

NSK Linear Guides™

Miniature PU Series/PE Series

Super lightweight and smooth motion linear guides are suited for diverse applications in semiconductor manufacturing equipment, inspection equipment, and medical equipment. The high load capacity type is added to both series as a standard item for the expansion of the range of options. The random matching of rails and ball slides is now available for quick delivery.



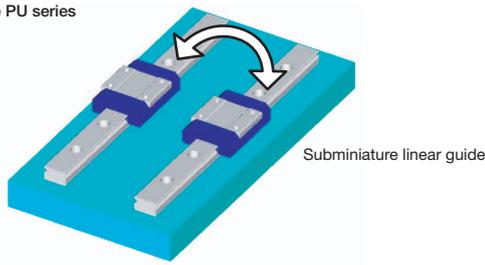
■ Features

1. The ball slide is fabricated to be approximately 20% lighter than that of existing miniature LU and LE series.
2. Newly designed ball-recirculation components facilitate smooth operation of ball slides.
3. A retainer prevents steel balls from dropping out of the ball slide for easy handling.
4. Now available in the random matching of rails and ball slides, which are respectively stocked for quick delivery.

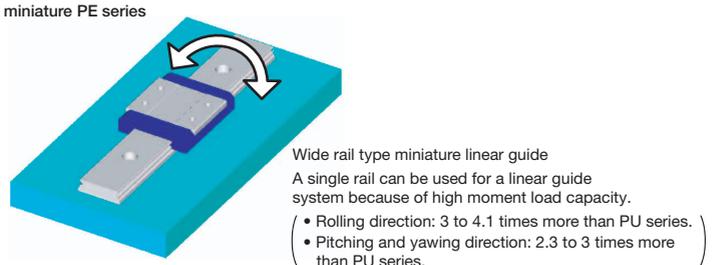
NSK Linear Guides™: Miniature PU Series/PE Series

PU series and PE series

Miniature PU series



Wide rail type miniature PE series



Product lineup of PU and PE series

The high load capacity type is added for the enhancement of the series.

Unit: mm

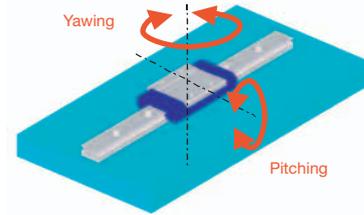
Series	Size	Rail width	Standard type	High load capacity type	Maximum rail length
PU	5	5	TR* ● ☆	- -	210
	7	7	AR ● ☆	- -	375
	9	9	TR ● ☆	UR ○	600
	12	12	TR ● ☆	UR ○	800
	15	15	AL ● ☆	BL ○	1 000
PE	5	10	AR ● ☆	- -	150
	7	14	TR ● ☆	- -	600
	9	18	TR ● ☆	UR ○	800
	12	24	AR ● ☆	BR ○	1 000
	15	42	AR ● ☆	BR ○	1 200

●: Existing type ○: Newly added type ☆: Random matching available *: Ball slide shape code

High load capacity type

The high load capacity type has approximately 1.5 times more capacity than the standard type, and thus substantially extends the life of a guide way system. The high load capacity type has substantial load carrying capability in pitching and yawing directions, and thus suits for the application for a cantilever column that supports moment loads.

Basic dynamic load rating: **1.3 to 1.5 times** more than the standard type
 Basic static load rating: **1.5 to 2.7 times** more than the standard type
 Static moment load capacity: **1.5 to 1.7 times** more than the standard type (Rolling direction)
2.2 to 2.7 times more than the standard type (Pitching and yawing directions)



Reference number

Assembly

Example: **PU 15 0470 AL K 2 -** P5 1 - II**

Series: PU
 Size: 15
 Rail length (mm): 0470
 Ball slide shape code: AL
 Material/surface treatment code: K (Stainless steel), H (Stainless steel + surface treatment)
 Preload code: -
 Accuracy grade: P5
 Design serial number: 1
 No end code: One unit/set, II: Two unit/set
 Preload code 0: Fine clearance (Z0), 1: Slight preload (Z1)
 Accuracy grade: P4 (Super precision), P5 (High precision), P6 (Precision), PN (Normal)
 (When equipped with K1 unit): K4, K5, K6, and KN, respectively
 Number of ball slides on a rail

*Please note that the appropriate design number will be assigned to the reference number, and the end code of (II) will be omitted.

Ball slide for interchangeable type

Example: **PA U 15 AL S - K**

Ball slide as a single item: PA
 Series: U (PU series), E (PE series)
 Size: 15
 Material code: S (Stainless steel)
 Option code: K: Equipped with K1 unit
 Shape code

Rail for interchangeable type

Example: **P1 U 15 0470 R K N -** PC T**

Rail as a single item: P1
 Series: U (PU), E (PE)
 Size: 15
 Rail length (mm): 0470
 Rail shape code: R (PU09 · 12, R: PU05 · 07 · 15, PE05 · 07 · 09 · 12, P: PE15)
 Material/surface treatment code: K: Stainless steel, H: Stainless steel + surface treatment
 Preload code T: Interchangeable fine clearance (ZT)
 Accuracy grade PC: Normal grade
 (When equipped with K1 unit) KC: Normal grade
 Design serial number
 Butting specification code N: Non-butting, L: Rail for butting

Please refer to the catalog (CAT No. E3327) for details of the product.

Specification

Type of ball slides	Square type with ball retainer
Preload	Z1 (Slight preload), Z0 (Fine clearance), ZT (Interchangeable fine clearance)
Accuracy grade	P4 (Super precision), P5 (High precision), P6 (Precision), PN (Normal), PC (Interchangeable normal grade)
Material	Martensitic stainless steel

*Replacing or adding ball slide is possible for the PC grade (Interchangeable type).

For more information about NSK products, please contact: www.nsk.com



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