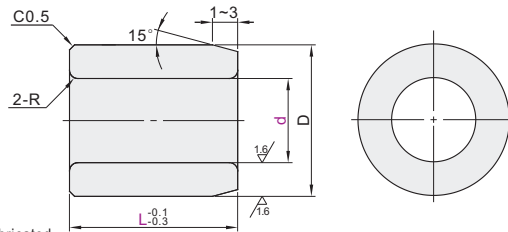


□ Straight, I.D. F7 O.D. m6 / I.D. E7 O.D. r6

Code	Type	Material	I.D. (Tol.)	O.D. (Tol.)	Allowable Temperature
OFG01	Straight	Special Bronze	F7	m6	-30 ~ 150°C
OFG02		Castings	E7	r6	

□ Bronze casting material equivalent to CuSn6Zn6Pb3.



- Ensure the bushing remains well lubricated.
□ The Tolerance of housing diameter matching with this product: H7 (for reference only).



Inventory



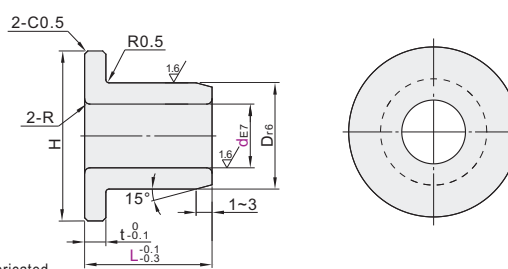
Part Number		L										Dm6		R			
Code	dF7																
OFG01	5	+0.022	8	10	12	15	20					9	+0.015	0.5			
	6	+0.010	8	10	12	15	20	25					10		+0.006		
	8	+0.028	8	10	12	15	20	25					12				
	10	+0.013	8	10	12	15	20	25	30						14	+0.018	
	12		10	12	15	20	25	30					18	+0.007	1		
	13	+0.034	10	12	15	20	25	30	40					19			
	15	+0.016	10	12	15	20	25	30	40	50						21	+0.021
	16		10	12	15	20	25	30	40	50						22	+0.008
	20		15	20	25	30	40	50					28		1.5		
	25	+0.041	15	20	25	30	40	50	60					33		+0.025	
30	+0.020	20	25	30	40	50	60					38	+0.009				

Part Number			L								Dr6		R		
Code	dE7														
OFG02	5	+0.032	8	10	12	15	20	25	9			+0.028	0.5		
	6	+0.020	8	10	12	15	20	25	10			+0.019			
	8	+0.040	8	10	12	15	20	25	12						
	10	+0.025	8	10	12	15	20	25	14			+0.034			
	12		10	12	15	20	25	30	18			+0.023	1		
	13	+0.050	10	12	15	20	25	30	19						
	15	+0.032	10	12	15	20	25	30	40	21				+0.041	
	16		10	12	15	20	25	30	40	50	22			+0.028	
	20		12	15	20	25	30	40	50	60	28				1.5
	25	+0.061	15	20	25	30	40	50	60	33			+0.050		
	30	+0.040	20	25	30	40	50	60	38			+0.034			

□ Shouldered, I.D. E7 O.D. r6

Code	Type	Material	I.D. (Tol.)	O.D. (Tol.)	Allowable Temperature
OFG31	Shouldered	Special Bronze Castings	E7	r6	-30 ~ 150°C

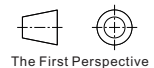
□ Bronze casting material equivalent to CuSn6Zn6Pb3.



- Ensure the bushing remains well lubricated.
□ The Tolerance of housing diameter matching with this product: H7 (for reference only).



Inventory



Part Number		L					Dr6		H	t	R
Code	dE7										
OFG31	5	+0.032	10	12	15		9	+0.028	14		0.5
	6	+0.020	10	12	15	20	10	+0.019	16		
	8	+0.040	10	12	15	20	12		20	2	
	10	+0.025	10	12	15	20	14	+0.034	22		
	12		10	12	15	20	18	+0.023	25		1
	13	+0.050	10	12	15	20	19		26		
	15	+0.032	10	12	15	20	21	+0.041	28	3	
	16		12	15	20	25	22	+0.028	29		
	20		12	15	20	25	30		40		1.5
	25	+0.061	20	25	30	40	35	+0.050	45	5	
		+0.040	25	30	40	50		+0.034	50		
	30		25	30	40	50	40		50		

