

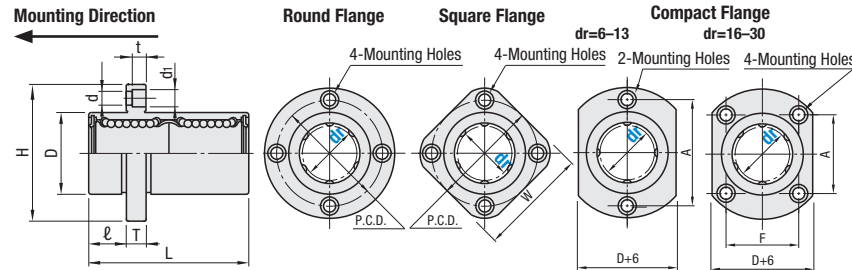
Flanged Linear Bushings

Medium Type with Pilot / Medium Type Center Flanged

Flanged Linear Bushings – Medium Type with Pilot



Type			Outer Cylinder			Steel balls	Retainer	Ambient Operating Temperature	Accessories
Round Flange	Square Flange	Compact Flange	Material	Hardness	Surface Treatment	Material	Material		
LHIRD	LHISD	LHICD	52100 Bearing Steel	58 HRC min.	—	52100 Bearing Steel	Plastic (Duracon M90 Equivalent)	-20~80°C	Seal Material Nitrile Rubber (-20~120°C)



- Body length is approximately 1.5 times of single type, and allowable moment is approximately 4.3 times. (See Allowable Load Comparison)
- For Piloted and Flanged Type application examples, see P.385.

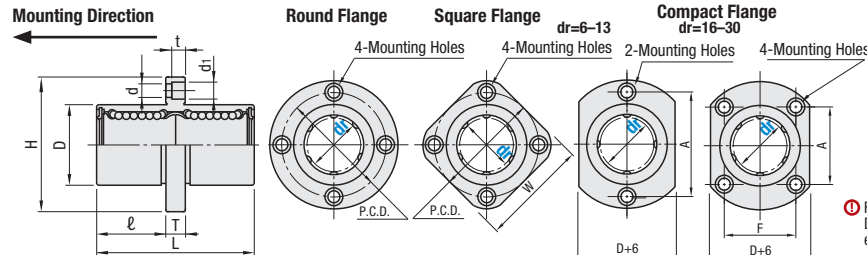
Part Number	D		L		ℓ	H	T	d	d ₁	t	P.C.D.	W	F	A	Eccentricity	Rows of Balls	*Perpendicularity	Basic Load Rating		Allowable Static Moment (N·m)	Mass(g)		
	Type	dr	Tol.	Tol.														Tol.	C (Dynamic) N		Co (Static) N	Round Flange	Square Flange
LHIRD	6	12	0	29	±0.3	5	28	3.5	6	3.1	20	22	—	20	0.015	4	0.015	226	310	1.42	27	21	24
	8	15	-0.013	37														310	452	2.12	47	39	43
	10	19	—	—														508	718	4.37	85	65	77
LHISD	12	21	0	47	±0.3	6	4.5	7.5	4.1	4.1	32	32	—	32	0.02	5	0.02	634	814	6.2	89	69	81
	13	23	-0.016	56														640	826	6.2	109	87	102
	16	28	—	—														1164	1448	13.1	157	132	149
LHICD	20	32	0	65	±0.3	8	5.5	9	5.1	5.1	43	42	24	36	0.02	6	0.02	1554	2068	18.3	232	197	219
	25	40	—	—														1725	3068	25.3	481	442	452
	30	45	-0.019	90														2440	3974	42.7	560	482	494

- For Precautions for Use, see P.369. For linear bushings, hardened shafts with g6 tolerance are recommended. P.202-288
- Height-Adjusting Spacers for Flanged Bushings can be chosen from P.384.
- *Perpendicularity of D to flange mounting surface

Flanged Linear Bushings – Medium Type Center Flanged



Type			Outer Cylinder			Balls	Retainer	Ambient Operating Temperature	Accessories
Round Flange	Square Flange	Compact Flange	Material	Hardness	Surface Treatment	Material	Material		
LHMRD	LHMSD	LHMCD	52100 Bearing Steel	58 HRC min.	—	52100 Bearing Steel	Plastic (Duracon M90 Equivalent)	-20~80°C	Seal Material Nitrile Rubber (-20~120°C)



- Body length is approximately 1.5 times of single type, and allowable moment is approximately 4.3 times. (See Allowable Load Comparison)
- For Center Flanged Double application examples, see P.391.

