Flanged Linear Bushings
Long / Long, Pilot

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

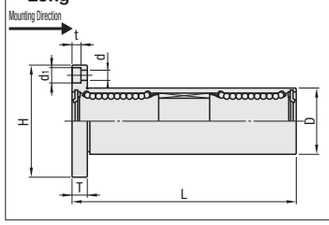
Features: Easy to assemble with bolt-on flanges. The linear bushing does not protrude out on the front side for good space utilization.

Industry Standard

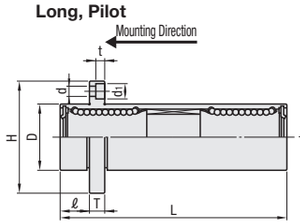
RoHS 10

Type			Outer Cylinder, Balls		Outer Cylinder	Retainer	Ambient Operating Temp.	Accessory
Round Flange	Square Flange	Compact Flange	M Material	H Hardness	S Surface Treatment	M Material		
LHKRNL	LHKSNL	LHKCNL	SUJ2 Equivalent	58HRC~	-	Plastic (Duracon M90 Equivalent)	-20~ 80°C	Seal M Material Nitrile Rubber (-20~120°C)
LHKRNLF	LHKSNLF	-				Stainless Steel (SUS)	-20~110°C	
LHKRL	LHKSL	LHKCL			Electroless Nickel Plating	Plastic (Duracon M90 Equivalent)	-20~ 80°C	
LHKRLF	LHKSLF	-				Stainless Steel (SUS)	-20~110°C	
SLHKRLFS	SLHKSLFS	-	SUS440C Equivalent	56HRC~	-	Stainless Steel (SUS)	-20~120°C	
LHKIRNL	LHKISNL	LHKICNL	SUJ2 Equivalent	58HRC~	-	Plastic (Duracon M90 Equivalent)	-20~ 80°C	
LHKIRNLF	LHKISNLF	-				Stainless Steel (SUS)	-20~110°C	
LHKIRL	LHKISL	LHKICL			Electroless Nickel Plating	Plastic (Duracon M90 Equivalent)	-20~ 80°C	
LHKIRLF	LHKISLF	-				Stainless Steel (SUS)	-20~110°C	
SLHKIRLFS	SLHKISLFS	-	SUS440C Equivalent	56HRC~	-	Stainless Steel (SUS)	-20~120°C	

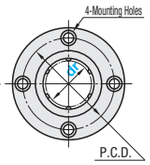
Long



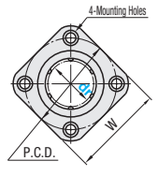
Long, Pilot



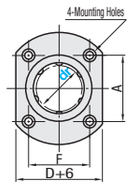
Round Flange



Square Flange



Compact Flange
dr=16~40



dr	Tolerance	D	D Tolerance No Surface Treatment	D Tolerance Surface Treatment	L	Tolerance	ℓ	H	T	d	d1	t	P.C.D.	W	F	A	Eccentricity	Rows of Balls	* Perpendicularity	Basic Load Rating C (Dynamic) N	Basic Load Rating Co (Static) N	Allowable Static Moment (N·m)	Mass (g) Round Flange	Mass (g) Square Flange	Mass (g) Compact Flange
6	0 -0.012	15	0 -0.013	0 -0.018	49	±0.3	5	32	5	3.5	6	3.1	24	25	-	-	0.020	4	0.020	324	529	8.2	66	58	-
8		19	0 -0.016	0 -0.021	68		6	40	6	4.5	7.5	4.1	29	30	-	-				431	784	16.0	135	117	-
10		23			82			43					33	34	-	-				588	1100	27.0	205	189	-
12	0 -0.015	26			86			46					36	35	-	-				657	1200	40.1	248	228	-
13		28			92			48					38	37	-	-				813	1570	42.9	308	286	-
16		32	0 -0.019	0 -0.025	105		8	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 -0.018	40			120			62					51	50	32	40				1400	2740	98.0	752	714	724
25		45			167		10	74	10	6.6	11	6.1	60	58	35	49		6		1560	3140	157	1244	1163	1178
30		52	0 -0.022	0 -0.025	184			82					67	64	38	55				2490	5490	297	1636	1543	1567
35	0 -0.021	60	-	-	200		13	96	13	9	14	8.1	78	75	45	64	0.030		0.030	2650	6270	373	2580	2400	2433
40		65		-0.030	230			101					83	80	48	68				3430	8040	553	2950	2510	2798

