


# Linear Locks / Simplified Linear 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.

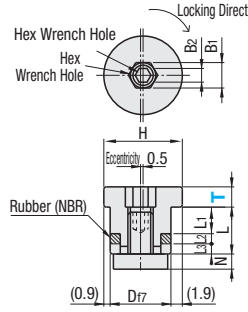
### Linear Locks



**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  
Excentricity 0.5  
Rubber (NBR)  
(0.9) D17 (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	-	-	-	-
Medium/Heavy Load	16	-	-	-	-
	24	-	-	-	-
	28	-	-	-	-
	30	-	-	-	-
	33	-	-	-	-
	36	-	-	-	-

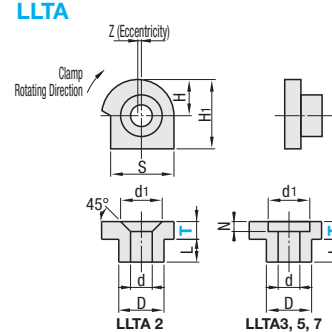
Part Number		H	D17	L	N	L1	L2	L3	B1	B2	Mounting Hole Dimension		Max. Allowable Tightening Torque (N·cm)	Max. Allowable Push Force (N)	Mass (g)	LLT	LLTR	LLTS			
Type	T										D1	F(m)	W			Unit Price (1-9 pcs)	Unit Price (10-200 pcs)	Unit Price (1-9 pcs)	Unit Price (10-50 pcs)	Unit Price (1-9 pcs)	Unit 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.

### Simplified Linear Locks



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



LLTA  
Z (Eccentricity)  
Clamp  
Rotating Direction  
45°  
d1  
d  
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	-	-	-	-
Medium/Heavy Load	16	-	-	-	-
	24	-	-	-	-
	28	-	-	-	-
	30	-	-	-	-
	33	-	-	-	-
	36	-	-	-	-

Part Number		L	D	H	H1	S	d	d1	N	Mounting Hole Dimension					Mass (g)	Mounting Screw	Max. Allowable Push Force (N)	Max. Allowable Tightening Torque (N·cm)	Unit Price (1-9 pcs)	Unit Price (10-150 pcs)
Type	T		-0.01 -0.06							D1	W	F	M	G (mm)						
LLTA	2	2.8	5	4	8	7	0.4	2.4	4.6	-	5	4	3	M2	5	1	Phillips Flat Head Screws M2x8	70	2.8	
	3	3.8	7	6	12	11	0.5	3.4	6.2	2	7	6	4	M3	6	3	Hex Socket Low Head Cap Screw M3x10	157	7.9	
	5	4.8	9	7	14	13	0.5	4.5	8	3	9	7	5	M4	6	6	Hex Socket Low Head Cap Screw M4x12	306	15.3	
	7	5.8	11	8	18	14	0.5	5.5	9.5	4	11	8	6	M5	8	13	Hex Socket Low Head Cap Screw M5x16	488	24.4	

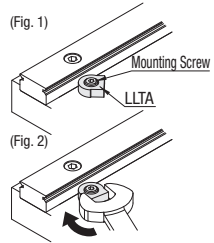
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**Ordering Example**

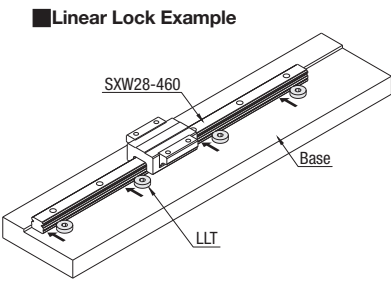
Part Number  
**LLT5  
LLTA7**

### 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.

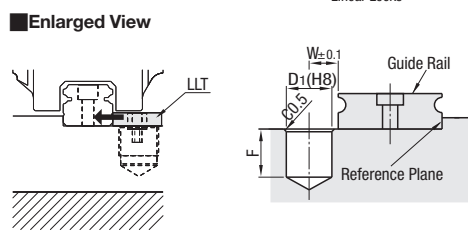


### Example

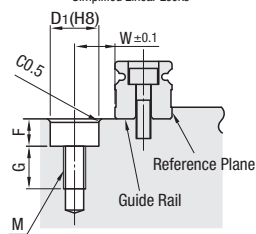


### Mounting Hole Dimensions (Reference)

Linear Locks



### Simplified Linear Locks



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