

# Single-Axis Robot

## 7. KU Series

### 7.1 Features

- ⊙ Lightweight aluminum base
- ⊙ Highly dustproof
- ⊙ High accuracy, high efficiency, high reliability
- ⊙ Cost effective
- ⊙ Easy installation and maintenance

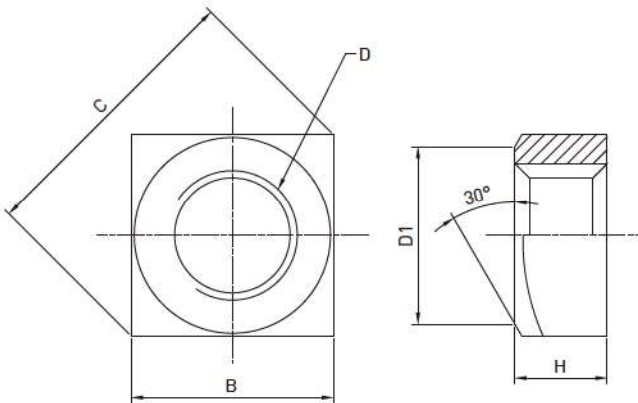
### 7.2 Applications

- ⊙ Precision industry & semiconductor
- ⊙ Inspection, testing & assembly equipment
- ⊙ Optical & medical equipment

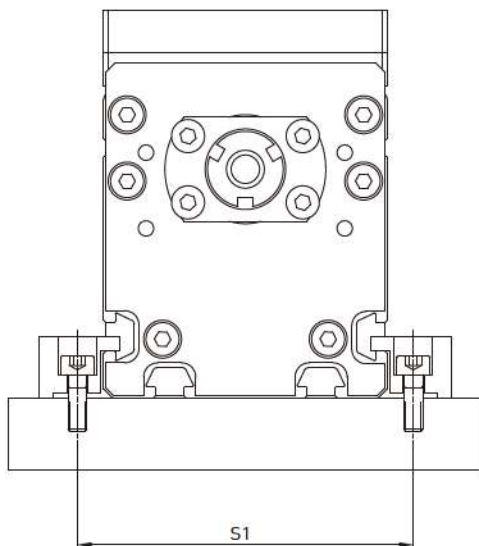


## 7.3 KU Mounting

### Square nut



	B	C	D	D1	H
KU60	7	9.9	M4x0.7	6.8	3.2
KU80	8	11.3	M5x0.8	7.8	4

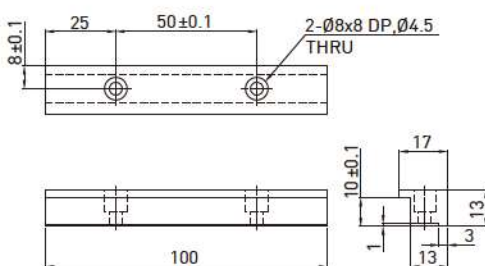


KU Model	S1	Screw
KU80	93	M5
KU60	71	M4

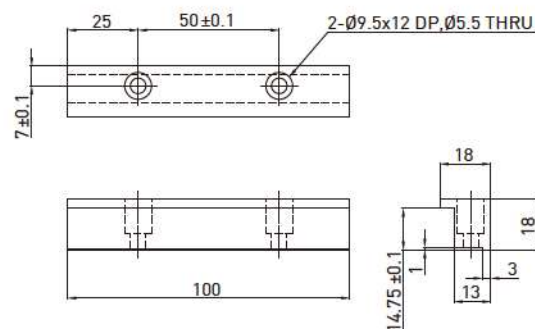
Note: In addition to square nuts, special nuts are also available. Please contact HIWIN sales.

