IKO

Precision Positioning Table

TU···E

CAT-57140

TU···E

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IKO Precision Positioning Table TU···E

IKO Precision Positioning Table TU is a compact, low profile and lightweight positioning table with a ball screw and slide unit assembled inside a U-shaped track rail.

Identification Number and Specification

Cording example TU 60 E F 50 A / Y002 10 S C 3

❶ ❷ ❶ ❸ ❹ ❺ ❻ ❼ ❽ ❾ ❿

❶Series	Code	Specification
	TU···E	Precision positioning table TU···E

❷Size	Code	Specification
	50	Track rail width 50mm
	60	Track rail width 60mm

❸Shape of slide unit	Code	Specification
	S	Standard table
	F	Flanged table

❹Length of track rail	Refer to table 1

❺With or without motor	Code	Specification
	No symbol	Without motor
	A	With motor

❻Motort type	Refer to table 2

When "without motor" (no symbol) in item ❺ and some of motor code (except no symbol) are selected in item ❻, the motor attachment and coupling are mounted at delivery. When "without motor" and no motor code are selected together, attachment and coupling are not delivered.

❼Ball screw	Code	Lead	Applicable model
	2	2mm	TU50E
	4	4mm	TU60E
	10	10mm	

❽Number of slide table	Code	Specification
	S	Single table
	C(1)	Twin tables

Note(1) : In TU50E, not applicable to track rail length 150mm.
In TU60E, not applicable to track rail lengths 150mm and 200mm.

❾Cover specification	Code	Specification
	0	Without cover
	C	With bridge cover

❿Sensor specification	Code	Specification
	0	Without sensor and sensor rail
	2	Two sensors (limit sensors) with sensor rail.
	3	Three sensors (limit sensors and a pre-origin sensor) with sensor rails.
	4	Four sensors (Limit sensors, pre-origin sensor and origin sensor) with sensor rails.
	9	Without sensor and with sensor rails.

Table1 Track rail length

TU50E		TU60E			
Ball screw lead 2mm		Ball screw lead 4mm		Ball screw lead 10mm	
Code	Spec.	Code	Spec.	Code	Spec.
15	150mm	15	150mm	15	150mm
20	200mm	20	200mm	20	200mm
25	250mm	—	—	—	—
30	300mm	30	300mm	30	300mm
—	—	40	400mm	40	400mm
—	—	50	500mm	50	500mm
—	—	60	600mm	60	600mm
—	—	70	700mm	70	700mm
—	—	—	—	75	750mm

Table 2 Motor code

TU50E		TU60E	
Code	Specification	Code	Specification
No symbol	Without motor attachment	No symbol	Without motor attachment
Y001	AC Servo motor without brake SGMAH-A5AAA21 Yaskawa Electric Corporation	Y002	AC Servo motor without brake SGMAH-01AAA21 Yaskawa Electric Corporation
Y006	AC Servo motor with brake SGMAH-A5AAA2C Yaskawa Electric Corporation	Y007	AC Servo motor with brake SGMAH-01AAA2C Yaskawa Electric Corporation
P001	AC Servo motor without brake MSMA5AZA1A Matsushita Electric Industrial Co., Ltd.	P002	AC Servo motor without brake MSMA012A1A Matsushita Electric Industrial Co., Ltd.
P006	AC Servo motor with brake MSMA5AZA1B Matsushita Electric Industrial Co., Ltd.	P007	AC Servo motor with brake MSMA012A1B Matsushita Electric Industrial Co., Ltd.
J001	AC Servo motor without brake HC-KFS053 Mitsubishi Electric Corporation Co., Ltd.	J002	AC Servo motor without brake HC-KFS13 Mitsubishi Electric Corporation Co., Ltd.
J006	AC Servo motor with brake HC-KFS053B Mitsubishi Electric Corporation Co., Ltd.	J007	AC Servo motor with brake HC-KFS13B Mitsubishi Electric Corporation Co., Ltd.
K3	Stepping motor without brake PK545-A Oriental Motor Co., Ltd.	K6	Stepping motor without brake PK569-A Oriental Motor Co., Ltd.
K3B	Stepping motor with brake A6088-9015KM Oriental Motor Co., Ltd.	K6B	Stepping motor with brake PK569-A-A25 Oriental Motor Co., Ltd.