□ Shouldered

Part Number		L				
Code	d					
OFG31	d5	10	12	15	20	
	6	10	12	15	20	

OFG31 — d5 — L10



Discount price	
Per	1~29 30~
Price	100% Additional quotation



Oil-Free Bushings

◀ Flange, I.D. F7 O.D. h7 Bronze Casting

Code	Type	Material	I.D. (Tol.)	O.D. (Tol.)	Allowable Temperature
OFG61	Round Flange	Special Bronze Castings	F7	h7	-30 ~ 150°C
OFG65	Compact Flange				

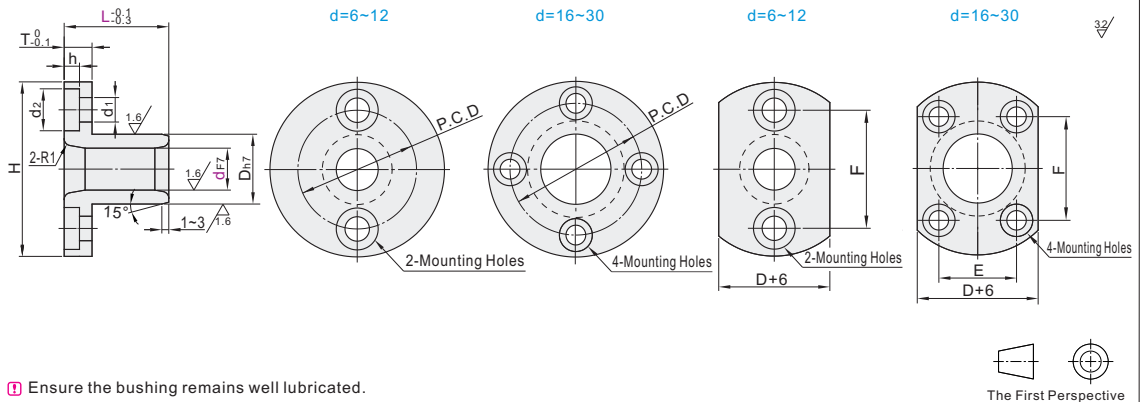
① Bronze casting material equivalent to CuSn6Zn6Pb3.



Inventory

Round Flange
OFG61

Compact Flange
OFG65



① Ensure the bushing remains well lubricated.

Part Number		L										Applicable Hex Socket Low Head Cap Screws	
Code	d _{F7}												
Round Flange OFG61	6	+0.022 +0.010	15	20								17	17
	8	+0.028 +0.013	15	20	25	30						19	19
	10		20	25	30	35						21	21
	12	+0.034 +0.016	20	25	30	35	40					26	26
Compact Flange OFG65	16		25	30	35	40	50					30	18
	20		25	30	35	40	50	60				38	22
	25	+0.041 +0.020	30	35	40	50	60	70				43	25
	30		30	35	40	50	60	70				50	30

① Screws need to be purchased separately.



Please order as shown

Part Number		L	
Code	d		
OFG61	6	15 20	
OFG65	8	15 20 25 30	

OFG61 — d6 — L15



Discount price	
Per	1~19
Price	100% Additional quotation



Delivery	
Per	1~19
Price	12

I.D. F7 O.D. m6 ▶

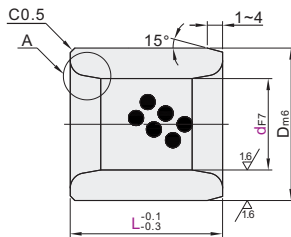
I.D. E7 O.D. r6 ▶

Standard / Thin Wall, Copper Alloy

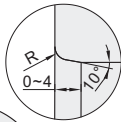
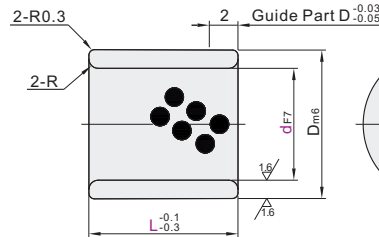
Straight Type Oil-Free Bushings

