

Flanged Linear Bushings (With Long Pilot)

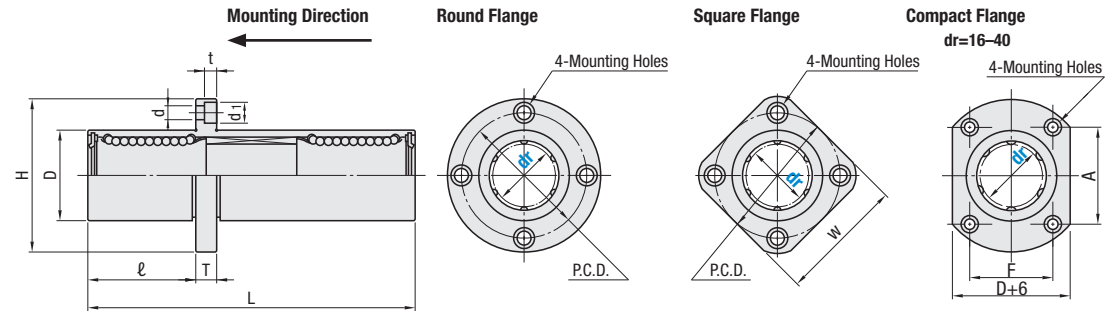
Long Type

Flanged Linear Bushings (With Long Pilot) – Long Type



RoHS10

Type			Outer Cylinder, Balls		Outer Cylinder	Retainer	Ambient Operating Temperature	Accessories
Round Flange	Square Flange	Compact Flange	Material	Hardness	Surface Treatment	Material		
LHKMRNL	LHKMSNL	LHKMCNL	52100 Bearing Steel Equivalent	58 HRC min.	—	Plastic (Duracon M9 Equivalent)	-20~80°C	Seal Material Nitrile Rubber (-20~120°C)
LHKMRNLF	LHKMSNLF	Stainless Steel (JIS SUS)				-20~110°C		
LHKMRL	LHKMSL	Plastic (Duracon M9 Equivalent)				-20~80°C		
LHKMRLF	LHKMSLF	—	440C Stainless Steel Equivalent	56 HRC min.	Electroless Nickel Plating	Stainless Steel (JIS SUS)	-20~110°C	—
SLHKMRLFS	SLHKMSLFS	—				Stainless Steel (JIS SUS)	-20~120°C	



kgf-Nx0.101972

dr	Tol.	D Tolerance		L	Tol.	ℓ	H	T	d	d ₁	t	P.C.D.	W	F	A	Eccentricity	Rows of Balls	*Perpendicularity	Basic Load Rating			Allowable Static Moment			Mass(g)		
		No Surface Treatment	Surface Treatment																C (Dynamic) N	Co (Static) N	Co (Static) N-m	Round Flange	Square Flange	Compact Flange			
6	0	15	0	49	±0.3	17	32	5	3.5	6	3.1	24	25	—	—	0.020	4	0.020	324	529	8.2	66	58	—			
8	-0.012	19	-0.013	68	±0.3	22	40	6	4.5	7.5	4.1	29	30	—	—	0.020	4	0.020	431	784	16.0	135	117	—			
10	0	23	0	82	±0.3	27	43	6	4.5	7.5	4.1	33	34	—	—	0.020	4	0.020	588	1100	27.0	205	189	—			
12	0	26	-0.016	86	±0.3	28	46	6	4.5	7.5	4.1	36	35	—	—	0.020	4	0.020	657	1200	40.1	248	228	—			
13	-0.015	28	-0.021	92	±0.3	30	48	6	4.5	7.5	4.1	38	37	—	—	0.020	4	0.020	813	1570	42.9	308	286	—			
16	0	32	0	105	±0.3	35	54	8	5.5	9	5.1	43	42	24	36	0.025	5	0.025	1230	2350	73.5	412	376	386			
20	0	40	-0.019	120	±0.3	40	62	8	5.5	9	5.1	51	50	32	40	0.025	5	0.025	1400	2740	98.0	752	714	724			
25	0	45	-0.025	167	±0.3	55	74	10	6.6	11	6.1	60	58	35	49	0.025	6	0.025	1560	3140	157	1244	1163	1178			
30	-0.018	52	-0.022	184	±0.3	61	82	10	6.6	11	6.1	67	64	38	55	0.030	6	0.030	2490	5490	297	1636	1543	1567			
35	0	60	-0.030	200	±0.3	67	96	13	9	14	8.1	78	75	45	64	0.030	6	0.030	2650	6270	373	2580	2400	2433			
40	-0.021	65	-0.030	230	±0.3	77	101	13	9	14	8.1	83	80	48	68	0.030	6	0.030	3430	8040	553	2950	2510	2728			

