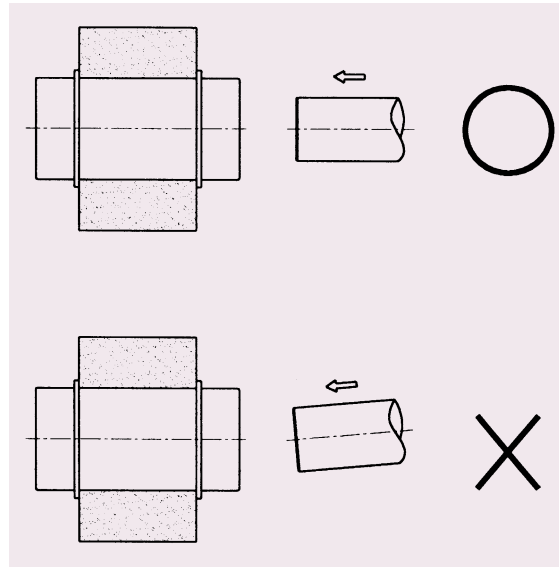


**Insertion of Shaft**

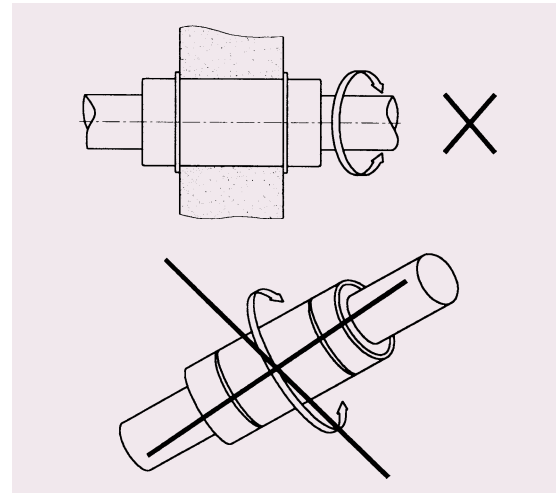
Care must be taken to align the bushing and the shaft when inserting a shaft into a linear bushing. If the shaft is inserted with slanted, balls may depart from the damaged or deformed retainer.



Insertion of shaft into Linear Bearing

**The Rotational Motion Prohibited**

Linear Bushing is not suitable for rotational motion. If the Linear Bushing is exposed to rotational motion it may lead unexpected accidents.



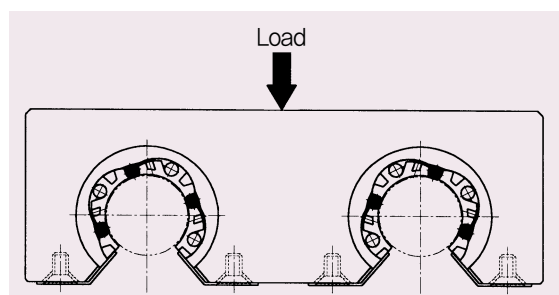
The Rotational Motion Prohibited

**When Moment loads applied**

External loads should be distributed uniformly on a Linear Bushing. When moment loads are applied, two or more Linear Bushings should be used on one LM shaft, and the distance between two Linear Bushings should have enough distance. When the moment loads are applied, calculate the equivalent load and choose the proper Linear Bushing.

**Mounting of open type Linear Bushing with three ball rows**

Please mount the open type Linear Bushings with three ball circuit as same as Figure for considering of load distribution.



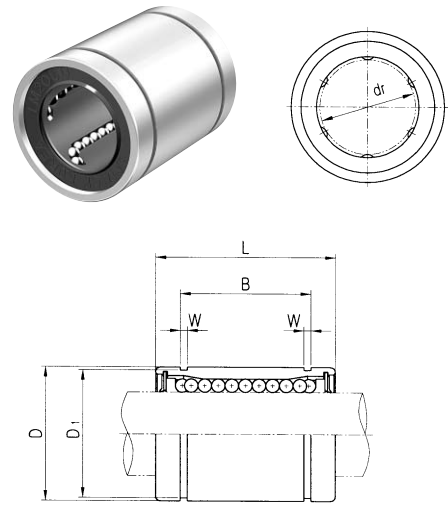
Installation example of LM12, LM13

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ASIAN Standard



LM CLOSED LINEAR BUSHING



<b>Samick Linear Bushing</b>	<b>LM</b>	<b>20</b>	<b>UU</b>	<b>-</b>	<b>A</b>	<b>N</b>	<b>S</b>
<b>Nominal Shaft Diameter</b>							
<b>Seal</b>		Blank : No Seal U : One Side Seal UU : Both Side Seal					
<b>Retainer</b>		Blank : Resin retainer(Standard) A : Steel retainer(High temperature)					
<b>Outer-sleeves (by corrosion resistance type)</b>		Blank : No-plating(Standard) N : Electroless nickel plating R : Raydent treatment					
<b>Ball type (by corrosion resistance)</b>		Blank : High carbon bearing steel ball (standard) S : Stainless steel ball					

PART NUMBER	WORKING BORE DIAMETER		D	L	B	W	D <sub>1</sub>	BASIC LOAD RATING(N)		NO. OF BALL	WEIGHT (gf)
	Resin	Steel						dr.	CLEARANCE		
LM5		5	10	15	10.2	1.1	9.6	167	206	4	4
LM6	LM6-A	6	12	19	13.5	1.1	11.5	200	260	4	8
LM8S		8	15	17	11.5	1.1	14.3	170	220	4	11
LM8	LM8-A	8	15	24	17.5	1.1	14.3	260	400	4	16
LM10	LM10-A	10	19	29	22.0	1.3	18	370	540	4	30
LM12	LM12-A	12	21	30	23.0	1.3	20	410	590	4	31.5
LM13	LM13-A	13	23	32	23.0	1.3	22	500	770	4	43
LM16	LM16-A	16	28	37	26.5	1.6	27	770	1170	5	69
LM20	LM20-A	20	32	42	30.5	1.6	30.5	860	1370	5	87
LM25	LM25-A	25	40	59	41.0	1.85	38	980	1560	6	220
LM30		30	45	64	44.5	1.85	43	1560	2740	6	250
LM35		35	52	70	49.5	2.1	49	1660	3130	6	390
LM40		40	60	80	60.5	2.1	57	2150	4010	6	585
LM50		50	80	100	74.0	2.6	76.5	3820	7930	6	1580
LM60		60	90	110	85.0	3.15	86.5	4700	9990	6	2000
LM80		80	120	140	105.5	4.15	116	10130	12000	6	4100

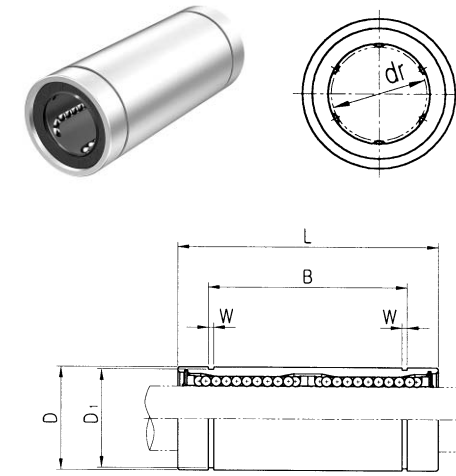
Note 1) Dynamic load rating is based on the nominal life of 50km.  
In case of 100km, C on the table need to be divided by 1,26  
Ex) LM12's 50km basis dynamic load rating C = 410N  
LM12's 100km basis dynamic load rating C<sub>100</sub> = 410 / 1,26 = 325,40N

