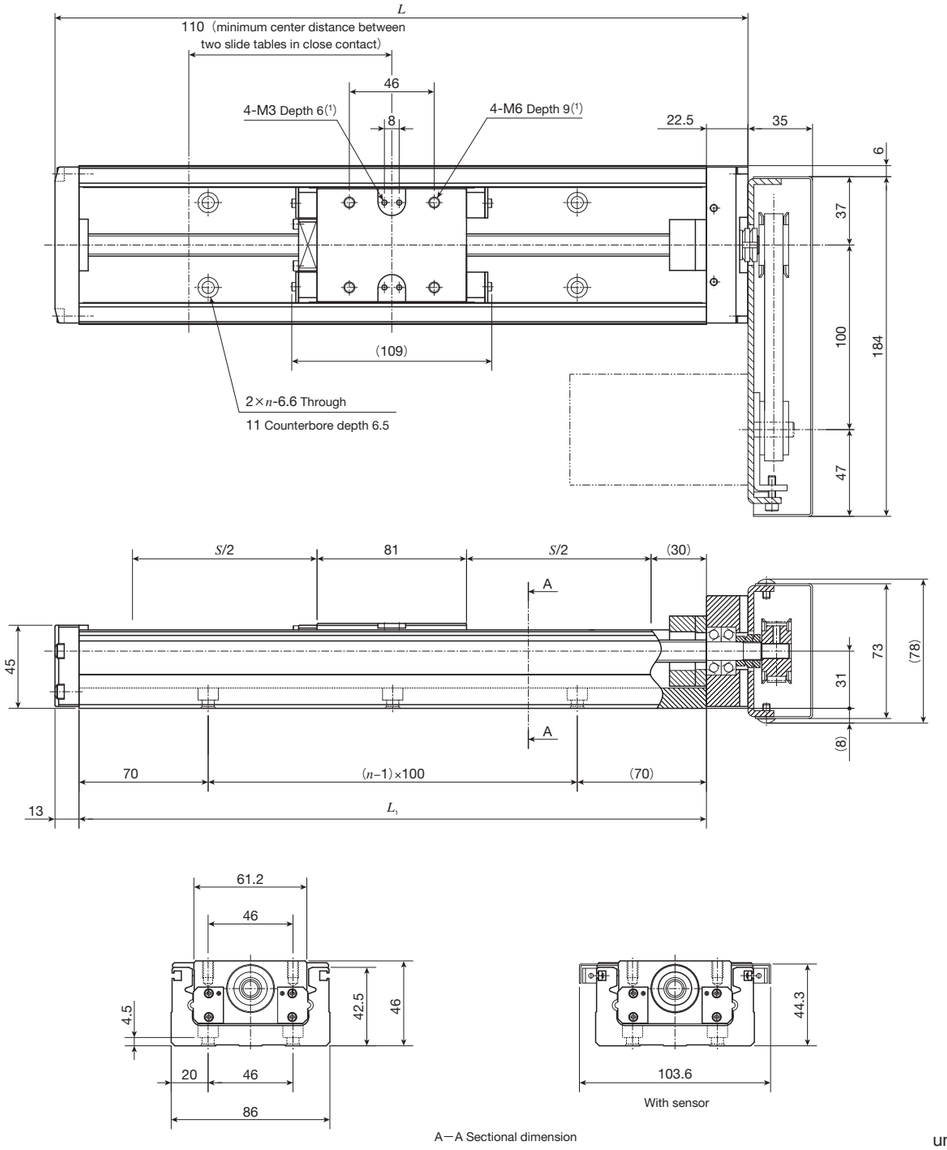
unit: mm

Bed length L_1	Overall length L	Stroke length S(1)	Mounting holes of bed C	Mounting holes of bed n	Mass (Ref.) kg(2)
150	178.5	50(−)	25	2	1.4
200	228.5	100(−)	50	2	1.5
300	328.5	200(125)	50	3	1.8
400	428.5	300(225)	50	4	2.2
500	528.5	400(325)	50	5	2.5
600	628.5	500(425)	50	6	2.8

Notes (1) The value indicates the allowable stroke when limit sensors are mounted. The value in ( ) represents dimension for two slide tables in close contact.
(2) The value shows the mass of the entire table with one slide table, and it is 0.2kg heavier with two slide tables.
Remarks 1. Parts for motor attachment are appended, and this figure indicates a finished state after assembled by the customer.
2. If folded back to right and left, motor attachment is about 11.5mm lower than the bottom of the bed.
3. If folded back upward, motor attachment is about 9mm lower than the bottom of the bed.