I.D. F7 O.D. m6

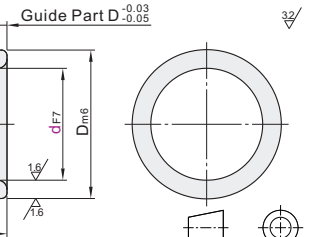
Code	Type	Material	I.D. (Tol.)	O.D. (Tol.)
OFK01	Straight	Standard	High Tensile Brass Alloy(SP2)	F7
OFL01	Thin Wall	Solid Lubricant Embedded(Graphite)	F7	m6

Standard
OFK01

Detail of A (Both Sides)

Thin Wall
OFL01

Inventory



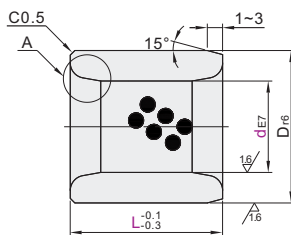
The Tolerance of housing diameter matching with this product: H7 (for reference only).

The First Perspective

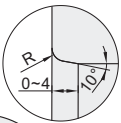
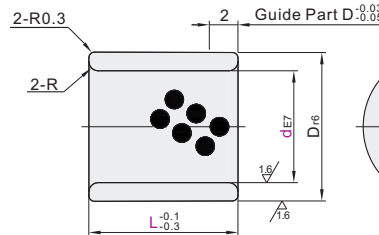
Part Number		L		OFK01		OFL01	
Code	dF7			Dm6	R	Dm6	R
Standard OFK01	5	8 10 12 15 16 20		9	+0.015 +0.006	7	+0.015 +0.006
	6	8 10 12 15 16 20 25		10		8	+0.015 +0.006
	8	8 10 12 15 16 20 25 30		12		10	
	10	8 10 12 15 16 20 25 30 35		14	+0.018 +0.007	12	
	12	8 10 12 15 16 20 25 30 35 40		18		15	+0.018 +0.007
	13	8 10 12 15 16 20 25 30 35 40		19		16	
	15	8 10 12 15 16 20 25 30 35 40 50		21		18	
	16	8 10 12 15 16 20 25 30 35 40 50		22		20	
	18	8 10 12 15 16 20 25 30 35 40 50		24	+0.021 +0.008	22	+0.021 +0.008
	20	8 10 12 15 16 20 25 30 35 40 50 60 70		28		24	
Thin Wall OFL01	20A	8 10 12 15 16 20 25 30 35 40 50 60 70		30		2	
	25	8 10 12 15 16 20 25 30 35 40 50 60 70		33		1.5	+0.021 +0.008
	25A	8 10 12 15 16 20 25 30 35 40 50 60 70 80		35		2	
	30	8 10 12 15 16 20 25 30 35 40 50 60 70 80		38	+0.025 +0.009	1.5	34
	35	8 10 12 15 16 20 25 30 35 40 50 60 70 80		44		1.5	40
	40	8 10 12 15 16 20 25 30 35 40 50 60 70 80		50		2	45
	50	8 10 12 15 16 20 25 30 35 40 50 60 70 80		62	+0.030 +0.011	2.5	55
	60	8 10 12 15 16 20 25 30 35 40 50 60 70 80		75			
	80	8 10 12 15 16 20 25 30 35 40 50 60 70 80		96	+0.035 +0.013	3	
	100	8 10 12 15 16 20 25 30 35 40 50 60 70 80		120			

I.D. E7 O.D. r6

Code	Type	Material	I.D. (Tol.)	O.D. (Tol.)
OFK02	Straight	Standard	High Tensile Brass Alloy(SP2)	E7
OFL02	Thin Wall	Solid Lubricant Embedded(Graphite)	E7	r6

Standard
OFK02

Detail of A (Both Sides)

Thin Wall
OFL02

The Tolerance of housing diameter matching with this product: H7 (for reference only).