Note 2) Based on the weight of resin retainer

Note 3) Dimension : mm

Note 4) 1N ≅ 0.102kgf

LM\_L LONG LINEAR BUSHING



<b>Samick Linear Bushing</b>	<b>LM</b>	<b>20</b>	<b>L</b>	<b>UU</b>	<b>-</b>	<b>A</b>	<b>N</b>	<b>S</b>
<b>Nominal Shaft Diameter</b>								
<b>Linear Bushing Long type (for high load)</b>								
<b>Seal</b>		Blank : No Seal U : One Side Seal UU : Both Side Seal						
<b>Retainer</b>		Blank : Resin retainer(Standard) A : Steel retainer(High temperature)						
<b>Outer-sleeves (by corrosion resistance type)</b>		Blank : No-plating(Standard) N : Electroless nickel plating R : Raydent treatment						
<b>Ball type (by corrosion resistance)</b>		Blank : High carbon bearing steel ball (standard) S : Stainless steel ball						

PART NUMBER	WORKING BORE DIAMETER		D	L	B	W	D <sub>1</sub>	BASIC LOAD RATING(N)		NO. OF BALL	WEIGHT (gf)
	Resin	Steel						dr.	CLEARANCE		
LM6L	LM6L-A	6	12	35	27	1.1	11.5	320	520	4	16
LM8L	LM8L-A	8	15	45	35	1.1	14.3	430	780	4	31
LM10L	LM10L-A	10	19	55	44	1.3	18	580	1100	4	62
LM12L	LM12L-A	12	21	57	46	1.3	20	650	1200	4	80
LM13L	LM13L-A	13	23	61	46	1.3	22	810	1570	4	90
LM16L	LM16L-A	16	28	70	53	1.6	27	1230	2350	5	145
LM20L	LM20L-A	20	32	80	61	1.6	30.5	1400	2750	5	180
LM25L	LM25L-A	25	40	112	82	1.85	38	1560	3140	6	440
LM30L		30	45	123	89	1.85	43	2490	5490	6	580
LM35L		35	52	135	99	2.1	49	2650	6470	6	795
LM40L		40	60	154	121	2.1	57	3430	8040	6	1170
LM50L		50	80	192	148	2.6	76.5	6080	15900	6	3100
LM60L		60	90	211	170	3.15	86.5	7650	20000	6	3500

Note 1) Dynamic load rating is based on the nominal life of 50km.  
In case of 100km, C on the table need to be divided by 1,26  
Ex) LM12's 50km basis dynamic load rating C = 410N  
LM12's 100km basis dynamic load rating C<sub>100</sub> = 410 / 1,26 = 325,40N

Note 2) Based on the weight of resin retainer

Note 3) Dimension : mm

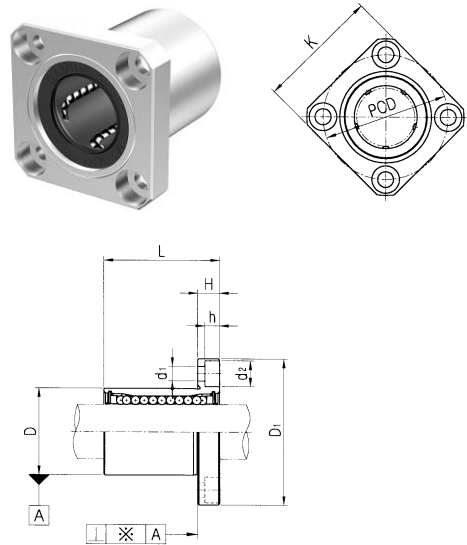
Note 4) 1N ≅ 0.102kgf







LMK FLANGED LINEAR BUSHING



Samick Square Flanged Linear Bushing	LMK	20	UU	-	A	N	S
<b>Nominal Shaft Diameter</b>							
<b>Seal</b>							
Blank : No Seal U : One Side Seal UU : Both Side Seal							
<b>Retainer</b>							
Blank : Resin retainer(Standard) A : Steel retainer(High temperature)							
<b>Outer-sleeves (by corrosion resistance type)</b>							
Blank : No-plating(Standard) N : Electroless nickel plating R : Raydent treatment							
<b>Ball type (by corrosion resistance)</b>							
Blank : High carbon bearing steel ball (standard) S : Stainless steel ball							

PART NUMBER	WORKING BORE DIAMETER	D		L		D <sub>1</sub>	H	PCD	K	d <sub>1</sub>	d <sub>2</sub>	h	SQUARENESS	BASIC LOAD RATING(N)		NO. OF BALL	WEIGHT (gf)	
		dr. CLEARANCE	mm CLEARANCE	mm CLEARANCE	mm CLEARANCE									μm	DYNAMIC(C)			STATIC(C <sub>0</sub> )
LMK6	LMK6-A	6	12		19	28	5	20	22	3.4	6.5	3.3	12	200	260	4	26.5	
LMK8S		8	15	<sup>0</sup> / <sub>-0.011</sub>	17	32	5	24	25	3.4	6.5	3.3	12	170	220	4	34	
LMK8	LMK8-A	8	15		24	32	5	24	25	3.4	6.5	3.3	12	260	400	4	40	
LMK10	LMK10-A	10	<sup>0</sup> / <sub>-0.009</sub>	19	29	<sup>0</sup> / <sub>-0.2</sub>	40	6	29	30	4.5	8.0	4.4	12	370	540	4	78
LMK12	LMK12-A	12	21	<sup>0</sup> / <sub>-0.013</sub>	30	42	6	32	32	4.5	8.0	4.4	12	410	590	4	76	
LMK13	LMK13-A	13	23	<sup>0</sup> / <sub>-0.013</sub>	32	43	<sup>0</sup> / <sub>-0.2</sub>	6	33	34	4.5	8.0	4.4	12	500	770	4	94
LMK16	LMK16-A	16	28		37	48	6	38	37	4.5	8.0	4.4	12	770	1170	5	134	
LMK20	LMK20-A	20	32		42	54	8	43	42	5.5	9.5	5.4	15	860	1370	5	180	
LMK25	LMK25-A	25	<sup>0</sup> / <sub>-0.010</sub>	40	<sup>0</sup> / <sub>-0.016</sub>	59	62	8	51	50	5.5	9.5	5.4	15	980	1560	6	340
LMK30		30	45		64	74	10	60	58	6.6	11.0	6.5	15	1560	2740	6	460	
LMK35		35	52		70	82	10	67	64	6.6	11.0	6.5	20	1660	3130	6	795	
LMK40		40	<sup>0</sup> / <sub>-0.012</sub>	60	<sup>0</sup> / <sub>-0.019</sub>	80	<sup>0</sup> / <sub>-0.3</sub>	13	78	75	9.0	14.0	8.6	20	2150	4010	6	1054
LMK50		50	80		100	116	<sup>0</sup> / <sub>-0.3</sub>	13	98	92	9.0	14.0	8.6	20	3820	7930	6	2200
LMK60		60	<sup>0</sup> / <sub>-0.015</sub>	90	<sup>0</sup> / <sub>-0.022</sub>	110	134	18	112	106	11.0	17.5	10.8	25	4700	9990	6	2960
LMK80		80	<sup>0</sup> / <sub>-0.015</sub>	120	<sup>0</sup> / <sub>-0.022</sub>	140	164	18	142	136	11.0	17.5	11.1	25	10130	12000	6	4900

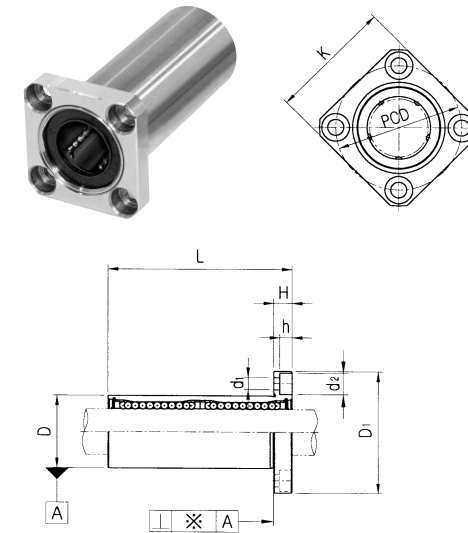
Note 1) Dynamic load rating is based on the nominal life of 50km.  
In case of 100km, C on the table need to be divided by 1,26  
Ex) LM12's 50km basis dynamic load rating C = 410N  
LM12's 100km basis dynamic load rating C<sub>100</sub> = 410 / 1,26 = 325,40N