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

TE86BS (Motor folding back specification)

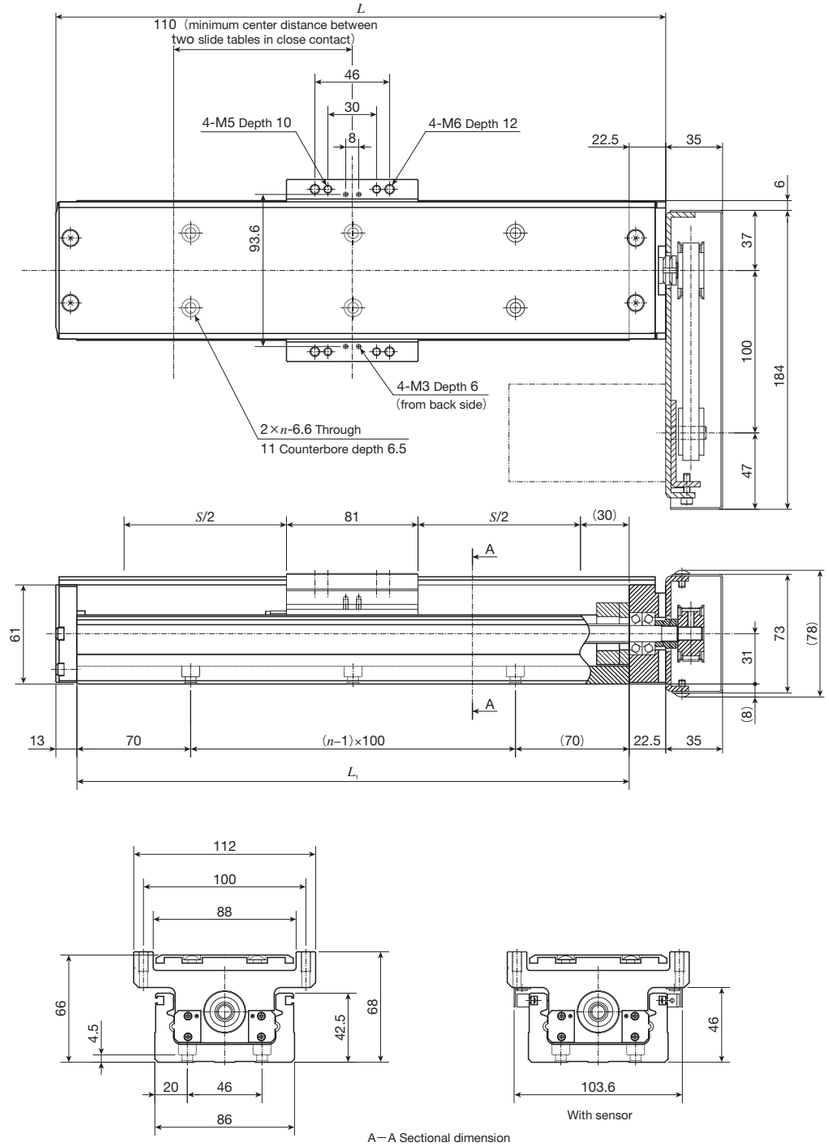


unit: mm

Bed length L_1	Overall length L	Stroke length S(2)	Mounting holes of bed n	Mass (Ref.) kg(3)
340	375.5	200(90)	3	4.0
440	475.5	300(190)	4	4.6
540	575.5	400(290)	5	5.1
640	675.5	500(390)	6	5.6
740	775.5	600(490)	7	6.1
840	875.5	700(590)	8	6.6
940	975.5	800(690)	9	7.2

Notes (1) Too deep a fixing thread depth of the mounting bolt may affect the running performance of the slide table, so never insert a bolt longer than the depth of the tapped hole.
(2) The value indicates the allowable stroke when limit sensors are mounted. The value in ( ) represents dimension for two slide tables in close contact.
(3) The value shows the mass of the entire table with one slide table, and it is 0.3kg heavier with two slide tables.
Remarks 1. Parts for motor attachment are appended, and this figure indicates a finished state after assembled by the customer.
2. If folded back to right and left, motor attachment is about 8mm lower than the bottom of the bed.
3. If folded back upward, motor attachment is about 6mm lower than the bottom of the bed.