### Fixed plate

© KU060



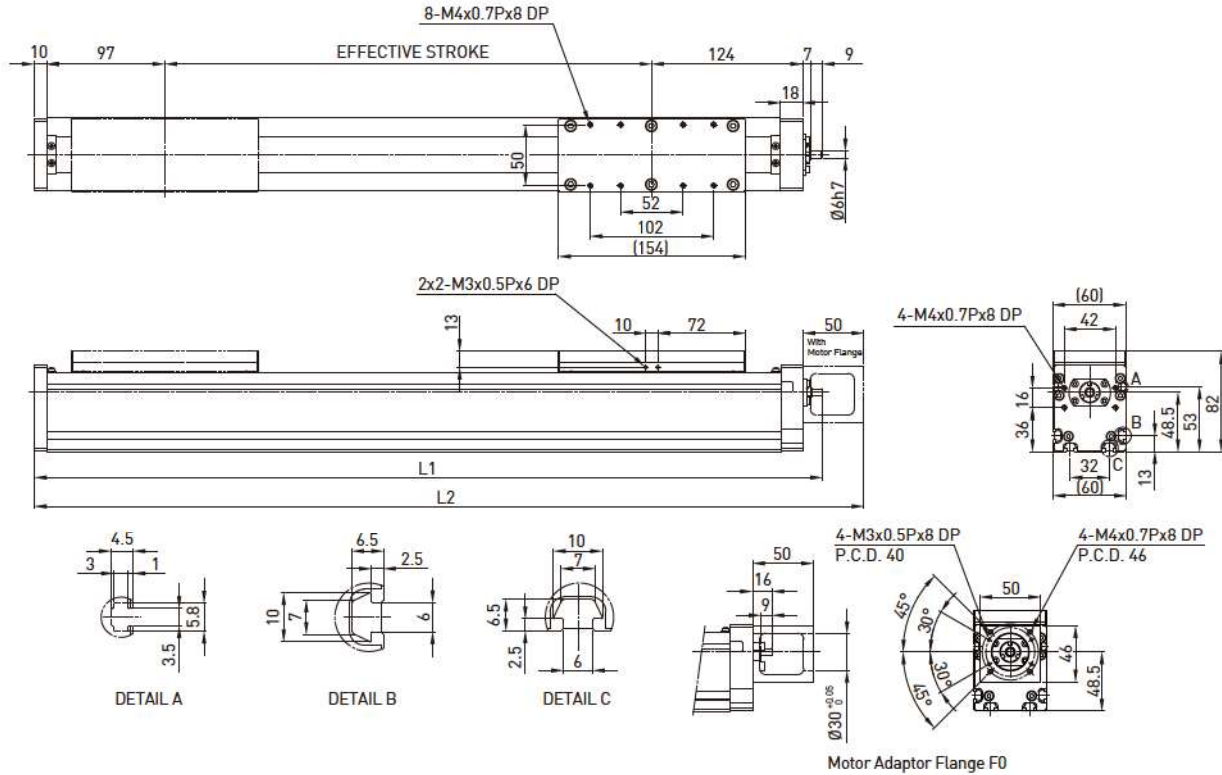
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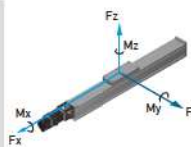
## 7.4 KU Series

### Model Number for KU060

KU060	-10	P	-600	A	F0	S1	M101
Model	Lead	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
	5 mm 10 mm	C: Normal P: Precision		A: Standard	F0: 100W F: No Flange	S1: OMRON SX671 S2: OMRON SX674 S3: Panasonic GX-F12A S4: Panasonic GX-F12A-P None: No Limit Switch	M05□, K05□ M10□, K10□ Motor specification: ref. catalog P.167 M:customer specified None:Without Motor



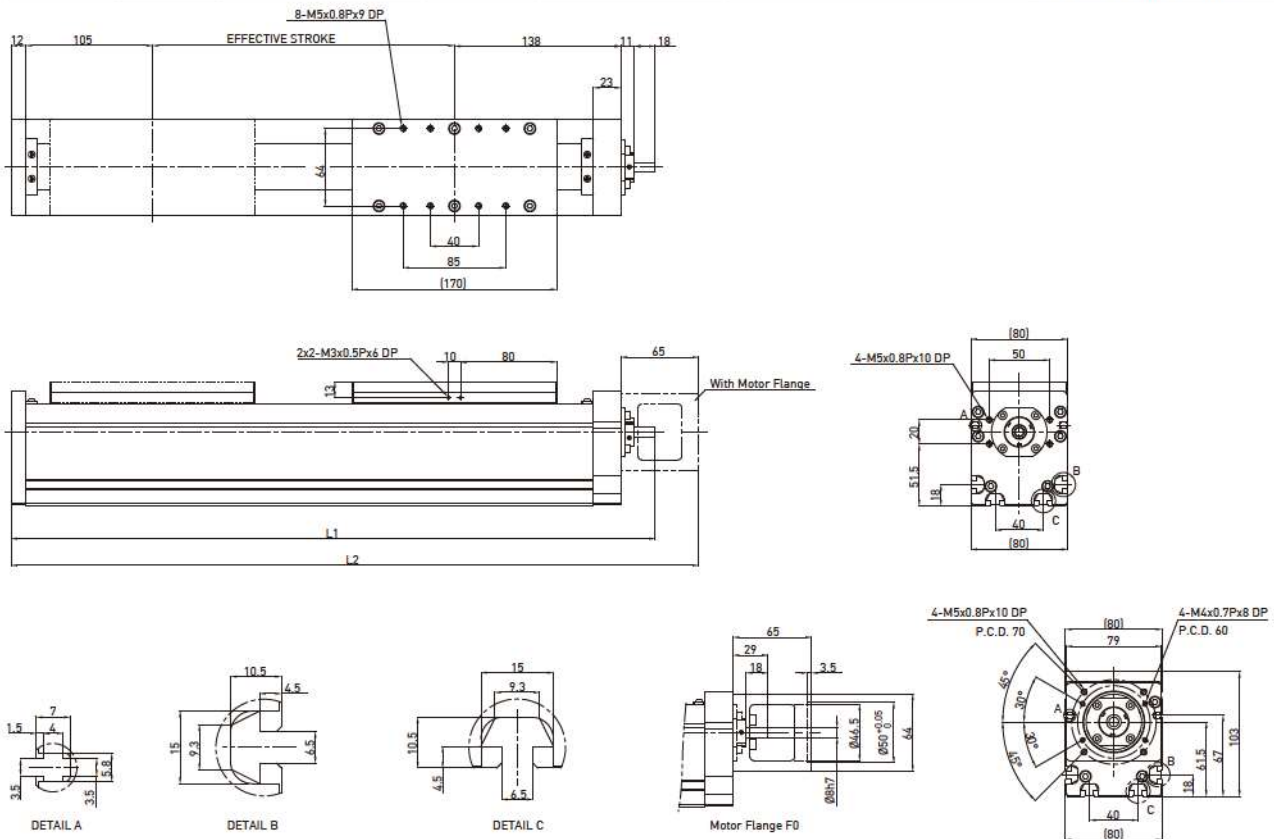
Effective Stroke (mm)	L1	L2	Weight (kg)	AC motor output	W	100		
50	297	331	1	Drive	Ball screw C7(normal)			
100	347	381	1.5	Lead	mm	5      10		
150	397	431	2	Rated RPM	RPM	3000      3000		
200	447	481	2.5	Max linear speed*	mm/sec	250      500		
250	497	531	3	Rated thrust	N	280      140		
300	547	581	3.5	Repeatability	mm	±0.02		
350	597	631	4	Effective stroke	mm	50-600		
400	647	681	4.5	Max load (H)	kg	30	20	
450	697	731	5	Rated dynamic load**	F <sub>yd</sub>	N	50	50
500	747	781	5.5		F <sub>zd</sub>	N	300	200
550	797	831	6		M <sub>xd</sub>	N-m	10	10.5
600	847	881	6.5		M <sub>yd</sub>	N-m	8	9
				Permitted load condition***	M <sub>zd</sub>	N-m	8	9
					$\frac{F_y}{F_{yd}} + \frac{F_z}{F_{zd}} + \frac{M_x}{M_{xd}} + \frac{M_y}{M_{yd}} + \frac{M_z}{M_{zd}} \leq 1$ F <sub>y</sub> \ F <sub>z</sub> \ M <sub>x</sub> \ M <sub>y</sub> \ M <sub>z</sub> are working loads			

