

# Standard Flanged Oil Free Bushings-Compact Type-

## -Built-in Copper Alloy Bushings Single · Double Type-

Price Reduction  
20%

CAD Data

For Features of With Non-Contact Seals, refer to P.340

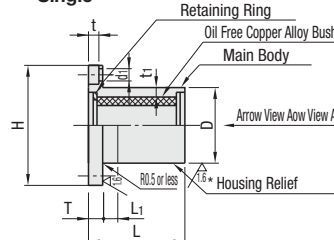
### Compact Type



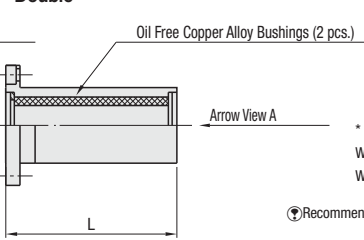
With Non-Contact Seals  
Teflon seal of 0.3mm thick is attached on the inner side of each retaining ring.

Housing Type	Type			Seal	Material	Surface Treatment	Bushings Material
	Round Flange	Square Flange	Compact				
Single	MFMS	MFKS	MFNS	No Seal	1.0038/ S235JR	Electroless Nickel Plating	High Tensile Brass Alloy Solid Lubricant Embedded
	MFMS-S	MFKS-S	MFNS-S	With Non-Contact Seals			
Double	MFMS	MFKS	MFNS	No Seal	1.0038/ S235JR	Electroless Nickel Plating	High Tensile Brass Alloy Solid Lubricant Embedded
	MFMS-S	MFKS-S	MFNS-S	With Non-Contact Seals			

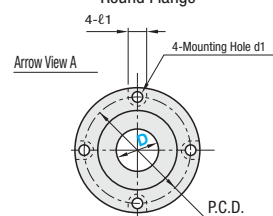
#### Single



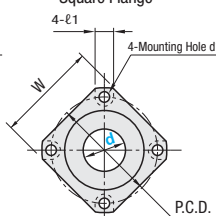
#### Double



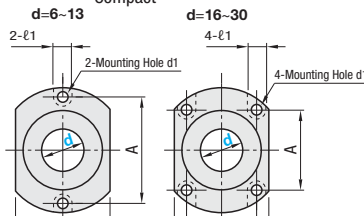
#### Round Flange



#### Square Flange



#### Compact



Perpendicularity of flange bottom plane to surface D is 0.02 or less.

Recommended Mating Shaft f8 or g6

Part Number						L															
Type		d	Tolerance	D	Tolerance	Single	Double	L <sub>1</sub>	H	T	d <sub>1</sub>	ℓ <sub>1</sub>	t	t <sub>1</sub>	P.C.D.	W	F	A			
Single	Round Flange (No Seal) (With Non-Contact Seals)	MFMSC	MFKSC	MFNSC	6	+0.022 0	12	0	22	37	5	25	5	3.5	6	3.1	1.5	20	20	-	20
		MFMSC-S	MFKSC-S	MFNSC-S	8	+0.028 0	15	-0.018	27	47		35	2.0	23	22	-	23				
					10	0	18			32		57	37	2.0	28	27	-	28			
					12	+0.034 0	20			37		6	4.5	7.5	4.1	2.0	30	29	-	30	
Double	(No Seal) (With Non-Contact Seals)	MFMWC	MFKWC	MFNWC	13	0	21	0			10	38					2.0	31	29	-	31
		MFMWC-S	MFKWC-S	MFNWC-S	16	0	26	-0.021	37	67		43	2.0	36	33	19	30				
					20	0	30		42	77		50	2.0	41	38	21	36				
					25	+0.041 0	36	0	58	108		56	2.5	47	42	27	38				
			30	0	42	-0.025	68	128	65	10	6.6	11	6.1	3.0	55	49	30	46			

Price		Volume Discount (Round down to one Cent.) P87	
Quantity	1-9	10-14	15-19
Discount Rate	0%	5%	10%
Days to Ship	Standard	To be quoted	

d	(No Seal) € Unit Price						(With Non-Contact Seals) € Unit Price					
	MFMS	MFKS	MFNS	MFMS-S	MFKS-S	MFNS-S	MFMS	MFKS	MFNS	MFMS-S	MFKS-S	MFNS-S
6												
8												
10												
12												
13												
16												
20												
25												
30												

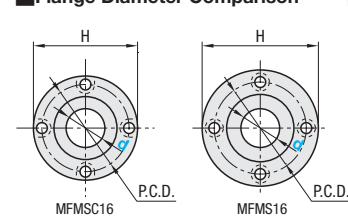
### Features of Compact Type

Thinning the outer cylinder and cutting out mounting holes from the flange have made the flange diameter compact. This compact type is up to 5mm smaller in P.C.D. and up to 9mm smaller in flange diameter than the Standard Type shown on next page. Best suited for space-saving.

