

# Linear Bushings

## Short, Medium

= For customers selecting MISUMI original specifications =  
 The part enclosed in the red frame is as per standard specifications (Outer cylinder SUJ2 equivalent, Retainer resin). Consider these specifications while selecting the product.

Features: Shorter length (L dim.) compared to Single Type enables length space savings.

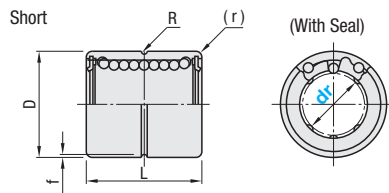
### MISUMI Original

#### Short



RoHS 10

Type	Outer Cylinder			Balls	Retainer	Ambient Operating Temp.	Accessory
Short	Material	Hardness	Surface Treatment	Material	Material		Material
LMUT	SUJ2 Equivalent	58HRC~	-	SUJ2 Equivalent	Plastic (Duracon M90 Equivalent)	-20~80°C	Seal Material: Nitrile Rubber (-20~120°C)
SLMUT	SUS440C Equivalent	56HRC~	-	SUS440C Equivalent			



- Features of Short Type**
- The housing can be made more compact.
  - The L dimensions are made to match MISUMI's standard plates.

#### Short

Type	Part Number		D Tolerance		L Tolerance		R	f	(r)	Eccentricity (Max.)	Rows of Balls	Basic Load Rating		Mass (g)
	dr	Tolerance	No Surface Treatment	Surface Treatment								C (Dynamic) N	Co (Static) N	
LMUT SLMUT	6	0 -0.009	12	0	16	0 -0.2	1	0.3	0.4	0.012	4	113	155	6.6
	8		15	-0.011	20		155					226	14.7	
	10		19		25		254					359	26.1	
	12		21	0	25		317					407	28.6	
	13		23	-0.013	30		320					413	36.3	
	16		28		30		582					724	60.0	
20	0 -0.010	32	0 -0.016	35		1.5	0.5	0.8	0.015	5	777	1034	81.6	

For Precautions for Use, see P.303  
 Short guiding section not suitable for which large moment loads apply. kgf=Nx0.101972

Features: Body length is approximately 1.5 times of single type, and allowable moment is approximately 4.3 times. Suitable for applications where there is no enough space for double type.

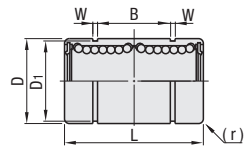
### MISUMI Original

#### Medium



RoHS 10

Type	Outer Cylinder			Balls	Retainer	Ambient Operating Temp.	Accessory
Straight	Material	Hardness	Surface Treatment	Material	Material		Material
LMUD	SUJ2 Equivalent	58HRC~	-	SUJ2 Equivalent	Plastic (Duracon M90 Equivalent)	-20~80°C	Seal Material: Nitrile Rubber
LMUDM			Electroless Nickel Plating	SUS440C Equivalent			



Body length is approximately 1.5 times of single type, and allowable moment is approximately 4.3 times. (See Allowable Load Comparison)

#### Medium

Type	Part Number		D Tolerance		L Tolerance		B Tolerance		W	D1	(r)	Eccentricity (Max.)	Rows of Balls	Basic Load Rating		Allowable Static Moment (N·m)	Mass (g)								
	dr	Tolerance	No Surface Treatment	Surface Treatment										C (Dynamic) N	Co (Static) N										
LMUD LMUDM	6	0 -0.010	12	0	29	0 -0.3	20	0	1.1	11.5	0.4	0.015	4	226	310	1.42	12								
	8		15	-0.013	37		25							310	452	2.12	27								
	10		19		47		30							508	718	4.37	49								
	12		21	0	47		30							634	814	6.2	54								
	13		23	-0.016	-0.021		35							640	826	6.2	69								
	16		28				35							1164	1448	13.1	112								
	20		32	0	0		40							1554	2068	18.3	152								
	25		40	0	0		55							1725	3068	25.3	332								
	30		0 -0.012	45	-0.019		-0.025							90	71.3	-0.6	1.85	42.5	2.0	0.02	6	2440	3974	42.7	422

For Precautions for Use, see P.303 kgf=Nx0.101972

dr	Unit Price			
	Short		Medium	
	LMUT	SLMUT	LMUD	LMUDM
6				
8				
10				
12				
13				
16				
20				
25				
30				

#### Part Number

LMUT8  
 LMUD10  
 LMUDM12L (L Type Greased)

Alternative grease types available.  
 For Days to Ship, Price and Performance, see P.304

# Linear Bushings - Compact

## Single / Double

= For customers selecting MISUMI original specifications =  
 The products on this page are of standard specifications (Outer cylinder SUJ2 equivalent, Retainer resin). Consider these specifications while selecting the product.