① For Precautions for Use, see P.369. ② For linear bushings, hardened shafts with g6 tolerance are recommended. P.202-288
*Perpendicularity of D part to flange mounting surface

Part Number Example

Part Number: LHKMSLF6

- LHKMSLF6L (L Type Greased)
- LHKMSLF6G (G Type Greased)
- LHKMSLF6H (H Type Greased)

① Alternative grease types available.

Application Example

For long stroke applications, use longer bushings for less clearances.

Part Number	Type	dr	Unit Price											
			Round Flange			Square Flange				Compact Flange				
			LHKMRNL	LHKMRL	LHKMRNLF	LHKMRLF	SLHKMRLFS	LHKMSNL	LHKMSL	LHKMSNLF	LHKMSLF	SLHKMSLFS	LHKMCNL	LHKMCL
(52100 Bearing Steel)	(440C Stainless Steel)	6	•	•	•	•	•	•	•	•	•	•	•	•
(Round Flange)	SLHKMRLFS	8	•	•	•	•	•	•	•	•	•	•	•	•
		10	•	•	•	•	•	•	•	•	•	•	•	•
		12	•	•	•	•	•	•	•	•	•	•	•	•
		13	•	•	•	•	•	•	•	•	•	•	•	•
		16	•	•	•	•	•	•	•	•	•	•	•	•
(Square Flange)	SLHKMSLFS	20	•	•	•	•	•	•	•	•	•	•	•	•
		25	•	•	•	•	•	•	•	•	•	•	•	•
		30	•	•	•	•	•	•	•	•	•	•	•	•
		35	•	•	•	•	•	•	•	•	•	•	•	•
(Compact Flange)	LHKMCNL	40	•	•	•	•	•	•	•	•	•	•	•	•
	LHKMCL	40	•	•	•	•	•	•	•	•	•	•	•	•

Linear Bushings Housing Unit (Single with Tall Blocks)

Standard / Compact Type

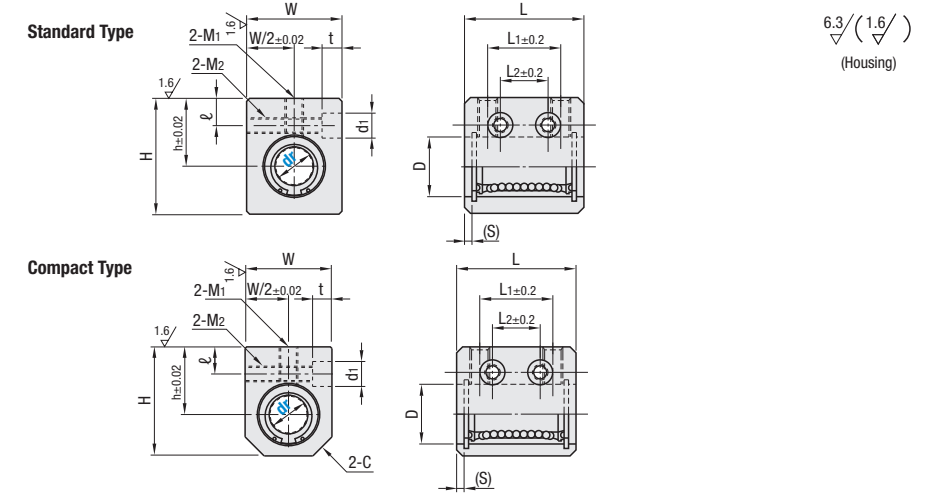
Linear Bushings Housing Unit (Single with Tall Blocks) – Standard Type