Note 2) Based on the weight of resin retainer

Note 3) Dimension : mm

Note 4) 1N ≒ 0.102kgf

LMK\_L FLANGED LINEAR BUSHING LONG



Samick Square Flanged Linear Bushing	LMK	20	L	UU	-	A	N	S
<b>Nominal Shaft Diameter</b>								
<b>Linear Bushing Long type (for high load)</b>								
<b>Seal</b>								
Blank : No Seal U : One Side Seal UU : Both Side Seal								
<b>Retainer</b>								
Blank : Resin retainer(Standard) A : Steel retainer(High temperature)								
<b>Outer-sleeves (by corrosion resistance type)</b>								
Blank : No-plating(Standard) N : Electroless nickel plating R : Raydent treatment								
<b>Ball type (by corrosion resistance)</b>								
Blank : High carbon bearing steel ball (standard) S : Stainless steel ball								

PART NUMBER	WORKING BORE DIAMETER	D		L		D <sub>1</sub>	H	PCD	K	d <sub>1</sub>	d <sub>2</sub>	h	SQUARENESS	BASIC LOAD RATING(N)		NO. OF BALL	WEIGHT (gf)	
		dr. CLEARANCE	mm CLEARANCE	mm CLEARANCE	mm CLEARANCE									μm	DYNAMIC(C)			STATIC(C <sub>0</sub> )
LMK6 L	LMK6L-A	6	12	<sup>0</sup> / <sub>-0.013</sub>	35	28	5	20	22	3.4	6.5	3.3	15	320	520	4	31	
LMK8 L	LMK8L-A	8	15	<sup>0</sup> / <sub>-0.013</sub>	45	32	5	24	25	3.4	6.5	3.3	15	430	780	4	53	
LMK10 L	LMK10L-A	10	19	<sup>0</sup> / <sub>-0.010</sub>	55	40	6	29	30	4.5	8.0	4.4	15	580	1100	4	105	
LMK12 L	LMK12L-A	12	21	<sup>0</sup> / <sub>-0.016</sub>	57	<sup>0</sup> / <sub>-0.3</sub>	42	6	32	32	4.5	8.0	4.4	15	650	1200	4	100
LMK13 L	LMK13L-A	13	23	<sup>0</sup> / <sub>-0.016</sub>	61	43	<sup>0</sup> / <sub>-0.2</sub>	6	33	34	4.5	8.0	4.4	15	810	1570	4	130
LMK16 L	LMK16L-A	16	28		70	48	<sup>0</sup> / <sub>-0.2</sub>	6	38	37	4.5	8.0	4.4	15	1230	2350	5	187
LMK20 L	LMK20L-A	20	32		80	54		8	43	42	5.5	9.5	5.4	20	1400	2750	5	260
LMK25 L	LMK25L-A	25	<sup>0</sup> / <sub>-0.012</sub>	40	<sup>0</sup> / <sub>-0.019</sub>	112	62	8	51	50	5.5	9.5	5.4	20	1560	3140	6	515
LMK30 L		30	45		123	74		10	60	58	6.6	11.0	6.5	20	2490	5490	6	655
LMK35 L		35	52		135	82		10	67	64	6.6	11.0	6.5	25	2650	6470	6	970
LMK40 L		40	<sup>0</sup> / <sub>-0.015</sub>	60	<sup>0</sup> / <sub>-0.022</sub>	154	<sup>0</sup> / <sub>-0.4</sub>	13	78	75	9.0	14.0	8.6	25	3430	8040	6	1560
LMK50 L		50	80		192	116	<sup>0</sup> / <sub>-0.3</sub>	13	98	92	9.0	14.0	8.6	25	6080	15900	6	3500
LMK60 L		60	<sup>0</sup> / <sub>-0.020</sub>	90	<sup>0</sup> / <sub>-0.025</sub>	211	134	18	112	106	11.0	17.5	10.8	30	7650	20000	6	4500

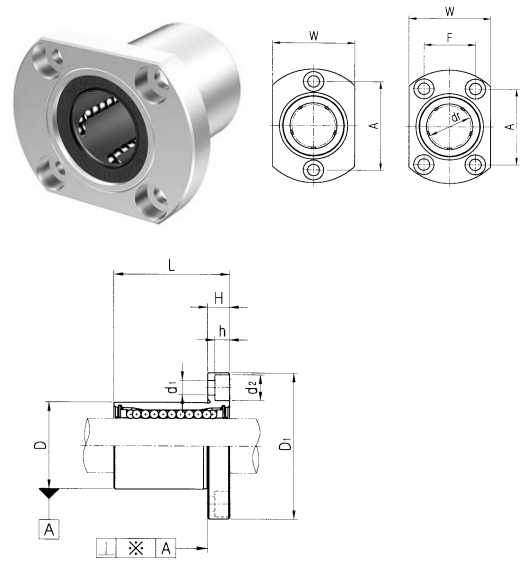
Note 1) Dynamic load rating is based on the nominal life of 50km.  
In case of 100km, C on the table need to be divided by 1,26  
Ex) LM12's 50km basis dynamic load rating C = 410N  
LM12's 100km basis dynamic load rating C<sub>100</sub> = 410 / 1,26 = 325,40N

Note 2) Based on the weight of resin retainer

Note 3) Dimension : mm

Note 4) 1N ≒ 0.102kgf

LMH FLANGED LINEAR BUSHING



Samick Oval Flanged Linear Bushing	LMH	20	UU	-	A	N	S
<b>Nominal Shaft Diameter</b>							
<b>Seal</b>	Blank : No Seal U : One Side Seal UU : Both Side Seal						
<b>Retainer</b>	Blank : Resin retainer(Standard) A : Steel retainer(High temperature)						
<b>Outer-sleeves (by corrosion resistance type)</b>	Blank : No-plating(Standard) N : Electroless nickel plating R : Raydent treatment						
<b>Ball type (by corrosion resistance)</b>	Blank : High carbon bearing steel ball (standard) S : Stainless steel ball						

PART NUMBER	WORKING BORE DIAMETER	D	L	D <sub>1</sub>	H	W	A	F	d <sub>1</sub>	d <sub>2</sub>	h	SQUARENESS	BASIC LOAD RATING(N)		NO. OF BALLS	WEIGHT	
													DYNAMIC(C)	STATIC(C <sub>0</sub> )			
Resin	Steel	dr.	CLEARANCE	CLEARANCE	CLEARANCE	CLEARANCE						※(μm)				(gf)	
LMH6	LMH6-A	6	12	19	28	5	18	20	-	3.4	6.5	3.3	12	200	260	4	26.5
LMH8	LMH8-A	8	15 <sup>-0.011</sup>	24	32	5	21	24	-	3.4	6.5	3.3	12	260	400	4	40
LMH10	LMH10-A	10	19	29	40	6	25	29	-	4.5	8.0	4.4	12	370	540	4	78
LMH12	LMH12-A	12	21 <sup>-0.009</sup>	30	42	6	27	32	-	4.5	8.0	4.4	12	410	590	4	76
LMH13	LMH13-A	13	23 <sup>-0.013</sup>	32	43	6	29	33	-	4.5	8.0	4.4	12	500	770	4	94
LMH16	LMH16-A	16	28	37	48	6	34	31	22	4.5	8.0	4.4	12	770	1170	5	134
LMH20	LMH20-A	20	32	42	54	8	38	36	24	5.5	9.5	5.4	15	860	1370	5	180
LMH25	LMH25-A	25	40 <sup>-0.010</sup>	59 <sup>-0.016</sup>	62	8	46	40	32	5.5	9.5	5.4	15	980	1560	6	340
LMH30		30	45	64	74	10	51	49	35	6.6	11.0	6.5	15	1560	2740	6	460