### Comparison of Flange Diameter (H dimension) and P.C.D. of MFMS and MFMS-C

d	H			P.C.D.		
	MFMS	MFMS-C	Reduced Value	MFMS	MFMS-C	Reduced Value
6	28	25	-3	20	20	0
8	32	28	-4	24	23	-1
10	40	35	-5	29	28	-1
12	42	37	-5	32	30	-2
13	43	38	-5	33	31	-2
16	48	43	-5	38	36	-2
20	54	50	-4	43	41	-2
25	62	56	-6	51	47	-4
30	74	65	-9	60	55	-5

### Flange Diameter Comparison



### Strength Test Results of Compact and Standard Types P341

With Non-Contact Seals  
8 Days Express A 5.00 EUR / piece P88

Express Charge of 13.50 EUR for 3 or more identical pieces.



# Standard Flanged Oil Free Bushings-Standard Type-

## -Built-in Copper Alloy Bushings Single · Double · Long Type-

CAD Data

For Features of With Dust Seals and With Non-Contact Seals, see below. Flanged Height-Adjusting Spacers are selectable. P.288

### Standard Type



(With Non-Contact Seals)

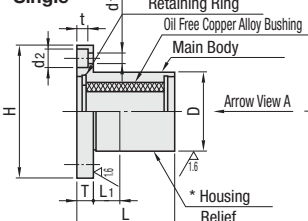


(With Dust Seals)

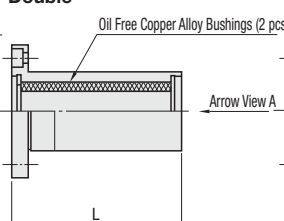


Housing Type	Type			Seal	Material	Material	Surface Treatment	Bushings Material
	Round Flange	Square Flange	Compact					
Single	MFMS	MFKS	MFNS	No Seal	Teflon Resin	1.0038/ S235JR	Electroless Nickel Plating	High Tensile Brass Alloy Solid Lubricant Embedded
	MFMS-S	MFKS-S	MFNS-S	With Non-Contact Seals				
	MFMS-DS	MFKS-DS	MFNS-DS	With Dust Seals				
	SMFMS	SMFKS	SMFNS	No Seal				
Double	MFMS	MFKS	MFNS	No Seal	Teflon Resin	1.4301/ X5CrNi18-10	Electroless Nickel Plating	High Tensile Brass Alloy Solid Lubricant Embedded
	MFMS-S	MFKS-S	MFNS-S	With Non-Contact Seals				
	MFMS-DS	MFKS-DS	MFNS-DS	With Dust Seals				
	SMFMS	SMFKS	SMFNS	No Seal				
Long	MFML	MFKL	-	No Seal	Teflon Resin	1.0038/ S235JR	Electroless Nickel Plating	High Tensile Brass Alloy Solid Lubricant Embedded
	MFML-S	MFKL-S	-	With Non-Contact Seals				

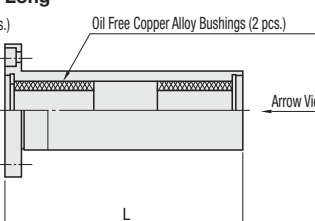
#### Single



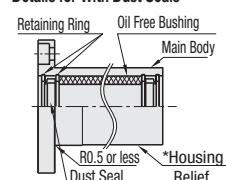
#### Double



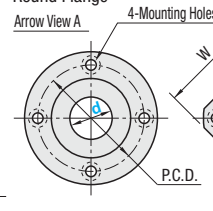
#### Long



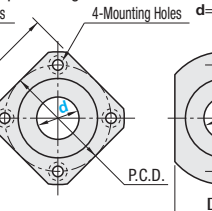
#### Details for With Dust Seals



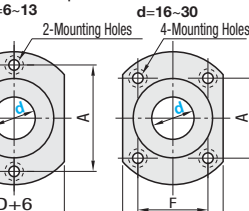
#### Round Flange



#### Square Flange



#### Compact



For With Dust Seals, only f8 shaft is recommended.

