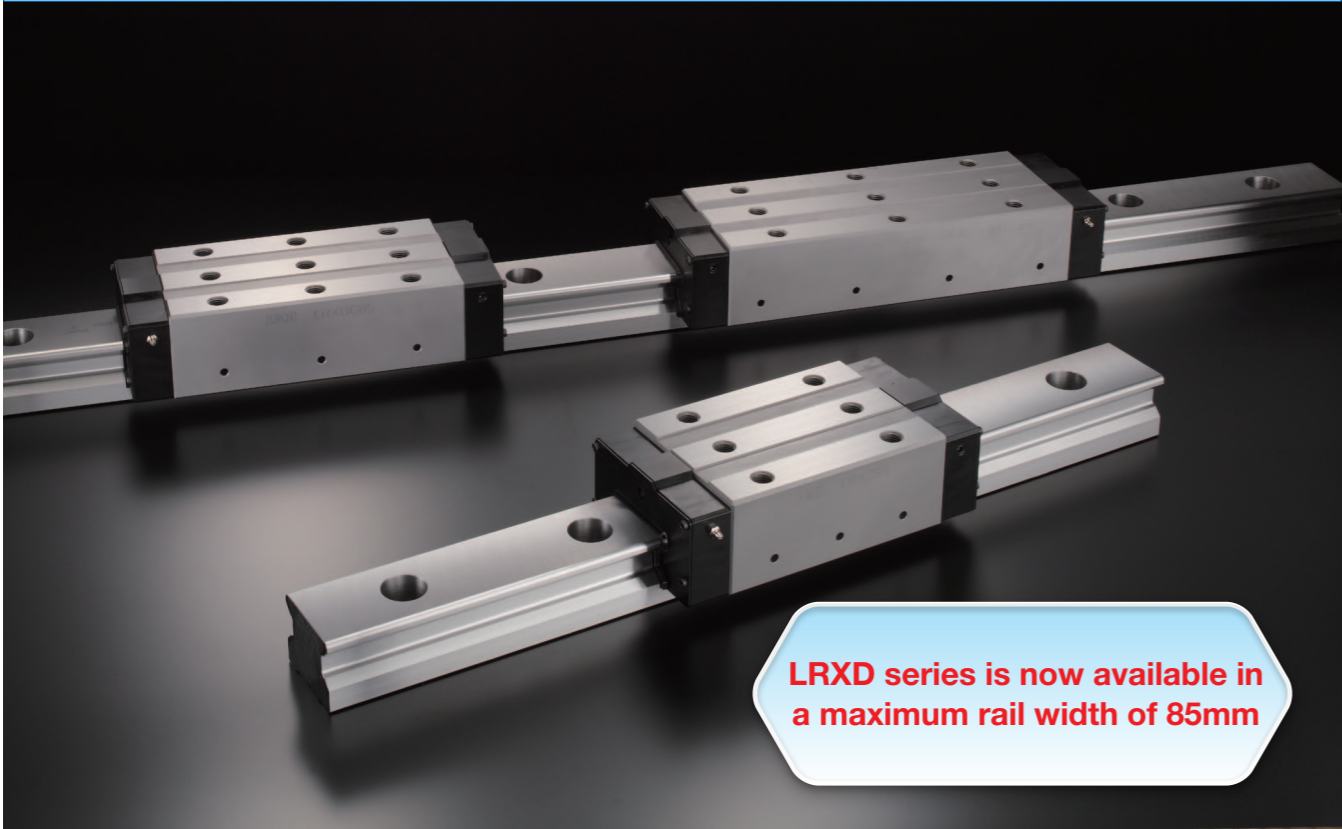
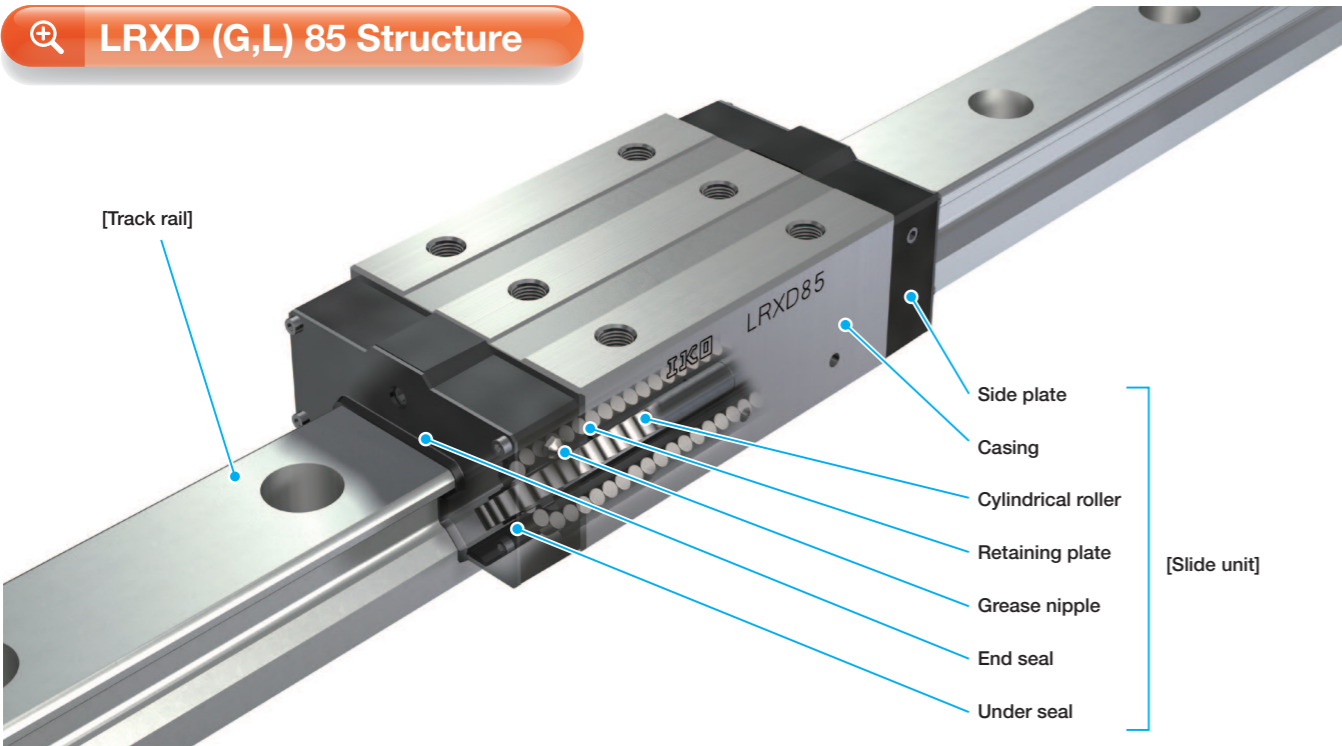