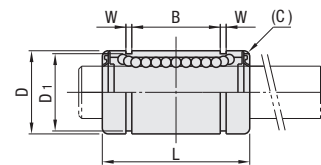
Features: 2mm smaller in O.D. (D dimension) than Standard.

### MISUMI Original

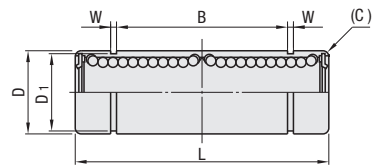


Type		Outer Cylinder		Balls	Retainer	Ambient Operating Temp.	Accessory
Single	Double	Material	Hardness	Material	Material		Material
LMK	LMKW	SUJ2 Equivalent	58HRC~	SUJ2 Equivalent	Plastic (Duracon M90 Equivalent)	-20~80°C	Seal Material: Nitrile Rubber (-20~120°C)

#### Single



#### Double



#### Single

Type	Part Number		D Tolerance		L Tolerance		B Tolerance		W	D1	(C)	Eccentricity (Max.)	Rows of Balls	Basic Load Rating		Mass (g)	Unit Price
	dr	Tolerance	No Surface Treatment	Surface Treatment										C (Dynamic) N	Co (Static) N		
LMK	6	0 -0.009	10	0 -0.009	19	0 -0.2	11.3	0 -0.4	1.15	9.6	0.1	0.012	6	131	155	6	
	8		13	0	24		15.3							235	277	12	
	10		17	-0.011	29		19.4							368	433	26	
	12		19	0	30		20.4							381	449	32	
	16		26	-0.013	37		23.3							608	716	58	

#### Double

Type	Part Number		D Tolerance		L Tolerance		B Tolerance		W	D1	(C)	Eccentricity (Max.)	Rows of Balls	Basic Load Rating		Allowable Static Moment (N·m)	Mass (g)	Unit Price
	dr	Tolerance	No Surface Treatment	Surface Treatment										C (Dynamic) N	Co (Static) N			
LMKW	6	0 -0.010	10	0 -0.009	35	0 -0.3	24.8	0 -0.5	1.15	9.6	0.1	0.015	6	206	309	2.46	12	
	8		13	0	45		32.8							383	555	5.76	24	
	10		17	-0.011	55		41.4							585	867	10.99	52	
	12		19	0	57		43.4							608	899	11.85	64	
	16		26	-0.013	70		49.8							965	1431	23.48	116	

For Precautions for Use, see P.303 kgf=Nx0.101972



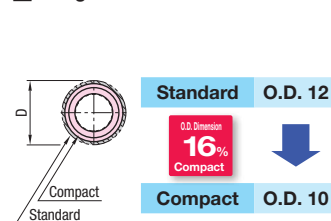
#### Part Number

- LMK12
- LMKW12
- LMK12L (L Type Greased)
- LMK12G (G Type Greased)
- LMK12H (H Type Greased)

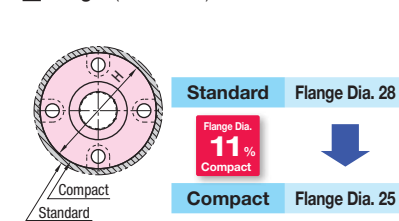
Alternative grease types available.  
 For Days to Ship, Price and Performance, see P.304

### Dimension comparison of Compact and Standard (When dr=6)

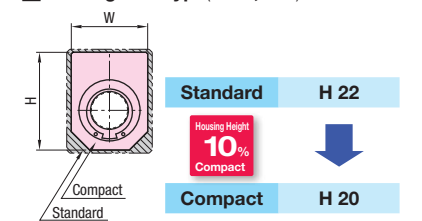
#### Straight



#### Flanged(P.305~314)



#### Housing Unit Type(P.321, 322)



### Standard and Compact Comparison

dr	Straight / Flanged			Flanged			Housing Unit						Rows of Balls	
	O.D. (D)			Flange Dia. (H)			Width (W)			Height (H)				
	Compact	Standard	Difference	Compact	Standard	Difference	Compact	Standard	Difference	Compact	Standard	Difference	Compact	Standard
6	10	12	-2	25	28	-3	14	16	-2	20	22	-2	6	4
8	13	15	-2	28	32	-4	17	20	-3	24	26	-2	6	4
10	17	19	-2	35	40	-5	23	26	-3	30	32	-2	6	4
12	19	21	-2	38	42	-4	25	28	-3	32	34	-2	6	4
16	26	28	-2	44	48	-4	33	36	-3	43	49	-6	6	4