

LM Guide with Ultra Heavy Load capacity for Machine Tools

NR-X/NRS-X



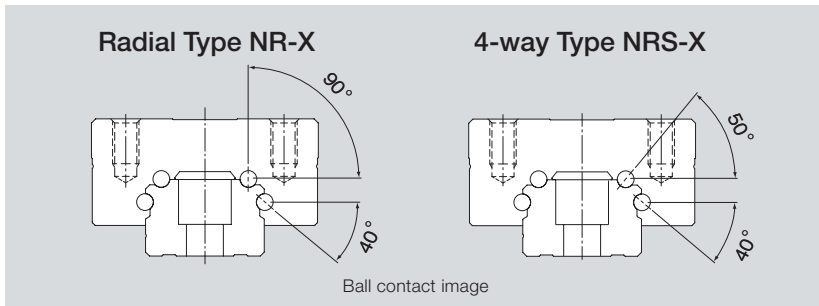
NR/NRS-CX and NR/NRS-RX with Protectors

Addition of a dust protection option
Smaller fluctuation in the rolling resistance

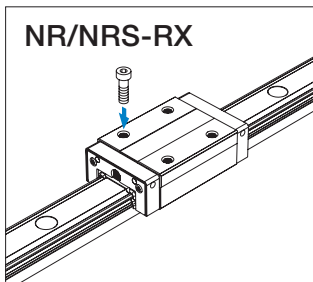
THK NEWS

Volume

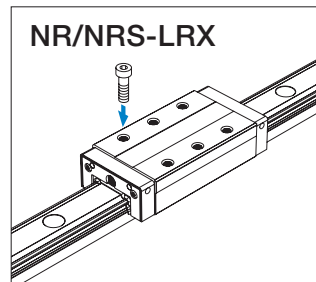
04



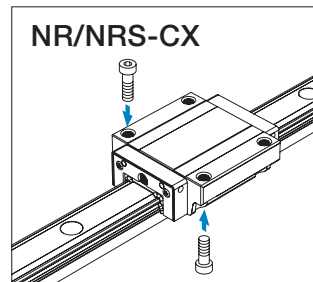
LM block type



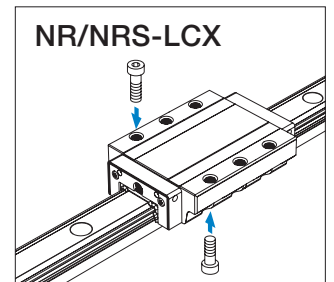
Size: 25/30/35/45/55/65



Size: 25/30/35/45/55/65



Size: 25/30/35/45/55/65



Size: 25/30/35/45/55/65

Features

- Addition of a dust protection option
- Smaller fluctuation in the rolling resistance
- Dimensional compatibility with THK model SVR/SVS

Addition of a dust protection option

Protector and side scraper have been added, which are dust protection options proven in THK model SVR/SVS. They provide optimal product performance under severe conditions including fine particle or liquid contamination.

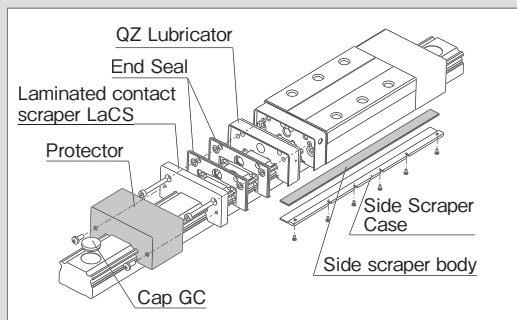


Figure. QZTTHYY option + GC cap

Dust protection option example

- LM block: TTHHYY option

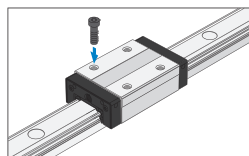
Configuration

- With double seals (two end seals) + side seal + inner seal
- Laminated contact scraper LaCS
- Protector (new option)
- Side scraper (new option)