Linear Roller Way Super X  
LRXD (G,L) Size 85



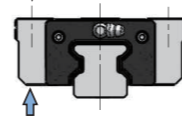
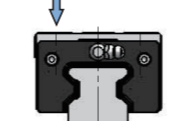
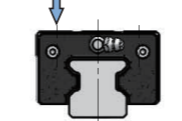
Patented

LRXD (G,L) 85 Structure



The roller type linear motion guide has the highest rigidity, load capacity, running accuracy and vibration damping properties of all guides. In the extra long unit that has the maximum slide unit length, load capacity and rigidity are improved and ultra high accuracy running performance is achieved.

Variation of LRX

Slide unit shape	Length of slide unit	Model	Size											
			10	12	15	20	25	30	35	45	55	65	85	100
	Short	LRXC	—	☆	☆	☆ <sup>(1)</sup>	☆	☆	☆	☆	☆	☆	—	—
	Standard	LRX	—	☆	☆	☆ <sup>(1)</sup>	☆	☆	☆	☆	☆	☆	○	—
	Long	LRXG	—	☆	☆	☆ <sup>(1)</sup>	☆	☆	☆	☆	☆	☆	○	○
	Extra long	LRXL	—	—	—	—	—	—	—	—	—	—	○	—
	Short	LRXDC	—	☆	☆	☆	☆	☆	☆	☆	☆	☆	—	—
	Standard	LRXD	—	☆	☆	☆	☆	☆	☆	☆	☆	☆	○	—
	Long	LRXDG	—	☆	☆	☆	☆	☆	☆	☆	☆	☆	○	—
	Extra long	LRXDL	—	—	—	—	—	—	—	—	—	—	○	—
	Short	LRXSC	—	—	☆	☆	☆	☆	—	—	—	—	—	—
	Standard	LRXS	—	—	☆	☆	☆	☆	—	—	—	—	—	—
	Long	LRXSG	—	—	☆	☆	☆	☆	—	—	—	—	—	—

Note<sup>(1)</sup> LRXC20, LRX20 and LRXG20 can only be mounted by the bolts from top. The models with the same dimensions allowing mounting from bottom are LRXHC20, LRXH20 and LRXHG20.