Part Number	D		L		ℓ	H	T	d	d ₁	t	P.C.D.	W	F	A	Eccentricity	Rows of Balls	*Perpendicularity	Basic Load Rating		Allowable Static Moment (N·m)	Mass(g)			
	Type	dr	Tol.	Tol.														Tol.	C (Dynamic) N		Co (Static) N	Round Flange	Square Flange	Compact Flange
LHMRD	6	12	0	29	±0.3	12	28	5	3.5	6	3.1	20	22	—	20	0.015	4	0.015	226	310	1.42	27	21	24
	8	15	-0.013	37															310	452	2.12	47	39	43
	10	19	—	—															508	718	4.37	85	65	77
LHMSD	12	21	0	47	±0.3	20.5	42	6	4.5	7.5	4.1	32	32	—	32	0.02	5	0.02	634	814	6.2	89	69	81
	13	23	-0.016	56															640	826	6.2	109	87	102
	16	28	—	—															1164	1448	13.1	157	132	149
LHMCD	20	32	0	65	±0.3	28.5	54	8	5.5	9	5.1	43	42	24	36	0.02	6	0.02	1554	2068	18.3	232	197	219
	25	40	—	—															1725	3068	25.3	481	442	452
	30	45	-0.019	90															2440	3974	42.7	560	482	494

- For Precautions for Use, see P.369. For linear bushings, hardened shafts with g6 tolerance are recommended. P.202-288
- Height-Adjusting Spacers for Flanged Bushings can be chosen from P.384.
- *Perpendicularity of D to flange mounting surface

Part Number Example	Part Number	
LHIRD12	LHIRD12L	(L Type Greased)
LHICD16	LHICD16G	(G Type Greased)
LHICD16H	LHICD16OH	(H Type Greased)

Alternative grease types available.

Allowable Load Comparison

Type	Basic Dynamic Load Rating	Basic Static Load Rating	Allowable Static Moment
Short	0.7	0.6	Approx. 0.6
*Single	1	1	1
Medium	1.4	1.3	Approx. 4.3
Double	1.6	2	Approx. 6
Medium Long	1.6	1.6	Approx. 10
Long	1.6	2	Approx. 21

*1 represent Single Type for comparison.

Flanged Linear Bushings (Single)

Standard

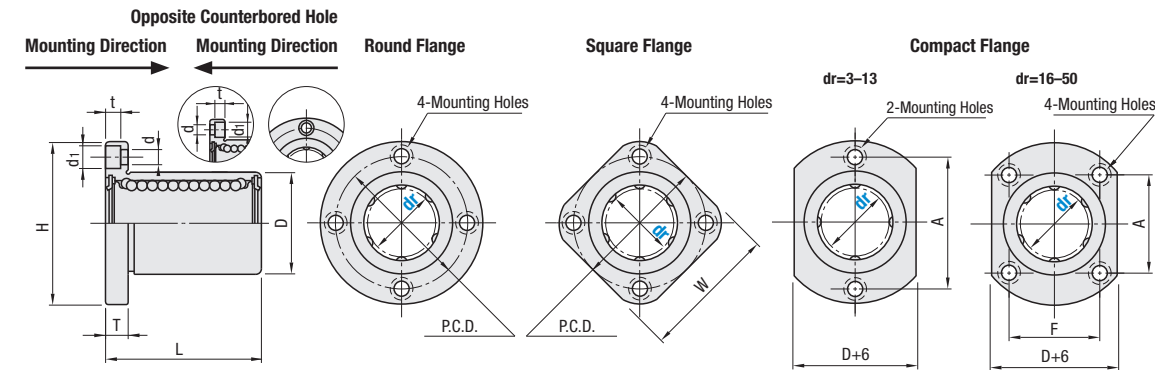
Flange Type Height-Adjusting Spacers can be selected from P.384.