The First Perspective

Part Number		L		OFK02		OFL02	
Code	dE7			Dr6	R	Dr6	R
Standard OFK02	5	8 10 12 15 16 20		9	+0.028 +0.019	7	+0.028 +0.019
	6	8 10 12 15 16 20 25		10		8	+0.028 +0.019
	8	8 10 12 15 16 20 25		12		10	
	10	8 10 12 15 16 20 25 30		14	+0.034 +0.023	12	
	12	8 10 12 15 16 20 25 30		18		15	+0.034 +0.023
	15	8 10 12 15 16 20 25 30 40		21		18	
	16	8 10 12 15 16 20 25 30 40 50		22	+0.041 +0.028	20	+0.041 +0.028
	20	8 10 12 15 16 20 25 30 40 50		28		24	
	25	8 10 12 15 16 20 25 30 40 50		33	+0.050 +0.034	29	+0.050 +0.034
	30	8 10 12 15 16 20 25 30 40 50		38		34	
Thin Wall OFL02	20	8 10 12 15 16 20 25 30 40 50		22		2	
	25	8 10 12 15 16 20 25 30 40 50		33		1.5	
	30	8 10 12 15 16 20 25 30 40 50		38		2	
	40	8 10 12 15 16 20 25 30 40 50		44		2	
	50	8 10 12 15 16 20 25 30 40 50		50		2	
	60	8 10 12 15 16 20 25 30 40 50		62		2.5	
	70	8 10 12 15 16 20 25 30 40 50		75		3	
	80	8 10 12 15 16 20 25 30 40 50		96			
	100	8 10 12 15 16 20 25 30 40 50		120			
	120	8 10 12 15 16 20 25 30 40 50		140			

I.D. E7 O.D. r6

Part Number	L
OFK02	8 10
OFL02	8 10

OFL02—d5—L10



Discount price
Per 1~29 30~
Price 100% Additional quotation



Delivery
12



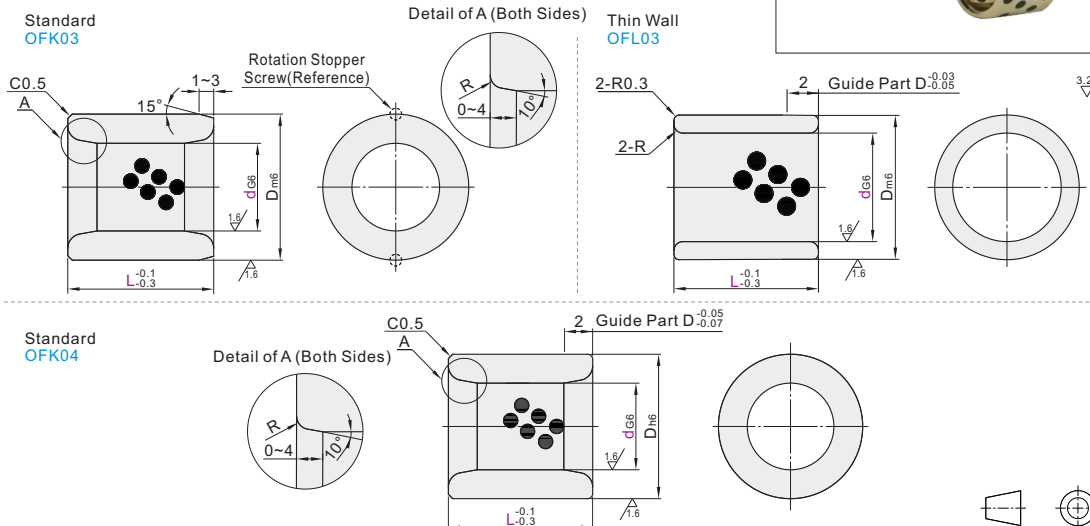
Please order as shown

Straight Type Oil-Free Bushings

- Standard / Thin Wall, I.D. G6 O.D. m6/I.D. G6 O.D. h6
- with Oil Groove, I.D. F7 O.D. m6
- Copper Alloy

Standard / Thin Wall

Code	Type	Material	I.D.(Tol.)	O.D.(Tol.)
OFK03	Straight	Standard	G6	m6
OFK04		High Tensile Brass Alloy(SP2)		h6
OFL03		Solid Lubricant Embedded (Graphite)		m6



The Tolerance of housing diameter matching with this product: H7 (for reference only).