Characteristic features

Accuracy

unit : mm

Model number	Track rail length	Repeatability	Parallelism in table operation B(Refer CAT-5795E)	Backlash
TU50E	150	±0.010	0.015	0.020
	200			
	250			
	300			
TU60E	150	±0.010	0.015	0.020
	200			
	300			
	400			
	500		0.025	
	600			
	700			
	750			

Load rating of linear motion rolling guide

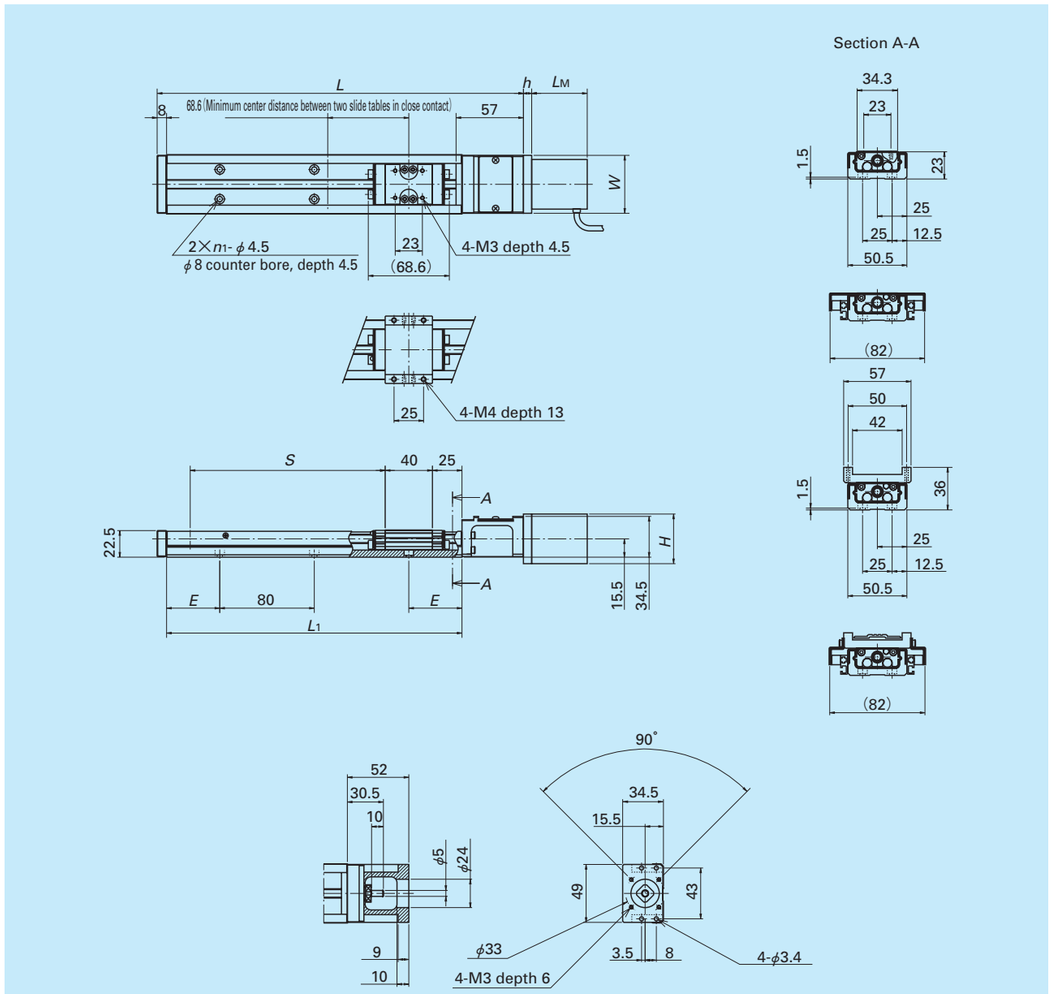
Model number	Basic dynamic load rating[N]	Basic static load rating[N]	Static moment rating [N-m]		
	C	C_0	T_0	T_X	T_Y
TU50E	4 300	7 000	134(268)	46(276)	51(306)
TU60E	7 000	11 800	260(520)	101(606)	120(720)

Remark : The values in ( ) are for two slide tables in close contact.

Ball screw specification

Model number	Type	Lead [mm]	Outside Dia. of screw [mm]	Axial clearance [mm]	Basic dynamic load rating *C* [N]	Basic static load rating C_0 [N]
TU50E	Rolled ball screw	2	8	0.020	1 800	3 200
TU60E	Ground ball screw	4	10	0.020	3 000	5 300
		10			2 000	3 200