For Precautions for Use, see P.303
Mounting holes of long type are on the opposite direction. For Piloted and Flanged Type application examples, see P.307.

* Perpendicularity of D part to flange mounting surface kgf=Nx0.101972

Part Number Type		dr	Unit Price Long Round Flange					Square Flange					Compact Flange	
(SUJ2 Equivalent)	(SUS440C Equivalent)		LHKRNL	LHKRL	LHKRNLF	LHKRLF	SLHKRLFS	LHKSNL	LHKSL	LHKSNLF	LHKSLF	SLHKSLFS	LHKCNL	LHKCL
(Round Flange) LHKRNL	SLHKRLFS	6											-	-
LHKRNLF		8											-	-
LHKRL		10											-	-
LHKRLF		12											-	-
(Square Flange) LHKSNL	SLHKSLFS	13											-	-
LHKSNLF		16												
LHKSL		20												
LHKSLF		25												
(Compact Flange) LHKCNL		30												
LHKCL		35	-			-		-					-	
		40	-			-		-					-	

Part Number Type		dr	Unit Price Long with Pilot Round Flange					Square Flange					Compact Flange	
(SUJ2 Equivalent)	(SUS440C Equivalent)		LHKIRNL	LHKIRL	LHKIRNLF	LHKIRLF	SLHKIRLFS	LHKISNL	LHKISL	LHKISNLF	LHKISLF	SLHKISLFS	LHKICNL	LHKICL
(Round Flange) LHKIRNL	SLHKIRLFS	6											-	-
LHKIRNLF		8											-	-
LHKIRL		10											-	-
LHKIRLF		12											-	-
(Square Flange) LHKISNL	SLHKISLFS	13											-	-
LHKISNLF		16												
LHKISL		20												
LHKISLF		25												
(Compact Flange) LHKICNL		30												
LHKICL		35	-			-		-					-	
		40	-			-		-					-	

Ordering Example — Part Number
LHKRL8
LHKRL8L (L Type Greased)
LHKRL8G (G Type Greased)
LHKRL8H (H Type Greased)
Alternative grease types available.
For Days to Ship, Price and Performance, see P.304.

Flanged Linear Bushings
Long / Long, Pilot

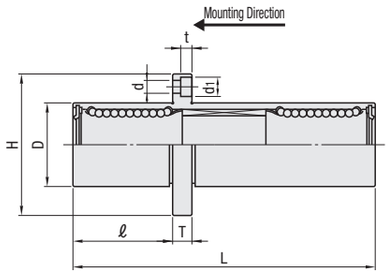
= For customers selecting MISUMI original specifications =
The part enclosed in the red frame is as per standard specifications (Outer cylinder SUJ2 equivalent, Retainer resin).
Consider these specifications while selecting the product.

Features: Easy to assemble with bolt-on flanges. A load can be placed near the center of the bushing, evenly distributing the load and space.