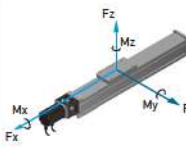


\* Vibration might occur when the effective stroke is longer than 500mm.  
 The maximum speed should be decreased by 15% for every 100mm of increased stroke.  
 \*\*The load condition is based on 10,000km operation.  
 \*\*\* If used in a special condition, please contact HIWIN.

## Model Number for KU080

KU080	-10	P	-1100	A	F0	S1	M201
Model	Lead	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
	5 mm 10 mm 20 mm	C: Normal P: Precision		A: Standard	F0: 200W F: Without Flange	S1: OMRON SX671 S2: OMRON SX674 S3: Panasonic GX-F12A S4: Panasonic GX-F12A-P None: No Limit Switch	M20□, K20□ M40□, K40□ Motor specification: ref. catalof P.167 M:customer specified None:Without Motor



Effective Stroke (mm)	L1	L2	Weight (kg)	AC motor output	W	200	
				Drive		Ballscrew C7(normal)	
100	384	420	7.04	Lead	mm	5 10 20	
150	434	470	7.48	Rated RPM	RPM	3000 3000 3000	
200	484	520	7.92	Max linear speed*	mm/sec	250 500 1000	
250	534	570	8.36	Rated thrust	N	560 280 140	
300	584	620	8.8	Repeatability	mm	±0.02	
350	634	670	9.24	Effective stroke	mm	100~1100	
400	684	720	9.68	Max load (H)	kg	60 40 20	
450	734	770	10.12	Rated dynamic load** 	Fyd	N	50 50 50
500	784	820	10.56		Fzd	N	600 400 200
550	834	870	11.0		Mxd	N-m	11 12.5 14
600	884	920	11.44		Myd	N-m	9 10 11
650	934	970	11.88		Mzd	N-m	9 10 11
700	984	1020	12.32		Permitted load condition*** $\frac{F_y}{F_{yd}} + \frac{F_z}{F_{zd}} + \frac{M_x}{M_{xd}} + \frac{M_y}{M_{yd}} + \frac{M_z}{M_{zd}} \leq 1$ Fy、Fz、Mx、My、Mz are working loads		
750	1034	1070	12.76				
800	1084	1120	13.2				
850	1134	1170	13.64				
900	1184	1220	14.08				
950	1234	1270	14.52				
1000	1284	1320	14.96				
1050	1334	1370	15.4				
1100	1384	1420	15.84				

\* Vibration might occur when the effective stroke is longer than 550mm.  
 The maximum speed should be decreased by 15% for every 100mm of increased stroke.  
 \*\*The load condition is based on 10,000km operation.  
 \*\*\*If used in a special condition, please contact HIWIN.