Remark: For models indicated with ☆, the interchangeable specification is available.

Features

1 Super high load capacity

The Linear Roller Way Super X has a large contact area with the way and more cylindrical rollers with excellent load capacity, which allow it to have a higher load rating.

2 Super high rigidity

The rigidity of a linear motion rolling guide is a key property that needs to be considered when incorporating it into a machine or device. The Linear Roller Way Super X utilizes cylindrical rollers that have smaller elastic deformation properties than steel balls, which equal higher rigidity.

3 Allows accurate positioning with excellent frictional characteristics

The Linear Roller Way Super X prevents skew of cylindrical rollers and achieves smooth motion by using a unique retaining method to accurately guide the cylindrical roller ends with the retaining plate. There is little frictional resistance under preload and loaded conditions, and cylindrical rollers have lower frictional characteristics compared to other linear motion rolling guides such as sliding guides or ball types, which provides better response when micro-feeding and accurate positioning.

4 High running accuracy

Optimal design based on analysis of re-circulation behavior of cylindrical roller circulation enables smooth and quiet motion. Because there are many cylindrical rollers that can share the applied load, they work together to minimize minor vibrations during operation. The extra-long unit is the best choice for applications that demand higher running accuracy.

Example of Identification Number

LRXD L 85 C1 R1620 T1 P /D

1 Model	
LRXD	Block type mounting from top
2 Length of slide unit	
No Symbol	Standard
G	Long
L	Extra long
3 Size	
85	
4 Number of slide units (C○)	
Indicates the number of slide units assembled on one track rail.	
5 Length of track rail (R○)	
Indicate the length of track rail in mm. For standard and maximum lengths, see Table 1.	

6 Preload amount	
See Table 2 for details regarding preloading.	
7 Accuracy class	
See Table 3 for accuracy classes.	
8 Special specification	
/A	Butt-jointing track rails
/D	Opposite reference surfaces arrangement
/E	Specified rail mounting hole positions
/F	Caps for rail mounting holes
/HP	Half pitch mounting holes for track rail
/I	Inspection sheet
/J	Female threads for bellows
/MN	Without track rail mounting bolt
/Q	With C-Lube plate
/V	Double end seals
/Y	Specified grease
/Z	Scraper

Remarks: See the Linear Motion Rolling Guide Series General Catalog CAT-1560 for information regarding special specifications.

Standard and maximum lengths of track rail

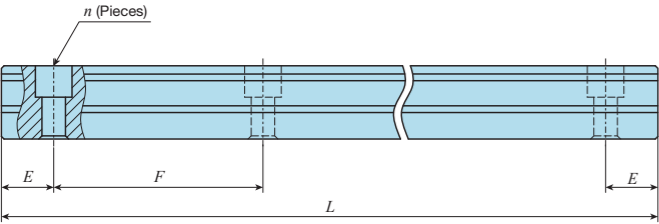


Table 1		Unit: mm
Item	Identification number	LRX85
Standard length $L(n)$		1 620 (9)
		1 980 (11)
		2 340 (13)
		2 700 (15)
Pitch of mounting holes $F$		180
$E^{(1)}$		90
$E$ standard dimension $^{(2)}$	or higher	23
	below	113
Maximum length		2 880

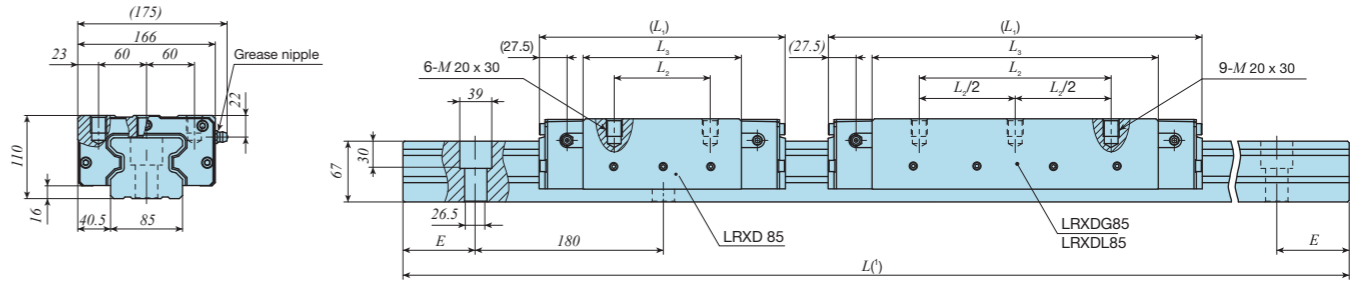
Note <sup>(1)</sup> If not directed,  $E$  dimensions for both ends will be the same within the range of standard  $E$  dimensions. To change the dimensions, indicate the specified rail mounting hole positions  $/E$  of special specification.  
Note <sup>(2)</sup> Female threads for bellows mounting (supplemental code:  $/J$ ) are not supported.