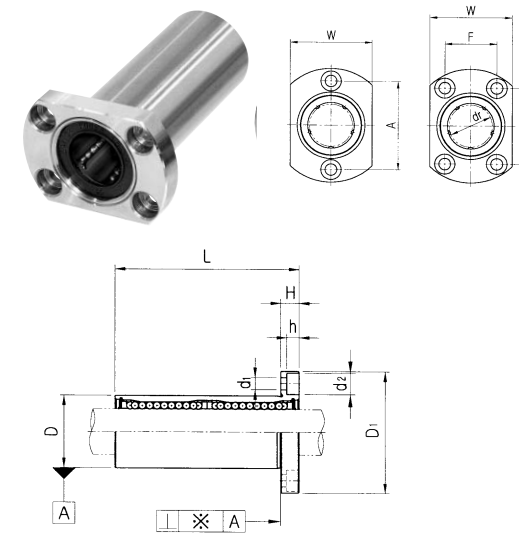
Note 1) Dynamic load rating is based on the nominal life of 50km.  
In case of 100km, C on the table need to be divided by 1,26  
Ex) LM12's 50km basis dynamic load rating C = 410N  
LM12's 100km basis dynamic load rating C<sub>100</sub> = 410 / 1,26 = 325,40N

Note 2) Based on the weight of resin retainer

Note 3) Dimension : mm

Note 4) 1N ≒ 0.102kgf

LMH\_L FLANGED LINEAR BUSHING LONG



Samick Oval Flanged Linear Bushing	LMH	20	L	UU	-	A	N	S
<b>Nominal Shaft Diameter</b>								
<b>Linear Bushing Long type (for high load)</b>								
<b>Seal</b>	Blank : No Seal U : One Side Seal UU : Both Side Seal							
<b>Retainer</b>	Blank : Resin retainer(Standard) A : Steel retainer(High temperature)							
<b>Outer-sleeves (by corrosion resistance type)</b>	Blank : No-plating(Standard) N : Electroless nickel plating R : Raydent treatment							
<b>Ball type (by corrosion resistance)</b>	Blank : High carbon bearing steel ball (standard) S : Stainless steel ball							

PART NUMBER	WORKING BORE DIAMETER	D	L	D <sub>1</sub>	H	W	A	F	d <sub>1</sub>	d <sub>2</sub>	h	SQUARENESS	BASIC LOAD RATING(N)		NO. OF BALLS	WEIGHT	
													DYNAMIC(C)	STATIC(C <sub>0</sub> )			
Resin	Steel	dr.	CLEARANCE	CLEARANCE	CLEARANCE	CLEARANCE						※(μm)				(gf)	
LMH6 L	LMH6L-A	6	12	35	28	5	18	20	-	3.4	6.5	3.3	15	320	520	4	31
LMH8 L	LMH8L-A	8	15 <sup>-0.013</sup>	45	32	5	21	24	-	3.4	6.5	3.3	15	430	780	4	53
LMH10 L	LMH10L-A	10	19	55	40	6	25	29	-	4.5	8.0	4.4	15	580	1100	4	105
LMH12 L	LMH12L-A	12	21 <sup>-0.010</sup>	57	42	6	27	32	-	4.5	8.0	4.4	15	650	1200	4	100
LMH13 L	LMH13L-A	13	23 <sup>-0.016</sup>	61	43	6	29	33	-	4.5	8.0	4.4	15	810	1570	4	130
LMH16 L	LMH16L-A	16	28	70	48	6	34	31	22	4.5	8.0	4.4	15	1230	2350	5	187
LMH20 L	LMH20L-A	20	32	80	54	8	38	36	24	5.5	9.5	5.4	20	1400	2750	5	260
LMH25 L	LMH25L-A	25	40 <sup>-0.012</sup>	112 <sup>-0.019</sup>	62	8	46	40	32	5.5	9.5	5.4	20	1560	3140	6	515
LMH30 L		30	45	123	74	10	51	49	35	6.6	11.0	6.5	20	2490	5490	6	655

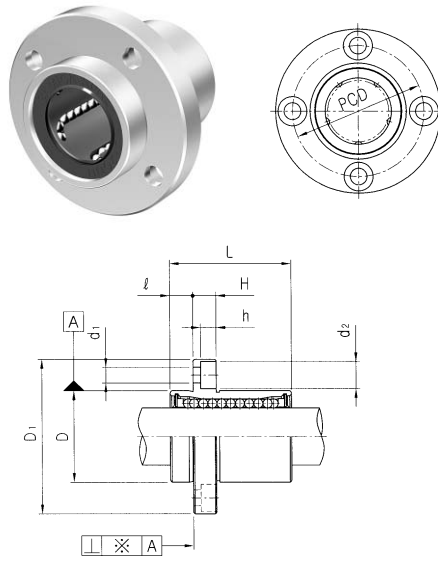
Note 1) Dynamic load rating is based on the nominal life of 50km.  
In case of 100km, C on the table need to be divided by 1,26  
Ex) LM12's 50km basis dynamic load rating C = 410N  
LM12's 100km basis dynamic load rating C<sub>100</sub> = 410 / 1,26 = 325,40N

Note 2) Based on the weight of resin retainer

Note 3) Dimension : mm

Note 4) 1N ≒ 0.102kgf

LMFP FLANGED LINEAR BUSHING



Samick Circular Pilot Flanged Linear Bushing		LMFP	20	UU	-	A	N	S
<b>Nominal Shaft Diameter</b>								
<b>Seal</b>		Blank : No Seal U : One Side Seal UU : Both Side Seal						
<b>Retainer</b>		Blank : Resin retainer(Standard) A : Steel retainer(High temperature)						
<b>Outer-sleeves (by corrosion resistance type)</b>		Blank : No-plating(Standard) N : Electroless nickel plating R : Raydent treatment						
<b>Ball type (by corrosion resistance)</b>		Blank : High carbon bearing steel ball (standard) S : Stainless steel ball						

PART NUMBER	WORKING BORE DIAMETER	D	L	D <sub>1</sub>	l	H	PCD	d <sub>1</sub>	d <sub>2</sub>	h	SQUARENESS	BASIC LOAD RATING(N)		NO. OF BALL	WEIGHT	
												DR. CLEARANCE	mm CLEARANCE			mm CLEARANCE
LMFP6	LMFP6-A	6	12	19	28	5	5	20	3.4	6.5	3.3	12	200	260	4	26.5
LMFP8	LMFP8-A	8	15	24	32	5	5	24	3.4	6.5	3.3	12	260	400	4	40
LMFP10	LMFP10-A	10	19	29	40	6	6	29	4.5	8	4.4	12	370	540	4	76
LMFP12	LMFP12-A	12	21	30	42	6	6	32	4.5	8	4.4	12	410	590	4	78
LMFP13	LMFP13-A	13	23	32	43	6	6	33	4.5	8	4.4	12	500	770	4	94
LMFP16	LMFP16-A	16	28	37	48	6	6	38	4.5	8	4.4	12	770	1170	5	134
LMFP20	LMFP20-A	20	32	42	54	8	8	43	5.5	9.5	5.4	15	860	1370	5	180
LMFP25	LMFP25-A	25	40	59	62	8	8	51	5.5	9.5	5.4	15	980	1560	6	340
LMFP30		30	45	64	74	10	10	60	6.6	11	6.5	15	1560	2740	6	460
LMFP35		35	52	70	82	10	10	67	6.6	11	6.5	20	1660	3130	6	795
LMFP40		40	60	80	96	13	13	78	9	14	8.6	20	2150	4010	6	1054
LMFP50		50	80	100	116	13	13	98	9	14	8.6	20	3820	7930	6	2200
LMFP60		60	90	110	134	18	18	112	11	17.5	10.8	25	4700	9990	6	2960

