Single Axis Units - Overview

KU Series for Environmental Measures / Technical Data

Frequently used in-house built mechanisms are standardized.
Rolled Ball Screw, Precision Ball Screw, Bellows and Cover Type are lined up!

Features

1) High Accuracy

Ball screw and linear guide are integrated. Rolled Ball Screw, Precision Ball Screw, Bellows and Cover Type are lined up.

2 Economical

Single Axis Units best suited for high load transfer cost equivalent to the components cost.

Motor Bracket

3Short Lead Time

11 days shipping is available for various lineup.

Compatible with Servo and Stepping Motors. Easy installation with pilot and no shaft centering adjustments. Table Table: Selectable from 2 lengths. Tapped holes for mounting sensor flags are provided on both sides. *Motor and coupling are not included. *Motor and coupling are not included. *Ball Screw Rolled (C10) and precision (C5) ball screws are used. Selectable diameter and lead. Linear Guide SVR (for medium loads) and SXR (for heavy loads) are used. Base Aluminum extrusion base. Width and length are selectable. Slots for sensor mounting are provided on the sides of the base.

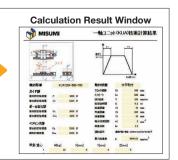
■Single Axis Unit List

Shape	Type	Product Name	Feature	Page	
K K K K K		Rolled / Precision Ball Screw	Single Axis Unit Series Basic Type Rolled Ball Screw (C10) and Precision Ball Screw (C5) are used; best suited for heavy load transfer.	P.445	
# + **	KUAC KUBC KUHC KUTC Cover Ty		Cover is provided as standard equipment. Measures for intrusion of foreign objects, offering safety. Easy maintenance.	P.447	
	KUAJ KUBJ	Bellows Type Rolled Ball Screw	Bellows compatible type (Bellows are sold separately) Bellows are sewn, and the body material is CR rubber. Coolants prevent intrusion of foreign objects such as coolant, and suitable for use in special environments.	Listed on our website	

Useful Technical Calculation Software

Life calculation necessary for selection of single axis actuators can be easily achieved for free on MISUMI website: Free on MISUMI website.





Environmental Measures

Bellows and Cover Types are now available for safe use of Single Axis Units to meet customers' work environments. Neither quotation nor delivery management is required. Maintenance costs are considerably reduced.

■Cover Specifications (P.447)

- · Economical: Prevents components from falling off and dripping liquids, and protects machines economically.
- · Easy: Ordering procedure and installation are simple. Easy machine cleaning and maintenance
- · Reduction: Reduced machine trouble. More advantages with less cost. Labor saving for customers.



■Cover Mounting Procedure

- 1) KUAC and KUBC are secured to device or table provided by customers.
- 2) Install the included brackets ① and ② to the Single Axis Unit.
- 3) Lastly, secure included cover ③ to included brackets ① and ② installed in Step 2).

Note: Brackets ① and ②, and cover ③ and mounting screws are included in the product package. Assembly required.

Applications: Cover Series are best served as protection against damages to components by small parts dropped, and suitable for the area in which dripping of adhesive agent or oil is undesirable.

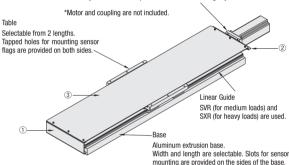
*Bellows Type is recommended for potential intrusion of foreign objects into the side surfaces.

Motor Bracket is applicable to each manufacturer's motors.

*Motor and coupling are not included.

Motor Bracket Compatible with Servo

Compatible with Servo Motors and Stepping Motors.
Easy installation with pilot and no shaft centering adjustments.



Technical Data

Maximum Velocity

	Part	Number				*Max. \	elocity/	(mm/s)			
	Type	No.	L=340	L=400	L=460	L=520	L=580	L=640	L=700	L=760	L=820
		1204(S, L, LS)	265	265	265	265	265	265	-	-	-
Rolled Ball Screw KUA(C) KUB(C)	1210(S, L, LS)	651	651	651	651	651	651	651	633	-	
	1505(L)	264	264	264	264	264	264	264	264	264	
	1510(L)	527	527	527	527	527	527	527	527	527	
	1520(L)	1055	1055	1055	1055	1055	1055	1055	1055	1055	
	KUB(C)	2005L	200	200	200	200	200	200	200	200	200
	2010L	-	397	397	397	397	397	397	397	397	
		2020L	-	-	801	801	801	801	801	801	801

Tor Terminology, see below

■ Allowable Static Moment

Part Number	Table Length			ment (N·m)	Table Length		Static Mor	nent (N·m)
Type	L ₁	Ma	Mb	Mc	L ₁	Ma	Mb	Mc
				783.8				783.8
KUA(C)	100	401.5	401.5	858.1	150	783.8	783.8	858.1
KUB(C) KUH(C) KUT(C)	150	1092.3	1092.3	2103.7	200	1733.3	1733.3	2103.7
		1677.8	1677.8	3008.9		2411.3	2411.3	3008.9

The table above lists reference values in static state.

For actual life calculations, please use our Technical Calculation Software (P.443)

Part	*Max. Velocity (mm/s)									
Type	No.	L=340	L=400	L=460	L=520	L=580	L=640	L=700	L=760	L=820
Rolled Ball Screw KUH(C) KUT(C)	1205(S, L, LS)	486	486	486	-	-	-	-	-	-
	1210(S, L, LS)	972	972	972	972	766	611	-	-	-
	1505(L)	389	389	389	389	389	374	-	-	-
	1510(L)	778	778	778	778	778	749	-	-	-
	1520(L)	1556	1556	1556	1556	1556	1498	-	-	-
	2005L	292	292	292	292	292	292	292	292	286
	2010L	-	583	583	583	583	583	583	583	517
	2020L	-	-	1167	1167	1167	1167	1167	1167	1027

Terminology

· Positioning Repeatability

Position and Measure moves to a predetermined point in one direction are made seven times.

· Parallelisn

An actuator is fixed to a surface plate. Parallelism readings are taken from a carriage center mounted dial indicator (0.01 graduation) setup against the surface plate. Measurement is taken along 20–30mm from the side of the base

· Maximum Velocity

Values listed on each page are calculated based on critical speed and DN value of ball screws. Note that these are not guaranteed data considering motor rotational speed, operating conditions, etc.