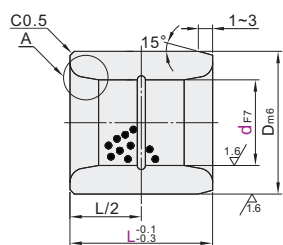
The First Perspective

Part Number		L										OFK03				OFL03				OFK04			
Code	d _{G6}											D _{m6}		R	Rotation Stopper Screw	D _{m6}		R	D _{m6}		R		
Standard OFK03 OFK04	5	+0.012	8	10	12	15	16	9	+0.015	0.5	M4×8	7	—	—	0.3	10	0	0.5					
	6	+0.004	8	10	12	15	16	20	10			+0.006	8	+0.015		-0.009							
	8	+0.014	10	12	15	16	20	25	12			+0.018	10	+0.006		12	0						
	10	+0.005	10	12	15	16	20	25	14			+0.007	12	+0.018		14	-0.011						
	12		10	12	15	16	20	25	18				15	+0.018		18							
Thin Wall OFL03	13	+0.017	10	12	15	16	20	25	30	19	+0.007	16	+0.018	0.4	19	0	1						
	15	+0.006	10	12	15	16	20	25	30	21		18	+0.007	21	0								
	16		10	12	15	16	20	25	30	22	+0.021	20		22	-0.013								
	20		12	15	16	20	25	30	40	28	+0.008	24	+0.021	28									
	25		12	15	16	20	25	30	40	33	+0.025	29	+0.008	33	0								
	30	+0.020	15	16	20	25	30	40	38	+0.009	34	+0.025	38	-0.016									
		+0.007	15	16	20	25	30	40	33		34	+0.009	38										

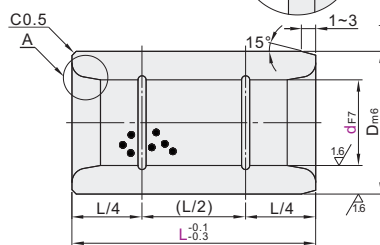
with Oil Groove

Code	Type	Material	I.D.(Tol.)	O.D.(Tol.)
OFM01	Straight with Oil Groove	High Tensile Brass Alloy(SP2) Solid Lubricant Embedded (Graphite)	F7	m6

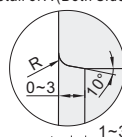
L=10~25



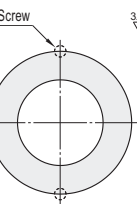
L=30~40



Detail of A (Both Sides)



Rotation Stopper Screw



The Tolerance of housing diameter matching with this product: H7 (for reference only).

The First Perspective

Part Number			L							D _{m6}		R	Rotation Stopper Screw
Code	d _{F7}		One Groove (Center)					Two Grooves					
OFM01	10	+0.028 +0.013	10	12	15	16	20			14	+0.018 +0.007	0.5	
	12		10	12	15	16	20			18			
	13	+0.034 +0.016	10	12	15	16	20	25		19		1	M4×8
	15		12	15	16	20	25		21	+0.021 +0.008			
	16		12	15	16	20	25	30 40	22				
	20		12	15	16	20	25	30 40	28				
	25	+0.041 +0.020		15	16	20	25	30 40	33	+0.025 +0.009	1.5	M5×8	
	30			16	20	25		30 40	38				

Standard / Thin Wall

Part Number		L	
Code	d		
OFL03	10	10	12
OFK04	12	12	15

OFK04 — d10 — L12



Please order as shown



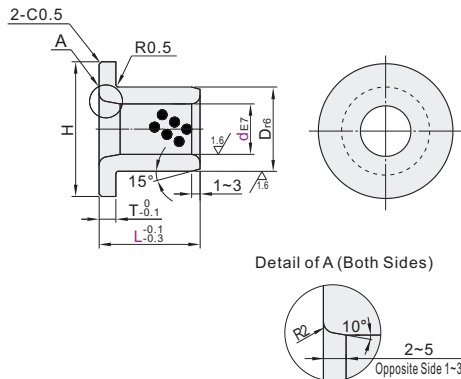
Discount price
Per 1~29 30~
Price 100% Additional quotation



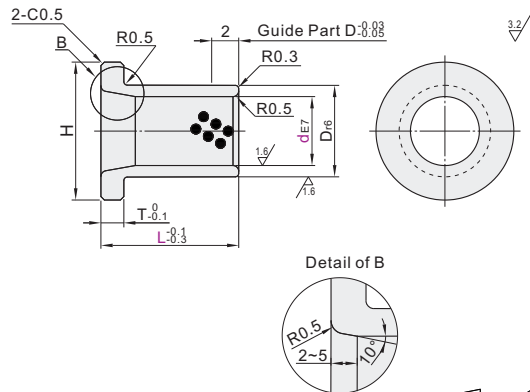
Delivery
12

Code	Type	Material	I.D. (Tol.)	O.D. (Tol.)
OFN01	Shouldered	High Tensile Brass Alloy (SP2)	E7	r6
OFN02	Type	Solid Lubricant Embedded (Graphite)		
	Thin Wall			

Standard
OFN01



Thin Wall
OFN02



Inventory

The First Perspective

The Tolerance of housing diameter matching with this product: H7 (for reference only).