Linear Bushings Housing Unit (Single with Tall Blocks) – Compact Type



Type	Linear Bushings		Housing		Ambient Operating Temperature
	Standard	Compact	Material	Surface Treatment	
LHSS	LHSSK	LMU	Aluminum Alloy	Clear Anodize	-20~80°C
LHSSF	—	LMUF	—	—	-20~110°C
SLHSS	—	SLMU	—	—	-20~80°C
SLHSSF	—	SLMUS	—	—	-20~110°C



dr	Tol.	D		(S)	L	L ₁	L ₂	h		W		H		ℓ		M ₁ (Effective Length)		M ₂ (Effective Length)		C	C ₁	d ₁ x t
		Standard	Compact					Standard	Compact	Standard	Compact	Standard	Compact	Standard	Compact	Standard	Compact	Standard	Compact			
4	0	8	—	1.1	15	—	10	10	—	12	—	16	—	3	—	M3 (6)	—	M3 (10.5)	—	—	0.5	4.2 x 1.5 (For M2 Screws)
5	-0.008	10	—	4.0	25	16	7	13	—	15	—	20	—	—	—	M4 (8)	—	M4 (10)	—	—	1	6 x 5 (For M3 Screws)
(6)	0	12	10	3.0	27	18	9	14	13	16	14	22	20	5	4	M4 (8)	M4 (8)	M4 (11)	M4 (9)	4	1 or less	8 x 6 (For M4 Screws)
(8)	0	15	13	3.0	32	20	10	16	15	20	17	26	24	5	5	M5 (8.5)	M5 (8.5)	M4 (15)	M4 (12)	5	1 or less	8 x 6 (For M4 Screws)
(10)	0	19	17	3.0	39	27	15	19	18	26	23	32	30	6	6	M6 (9.5)	M6 (9.5)	M5 (20)	M5 (17)	6	1 or less	8 x 6 (For M4 Screws)
(12)	-0.009	21	19	4.0	40	27	15	20	19	28	25	34	32	6	6	M6 (9.5)	M6 (9.5)	M5 (22)	M5 (19)	6	1 or less	8 x 6 (For M4 Screws)
13	0	23	—	3.8	42	28	16	25	—	30	—	43	—	7	—	M6 (13)	—	M6 (23)	—	—	1	9 x 7 (For M5 Bolt)
(16)	0	28	26	3.2	47	32	22	27	26	36	33	49	43	7	7	M6 (13)	M6 (13)	M6 (29)	M6 (26)	8	1 or less	14 x 10 (For M8 Screws)
20	0	32	—	3.8	52	36	18	31	—	42	—	54	—	8	—	M8 (15)	—	M8 (34)	—	—	1	11 x 8 (For M6 Screws)
25	-0.010	40	—	3.2	69	42	22	37	—	52	—	65	—	9	—	M10 (17)	—	M10 (42)	—	—	1	14 x 10 (For M8 Screws)
30	0	45	—	3.2	74	44	22	40	—	58	—	71	—	9	—	M10 (17.5)	—	M10 (48)	—	—	1	14 x 10 (For M8 Screws)

① For Precautions for Use, see P.369. ② For linear bushings, hardened shafts with g6 tolerance are recommended. P.202-288 ③ Only dr dimensions in () are available for Compact Type.
④ Make certain that the screws do not interfere with the bushing as M₁ are through holes. ⑤ Standard Type dr4 has one M₁ mounting hole only. ⑥ The datum surface is located on the other side of product ID label.

Part Number	Type	dr	Available Types				
			LHSS	LHSSF	SLHSS	SLHSSF	Compact LHSSK
(Standard)		4	•	•	•	•	•
		5	•	•	•	•	•
		6	•	•	•	•	•
		8	•	•	•	•	•
		10	•	•	•	•	•
		12	•	•	•	•	•
		13	•	•	•	•	•
		16	•	•	•	•	•
(Compact)	LHSSK	20	•	•	•	•	•
		25	•	•	•	•	•
		30	•	•	•	•	•

dr	Basic Load Rating				Mass(g)	
	C (Dynamic) N		Co (Static) N		Standard	Compact
4	88	—	127	—	8	—
5	167	—	206	—	18	—
6	206	131	265	155	22	17
8	265	235	380	277	40	32
10	372	368	549	433	80	67
12	412	381	598	449	90	80
13	510	—	608	—	132	—
16	775	608	1180	716	204	155
20	882	—	1370	—	272	—
25	980	—	1570	—	574	—
30	1570	—	2740	—	710	—

kgf-Nx0.101972

Part Number Example

Part Number: LHSS12

- LHSS12L (L Type Greased)
- LHSS12G (G Type Greased)
- LHSS12H (H Type Greased)

① Alternative grease types available.