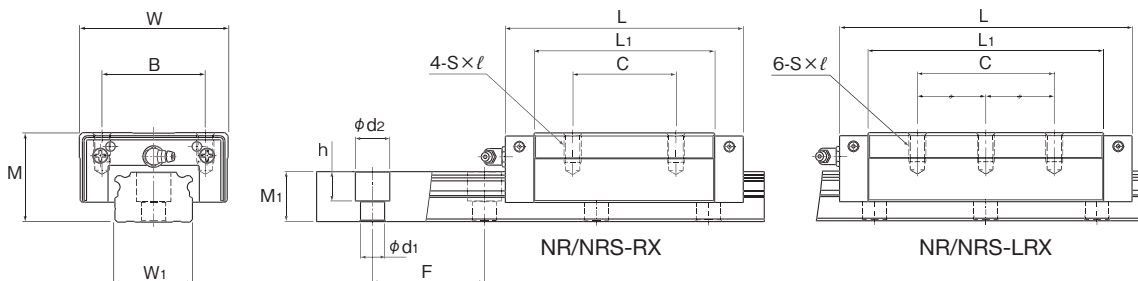
- LM rail: GC cap

Lineup and basic specifications

NR/NRS-RX/LRX



Install the LM block from above



Unit: mm

Model No.	External dimensions			LM block dimensions				LM rail dimensions				Basic Load Rating		Mass	
	Height M	Width W	Length L	B	C	S×ℓ	L ₁	Width W ₁ 0 -0.05	Height M ₁	Pitch F	d ₁ ×d ₂ ×h	C [kN]	C ₀ [kN]	LM block [kg]	LM rail [kg/m]
NR25RX	31	50	82.8	32	35	M6×8	61.4	25	17	40	6×9.5×8.5	37.1	68.1	0.4	2.9
NR25LRX			102		50		80.6					45.4	90.8	0.5	
NR30RX	38	60	98	40	40	M8×10	72.1	28	21	80	7×11×9	54.7	98.1	0.7	4.2
NR30LRX			120.5		60		94.6					66.9	130.8	0.9	
NR35RX	44	70	109.5	50	50	M8×12	79	34	24.5	80	9×14×12	72.4	124.6	1	6
NR35LRX			135		72		104.5					89.6	169.1	1.3	
NR45RX	52	86	138.2	60	60	M10×17	105	45	29	105	14×20×17	110.2	197.6	1.8	9.5
NR45LRX			171		80		137.8					132	255.8	2.3	
NR55RX	63	100	163.3	65	75	M12×18	123.6	53	36.5	120	16×23×20	141.9	250.2	3.3	14
NR55LRX			200.5		95		160.8					175.1	338.4	4.3	
NR65RX	75	126	186	76	70	M16×20	143.6	63	43	150	18×26×22	208.7	351.7	6	19.6
NR65LRX			246		110		203.6					268.9	505.5	8.5	

*Interchangeable in dimensions with the model SVR

Unit: mm

Model No.	External dimensions			LM block dimensions				LM rail dimensions				Basic Load Rating		Mass	
	Height M	Width W	Length L	B	C	S×ℓ	L ₁	Width W ₁ 0 -0.05	Height M ₁	Pitch F	d ₁ ×d ₂ ×h	C [kN]	C ₀ [kN]	LM block [kg]	LM rail [kg/m]
NRS25RX	31	50	82.8	32	35	M6×8	61.4	25	17	40	6×9.5×8.5	28.4	52.2	0.4	2.9
NRS25LRX			102		50		80.6					34.7	69.6	0.5	
NRS30RX	38	60	98	40	40	M8×10	72.1	28	21	80	7×11×9	41.9	75.2	0.7	4.2
NRS30LRX			120.5		60		94.6					51.2	100.2	0.9	
NRS35RX	44	70	109.5	50	50	M8×12	79	34	24.5	80	9×14×12	55.5	95.5	1	6
NRS35LRX			135		72		104.5					68.6	129.5	1.3	
NRS45RX	52	86	138.2	60	60	M10×17	105	45	29	105	14×20×17	84.4	151.4	1.8	9.5
NRS45LRX			171		80		137.8					101.1	195.9	2.3	
NRS55RX	63	100	163.3	65	75	M12×18	123.6	53	36.5	120	16×23×20	108.7	191.6	3.3	14
NRS55LRX			200.5		95		160.8					134.1	259.3	4.3	
NRS65RX	75	126	186	76	70	M16×20	143.6	63	43	150	18×26×22	159.8	269.4	6	19.6
NRS65LRX			246		110		203.6					206	387.2	8.5	