TE86BF (Motor folding back specification)



unit: mm

Bed length L_1	Overall length L	Stroke length S(1)	Mounting holes of bed n	Mass (Ref.) kg(2)
340	375.5	200(90)	3	4.6
440	475.5	300(190)	4	5.2
540	575.5	400(290)	5	5.8
640	675.5	500(390)	6	6.4
740	775.5	600(490)	7	7.0
840	875.5	700(590)	8	7.6
940	975.5	800(690)	9	8.1

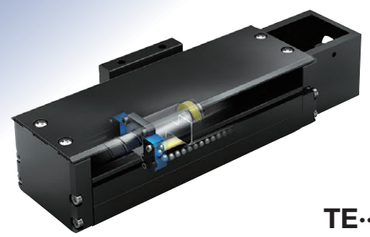
Notes (1) The value indicates the allowable stroke when limit sensors are mounted. The value in ( ) represents dimension for two slide tables in close contact.
(2) The value shows the mass of the entire table with one slide table, and it is 0.6kg heavier with two slide tables.
Remarks 1. Parts for motor attachment are appended, and this figure indicates a finished state after assembled by the customer.
2. If folded back to right and left, motor attachment is about 8mm lower than the bottom of the bed.
3. If folded back upward, motor attachment is about 6mm lower than the bottom of the bed.

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

IKO Mechatronics Series Lineup

Precision Positioning Table TE

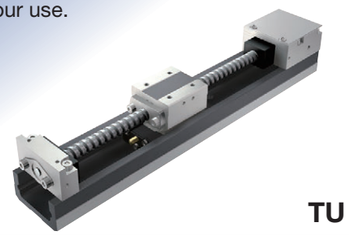
- High-strength aluminum alloy is used for main components
- Light weight, low profile and compact positioning table



TE···B

Precision Positioning Table TU

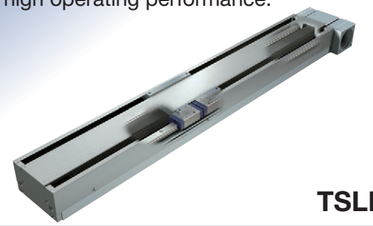
- High rigidity U-shaped track rail adopted
- Various table specifications are available according to your use.



TU

Precision Positioning Table LB

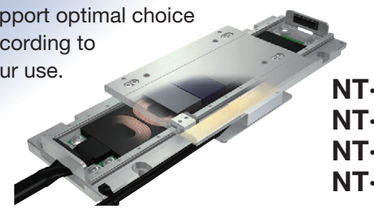
- High-speed type using a timing belt drive
- Parallel arrangement of Linear Way ensures stable and high operating performance.



TSLB

Nano Linear NT

- Pursuing ultimate compactification
- Very low profile of NT38V: only 11mm
- A wide variety of selections support optimal choice according to your use.



NT···V
NT···H
NT···XZ
NT···XZH

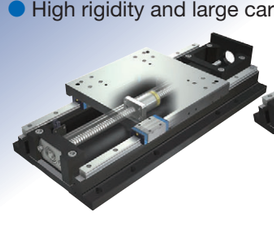
Precision Positioning Table L

- Standard type highly-proven in various fields
- Parallel arrangement of Linear Ways with stable performance

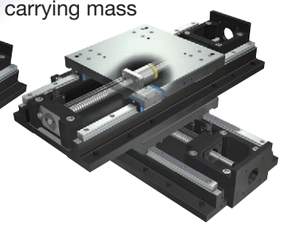
TSL···M

Precision Positioning Table LH

- Component parts from rigorous selection ensure high accuracy and reliability.
- High rigidity and large carrying mass



