

Linear Bushings - Standard

- Double -

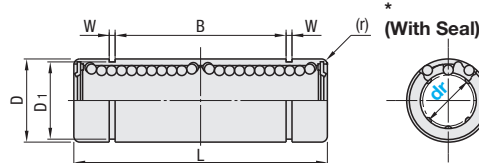
Comparison Points with Similar Products | Linear Bushings for applications required high accuracy.

Features: The most common specification of Linear Bushing.

Ordering Example
Part Number
LMUW6



Type	Outer Cylinder			Ball	Retainer	Ambient Operating Temp.	Accessory
	Material	Hardness	Surface Treatment				
LMUW-N	SUJ2 Equivalent	58HRC~	-	SUJ2 Equivalent	Plastic (Duracon M90 Equivalent)	-20~ 80°C	*Seal Material Nitrile Rubber (-20~120°C)
LMUW					Stainless Steel (SUS)	-20~110°C	
LMUWF				Electroless Nickel Plating	Plastic (Duracon M90 Equivalent)	-20~ 80°C	
LMUWR					Stainless Steel (SUS)	-20~110°C	
LMUWM	SUS440C Equivalent	56HRC~	-	SUS440C Equivalent	Plastic (Duracon M90 Equivalent)	-20~ 80°C	
LMUWMF					Stainless Steel (SUS)	-20~110°C	
LMUW					Stainless Steel (SUS)	-20~120°C	



Part Number			D Tolerance			L		B		W	D ₁	(r)	Eccentricity (Max.)	Rows of Balls	Mass (g)
Type	dr	Tolerance	No Surface Treatment	Surface Treatment	Tolerance	Tolerance									
LMUW LMUWF LMUWR LMUWM LMUWMF SLMUW SLMUWS LMUW-N (No Seal)	3	0 -0.010	7	0	19	-	-	-	-	0.3	0.010	4	3.2		
	4		8	-0.011	23	-	-	-	-	4.8					
	5		10	-0.015	28	18.2	-	-	9.6	11					
	6		12	0	35	24.8	1.1	11.5	14.3	16					
	8		15	-0.013	45	32.8	0	18	18	31					
	10		19	-0.018	55	41.4	-0.5	20	22	62					
	12	0 -0.012	21	0	57	43.4	1.3	27	30.5	0.015	0.020	5	80		
	13		23	-0.016	61	49.8	1.6	38	43				90		
	16		28	-0.021	70	57.8	1.85	49	57				145		
	20		32	0	80	78.3	2.1	57	79.5				180		
	25		40	-0.019	112	85.3	2.6	76.5	117.0				440		
	30		45	-0.025	123	94.8	2.6	76.5	117.0				480		
LMUW LMUWM	35	0 -0.015	52	0	135	94.8	-0.6	49	57	1.5	0.025	6	795		
	40		60	-0.022	151	116.8	2.1	57	1170						
	50		80	-0.030	192	142.8	2.6	76.5	3100						

⚠ No dr=3 and 4 for LMUW-N and LMUWR.
⚠ No seal for dr=3 and 4. No-Seal Type has lower sliding resistance (0.4 ~ 1.2N) and moves smoothly. To prevent intrusion of dust on sliding contact surface, dust resistance measures should be taken separately.
⚠ For Low Temperature Black Chrome Plating, refer to P.222. ⚠ Spacers and Holding Plates for linear bushings can be selected from P.238. ⚠ For Precautions for Use, refer to P. 221.

Basic Load Rating

dr	Basic Load Rating		Allowable Static Moment (N·m)
	C (Dynamic) N	Co (Static) N	
3	324	529	2.18
4	431	784	4.31
5	588	1100	7.24
6	657	1200	10.9
8	813	1570	11.6
10	1230	2350	19.7
12	1400	2740	26.8
13	1560	3140	43.4
16	2490	5490	82.8
20	2650	6270	110
25	3430	8040	147
30	6080	15900	397

kgf=Nx0.101972

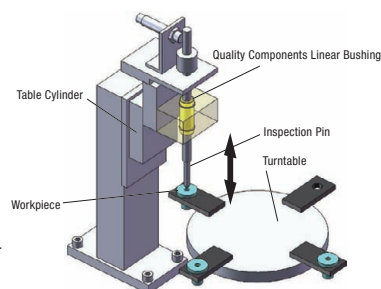
Recommended Tolerance of Shaft Dia. and Housing Dia.

dr	Shaft Dia.		Housing Dia.
	g6 Tolerance	H7 Tolerance	
3	-0.002 -0.008	7	+0.015
4	-0.004 -0.010	8	0
5	-0.004 -0.012	10	+0.018
6	-0.005 -0.014	12	0
8	-0.005 -0.014	15	+0.021
10	-0.006 -0.017	19	0
12	-0.006 -0.017	21	+0.025
13	-0.006 -0.017	23	0
16	-0.007 -0.020	28	+0.030
20	-0.007 -0.020	32	0
25	-0.007 -0.020	40	+0.030
30	-0.009 -0.025	45	0
35	-0.009 -0.025	52	+0.030
40	-0.009 -0.025	60	0
50	-0.009 -0.025	80	0

*The above tolerance is recommended for fitting with shaft and assembly of housing.