Standard

Code	Part Number	L	D r6	H	T
OFN01	5	10 12 15	9	14	2
	6	10 12 15 20	10	16	
	8	10 12 15 20 25	12	20	
	10	10 12 15 20 25 30 35	14	22	
	12	10 12 15 20 25 30 35	18	25	3
	13	10 12 15 20 25 30 35	19	26	
	15	10 12 15 20 25 30 35	21	28	
	16	12 15 20 25 30 35 40 50	22	29	
	18	15 20 25 30 35 40 50	24	32	5
	20	15 20 25 30 35 40 50	30	40	
	25	15 20 25 30 35 40 50 60	35	45	
	30	20 25 30 35 40 50 60	40	50	
	35	20 25 30 35 40 50 60	45	60	5
	40	20 25 30 35 40 50 60	50	65	
	50	30 35 40 50 60	60	75	

Thin Wall

Code	Part Number	L	D r6	H	T
OFN02	5	10 12 15	7	11	2
	6	10 12 15 20	8	12	
	8	10 12 15 20	10	14	
	10	10 12 15 20 25 30	12	16	
	12	10 12 15 20 25 30	15	21	3
	13	12 15 20 25 30	16	22	
	15	10 12 15 20 25 30	18	24	
	16	12 15 20 25 30 40	20	26	
	20	15 20 25 30 40 50	24	32	4
	25	20 25 30 40 50	29	37	
	30	25 30 40 50	34	42	

Standard

Part Number	L
Code	d
OFN01	6
OFN01—d5—L10	10 12



Discount price
Per 1~29 30~
Price 100% Additional quotation



Delivery
12

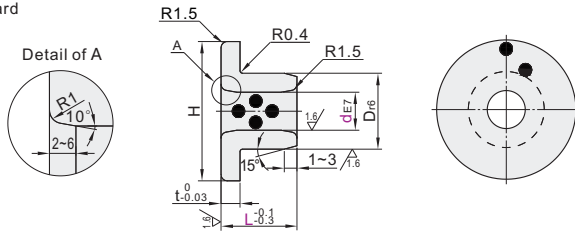


Thrust Type Oil-Free Bushings

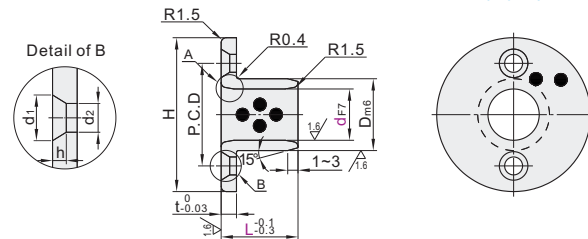
- Standard / Flat Head Countersunk Screw Hole
- Low Head Screw Hole
- Copper Alloy

Code	Type	Material	I.D. (Tol.)	O.D. (Tol.)
OFP01	Thrust Type	Standard	E7	r6
OFP02	Flat Head Countersunk Screw Hole	High Tensile Brass Alloy(SP2)	F7	m6
OFP03	Low Head Screw Hole	Solid Lubricant Embedded (Graphite)		

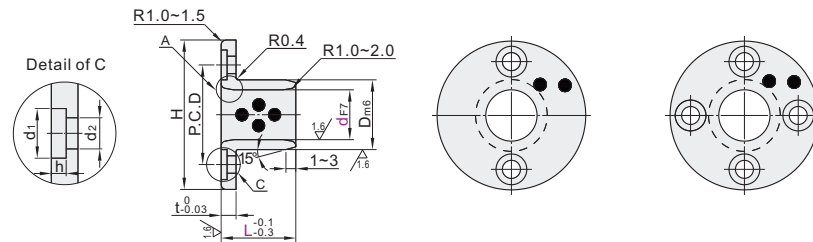
Standard
OFP01



Flat Head Countersunk Screw Hole
OFP02



Low Head Screw Hole
OFP03



The Tolerance of housing diameter matching with this product: H7 (for reference only).