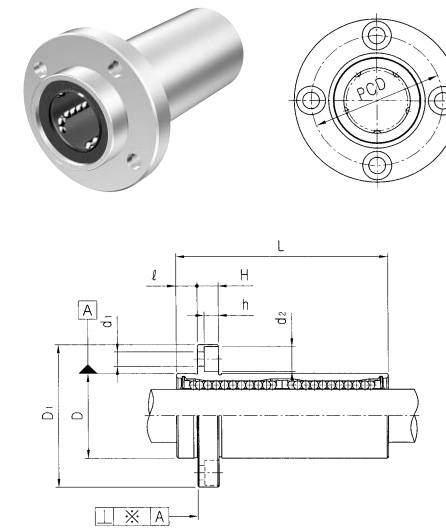
Note 1) Dynamic load rating is based on the nominal life of 50km.  
In case of 100km, C on the table need to be divided by 1,26  
Ex) LM12's 50km basis dynamic load rating C = 410N  
LM12's 100km basis dynamic load rating C<sub>100</sub> = 410 / 1,26 = 325,40N

Note 2) Based on the weight of resin retainer

Note 3) Dimension : mm

Note 4) 1N ≒ 0.102kgf

LMFP\_L FLANGED LINEAR BUSHING LONG



Samick Circular Pilot Flanged Linear Bushing		LMFP	20	L	UU	-	A	N	S
<b>Nominal Shaft Diameter</b>									
<b>Linear Bushing Long type (for high load)</b>									
<b>Seal</b>		Blank : No Seal U : One Side Seal UU : Both Side Seal							
<b>Retainer</b>		Blank : Resin retainer(Standard) A : Steel retainer(High temperature)							
<b>Outer-sleeves (by corrosion resistance type)</b>		Blank : No-plating(Standard) N : Electroless nickel plating R : Raydent treatment							
<b>Ball type (by corrosion resistance)</b>		Blank : High carbon bearing steel ball (standard) S : Stainless steel ball							

PART NUMBER	WORKING BORE DIAMETER	D	L	D <sub>1</sub>	l	H	PCD	d <sub>1</sub>	d <sub>2</sub>	h	SQUARENESS	BASIC LOAD RATING(N)		NO. OF BALL	WEIGHT	
												DR. CLEARANCE	mm CLEARANCE			mm CLEARANCE
LMFP6L	LMFP6L-A	6	12	35	28	5	5	20	3.4	6.5	3.3	15	320	520	4	31
LMFP8L	LMFP8L-A	8	15	45	32	5	5	24	3.4	6.5	3.3	15	430	780	4	53
LMFP10L	LMFP10L-A	10	19	55	40	6	6	29	4.5	8	4.4	15	580	1100	4	105
LMFP12L	LMFP12L-A	12	21	57	42	6	6	32	4.5	8	4.4	15	650	1200	4	100
LMFP13L	LMFP13L-A	13	23	61	43	6	6	33	4.5	8	4.4	15	810	1570	4	130
LMFP16L	LMFP16L-A	16	28	70	48	6	6	38	4.5	8	4.4	15	1230	2350	5	187
LMFP20L	LMFP20L-A	20	32	80	54	8	8	43	5.5	9.5	5.4	20	1400	2750	5	260
LMFP25L	LMFP25L-A	25	40	112	62	8	8	51	5.5	9.5	5.4	20	1560	3140	6	515
LMFP30L		30	45	123	74	10	10	60	6.6	11	6.5	20	2490	5490	6	655
LMFP35L		35	52	135	82	10	10	67	6.6	11	6.5	25	2650	6470	6	970
LMFP40L		40	60	154	96	13	13	78	9	14	8.6	25	3430	8040	6	1560
LMFP50L		50	80	192	116	13	13	98	9	14	8.6	25	6080	15900	6	3500
LMFP60L		60	90	211	134	18	18	112	11	17.5	10.8	30	7650	20000	6	4500

Note 1) Dynamic load rating is based on the nominal life of 50km.  
In case of 100km, C on the table need to be divided by 1,26  
Ex) LM12's 50km basis dynamic load rating C = 410N  
LM12's 100km basis dynamic load rating C<sub>100</sub> = 410 / 1,26 = 325,40N

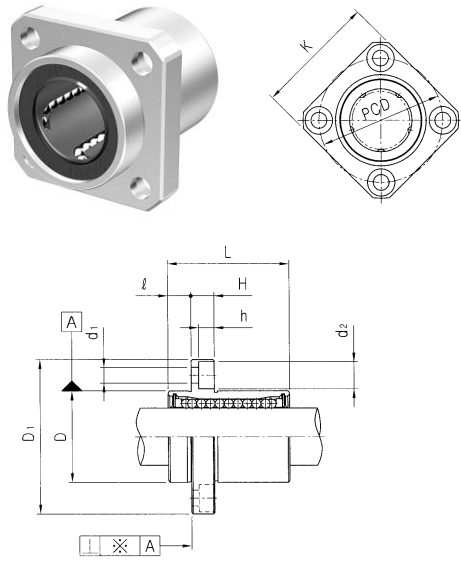
Note 2) Based on the weight of resin retainer

Note 3) Dimension : mm

Note 4) 1N ≒ 0.102kgf



LMKP FLANGED LINEAR BUSHING



Samick Square Pilot Flanged Linear Bushing		LMKP	20	UU	-	A	N	S
<b>Nominal Shaft Diameter</b>								
<b>Seal</b>	Blank : No Seal U : One Side Seal UU : Both Side Seal							
<b>Retainer</b>	Blank : Resin retainer(Standard) A : Steel retainer(High temperature)							
<b>Outer-sleeves (by corrosion resistance type)</b>	Blank : No-plating(Standard) N : Electroless nickel plating R : Raydent treatment							
<b>Ball type (by corrosion resistance)</b>	Blank : High carbon bearing steel ball (standard) S : Stainless steel ball							

PART NUMBER	WORKING BORE DIAMETER	D	L	D <sub>1</sub>	ℓ	H	PCD	K	d <sub>1</sub>	d <sub>2</sub>	h	SQUARENESS	BASIC LOAD RATING(N)		NO. OF BALLS	WEIGHT	
													DYNAMIC(C)	STATIC(C <sub>0</sub> )			
LMKP6	LMKP6-A	6	12	19	28	5	5	20	22	3.4	6.5	3.3	12	200	260	4	26.5
LMKP8	LMKP8-A	8	15	24	32	5	5	24	25	3.4	6.5	3.3	12	260	400	4	40
LMKP10	LMKP10-A	10	19	29	40	6	6	29	30	4.5	8	4.4	12	370	540	4	76
LMKP12	LMKP12-A	12	21	30	42	6	6	32	32	4.5	8	4.4	12	410	590	4	78
LMKP13	LMKP13-A	13	23	32	43	6	6	33	34	4.5	8	4.4	12	500	770	4	94
LMKP16	LMKP16-A	16	28	37	48	6	6	38	37	4.5	8	4.4	12	770	1170	5	134
LMKP20	LMKP20-A	20	32	42	54	8	8	43	42	5.5	9.5	5.4	15	860	1370	5	180
LMKP25	LMKP25-A	25	40	59	62	8	8	51	50	5.5	9.5	5.4	15	980	1560	6	340
LMKP30		30	45	64	74	10	10	60	58	6.6	11	6.5	15	1560	2740	6	460
LMKP35		35	52	70	82	10	10	67	64	6.6	11	6.5	20	1660	3130	6	795
LMKP40		40	60	80	96	13	13	78	75	9	14	8.6	20	2150	4010	6	1054
LMKP50		50	80	100	116	13	13	98	92	9	14	8.6	20	3820	7930	6	2200
LMKP60		60	90	110	134	18	18	112	106	11	17.5	10.8	25	4700	9990	6	2960

