

Linear Bushings

Single

= For customers using industry standard products =
The part enclosed in the red frame is as per industry standard specifications (Outer cylinder EN 1.3505 Equiv. equivalent, Retainer resin).
Consider these specifications while selecting the product.

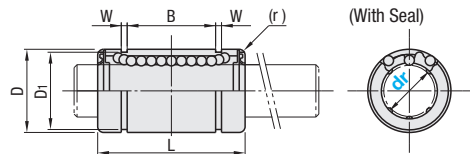
Features: The most popular Linear Bushing style.

Industry Standard



RoHS 10

Type	Outer Cylinder			Balls	Retainer	Ambient Operating Temp.	Accessory	
	Material	Hardness	Surface Treatment	Material	Material			
LMU-N	EN 1.3505 Equiv.	58HRC~	-	EN 1.3505 Equiv.	Plastic (Duracon M90 Equiv.)	-20~ 80°C	Seal Material Nitrile Rubber (-20~120°C)	
LMU					Stainless Steel (Stainless Steel)	-20~110°C		
LMUF-N				Low Temperature Black Chromate Plating	EN 1.4125 Equiv.	Stainless Steel (Stainless Steel)		-20~110°C
LMUF			Electroless Nickel Plating					
LMUR								
LMUM								
LMUMF				EN 1.4125 Equiv.	56HRC~	-		Stainless Steel (Stainless Steel)
SLMU								
SLMUS								



(With Seal)

Part Number		D Tolerance			L		B		W	D1	(r)	Eccentricity (Max.)	Rows of Balls	Basic Load Rating		Mass (g)
Type	dr	Tolerance	No Surface Treatment	Surface Treatment	Tolerance	Tolerance	Tolerance	Tolerance						C (Dynamic) N	Co (Static) N	
LMU-N (No Seal)	3	0	7	0	10	-	-	-	-	-	0.3	0.008	4	69	105	1.4
LMU-N (No Seal)	4	-0.008	8	-0.009	12	-	-	-	-	-	-	-		88	127	2.0
LMU-N (No Seal)	5	-	10	-	15	8	-	-	9.6	-	-	-		167	206	4.0
LMU-N (No Seal)	6	-	12	0	19	11.3	-	-	11.5	-	-	-		206	265	8.5
LMU-N (No Seal)	8	-	15	-0.011	24	15.3	-	-	14.3	-	0.4	-		265	380	17
LMU-N (No Seal)	10	-	19	-0.018	29	19.4	-	-	18	-	-	-		372	549	31
LMU-N (No Seal)	12	-0.009	21	0	30	20	-	-	20	-	-	-		412	598	41
LMU-N (No Seal)	13	-	23	-0.013	32	20.4	-	-	22	-	0.8	-		510	784	46
LMU-N (No Seal)	16	-	28	-0.021	37	23.3	-	-	27	-	-	-		775	1180	73
LMU-N (No Seal)	20	-	32	-0.025	42	27.3	-	-	30.5	-	-	-		882	1370	98
LMU-N (No Seal)	25	-0.010	40	0	59	37.3	-	-	38	-	0.015	-	5	980	1570	236
LMU-N (No Seal)	30	-	45	-0.016	64	40.8	-	-	43	-	-	-		1570	2740	262
LMU-N (No Seal)	35	-	52	-0.019	70	45.3	-	-	49	-	-	-		1670	3140	425
LMU-N (No Seal)	40	-0.012	60	-0.030	80	56.3	-	-	57	-	0.020	-	6	2160	4020	654
LMU-N (No Seal)	50	-	80	-	100	68.8	-	-	76.5	-	-	-		3820	7940	1700

kgf=Nx0.101972

For Precautions for Use, see P.303.
For LMU-N and LMUF-N, dr=3/4.
Products with dr=3, 4 are without seal. No-Seal Type has lower sliding resistance (0.4~1.2N). Separate dust-proofing measures are necessary to keep the dust entering into sliding parts.
For LTBC Plating, see P.304.
Spacers and Stoppers for linear bushings can be selected from P.330.

Linear Bushings

Double

= For customers using industry standard products =
The part enclosed in the red frame is as per industry standard specifications (Outer cylinder EN 1.3505 Equiv. equivalent, Retainer resin).
Consider these specifications while selecting the product.

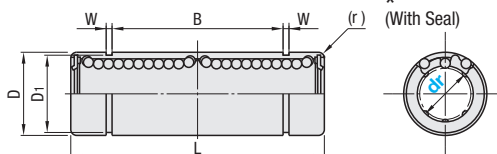
Features: Most common specification in Linear Bushings. Use Double Type in case moment load is to be applied.