Inventory



Part Number	Code	dE7	L	Dm6	H	t
6		+0.032 +0.025	10 12 14	12	22	
8		+0.040 +0.025	10 12 14 15	14	25	
10			10 12 14 15 20 25	16		
12			10 12 14 15 20 25	18	30	3
13		+0.050 +0.032	10 12 14 15 20 25	19		
15			12 14 15 20 25	21	35	
16			12 14 15 20 25 30	22		
18			14 15 20 25 30 35 40	24	40	
20			14 15 20 25 30 35 40 45	28	45	
25		+0.061 +0.040	14 15 20 25 30 35 40 45	33	50	5
30			15 20 25 30 35 40 45 50	38	55	
35			15 20 25 30 35 40 45 50	44	65	
40		+0.075 +0.050	25 30 35 40 45 50	50	70	7
50			25 30 35 40 45 50 60	62	90	8



Standard

Part Number	Code	d	L
OFP01		6	10 12

OFP01—d6—L10

Discount price

Per	1~29	30~
Price	100%	Additional quotation

Delivery

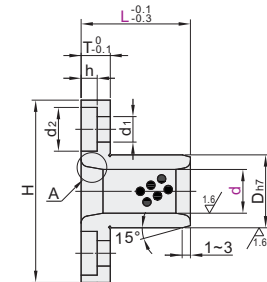
12

Part Number	Code	dF7	L	Dm6	H	P.C.D	d1	d2	h	Countersunk Screw	t	H	P.C.D	d1	d2	h	Applicable Hex Socket Low Head Cap Screw	t
6		+0.022 +0.010	10 12 15	10	25	15						25	17					
8		+0.028 +0.013	10 12 15 20	12	28	18						27	19	6	3.5	2.2	M3×10(2 pcs)	4
10			12 15 20 25	14	30	20						29	21					
12			12 15 20 25	18	40	28	8.5	3.5	2.5	M3	3	36	26				M4×12(2 pcs)	
15		+0.034 +0.016	12 15 20 25	21								39	29					
16			12 15 20 25 30 35	22								40	30	7.5	4.5	3	M4×12(4 pcs)	5
18			15 20 25 30 35	24								42	32					
20			15 20 25 30 35 40	28								49	38					
25		+0.041 +0.020	15 20 25 30 35 40	33	55	40	13	6	3.5	M5	5	54	43	9	5.5	3.7	M5×16(4 pcs)	6
30			20 25 30 35 40 45	38	60	45						63	50					
35		+0.025 +0.025	20 25 30 35 40 45	44	70	52						69	56	11	6.6	4.2	M6×20(4 pcs)	8
40			25 30 35 40 45	50	80	60						82	66					
50			25 30 35 40 45	62	100	75	16	7	4.5	M6	7	84	78	14	9	5.2	M8×25(4 pcs)	10

Screws need to be purchased separately.

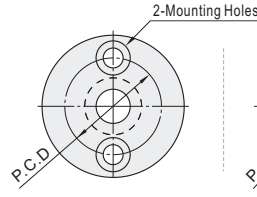
Code	Type		Material	I.D. (Tol.)	O.D. (Tol.)
OFR01	Standard	Round Flange	High Tensile Brass Alloy(SP2) Solid Lubricant Embedded (Graphite)	F7	h7
OFR02				G6	
OFR03		Square Flange		F7	
OFR04		Compact Flange		F7	
OFR05				G6	

3/2

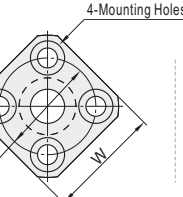


Round Flange
OFR01
OFR02

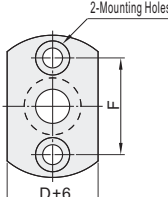
d=6~13



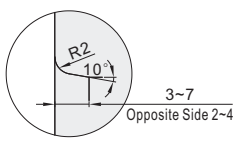
Square Flange
OFR03



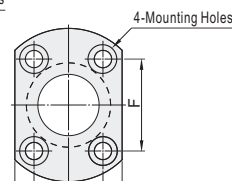
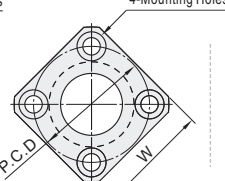
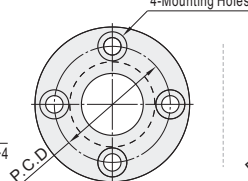
Compact Flange
OFR04
OFR05



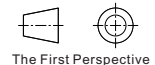
Detail of A



d=16~50



❗ The Tolerance of housing diameter matching with this product: H7 (for reference only).



