


Linear Locks / Simplified Linear Locks

Linear Guide Lock Plates / Linear Guide Lock Units / Linear Guide Taper Locks

These linear locks press the rail strongly onto the datum plane to correct bending and avoid misalignment by external force. See below for application examples and mounting dimensions.

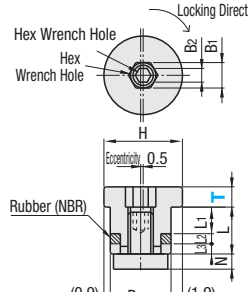
Linear Locks



RoHS 10

Type	Material	Surface Treatment
LLT	S45C	Electroless Nickel Plating
LLTR	(Thermal Refined) S45C	Low Temperature Black Chrome Plating
LLTS	SUS420J2	-

<How to Mount>
After turning B1 clockwise, turn B2 (inner screw) clockwise.



Hex Wrench Hole
Hex Wrench Hole
Locking Direction
Rubber (NBR)
Eccentricity 0.5
D17 (0.9)
L1 (1.9)

Applicable Linear Guides (Recommendation)					
Type	H	T1.4	T1.8	T3.5	T5
Miniature Standard Rail (C-VALUE included)	6	-	-	-	-
	8	-	-	-	-
	10	-	-	-	-
	13	-	-	-	-
	16	-	-	-	-
Miniature Wide Rail (C-VALUE included)	6.5	-	-	-	-
	9	-	-	-	-
	12	-	-	-	-
	14	-	-	-	-
	16	-	-	-	-
Medium/Heavy Load	24	-	-	-	-
	28	-	-	-	-
	30	-	-	-	-
	33	-	-	-	-
	36	-	-	-	-
	42	-	-	-	-
	45	-	-	-	-

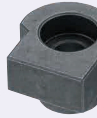
Type	H	T1.4	T1.8	T3.5	T5
C-VALUE Medium/Heavy Load	24	-	-	-	-
	28	-	-	-	-
	30	-	-	-	-
	33	-	-	-	-
	36	-	-	-	-

Part Number	Type	T	H	D ₇₇	L	N	L1	L2	L3	B1	B2	Mounting Hole Dimension	D1	F(min)	W	Max. Allowable Tightening Torque (N·cm)	Max. Allowable Push Force (N)	Mass (g)	LLT Unit Price (1-9 pcs)	LLTR Unit Price (10-200 pcs)	LLTS Unit Price (10-50 pcs)	
LLT LLTR LLTS		1.4	12.8	10	-0.013	8	2.5	5	1.4	1.6	5	2.5	10	11	6.5	3.8	78	7				
		1.8			-0.028												4.9	101	7			
		3.5			-0.034												9.6	196	8			
		5	14.8	12	-0.034	9		6					12	12	7.5	15.8	323	14				

For orders larger than indicated quantity, please request a quotation.

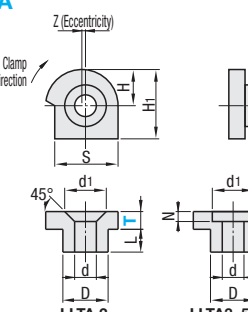
These linear locks come with mounting screws to be inserted. See below for application examples and mounting dimensions.

Simplified Linear Locks



RoHS 10

Type	Material	Surface Treatment	Accessory
LLTA	S45C (Thermal Refined)	CZ Coating	Mounting Screw



Z (Eccentricity)
Clamp
Rotating Direction
45°
d1
D
LLTA 2
LLTA3, 5, 7

Applicable Linear Guides (Recommendation)					
Type	H	T2	T3	T5	T7
Miniature Standard Rail (C-VALUE included)	6	-	-	-	-
	8	-	-	-	-
	10	-	-	-	-
	13	-	-	-	-
	16	-	-	-	-
Miniature Wide Rail (C-VALUE included)	6.5	-	-	-	-
	9	-	-	-	-
	12	-	-	-	-
	14	-	-	-	-
	16	-	-	-	-
Medium/Heavy Load	24	-	-	-	-
	28	-	-	-	-
	30	-	-	-	-
	33	-	-	-	-
	36	-	-	-	-
	42	-	-	-	-
	45	-	-	-	-

Type	H	T2	T3	T5	T7
C-VALUE Medium/Heavy Load	24	-	-	-	-
	28	-	-	-	-
	30	-	-	-	-
	33	-	-	-	-
	36	-	-	-	-

