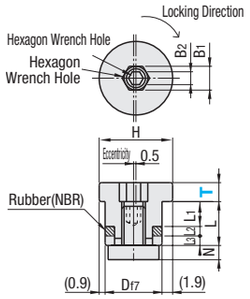
CAD Data Folder Name: 07_Linear_Guides

This linear rock presses the rail strongly onto the datum plane to correct bending and avoid misalignment by external force. See below for installation examples and diagrams. Press the rail onto the datum plane.

Linear Locks RoHS

Type	M Material	S Surface Treatment
LLT	S45C	Electroless Nickel Plating
LLTR	(Thermal Refined)	Raydent
LLTS	SUS420J2	-

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



Applicable Linear Guides (Recommendation)

Type	H	T1.4	T1.8	T3.5	T5
Miniature Standard Rails	6	○	-	-	-
	8	○	-	-	-
	10	-	○	-	-
	13	-	○	-	-
	16	-	-	○	-
	20	-	-	○	-
Miniature Wide Rails	6.5	○	-	-	-
	9	-	○	-	-
	12	-	○	-	-
	14	-	○	-	-
	16	-	○	-	-
Medium and Heavy Load	24	-	-	○	-
	28	-	-	-	○
	30	-	-	○	-
	33	-	-	-	○
	36	-	-	-	○
	42	-	-	-	○

Part Number Type	T	H	Dr7		L	N	L1	L2	L3	B1	B2	Mounting Hole Dimensions D1	F (min)	W	(Recommendation) Tightening Torque Ncm	(Recommendation) Clamp Power KN	Mass (g)	LLT Unit Price Qty. 1~9	LLT Volume Discount Rate Qty. 10~200	LLTR Unit Price Qty. 1~9	LLTR Volume Discount Rate Qty. 10~50	LLTS Unit Price Qty. 1~9	LLTS Volume Discount Rate Qty. 10~50
LLT LLTR LLTS	1.4	12.8	10	-0.013 -0.028	8	2.5	5	1.4	1.6	5	2.5	10	11	6.5	90	1.8	7	314	301	437	415	446	424
	1.8														120	2.5	7						
	3.5														190	3.9	8						
	5	14.8	12	-0.016 -0.034	9		6					12	12	7.5	270	5.5	14						

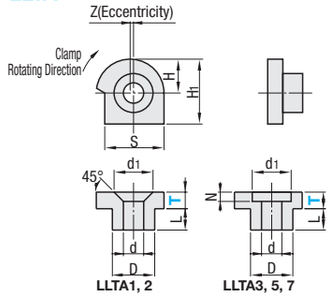
For orders larger than indicated quantity, please request a quotation.

This linear lock comes with mounting screws to be inserted. See below for installation examples and diagrams.

Simplified Linear Locks

M Material: S45C (Thermal Refined)
S Surface Treatment: CZ Coating (p.279)
A Accessory: Mounting Screw

LLTA



Applicable Linear Guides (Recommendation)

Type	H	T1	T2	T3	T5	T7
Miniature Standard Rails	6	○	-	-	-	-
	8	○	-	-	-	-
	10	-	○	-	-	-
	13	-	○	-	-	-
	16	-	-	○	-	-
	20	-	-	-	-	-
Miniature Wide Rails	6.5	○	-	-	-	-
	9	○	-	-	-	-
	12	-	○	-	-	-
	14	-	○	-	-	-
	16	-	○	-	-	-
Medium and Heavy Load	24	-	-	○	-	-
	28	-	-	-	○	-
	30	-	-	○	-	-
	33	-	-	-	○	-
	36	-	-	-	○	-
	42	-	-	-	-	○

Part Number Type	T	L	D -0.01 -0.06	H	H1	S	Z	d	d1	N	Mounting Hole Dimensions D1	W	F	M	G(min)	Mass (g)	Mounting Screws	(Recommendation) Clamp Power kN	Unit Price Qty. 1~9	Volume Discount Rate Qty. 10~150
LLTA	1	2.8	5	4	8	7	0.4	2.4	4.6	-	5	4	3	M2	5	0.6	Phillips head countersunk screws M2x8	1	219	160
	2															1		1.2	228	169
	3	3.8	7	6	12	11	0.5	3.4	6.2	2	7	6	4	M3	6	3	Hexagon Socket Low Head Cap Screws M3x10	2.4	237	178
	5	4.8	9	7	14	13	0.5	4.5	8	3	9	7	5	M4	6	6	Hexagon Socket Low Head Cap Screws M4x12	3.8	255	192
	7	5.8	11	8	18	14	0.5	5.5	9.5	4	11	8	6	M5	8	13	Hexagon Socket Low Head Cap Screws M5x16	5.8	278	205

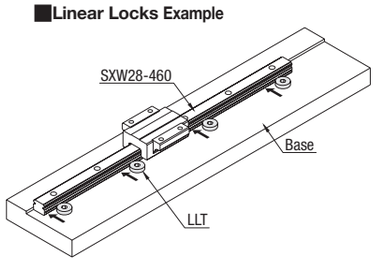
For orders larger than indicated quantity, please request a quotation.