Industry Standard



RoHS 10

Type	Outer Cylinder			Balls	Retainer	Ambient Operating Temp.	Accessory	
	Material	Hardness	Surface Treatment	Material	Material			
LMUW-N	EN 1.3505 Equiv.	58HRC~	-	EN 1.3505 Equiv.	Plastic (Duracon M90 Equiv.)	-20~ 80°C	* Seal Material Nitrile Rubber (-20~120°C)	
LMUW					Stainless Steel (Stainless Steel)	-20~110°C		
LMUWF			Electroless Nickel Plating	EN 1.4125 Equiv.	Plastic (Duracon M90 Equiv.)	-20~ 80°C		
LMUWR					Stainless Steel (Stainless Steel)	-20~110°C		
LMUWM					Plastic (Duracon M90 Equiv.)	-20~ 80°C		
LMUWMF					Stainless Steel (Stainless Steel)	-20~ 80°C		
SLMUW	EN 1.4125 Equiv.	56HRC~	-	Electroless Nickel Plating		Plastic (Duracon M90 Equiv.)		-20~ 80°C
SLMUWS						Stainless Steel (Stainless Steel)		-20~120°C



(With Seal)

Part Number		D Tolerance			L		B		W	D1	(r)	Eccentricity (Max.)	Rows of Balls	Basic Load Rating		Mass (g)
Type	dr	Tolerance	No Surface Treatment	Surface Treatment	Tolerance	Tolerance	Tolerance	Tolerance						C (Dynamic) N	Co (Static) N	
LMUW-N (No Seal)	3	0	7	0	19	-	-	-	-	-	0.3	0.010	4	138	210	0.51
LMUW-N (No Seal)	4	-0.011	8	-0.011	23	-	-	-	-	-	-	-		176	254	0.63
LMUW-N (No Seal)	5	-	10	-	28	18.2	-	-	9.6	-	-	-		263	412	1.38
LMUW-N (No Seal)	6	-	12	0	35	24.8	-	-	11.5	-	-	-		324	529	2.18
LMUW-N (No Seal)	8	-	15	-0.013	45	32.8	-	-	14.3	-	0.4	-		431	784	4.31
LMUW-N (No Seal)	10	-	19	-0.018	55	41.4	-	-	18	-	-	-		588	1100	7.24
LMUW-N (No Seal)	12	-0.010	21	0	57	43.4	-	-	20	-	-	-		657	1200	10.9
LMUW-N (No Seal)	13	-	23	-0.016	61	49.8	-	-	22	-	0.8	-		813	1570	11.6
LMUW-N (No Seal)	16	-	28	-0.021	70	57.8	-	-	27	-	-	-		1230	2350	19.7
LMUW-N (No Seal)	20	-	32	-0.025	80	78.3	-	-	30.5	-	-	-		1400	2740	26.8
LMUW-N (No Seal)	25	-0.012	40	0	112	85.3	-	-	38	-	0.020	-	5	1560	3140	43.4
LMUW-N (No Seal)	30	-	45	-0.019	123	94.8	-	-	43	-	-	-		2490	5490	82.8
LMUW-N (No Seal)	35	-	52	-0.022	135	116.8	-	-	49	-	-	-		2650	6270	110
LMUW-N (No Seal)	40	-0.015	60	-0.030	151	142.8	-	-	57	-	0.025	-	6	3430	8040	147
LMUW-N (No Seal)	50	-	80	-	192	168.8	-	-	76.5	-	-	-		6080	15900	397

kgf=Nx0.101972

For Precautions for Use, see P.303.
dr=3, 4 are not available for LMUW-N and LMUWR.
Products with dr=3, 4 are without seal. No-Seal Type has lower sliding resistance (0.4~1.2N). Separate dust-proofing measures are necessary to keep the dust entering into sliding parts.
For LTBC Plating, see P.304.
Spacers and Stoppers for linear bushings can be selected from P.330.

dr	Unit Price								
	LMU-N	LMU	LMUF-N	LMUF	LMUR	LMUM	LMUMF	SLMU	SLMUWS
3	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-



Ordering Example

Part Number

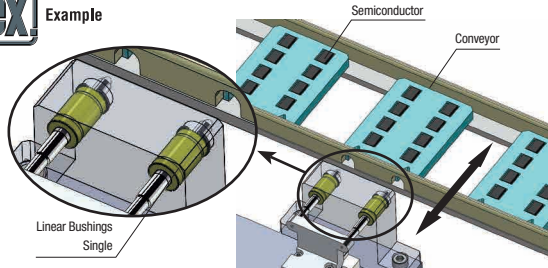
LMU20 (No Seal)
LMU-N20 (LTBC Plating)
LMUR20L (L Type Greased)
LMUR20G (G Type Greased)
LMUR20H (H Type Greased)

Alternative grease types available.

For Days to Ship, Price and Performance, see P.304.



Example



▲Semiconductor conveyor tray locating mechanism

dr	Unit Price							
	LMUW-N	LMUW	LMUWF	LMUWR	LMUWM	LMUWMF	SLMUW	SLMUWS
3	-			-				
4	-			-				
5								
6								
8								
10								
12								
13								
16								
20								
25								
30								
35	-		-	-		-	-	-
40	-		-	-		-	-	-
50	-		-	-		-	-	-



Ordering Example

Part Number

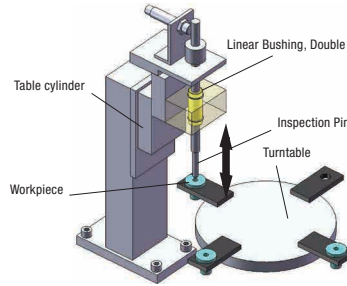
LMUW20 (No Seal)
LMUW-N20 (LTBC Plating)
LMUWR20L (L Type Greased)
LMUWR20G (G Type Greased)
LMUWR20H (H Type Greased)

Alternative grease types available.

For Days to Ship, Price and Performance, see P.304.



Example



▲Inspection instrument to confirm the precision of work piece hole