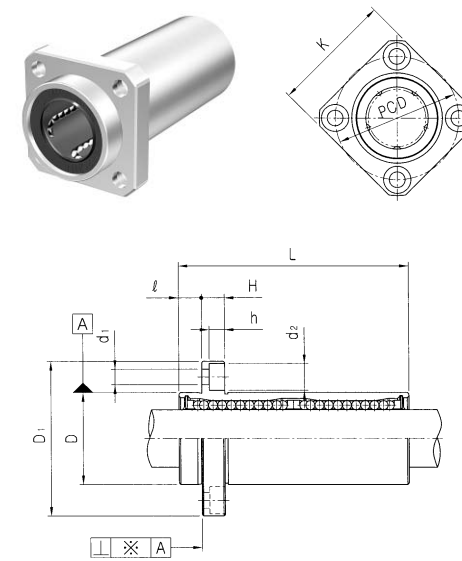
Note 1) Dynamic load rating is based on the nominal life of 50km.  
In case of 100km, C on the table need to be divided by 1,26  
Ex) LM12's 50km basis dynamic load rating C = 410N  
LM12's 100km basis dynamic load rating C<sub>100</sub> = 410 / 1,26 = 325,40N

Note 2) Based on the weight of resin retainer

Note 3) Dimension : mm

Note 4) 1N ≒ 0.102kgf

LMKP\_L FLANGED LINEAR BUSHING LONG



Samick Square Pilot Flanged Linear Bushing		LMKP	20	L	UU	-	A	N	S
<b>Nominal Shaft Diameter</b>									
<b>Linear Bushing Long type (for high load)</b>									
<b>Seal</b>	Blank : No Seal U : One Side Seal UU : Both Side Seal								
<b>Retainer</b>	Blank : Resin retainer(Standard) A : Steel retainer(High temperature)								
<b>Outer-sleeves (by corrosion resistance type)</b>	Blank : No-plating(Standard) N : Electroless nickel plating R : Raydent treatment								
<b>Ball type (by corrosion resistance)</b>	Blank : High carbon bearing steel ball (standard) S : Stainless steel ball								

PART NUMBER	WORKING BORE DIAMETER	D	L	D <sub>1</sub>	ℓ	H	PCD	K	d <sub>1</sub>	d <sub>2</sub>	h	SQUARENESS	BASIC LOAD RATING(N)		NO. OF BALLS	WEIGHT
													DYNAMIC(C)	STATIC(C <sub>0</sub> )		
LMKP6L	LMKP6L-A	6	35	28	5	5	20	22	3.4	6.5	3.3	15	320	520	4	31
LMKP8L	LMKP8L-A	8	45	32	5	5	24	25	3.4	6.5	3.3	15	430	780	4	53
LMKP10L	LMKP10L-A	10	55	40	6	6	29	30	4.5	8	4.4	15	580	1100	4	105
LMKP12L	LMKP12L-A	12	57	42	6	6	32	32	4.5	8	4.4	15	650	1200	4	100
LMKP13L	LMKP13L-A	13	61	43	6	6	33	34	4.5	8	4.4	15	810	1570	4	130
LMKP16L	LMKP16L-A	16	70	48	6	6	38	37	4.5	8	4.4	15	1230	2350	5	187
LMKP20L	LMKP20L-A	20	80	54	8	8	43	42	5.5	9.5	5.4	20	1400	2750	5	260
LMKP25L	LMKP25L-A	25	112	62	8	8	51	50	5.5	9.5	5.4	20	1560	3140	6	515
LMKP30L		30	123	74	10	10	60	58	6.6	11	6.5	20	2490	5490	6	655
LMKP35L		35	135	82	10	10	67	64	6.6	11	6.5	25	2650	6470	6	970
LMKP40L		40	154	96	13	13	78	75	9	14	8.6	25	3430	8040	6	1560
LMKP50L		50	192	116	13	13	98	92	9	14	8.6	25	6080	15900	6	3500
LMKP60L		60	211	134	18	18	112	106	11	17.5	10.8	30	7650	20000	6	4500

Note 1) Dynamic load rating is based on the nominal life of 50km.  
In case of 100km, C on the table need to be divided by 1,26  
Ex) LM12's 50km basis dynamic load rating C = 410N  
LM12's 100km basis dynamic load rating C<sub>100</sub> = 410 / 1,26 = 325,40N

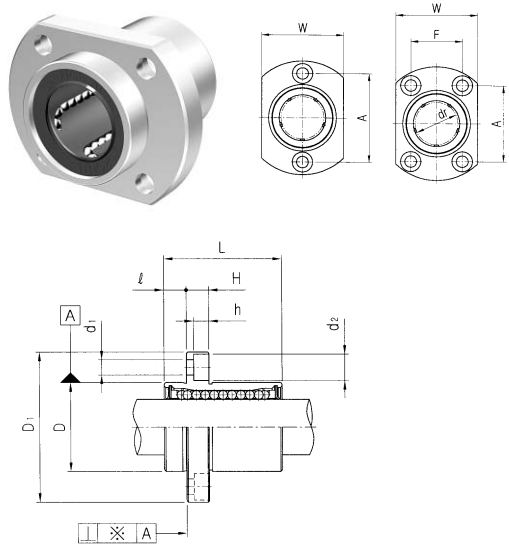
Note 2) Based on the weight of resin retainer

Note 3) Dimension : mm

Note 4) 1N ≒ 0.102kgf



LMHP FLANGED LINEAR BUSHING



Samick Oval Pilot Flanged Linear Bushing		LMHP	20	UU	-	A	N	S
<b>Nominal Shaft Diameter</b>								
<b>Seal</b>		Blank : No Seal U : One Side Seal UU : Both Side Seal						
<b>Retainer</b>		Blank : Resin retainer(Standard) A : Steel retainer(High temperature)						
<b>Outer-sleeves (by corrosion resistance type)</b>		Blank : No-plating(Standard) N : Electroless nickel plating R : Raydent treatment						
<b>Ball type (by corrosion resistance)</b>		Blank : High carbon bearing steel ball (standard) S : Stainless steel ball						

PART NUMBER	WORKING BORE DIAMETER	D	L	D <sub>1</sub>	ℓ	H	W	A	F	d <sub>1</sub>	d <sub>2</sub>	h	SQUARENESS BASIC LOAD RATING(N)			NO. OF BALLS	WEIGHT (gf)	
													※(μm)	DYNAMIC(C)	STATIC(C <sub>0</sub> )			
LMHP6	LMHP6-A	6	12	19	28	5	5	18	20	3.4	6.5	3.3	12	200	260	4	26.5	
LMHP8	LMHP8-A	8	15 <sup>-0.011</sup>	24	32	5	5	21	24	3.4	6.5	3.3	12	260	400	4	40	
LMHP10	LMHP10-A	10	19	29	40	6	6	25	29	4.5	8	4.4	12	370	540	4	76	
LMHP12	LMHP12-A	12	21 <sup>-0.009</sup>	30 <sup>-0.2</sup>	42	6	6	27	32	4.5	8	4.4	12	410	590	4	78	
LMHP13	LMHP13-A	13	23 <sup>-0.013</sup>	32 <sup>-0.2</sup>	43	6	6	29	33	4.5	8	4.4	12	500	770	4	94	
LMHP16	LMHP16-A	16	28	37	48	6	6	34	31	22	4.5	8	4.4	12	770	1170	5	134
LMHP20	LMHP20-A	20	32	42	54	8	8	38	36	24	5.5	9.5	5.4	15	860	1370	5	180
LMHP25	LMHP25-A	25	40 <sup>-0.010</sup>	59 <sup>-0.016</sup>	62	8	8	46	40	32	5.5	9.5	5.4	15	980	1560	6	340
LMHP30		30	45	64 <sup>-0.3</sup>	74	10	10	51	49	35	6.6	11	6.5	15	1560	2740	6	460