Flanged Linear Bushings (Single) – Standard Type



RoHS 10

Counterbored Holes	Type			Outer Cylinder			Balls	Retainer	Ambient Operating Temp.	Accessories				
	Round Flange	Square Flange	Compact Flange	Material	Hardness	Surface Treatment	Material	Material						
Opposite Counterbore	LHZN	LHZS	LHZC	52100 Bearing Steel	58 HRC min.	—	52100 Bearing Steel	Plastic (Duracon M90 Equivalent)	-20~80°C	Seal Material Nitrile Rubber (-20~120°C)				
	LHFR-N No Seal	LHFS-N No Seal	LHFC-N No Seal								Stainless Steel (JIS SUS)	-20~110°C		
	LHFR	LHFS	LHFC											
LHFRF	LHFSF	LHFCF												
Standard	LHFR	LHFS	LHFC					440C Stainless Steel Equivalent	56 HRC min.		—	440C Stainless Steel Equivalent	Plastic (Duracon M90 Equivalent)	-20~80°C
	LHFRM	LHFSM	LHFCM											
	LHFRMF	LHFSMF	LHFCMF											
	Electroless Nickel Plating	LHFR	LHFS	LHFC	Plastic (Duracon M90 Equivalent)	-20~80°C								
	SLHFR	SLHFS	SLHFC	Stainless Steel (JIS SUS)			-20~120°C							
	SLHFRS	SLHFS	SLHFC											



- Features of Low Temperature Black Chrome Plating see P.374. No seal type available for dr=3 and 4. LHFR-N, LHFS-N, and LHFC-N.
- Reversed counterbored type can be botted from the reverse side.

dr	D Tolerance		L	ℓ	H	T	d	d ₁	t	P.C.D.	W	F	A	Eccentricity	Rows of Balls	Perpendicularity	Basic Load Rating		Mass(g)		
	ToI.	No Surface Treatment															Surface Treatment	ToI.	C (Dynamic) N	Co (Static) N	Round Flange
3	7	0	10	±0.3	19	3.5	2.5	4.5	2.1	13	15	—	13	0.008	4	0.008	69	105	7	5.1	6
4	8	-0.008	12		20	2.5	4.5	2.1	14	16	—	14	0.008				88	127	8	6.2	7
5	10	—	15	±0.3	25	5	3.5	6	3.1	17	20	—	17	0.012	4	0.012	167	206	17	13	14
6	12	0	19		28					20	—	20	206				265	24	18	21	
8	15	-0.013	24	±0.3	32	6	4.5	7.5	4.1	24	25	—	24	0.015	5	0.015	265	380	37	29	33
10	19	—	29		40					30	—	29	372				549	72	52	64	
12	21	0	30	±0.3	42	8	5.5	9	5.1	32	32	—	32	0.020	6	0.020	412	598	76	57	68
13	23	-0.016	32		43					6	7.5	4.1	33				34	—	33	510	784
16	28	—	37	±0.3	48	10	6.6	11	6.1	38	37	22	31	0.020	6	0.020	775	1180	120	104	112
20	32	0	42		54					8	9	5.1	43				42	24	36	882	1370
25	40	—	59	±0.3	62	13	9	14	8.1	51	50	32	40	0.020	6	0.020	980	1570	340	300	325
30	45	-0.019	64		74					6.6	11	6.1	60				58	35	49	1570	2740
35	52	0	70	±0.3	82	16	11	16	11.6	67	64	38	55	0.020	6	0.020	1670	3140	650	560	575
40	60	-0.022	80		96					13	14	8.1	78				75	45	64	2160	4020
50	80	-0.030	100	±0.3	116	20	16	21	16.1	98	92	56	80	0.020	6	0.020	3820	7940	2200	2000	2037

- For Precautions for Use, see P.369. Height-Adjusting Spacers for Flanged Bushings can be chosen from P.384.
- For linear bushings, hardened shafts with g6 tolerance are recommended. P.202-288

Part Number Example	Part Number	
LHFC8	LHFC-N10	(No Seal)
LHFCR8	LHFCR8	(Low Temperature Black Chrome Plating)
LHFCR10L	LHFCR10L	(L Type Greased)
LHFCR10G	LHFCR10G	(G Type Greased)
LHFCR10H	LHFCR10H	(H Type Greased)

Alternative grease types available.