Perpendicularity of flange bottom plane to surface D is 0.02 or less.

Part Number							L																								
Type				d	Tolerance	D	Tolerance	No Seal - With Non-Contact Seals			With Dust Seals			L1	H	T	d1	d2	t	P.C.D.	W	F	A								
								Single	Double	Long	Single	Double																			
• Single	(No Seal)	Round Flange	Square Flange	Compact	6	+0.022	12	0	22	37	52	-	-	5	28	5	3.5	6	3.1	20	22	-	20	20							
	(With Non-Contact Seals)	MFMS	MFKS	MFNS	8	+0.028	15	-0.018	27	47	67	-	-												32	42	25	-	20	22	
	(With Dust Seals)	MFMS-DS	MFKS-DS	MFNS-DS	10	0	19					-	-												40	42	29	30	-	20	22
	(No Seal)	SMFMS	SMFKS	SMFNS	12	0	21	0	32	57	82	-	-	10	6	4.5	7.5	4.1	32	32	-	30	32								
	(With Non-Contact Seals)	SMFMS-S	SMFKS-S	SMFNS-S	13	+0.034	23	-0.021					-											-	43	43	33	34	-	30	32
		16*				0	28		37	67	97	45	75											44	44	38	37	22	30	32	
• Double	(No Seal)	MFMS	MFKS	MFNS	20*	+0.041	32	0	42	77	112	51	86	10	54	8	5.5	9	5.1	51	50	32	40	30							
	(With Non-Contact Seals)	MFMS-S	MFKS-S	MFNS-S	25*	0	40	-0.025	58	108	158	70	120												62	62	51	50	32	40	
	(With Dust Seals)	MFMS-DS	MFKS-DS	MFNS-DS	30*	0	45		68	128	188	81	141												74	74	60	58	35	40	
	• Long	(No Seal)	MFMS	MFKS	MFNS	35	+0.050	52	0	68	128	-	-	-	15	82	10	6.6	11	6.1	67	64	-	78	75						
		(With Non-Contact Seals)	MFMS-S	MFKS-S	MFNS-S	40	0	60	-0.030	80	150	-	-	-												96	96	78	75	-	-
			50				0	80		90	170	-	-	-												116	116	98	92	-	-

With Dust Seals are only available in \* marked sizes.

### Features: with Dust Seals / with Non-Contact Seals

- Contact Seals built into With Dust Seals Type prevent small dust from Sliding Contact Surface.
- For Sliding resistance of With Dust Seals, refer to Sliding Resistance Test Data.
- Employed Dust Seals are SER series of SAKAGAMI SEISAKUSHO LTD.
- With Non-Contact Seals are provided to prevent large dust entry. Clearance between shafts and bushings (approx. 0.1mm) lower the sliding resistance than With Dust Seals.

### Dust Seals Sliding Resistance Test

d	Sliding resistance (N)	SAKAGAMI SEISAKUSHO LTD. Dust Seals
16	6	SER16
20	7	SER20
25	8	SER25
30	12	SER30

\*Values are for reference only.

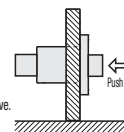
### Test Conditions

- Tester: Push-Pull Gauge
- Bushings: Copper Alloy Type
- Shaft: MISUMI f8 shaft

### Testing Method

Measured the load when the shaft started to move.

\*Speed 1mm/s approx.



### Price MFMS · MFMS-S · MFMS-C

Price		Volume Discount (Round down to one Cent.) P87	
Quantity	1-9	10-14	15-19
Discount Rate	0%	5%	10%
Days to Ship	Standard	To be quoted	

### Volume Discount (Round down to one Cent.) P87

Price		Volume Discount (Round down to one Cent.) P87	
Quantity	1-9	10-14	15-19
Discount Rate	0%	5%	10%
Days to Ship	Standard	To be quoted	

### Others

Price		Volume Discount (Round down to one Cent.) P87	
Quantity	1-9	10-14	15-19
Discount Rate	0%	5%	10%
Days to Ship	Standard	To be quoted	

### 1.0038/S235JR Housing Price List

d	(No Seal) € Unit Price						(With Non-Contact Seals) € Unit Price									
	Single		Double		Long		Single		Double		Long					
	MFMS	MFKS	MFNS	MFMW	MFKW	MFNW	MFML	MFKL	MFMS-S	MFKS-S	MFNS-S	MFMW-S	MFKW-S	MFNW-S	MFML-S	MFKL-S
6																
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