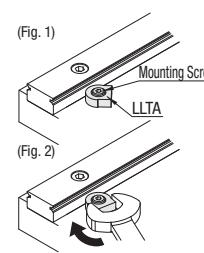
Part Number	Type	T	L	D _{-0.01-0.06}	H	H1	S	Z	d	d1	N	Mounting Hole Dimension	D1	W	F	M	G (min)	Mass (g)	Mounting Screw	Max. Allowable Push Force (N)	Max. Allowable Tightening Torque (N·cm)	Unit Price (1-9 pcs)	Volume Discount Rate (10-150 pcs)
LLTA		2	2.8	5	4	8	7	0.4	2.4	4.6	-	5	4	3	M2	5	1	70	2.8	70	2.8		
		3	3.8	7	6	12	11	0.5	3.4	6.2	2	7	6	4	M3	6	3	157	7.9	157	7.9		
		5	4.8	9	7	14	13	0.5	4.5	8	3	9	7	5	M4	6	6	306	15.3	306	15.3		
		7	5.8	11	8	18	14	0.5	5.5	9.5	4	11	8	6	M5	8	13	488	24.4	488	24.4		

For orders larger than indicated quantity, please request a quotation.

Ordering Example

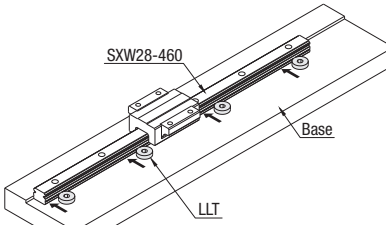
Part Number: LLT5 LLTA7

- ### LLTA (Simplified Linear Locks) Mounting Procedures
- (1) Drill holes for mounting linear locks on the base (Refer to Mounting Hole Dimensions).
 - (2) Temporarily tighten the rail screws.
 - (3) Insert the mounting screws in LLTA and temporarily tighten (Fig. 1).
 - (4) Turn the LLTA shoulder clockwise with a wrench and press the rail onto the datum plane (Fig. 2).
 - (5) Fully tighten the rail screws.
 - (6) Fully tighten the LLTA mounting screws.

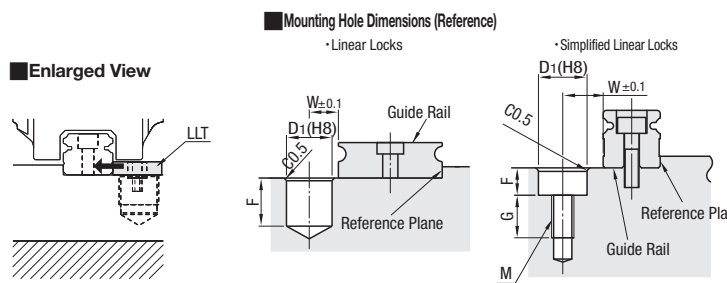


Example

Linear Lock Example




SXW28-460
Base
LLT



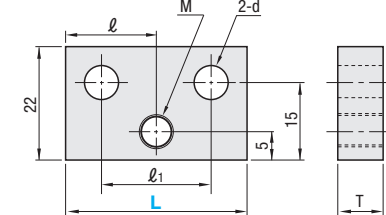
Press the rail onto the datum plane by turning the linear locks.

This plate secures the table and the datum plane of blocks to avoid misalignment from external force.

Linear Guide Lock Plates

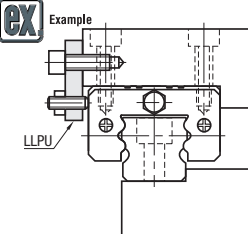


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22, L, L1, d, M, 2-d, 15, 5, T

Type	Material	Surface Treatment
LLPU	S45C Equivalent	Electroless Nickel Plating




Part Number	Type	L	T	ℓ	ℓ1	d	M	Unit Price (1-9 pcs)	Volume Discount Rate (10-50 pcs)	51~
LLPU		23	6	11.5	11	5.5	5			To Be Quoted on WOS
		28		14.0	15					
		33		16.5	20					
		43	9	21.5	30					

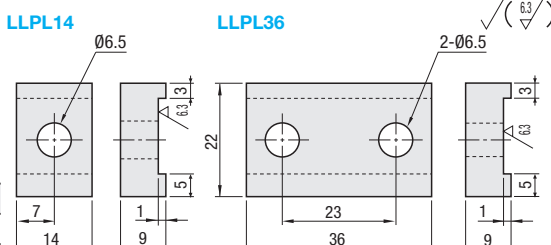
For orders larger than indicated quantity, please request a quotation.