Dimension of TU50E



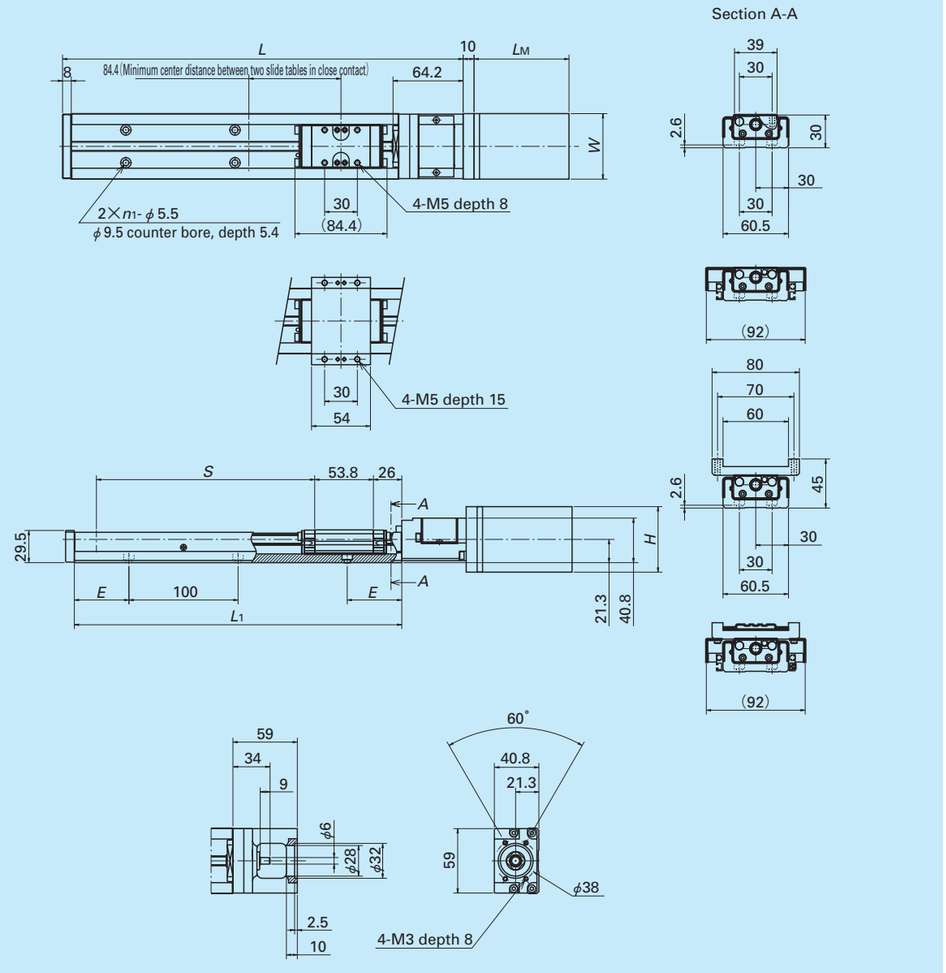
unit : mm

Model number	Track rail length L_1	Total length L	Stroke length S (1)	E	n_1	Mass of slide table kg		Mass kg (2)	
						TU50ES	TU50EF	TU50ES	TU50EF
TU50E	150	210	65 (—)	35	2	0.1	0.2	1.0	1.1
	200	260	115 (45)	20	3			1.2	1.3
	250	310	165 (95)	45	3			1.4	1.5
	300	360	215 (145)	30	4			1.6	1.7

Motor code	W	H	h	L_M
Y001	40	40	10.5	77.0
Y006	40	40	10.5	108.5
P001	38	38	10.5	73.0
P006	38	38	10.5	105.0
J001	40	40	10.5	81.5
J006	40	40	10.5	109.5
K3	49	42	7	47.0
K3B	49	42	7	77.0

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.
Remark : Dimensions *W*, *H* and *h* show dimension of motor attachment.

Dimension of TU60E



unit : mm

Model number	Track rail length L_1	Total length L	Stroke length S (1)	E	n_1	Mass of slide table kg		Mass kg (2)	
						TU60ES	TU60EF	TU60ES	TU60EF
TU60E	150	217	50 (—)	25	2	0.3	0.4	1.6	1.7
	200	267	100 (—)	50	2			2.0	2.1
	300	367	200 (115)	50	3			2.6	2.7
	400	467	300 (215)	50	4			3.3	3.4
	500	567	400 (315)	50	5			4.0	4.1
	600	667	500 (415)	50	6			4.6	4.7
	700	767	600 (515)	50	7			5.3	5.4
	750	817	650 (565)	25	8			5.6	5.7

Motor code	W	H	L_M
Y002	42	40	94.5
Y007	42	40	135.0
P002	42	40	103.0
P007	42	40	135.0
J002	42	40	96.5
J007	42	40	124.5
K6	60	60	87.0
K6B	60	60	129.0

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.
Remark : Dimensions *W* and *H* show dimension of motor attachment.