Order Example Part Number: LLT5, LLTA7

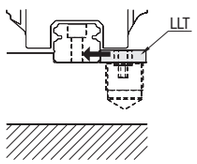
Delivery 5 Days P.87

Example

Linear Locks Example



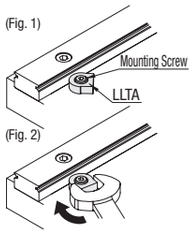
Enlarged View



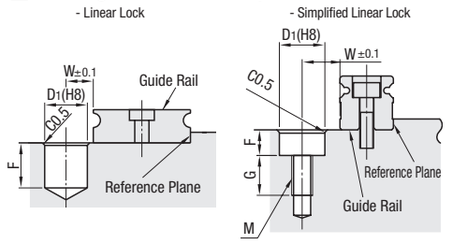
- Press the rail onto the datum plane by turning the linear locks.

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.



Mounting Hole Dimensions (Reference)

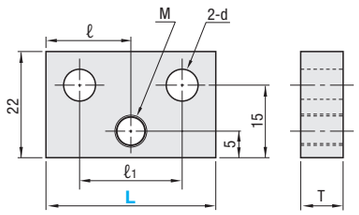


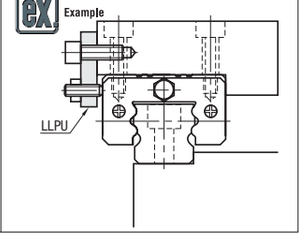
CAD Data Folder Name: 07_Linear_Guides

Linear Lock Plates

RoHS

Type	M Material	S Surface Treatment
LLPU	S45CD	Electroless Nickel Plating





Part Number Type	L	T	ℓ	ℓ1	d	M	Unit Price Qty. 1~9	Volume Discount Rate Qty. 10~50
LLPU	23	6	11.5	11	5.5	5	328	169
	28		14.0	15	6.5		369	192
	33		16.5	20			369	192
	43	9	21.5	30			410	214

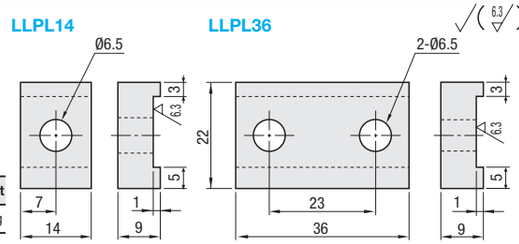
For orders larger than indicated quantity, please request a quotation.

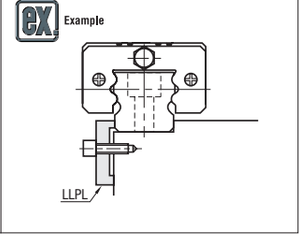
Linear Lock Plates

RoHS

Type	M Material	S Surface Treatment
LLPL	S45CD	Electroless Nickel Plating

LLPL14 LLPL36





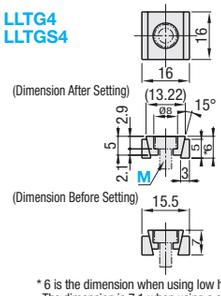
Part Number Type	Nominal	Unit Price Qty. 1~9	Volume Discount Rate Qty. 10~150
LLPL	14	228	219
	36	273	260

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

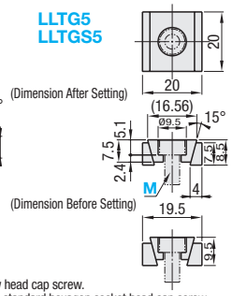
Linear Guides Lock Unit RoHS

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

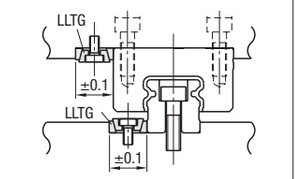
LLTG4 LLTGS4



LLTG5 LLTGS5



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



Part Number Type	M	(Recommendation) Tightening Torque (N·m)	Rail Clamp Force (kN)	LLTG Unit Price Qty. 1~9	LLTG Volume Discount Rate Qty. 10~100	LLTGS Unit Price Qty. 1~9	LLTGS Volume Discount Rate Qty. 10~50
LLTG LLTGS	4	2	3.2	337	319	660	628
	5	8	9	355	337	692	656

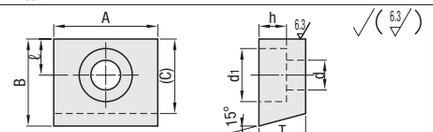
For orders larger than indicated quantity, please request a quotation.

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

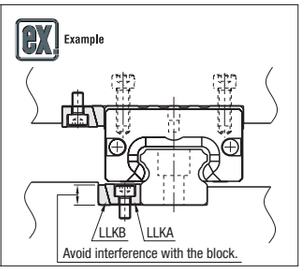
Linear Guide Taper Locks RoHS

Type	M Material	S Surface Treatment
LLKA	S45CD	Electroless Nickel Plating
LLKB	S45C	

LLKA



LLKB



Part Number Type	No.	A	B	T	(C)	ℓ	d	d1	h	Unit Price Qty. 1~9	Volume Discount Rate Qty. 10~100
LLKA	5	20	16	9	13.6	7	5.5	9.5	5.5	160	151
	6	22	18	11	15.1	7.5	6.5	11	6.5	182	173
LLKB	5	20	-	9	5.41	-	-	-	-	101	10
	6	22	-	11	5.95	-	-	-	-	105	101

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

Part Number: LLPU23, LLTG4, LLKA6

5 Days P.87