Example <Quality Components>
App. example of inspection device to verify hole accuracy of workpiece



MiSUMI
C-VALUE

Linear Bushings - Standard

- C-VALUE Double -

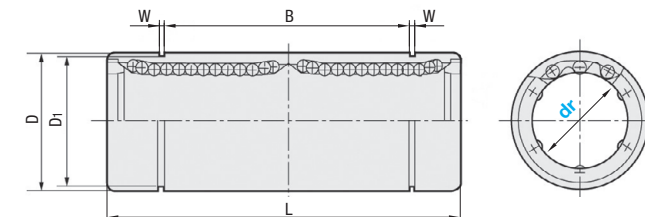
Comparison Points with Similar Products | Economical linear bushings suitable for simplified guide applications. * Refer to P227 for overview of C-VALUE Products.

Features: The most common specification of Linear Bushing.

Ordering Example
Part Number
C-LMUW6



Type	Outer Cylinder			Ball	Retainer	Ambient Operating Temp.	Accessory
	Material	Hardness	Surface Treatment				
C-LMUW	SUJ2 Equivalent	58HRC~	-	SUJ2 Equivalent	Plastic	-20~80°C	Seal Material Nitrile Rubber



Part Number			D		L		B		W	D ₁	Eccentricity (Max.)	Rows of Balls	Mass (g)
Type	dr	Tolerance		Tolerance		Tolerance		Tolerance					
C-LMUW	4	+0.003 -0.013	8	+0.006 -0.013	23	+0.3 -0.6	-	-	-	-	0.020	0.020	2
	5		10		28		18.2		9.6		4		
	6		12	+0.006 -0.015	35		24.8	0 -0.4	1.1	11.5	8.5		
	8		15		45		32.8		14.3	17			
	10		19		55		41.4		18	31			
	12		21	+0.006 -0.018	57				20	41			
	13	23		61	43.4		22	46					
	16	28		70	49.8		27	73					
	20	+0.003 -0.015	32		80	+0.3 -0.7	57.8	1.6	30.5	0.040	5	98	
	25		40	+0.006 -0.021	112		78.3		38			236	
	30		45		123		85.3		43			262	
	35	+0.003 -0.018	52		135		0 -0.5	1.85	49	0.050	6	425	
	40		60	+0.006 -0.024	151				116.8			57	654
	50		80		192				142.8			76.5	1700

⚠ No seal for dr=3 and 4. No-Seal Type has lower sliding resistance (0.4 ~ 1.2N) and moves smoothly. To prevent intrusion of dust on sliding contact surface, dust resistance measures should be taken separately.
⚠ Spacers and Holding Plates for linear bushings can be selected from P.238.
⚠ For Precautions for Use, refer to P. 221.

Basic Load Rating

dr	Basic Load Rating		Allowable Static Moment (N·m)
	C (Dynamic) N	Co (Static) N	
4	431	784	4.31
5	588	1100	7.24
6	657	1200	10.9
8	813	1570	11.6
10	1230	2350	19.7
12	1400	2740	26.8
13	1560	3140	43.4
16	2490	5490	82.8
20	2650	6270	110
25	3430	8040	147
30	6080	15900	397

kgf=Nx0.101972

Recommended Tolerance of Shaft Dia. and Housing Dia.

dr	Shaft Dia.		Housing Dia.
	g6 Tolerance	H7 Tolerance	
4	-0.004 -0.012	8	+0.021
5	-0.004 -0.012	10	+0.006
6	-0.005 -0.014	12	+0.024
8	-0.005 -0.014	15	+0.006
10	-0.006 -0.017	19	+0.027
12	-0.006 -0.017	21	+0.006
13	-0.006 -0.017	23	+0.006
16	-0.007 -0.020	28	+0.031
20	-0.007 -0.020	32	+0.006
25	-0.007 -0.020	40	+0.031
30	-0.009 -0.025	45	+0.006
35	-0.009 -0.025	52	+0.036
40	-0.009 -0.025	60	+0.006
50	-0.009 -0.025	80	+0.006

*The above tolerance is recommended for fitting with shaft and assembly of housing.

*When using the linear bushings in transfer as a simplified guide, combination with hardened g6 shaft is recommended.

*Combination of C-VALUE linear bushings and C-VALUE shafts is recommended, when used in transfer or other purposes, which do not place importance on a gap between a linear bushing and linear shaft or sliding properties.



Example <C-VALUE Components>
App. example of conveyor transfer using air cylinder