*Interchangeable in dimensions with the model SVS

Smaller fluctuation in the rolling resistance

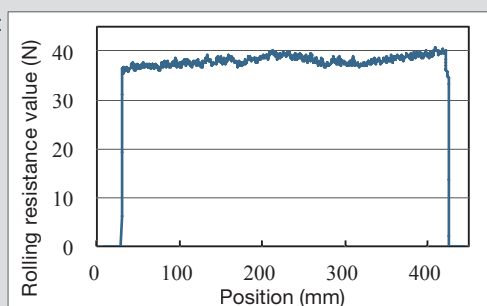
The fluctuation of the rolling resistance value is small, which results in stable operation.

Rolling resistance value measurement

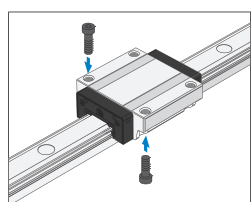
Test conditions

Model number	NRS45LRX-C0
Stroke [mm]	400
Speed [mm/s]	10

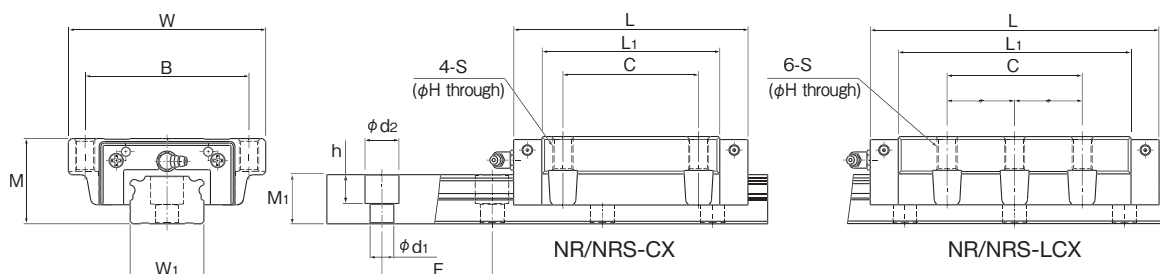
Measurement result



NR/NRS-CX/LCX



Install the LM block from either above or below



Unit: mm

Model No.	External dimensions			LM block dimensions					LM rail dimensions				Basic Load Rating		Mass	
	Height M	Width W	Length L	B	C	S	H	L ₁	Width W ₁ 0 -0.05	Height M ₁	Pitch F	d ₁ ×d ₂ ×h	C [kN]	C ₀ [kN]	LM block [kg]	LM rail [kg/m]
NR25CX	31	72	82.8	59	45	M8	6.8	61.4	25	17	40	6×9.5×8.5	37.1	68.1	0.6	2.9
NR25LCX			102					80.6					45.4	90.8	0.8	
NR30CX	38	90	98	72	52	M10	8.5	72.1	28	21	80	7×11×9	54.7	98.1	1.1	4.2
NR30LCX			120.5					94.6					66.9	130.8	1.5	
NR35CX	44	100	109.5	82	62	M10	8.5	79	34	24.5	80	9×14×12	72.4	124.6	1.6	6
NR35LCX			135					104.5					89.6	169.1	2	
NR45CX	52	120	138.2	100	80	M12	10.5	105	45	29	105	14×20×17	110.2	197.6	2.7	9.5
NR45LCX			171					137.8					132	255.8	3.6	
NR55CX	63	140	163.3	116	95	M14	12.5	123.6	53	36.5	120	16×23×20	141.9	250.2	4.5	14
NR55LCX			200.5					160.8					175.1	338.4	5.9	
NR65CX	75	170	186	142	110	M16	14.5	143.6	63	43	150	18×26×22	208.7	351.7	7.8	19.6
NR65LCX			246					203.6					268.9	505.5	11	

