

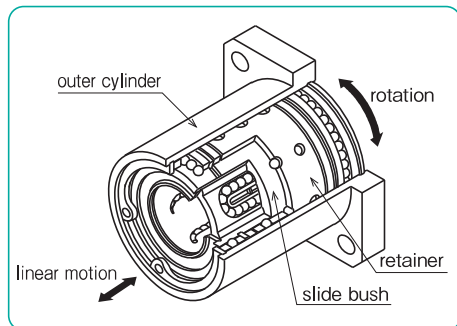
SLIDE ROTARY BUSH RK TYPE

NB's RK type slide rotary bush is a highly accurate and high load capacity bearing providing smooth continuous linear and rotational motions. Its structure imposes no constraints on linear and rotational motions. It is much more compact than a standard slide bush with separate rotational bearing.

STRUCTURE AND ADVANTAGES

The RK type slide rotary bush uses a retainer similar to that used in the SR type stroke bush. This retainer gives a smooth motion in a high rotational application. SM type slide bush is incorporated, providing the stable and smooth linear motion. Relatively large ball elements are used for high load capacity.

Figure E-9 Structure of RK Slide Rotary Bush



1. A smooth unlimited linear and rotational motion is obtained.
2. There is no need to machine separate housing.
3. High accuracy is ensured for extended period of usage.
4. Its high compatibility eliminates replacement problems.

SPECIFICATION

Refer to Table E-8 for NB Slide Rotary Bush RK material and operating temperature range. The operating temperature range of the NB Slide Rotary UNIT series is based on the built-in Slide Rotary Bush.

Table E-8 Material and Operating Temperature Range

type	outer cylinder	retainer	slide bush		operating temperature range
			outer cylinder	retainer	
RK	steel	aluminum	steel	resin	-20°C~80°C

FIT

Shaft

In order to ensure high accuracy motion of Slide Rotary Bush RK type, it is essential to select a high quality shaft. In selecting a shaft, please take note of:

Outer diameter tolerance: h5 recommended

Surface hardness: 58HRC or higher

For a shaft with surface hardness less than 58HRC, make a correction in life calculation by adding hardness coefficient.

Surface roughness: lower than Ra0.4 or better

Housing

Inner diameter tolerance is not requested. Please insert into an installation bore which is slightly larger than the outer cylinder.

LIFE CALCULATION

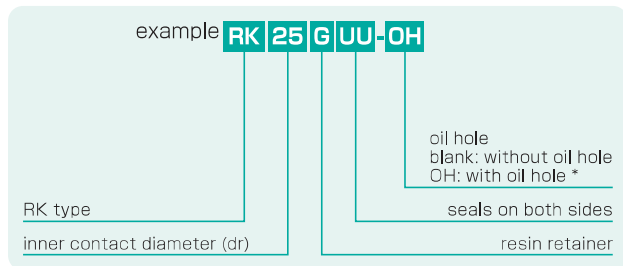
$$L = \left(\frac{f_H \cdot f_T \cdot f_C}{f_W} \cdot \frac{C}{P} \right)^3 \times 50$$

L: rated life (km) f_H: hardness coefficient
 f_T: temperature coefficient f_C: contact coefficient
 f_W: applied load coefficient
 C: basic dynamic load rating (N) P: applied load (N)
 ※Refer to page Eng-6 for the coefficients.

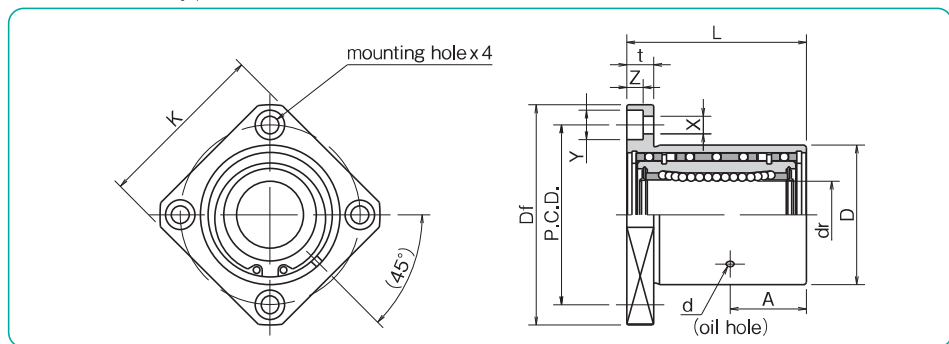
RK TYPE



part number structure



*Oil hole is for rotary-portion lubrication.



part number	dr		D		L		A		d		flange			basic load rating		allowable revolutions per minute	mass
	mm	tolerance μm	mm	tolerance μm	mm	tolerance mm	mm	mm	mm	mm	Df	K	t	P.C.D.	X×Y×Z		
RK 12GUU	12	0	32	0	36		15	2	54	42	8	43	5.5×9×5.1	510	784	500	180
RK 16GUU	16	-9	40	-25	45		19.5	2	62	50	8	51	5.5×9×5.1	774	1,180	500	280
RK 20GUU	20	0	45	0	50	±0.3	21.5	3	74	58	10	60	6.6×11×6.1	882	1,370	400	420
RK 25GUU	25	-10	52	0	67		28.5	3	82	64	10	67	6.6×11×6.1	980	1,570	400	680
RK 30GUU	30		60	-30	74		31	3	96	75	13	78	9×14×8.1	1,570	2,740	400	990

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