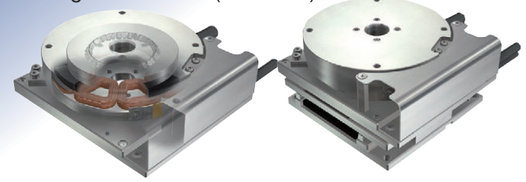
TSLH···M



CTLH···M

Alignment Stage SA

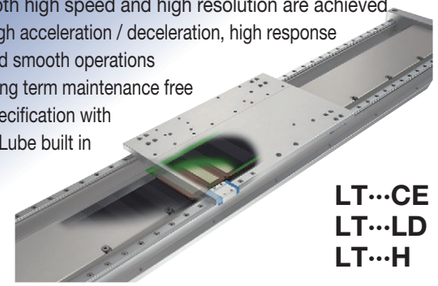
- Sectional height of 3 axes X, Y and θ is only 52mm (SA65DE).
- X- and Y-axis: 0.1μm, θ-axis: excellent resolution as high as 0.36 sec (SA120DE)



SA···DE

Linear Motor Table LT

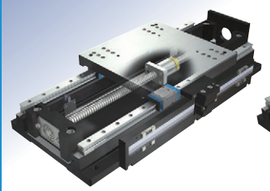
- Both high speed and high resolution are achieved.
- High acceleration / deceleration, high response and smooth operations
- Long term maintenance free specification with C-Lube built in



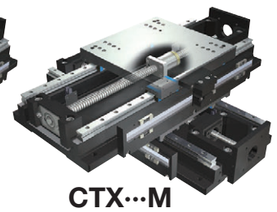
LT···CE
LT···LD
LT···H

Super Precision Positioning Table TX

- Achieved ultimate positioning performance with rolling guide type
- High accuracy attained by fully-closed loop control



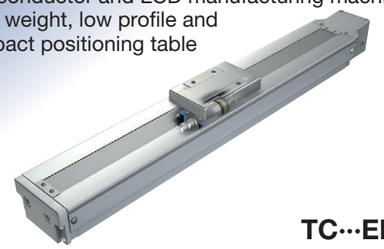
TX···M



CTX···M

Cleanroom Precision Positioning Table TC

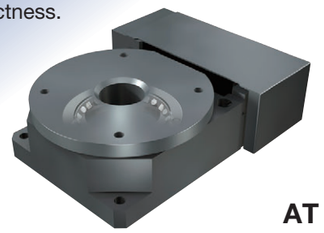
- Optional for use in high cleanliness environment for semiconductor and LCD manufacturing machines
- Light weight, low profile and compact positioning table



TC···EB

Alignment Table AT

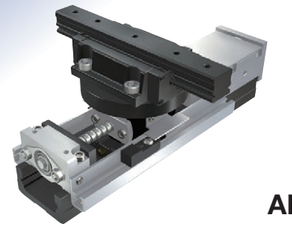
- High accuracy positioning ensuring precise angle correction
- Crossed Roller Bearing ensures high rigidity and compactness.



AT

Alignment Module AM

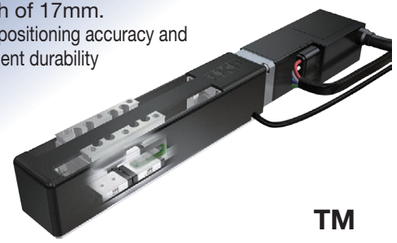
- Supports free designing of stage according to your use
- Control tolerance of height within ±10μm



AM

Micro Precision Positioning Table TM

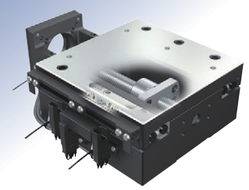
- Ground ball screw drive realizes ultra-small size with sectional height of 20mm and width of 17mm.
- High positioning accuracy and excellent durability



TM

Precision Positioning Table TS/CT

- Compact structure with low profile
- Crossed Roller Way guaranteeing high reliability and high accuracy



TS

CT

Precision Elevating Table TZ

- Unique wedge mechanism ensures compact and high accuracy vertical positioning.
- TZ···X achieving high accuracy and high rigidity through adoption of C-Lube Linear Roller Way Super MX

TZ
TZ···H
TZ···X

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