*Interchangeable in dimensions with the model SVR

Unit: mm

Model No.	External dimensions			LM block dimensions					LM rail dimensions				Basic Load Rating		Mass	
	Height M	Width W	Length L	B	C	S	H	L ₁	Width W ₁ 0 -0.05	Height M ₁	Pitch F	d ₁ ×d ₂ ×h	C [kN]	C ₀ [kN]	LM block [kg]	LM rail [kg/m]
NRS25CX	31	72	82.8	59	45	M8	6.8	61.4	25	17	40	6×9.5×8.5	28.4	52.2	0.6	2.9
NRS25LCX			102					80.6					34.7	69.6	0.8	
NRS30CX	38	90	98	72	52	M10	8.5	72.1	28	21	80	7×11×9	41.9	75.2	1.1	4.2
NRS30LCX			120.5					94.6					51.2	100.2	1.5	
NRS35CX	44	100	109.5	82	62	M10	8.5	79	34	24.5	80	9×14×12	55.5	95.5	1.6	6
NRS35LCX			135					104.5					68.6	129.5	2	
NRS45CX	52	120	138.2	100	80	M12	10.5	105	45	29	105	14×20×17	84.4	151.4	2.7	9.5
NRS45LCX			171					137.8					101.1	195.9	3.6	
NRS55CX	63	140	163.3	116	95	M14	12.5	123.6	53	36.5	120	16×23×20	108.7	191.6	4.5	14
NRS55LCX			200.5					160.8					134.1	259.3	5.9	
NRS65CX	75	170	186	142	110	M16	14.5	143.6	63	43	150	18×26×22	159.8	269.4	7.8	19.6
NRS65LCX			246					203.6					206	387.2	11	

*Interchangeable in dimensions with the model SVS

Example of model number coding

NRS25 RX 2 QZ TTHHYY C0 +200L P T -II GC

Model No.

LM block type

RX/LRX/
CX/LCX

Number of LM blocks
on one rail

With QZ lubricator

Dust protection option symbol
(See the following table)

Radial clearance symbol

Normal (no symbol)/Light preload (C1)/
Medium preload (C0)

With GC cap
Without GC cap
(no symbol)

Symbol for number of rails
used on the same plane
1 rail (no symbol)/2 rails (II)/
3 rails (III)...

LM rail joint symbol

Accuracy symbol

Normal grade (no symbol)/
High grade (H)/Precision grade (P)/
Super precision grade (SP)/
Ultra precision grade (UP)

LM rail length (in mm)

Dust protection option symbol

Symbol	Configuration of options
No Symbol	Without seal
UU	End Seal
SS	With end seal + side seal + inner seal
DD	With double seals + side seal + inner seal
ZZ	With end seal + side seal + inner seal + metal scraper
KK	With double seals + side seal + inner seal + metal scraper
SSHH	With end seal + side seal + inner seal + Laminated contact scraper LaCS
DDHH	With double seal + side seal + inner seal + Laminated contact scraper LaCS
JJHH	With end seal + side seal + inner seal + LaCS + Protector
TTHH	With double seal + side seal + inner seal + LaCS + Protector
JJHHYY	With end seal + side seal + inner seal + LaCS + Protector + Side scraper
TTHHYY	With double seal + side seal + inner seal + LaCS + Protector + Side scraper

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The search function to find your desired products and the technical calculation function to calculate the life of a product are available. 2D-CAD and 3D-CAD data can also be downloaded.

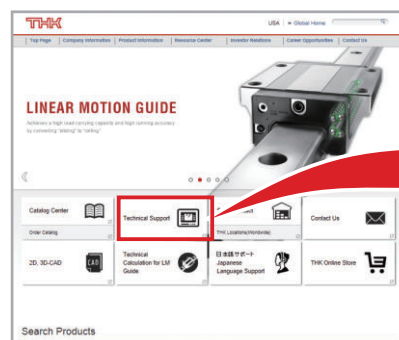
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or

THK

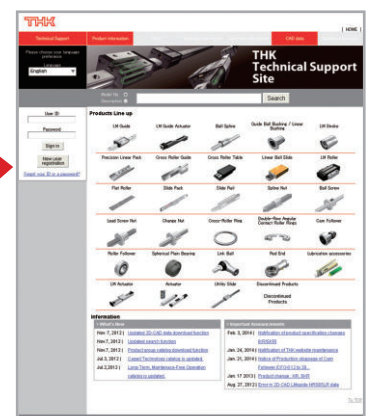
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