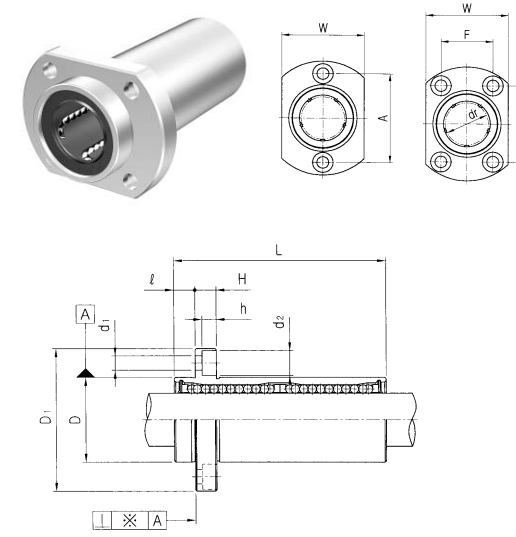
Note 1) Dynamic load rating is based on the nominal life of 50km.  
In case of 100km, C on the table need to be divided by 1,26  
Ex) LM12's 50km basis dynamic load rating C = 410N  
LM12's 100km basis dynamic load rating C<sub>100</sub> = 410 / 1,26 = 325,40N

Note 2) Based on the weight of resin retainer

Note 3) Dimension : mm

Note 4) 1N ≒ 0.102kgf

LMHP\_L FLANGED LINEAR BUSHING LONG



Samick Oval Pilot Flanged Linear Bushing		LMHP	20	L	UU	-	A	N	S
<b>Nominal Shaft Diameter</b>									
<b>Linear Bushing Long type(for high load)</b>									
<b>Seal</b>		Blank : No Seal U : One Side Seal UU : Both Side Seal							
<b>Retainer</b>		Blank : Resin retainer(Standard) A : Steel retainer(High temperature)							
<b>Outer-sleeves (by corrosion resistance type)</b>		Blank : No-plating(Standard) N : Electroless nickel plating R : Raydent treatment							
<b>Ball type (by corrosion resistance)</b>		Blank : High carbon bearing steel ball (standard) S : Stainless steel ball							

PART NUMBER	WORKING BORE DIAMETER	D	L	D <sub>1</sub>	ℓ	H	W	A	F	d <sub>1</sub>	d <sub>2</sub>	h	SQUARENESS BASIC LOAD RATING(N)			NO. OF BALLS	WEIGHT (gf)	
													※(μm)	DYNAMIC(C)	STATIC(C <sub>0</sub> )			
LMHP6L	LMHP6L-A	6	12	35	28	5	5	18	20	3.4	6.5	3.3	15	320	520	4	31	
LMHP8L	LMHP8L-A	8	15 <sup>-0.013</sup>	45	32	5	5	21	24	3.4	6.5	3.3	15	430	780	4	53	
LMHP10L	LMHP10L-A	10	19	55	40	6	6	25	29	4.5	8	4.4	15	580	1100	4	105	
LMHP12L	LMHP12L-A	12	21 <sup>-0.010</sup>	57 <sup>-0.3</sup>	42	6	6	27	32	4.5	8	4.4	15	650	1200	4	100	
LMHP13L	LMHP13L-A	13	23 <sup>-0.016</sup>	61 <sup>-0.2</sup>	43	6	6	29	33	4.5	8	4.4	15	810	1570	4	130	
LMHP16L	LMHP16L-A	16	28	70	48	6	6	34	31	22	4.5	8	4.4	15	1230	2350	5	187
LMHP20L	LMHP20L-A	20	32	80	54	8	8	38	36	24	5.5	9.5	5.4	20	1400	2750	5	260
LMHP25L	LMHP25L-A	25	40 <sup>-0.012</sup>	112 <sup>-0.4</sup>	62	8	8	46	40	32	5.5	9.5	5.4	20	1560	3140	6	515
LMHP30L		30	45	123	74	10	10	51	49	35	6.6	11	6.5	20	2940	5490	6	655

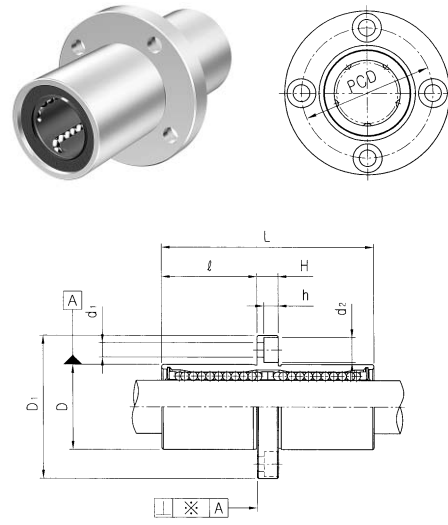
Note 1) Dynamic load rating is based on the nominal life of 50km.  
In case of 100km, C on the table need to be divided by 1,26  
Ex) LM12's 50km basis dynamic load rating C = 410N  
LM12's 100km basis dynamic load rating C<sub>100</sub> = 410 / 1,26 = 325,40N

Note 2) Based on the weight of resin retainer

Note 3) Dimension : mm

Note 4) 1N ≒ 0.102kgf

**LMFM** FLANGED LINEAR BUSHING LONG



Samick Circular Middle Flanged Linear Bushing		<b>LMFM</b>	<b>20</b>	<b>UU</b>	<b>-</b>	<b>A</b>	<b>N</b>	<b>S</b>
<b>Nominal Shaft Diameter</b>								
<b>Seal</b>	Blank : No Seal U : One Side Seal UU : Both Side Seal							
<b>Retainer</b>	Blank : Resin retainer(Standard) A : Steel retainer(High temperature)							
<b>Outer-sleeves (by corrosion resistance type)</b>	Blank : No-plating(Standard) N : Electroless nickel plating R : Raydent treatment							
<b>Ball type (by corrosion resistance)</b>	Blank : High carbon bearing steel ball (standard) S : Stainless steel ball							

PART NUMBER	WORKING BORE DIAMETER	D	L	D <sub>1</sub>	l	H	PCD	d <sub>1</sub>	d <sub>2</sub>	h	SQUARENESS μm	BASIC LOAD RATING(N)		NO. OF BALLS	WEIGHT (gf)	
												DR CLEARANCE	mm CLEARANCE			mm CLEARANCE
LMFM6	LMFM6-A	6	12	35	28	15	5	20	3.4	6.5	3.3	15	320	520	4	31
LMFM8	LMFM8-A	8	15	45	32	20	5	24	3.4	6.5	3.3	15	430	780	4	53
LMFM10	LMFM10-A	10	19	55	40	24.5	6	29	4.5	8	4.4	15	580	1100	4	105
LMFM12	LMFM12-A	12	21	57	42	25.5	6	32	4.5	8	4.4	15	650	1200	4	100
LMFM13	LMFM13-A	13	23	61	43	27.5	6	33	4.5	8	4.4	15	810	1570	4	130
LMFM16	LMFM16-A	16	28	70	48	32	6	38	4.5	8	4.4	15	1230	2350	5	187
LMFM20	LMFM20-A	20	32	80	54	36	8	43	5.5	9.5	5.4	20	1400	2750	5	260
LMFM25	LMFM25-A	25	40	112	62	52	8	51	5.5	9.5	5.4	20	1560	3140	6	515
LMFM30		30	45	123	74	56.5	10	60	6.6	11	6.5	20	2490	5490	6	655
LMFM35		35	52	135	82	62.5	10	67	6.6	11	6.5	25	2650	6470	6	970
LMFM40		40	60	154	96	70.5	13	78	9	14	8.6	25	3430	8040	6	1560
LMFM50		50	80	192	116	89.5	13	98	9	14	8.6	25	6080	15900	6	3500
LMFM60		60	90	211	134	96.5	18	112	11	17.5	10.8	30	7650	20000	6	4500

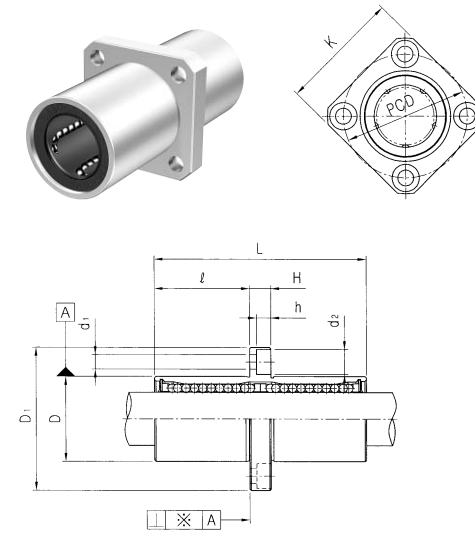
Note 1) Dynamic load rating is based on the nominal life of 50km.  
In case of 100km, C on the table need to be divided by 1,26  
Ex) LM12's 50km basis dynamic load rating C = 410N  
LM12's 100km basis dynamic load rating C<sub>100</sub> = 410 / 1,26 = 325,40N