Preload amount

Item	Preload symbol	Preload amount N	Operating conditions
Standard	(No symbol)	0 <sup>(1)</sup>	· Light and precise motion
Light preload	T <sub>1</sub>	0.02C <sub>0</sub>	· Almost no vibration · Load is evenly balanced · Light and precise motion
Medium preload	T <sub>2</sub>	0.05C <sub>0</sub>	· Medium vibration · Medium overhang load applied
Heavy preload	T <sub>3</sub>	0.08C <sub>0</sub>	· Operates with vibration and/or impacts · Overhang load applied · Heavy cutting

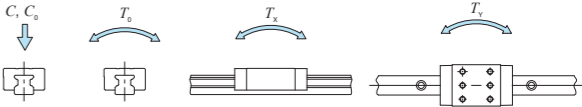
Note <sup>(1)</sup> Indicates zero or minimal amount of preload.  
Remark C<sub>0</sub> indicates the basic static load rating.

Dimensions



Identification number	Mass (Ref.) Slide unit kg	Track rail kg/m	Dimension of slide unit mm			Appended mounting bolt for track rail <sup>(2)</sup> Bolt size x $\ell$	Basic dynamic load rating <sup>(3)</sup> C N	Basic static load rating <sup>(3)</sup> C <sub>0</sub> N	Static moment rating <sup>(3)</sup>		
			L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>				T <sub>0</sub> N·m	T <sub>X</sub> N·m	T <sub>Y</sub> N·m
LRXD 85	19.9	36.7	323	140	232	M24 x 70	440 000	753 000	38 900	29 500 163 000	29 500 163 000
LRXDG 85	25.5		395	200	304		542 000	985 000	50 800	50 000 257 000	50 000 257 000
LRXDL 85	34.1		494	280	403		674 000	1 300 000	67 300	87 000 422 000	87 000 422 000

Note <sup>(1)</sup> For track rail lengths, see Table 1.  
Note <sup>(2)</sup> JIS B 1176-equivalent hexagon socket head bolts.  
Note <sup>(3)</sup> Basic dynamic load rating (C), basic static load rating (C<sub>0</sub>), static moment rating (T<sub>0</sub>, T<sub>X</sub>, T<sub>Y</sub>) direction values are shown in the figure to the right. The upper values of T<sub>X</sub> and T<sub>Y</sub> are for one slide unit and the lower values are for two slide units in close contact.  
Remarks: 1 The grease nipple is JIS type 2.  
2 The grease nipple mounting screws are located in 3 places each on the left and right side panels.



Accuracy class, tolerances, and allowable values

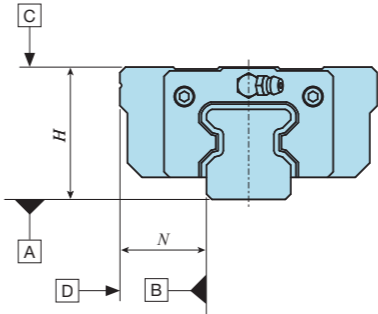


Table 3		Unit: mm			
Item	Class (Classification symbol)	High (H)	Precision (P)	Super precision (SP)	Ultra precision (UP)
H Dimension tolerance		±0.040	±0.020	±0.010	±0.008
N Dimension tolerance		±0.050	±0.025	±0.015	±0.010
H Dimension variation <sup>(1)</sup>		0.015	0.007	0.005	0.003
N Dimension variation <sup>(1)</sup>		0.020	0.010	0.007	0.003
Parallelism of the slide unit C surface to A surface during operation		See Fig. 1.			
Parallelism of the slide unit D surface to B surface during operation		See Fig. 1.			

Note <sup>(1)</sup> It means the size variation between slide units mounted on the same track rail.

Parallelism in operation