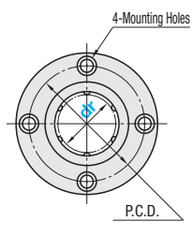
MISUMI Original

RoHS 10

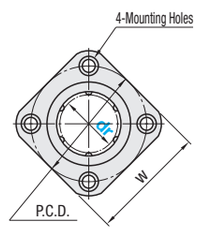
Type			Outer Cylinder, Balls		Outer Cylinder	Retainer	Ambient Operating Temp.	Accessory
Round Flange	Square Flange	Compact Flange	M Material	H Hardness	S Surface Treatment	M Material		
LHKMRNL	LHKMSNL	LHKMCNL	SUJ2 Equivalent	58HRC~	-	Plastic (Duracon M90 Equivalent)	-20~ 80°C	Seal M Material Nitrile Rubber (-20~120°C)
LHKMRNLF	LHKMSNLF	-				Stainless Steel (SUS)	-20~110°C	
LHKMRL	LHKMSL	LHKMCL			Electroless Nickel Plating	Plastic (Duracon M90 Equivalent)	-20~ 80°C	
LHKMRLF	LHKMSLF	-				Stainless Steel (SUS)	-20~110°C	
SLHKMRLFS	SLHKMSLFS	-	SUS440C Equivalent	56HRC~	-	Stainless Steel (SUS)	-20~120°C	



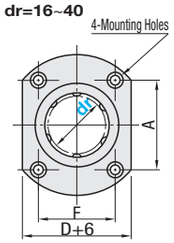
Round Flange



Square Flange



Compact Flange
dr=16~40

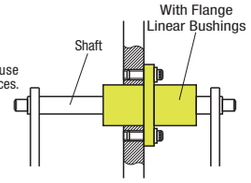


dr	Tolerance	D	D Tolerance No Surface Treatment	D Tolerance Surface Treatment	L	Tolerance	ℓ	H	T	d	d1	t	P.C.D.	W	F	A	Eccentricity	Rows of Balls	* Perpendicularity	Basic Load Rating C (Dynamic) N	Basic Load Rating Co (Static) N	Allowable Static Moment (N·m)	Mass (g) Round Flange	Mass (g) Square Flange	Mass (g) Compact Flange
6	0 -0.012	15	0 -0.013	0 -0.018	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		19	0 -0.016	0 -0.021	68		22	40	6	4.5	7.5	4.1	29	30	-	-				431	784	16.0	135	117	-
10		23			82		27	43					33	34	-	-				588	1100	27.0	205	189	-
12	0 -0.015	26			86		28	46					36	35	-	-				657	1200	40.1	248	228	-
13		28			92		30	48					38	37	-	-				813	1570	42.9	308	286	-
16		32	0 -0.019	0 -0.025	105		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 -0.018	40			120		40	62					51	50	32	40				1400	2740	98.0	752	714	724
25		45			167		55	74	10	6.6	11	6.1	60	58	35	49		6		1560	3140	157	1244	1163	1178
30		52	0 -0.022	0 -0.025	184		61	82					67	64	38	55				2490	5490	297	1636	1543	1567
35	0 -0.021	60	-	-	200		67	96	13	9	14	8.1	78	75	45	64	0.030		0.030	2650	6270	373	2580	2400	2433
40		65		-0.030	230		77	101					83	80	48	68				3430	8040	553	2950	2510	2728

For Precautions for Use, see P.303.

* Perpendicularity of D part to flange mounting surface kgf=Nx0.101972

Part Number Type		dr	Unit Price Round Flange					Square Flange					Compact Flange	
(SUJ2 Equivalent)	(SUS440C Equivalent)		LHKMRNL	LHKMRL	LHKMRNLF	LHKMRLF	SLHKMRLFS	LHKMSNL	LHKMSL	LHKMSNLF	LHKMSLF	SLHKMSLFS	LHKMCNL	LHKMCL
(Round Flange) LHKMRNL	SLHKMRLFS	6					-						-	-
LHKMRNLF		8											-	-
LHKMRL		10											-	-
LHKMRLF		12											-	-
(Square Flange) LHKMSNL	SLHKMSLFS	13											-	-
LHKMSNLF		16												
LHKMSL		20												
LHKMSLF		25												
(Compact Flange) LHKMCNL		30												
LHKMCL		35	-			-		-					-	
		40	-			-		-					-	

Ordering Example — Part Number
LHKMSLF6
LHKMSLF6L (L Type Greased)
LHKMSLF6G (G Type Greased)
LHKMSLF6H (H Type Greased)
Alternative grease types available.
For Days to Ship, Price and Performance, see P.304.

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