Note 2) Based on the weight of resin retainer

Note 3) Dimension : mm

Note 4) 1N ≒ 0.102kgf

**LMKM** FLANGED LINEAR BUSHING LONG



Samick Square Middle Flanged Linear Bushing		<b>LMKM</b>	<b>20</b>	<b>UU</b>	<b>-</b>	<b>A</b>	<b>N</b>	<b>S</b>
<b>Nominal Shaft Diameter</b>								
<b>Seal</b>	Blank : No Seal U : One Side Seal UU : Both Side Seal							
<b>Retainer</b>	Blank : Resin retainer(Standard) A : Steel retainer(High temperature)							
<b>Outer-sleeves (by corrosion resistance type)</b>	Blank : No-plating(Standard) N : Electroless nickel plating R : Raydent treatment							
<b>Ball type (by corrosion resistance)</b>	Blank : High carbon bearing steel ball (standard) S : Stainless steel ball							

PART NUMBER	WORKING BORE DIAMETER	D	L	D <sub>1</sub>	l	H	PCD	K	d <sub>1</sub>	d <sub>2</sub>	h	SQUARENESS μm	BASIC LOAD RATING(N)		NO. OF BALLS	WEIGHT (gf)	
													DR CLEARANCE	mm CLEARANCE			mm CLEARANCE
LMKM6	LMKM6-A	6	12	35	28	15	5	20	22	3.4	6.5	3.3	15	320	520	4	31
LMKM8	LMKM8-A	8	15	45	32	20	5	24	25	3.4	6.5	3.3	15	430	780	4	53
LMKM10	LMKM10-A	10	19	55	40	24.5	6	29	30	4.5	8	4.4	15	580	1100	4	105
LMKM12	LMKM12-A	12	21	57	42	25.5	6	32	32	4.5	8	4.4	15	650	1200	4	100
LMKM13	LMKM13-A	13	23	61	43	27.5	6	33	34	4.5	8	4.4	15	810	1570	4	130
LMKM16	LMKM16-A	16	28	70	48	32	6	38	37	4.5	8	4.4	15	1230	2350	5	187
LMKM20	LMKM20-A	20	32	80	54	36	8	43	42	5.5	9.5	5.4	20	1400	2750	5	260
LMKM25	LMKM25-A	25	40	112	62	52	8	51	50	5.5	9.5	5.4	20	1560	3140	6	515
LMKM30		30	45	123	74	56.5	10	60	58	6.6	11	6.5	20	2940	5490	6	655
LMKM35		35	52	135	82	62.5	10	67	64	6.6	11	6.5	25	2650	6470	6	970
LMKM40		40	60	154	96	70.5	13	78	75	9	14	8.6	25	3430	8040	6	1560
LMKM50		50	80	192	116	89.5	13	98	92	9	14	8.6	25	6080	15900	6	3500
LMKM60		60	90	211	134	96.5	18	112	106	11	17.5	10.8	30	7650	20000	6	4500

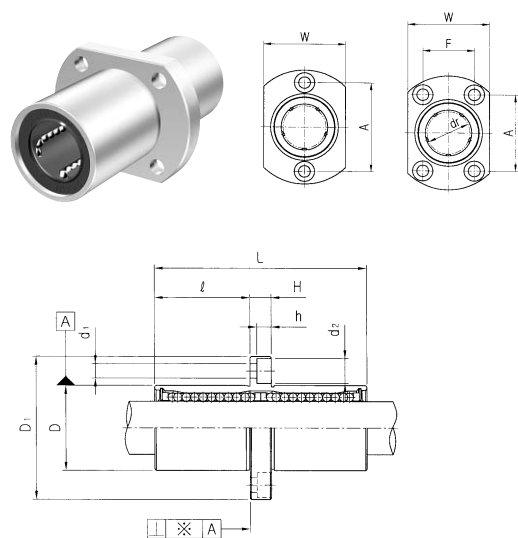
Note 1) Dynamic load rating is based on the nominal life of 50km.  
In case of 100km, C on the table need to be divided by 1,26  
Ex) LM12's 50km basis dynamic load rating C = 410N  
LM12's 100km basis dynamic load rating C<sub>100</sub> = 410 / 1,26 = 325,40N

Note 2) Based on the weight of resin retainer

Note 3) Dimension : mm

Note 4) 1N ≒ 0.102kgf

LMHM FLANGED LINEAR BUSHING



Samick Square Middle Flanged Linear Bushing	LMHM	20	UU	-	A	N	S
<b>Nominal Shaft Diameter</b>							
<b>Seal</b>		Blank : No Seal U : One Side Seal UU : Both Side Seal					
<b>Retainer</b>		Blank : Resin retainer(Standard) A : Steel retainer(High temperature)					
<b>Outer-sleeves (by corrosion resistance type)</b>		Blank : No-plating(Standard) N : Electroless nickel plating R : Raydent treatment					
<b>Ball type (by corrosion resistance)</b>		Blank : High carbon bearing steel ball (standard) S : Stainless steel ball					

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European Standard

PART NUMBER	WORKING BORE DIAMETER	D	L	D <sub>1</sub>	φ	H	W	A	F	d <sub>1</sub>	d <sub>2</sub>	h	SQUARENESS		BASIC LOAD RATING(N)		NO. OF WEIGHT		
													μ(m)	DYNAMIC(C)	STATIC(C <sub>0</sub> )	BALL	CIRCUIT (gf)		
Resin	Steel	dr. CLEARANCE	mm CLEARANCE	mm CLEARANCE	mm CLEARANCE														
LMHM6	LMHM6-A	6	12	35	28	15	5	18	20	3.4	6.5	3.3	15	320	520	4	31		
LMHM8	LMHM8-A	8	15 <sup>-0.013</sup>	45	32	20	5	21	24	3.4	6.5	3.3	15	430	780	4	53		
LMHM10	LMHM10-A	10	19	55	40	24.5	6	25	29	4.5	8	4.4	15	580	1100	4	105		
LMHM12	LMHM12-A	12 <sup>-0.010</sup>	21	57 <sup>-0.3</sup>	42	25.5	6	27	32	4.5	8	4.4	15	650	1200	4	100		
LMHM13	LMHM13-A	13	23 <sup>-0.016</sup>	61	43 <sup>-0.2</sup>	27.5	6	29	33	4.5	8	4.4	15	810	1570	4	130		
LMHM16	LMHM16-A	16	28	70	48	32	6	34	31	22	4.5	8	4.4	15	1230	2350	5	187	
LMHM20	LMHM20-A	20	32	80	54	36	8	38	36	24	5.5	9.5	5.4	20	1400	2750	5	260	
LMHM25	LMHM25-A	25 <sup>-0.012</sup>	40 <sup>-0.019</sup>	112 <sup>-0.4</sup>	62	52	8	46	40	32	5.5	9.5	5.4	20	1560	3140	6	515	
LMHM30		30	45	123	74	56.5	10	51	49	35	6.6	11	6.5	20	2940	5490	6	655	

Note 1) Dynamic load rating is based on the nominal life of 50km.  
 In case of 100km, C on the table need to be divided by 1.26  
 Ex) LM12's 50km basis dynamic load rating C = 410N  
 LM12's 100km basis dynamic load rating C<sub>100</sub> = 410 / 1.26 = 325.40N

Note 2) Based on the weight of resin retainer

Note 3) Dimension : mm

Note 4) 1N ≒ 0.102kgf