This plate secures the rail and the pedestal to avoid misalignment from external force.

Linear Guide Lock Plates

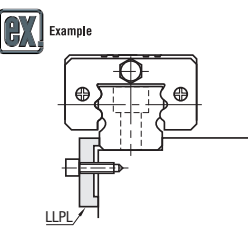


RoHS 10



LLPL14, LLPL36, 06.5, 22, 2-06.5, 7, 14, 1, 9, 23, 36, 1, 9

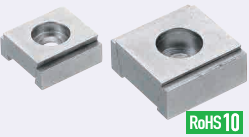
Part Number	Type	Nominal	Unit Price (1-9 pcs)	Volume Discount Rate (10-150 pcs)	151~
LLPL		14			To Be Quoted on WOS
		36			



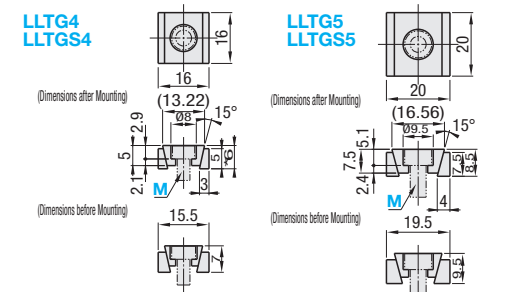
For orders larger than indicated quantity, please request a quotation.

This plate secures the rail and the pedestal to avoid misalignment from external force.

Linear Guide Lock Units

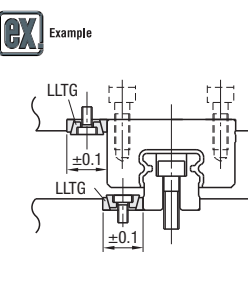


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LLTG4 LLTGS4, LLTG5 LLTGS5, 16, 20, 13.22, 15°, 16.56, 15°, 15.5, 19.5, 7.5, 5.1, 2.4, 4, 15.5, 19.5

Type	Material	Surface Treatment
LLTG	S45CD	Electroless Nickel Plating
LLTGS	SUS304	-



*6 is the dimension when using low head cap screw.
The dimension is 7.1 when using a standard hex socket head cap screw.

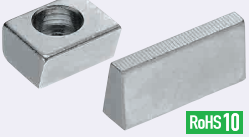
Part Number	Type	M	(Recommendation) Tightening Torque (N·m)	Rail Clamp Force (kN)	LLTG Unit Price (1-9 pcs)	Volume Discount Rate (10-100 pcs)	LLTGS Unit Price (1-9 pcs)	Volume Discount Rate (10-50 pcs)
LLTG LLTGS		4	2	3.2				
		5	8	9				

LLTG components are held together by elastic adhesive. Install as shipped.

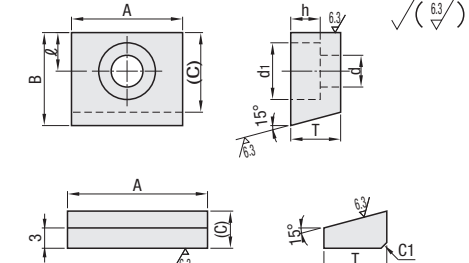
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By strongly pressing the rails or blocks on datum surfaces to avoid misalignment from external force.

Linear Guide Taper Locks

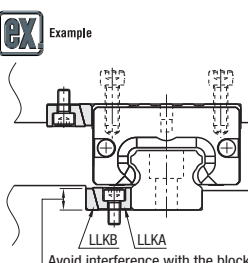


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LLKA, LLKB, A, B, T, (C), ℓ, d, d1, h, 6.3, 15°, 6.3, C1, 3

Type	Material	Surface Treatment
LLKA	S45C	Electroless Nickel
LLKB	Equivalent	Plating



Avoid interference with the block.

Part Number	Type	No.	A	B	T	(C)	ℓ	d	d1	h	Unit Price (1-9 pcs)	Volume Discount Rate (10-100 pcs)	101~
LLKA		5	20	16	9	13.6	7	5.5	9.5	5.5			To Be Quoted on WOS
		6	22	18	11	15.1	7.5	6.5	11	6.5			
LLKB		5	20	-	9	5.41	-	-	-	-			To Be Quoted on WOS
		6	22	-	11	5.95	-	-	-	-			

Part Number: LLPU23 LLTG4 LLKA6