I.D.F7

Part Number	Code	d _{F7}	L	D _{h7}	H	T	h	d ₁	d ₂	P.C.D.	W	E	F	Applicable Hex Socket Low Head Cap Screw
Round Flange OFR01	6	+0.022 +0.010	15 20 25	10	25					17	20		17	M3×10(2 pcs)
	8	+0.028 +0.004	20 25 30	12	27	4	2.3	3.3	6	19	22		19	M3×10(2 pcs)
	10	+0.013	20 25 30	14	29					21	23		21	M4×12(2 pcs)
	12		20 25 30 35	18	36					26	28		26	M4×12(2 pcs)
Square Flange OFR03	13	+0.034 +0.016	20 25 30 35 40	19	37	5	3	4.3	7.5	27	29		27	M4×12(2 pcs)
	16		20 25 30 35 40 50	22	40					30	31	18	24	M4×12(4 pcs)
	20		25 30 35 40 50 60	28	49	6	3.7	5.3	9	38	38	22	31	M5×16(4 pcs)
	25	+0.041 +0.020	30 35 40 50 60 70	33	54					43	42	25	35	M5×16(4 pcs)
Compact Flange OFR04	30		35 40 50 60 70	38	63					50	50	30	40	M6×20(4 pcs)
	35		50 60 70 80	44	69	8	4.3	6.3	11	56	54	36	43	M6×20(4 pcs)
	40	+0.050 +0.025	60 70 80 100	50	82					66	64	38	54	M8×25(4 pcs)
	50		70 80 100	62	94	10	5.3	8.5	14	78	73	50	60	M8×25(4 pcs)

※ Values in () are number of screws included in OFR03.

❗ Screws need to be purchased separately.

I.D.G6

Part Number												Applicable											
Code	d _{G6}	L										D _{h7}	H	T	h	d ₁	d ₂	P.C.D	E	F	Hex Socket	Low Head Cap Screw	
Round Flange OFR02	6	+0.012 +0.004	15	20							10	0 -0.015	25					17		17			
	8	+0.014 +0.005	20	25	25	30						12	0 -0.018	27	4	2.3	3.3	6	19		19		M3×10(2 pcs)
	10				25	30	35					14		29				21	—	21			
	12				25	30	35	40				18		36				26		26		M4×12(2 pcs)	
Compact Flange OFR05	13	+0.017 +0.006	25	30	35	40					19		37	5	3	4.3	7.5	27		27			
	16		25	30	35	40	50				22	0 -0.021	40					30	18	24		M4×12(4 pcs)	
	20				30	35	40	50			28		49	6	3.7	5.3	9	38	22	31			
	25	+0.020 +0.007			30	35	40	50			33		54					43	25	35		M5×16(4 pcs)	
	30				35	40	50			38	0 -0.025	63	8	4.3	6.3	11	50	30	40			M6×20(4 pcs)	

❗ Screws need to be purchased separately.

I.D.G6



Part Number	Code	d	L
OFR02	6	6	15
OFR05	8	8	20
OFR02-d6-L15			



Discount price
Per 1~9 10~
Price 100% Additional quotation

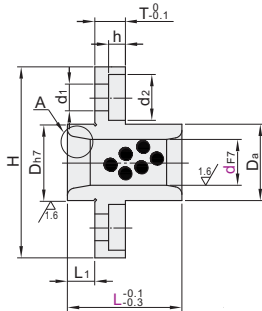


Flange Type Oil-Free Bushings

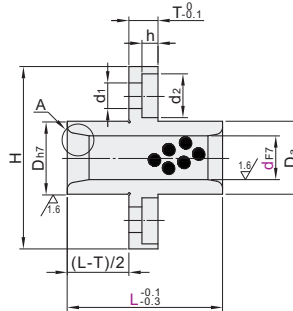
◀ Pilot Flanged / Center Flanged • I.D. F7/ O.D. h7
Copper Alloy

Code	Type	Material	I.D. (Tol.)	O.D. (Tol.)
OFR11	Pilot Flanged	Round Flange	F7	h7
OFR12	Compact Flange	High Tensile Brass Alloy (SP2)		
OFR21	Center Flanged	Solid Lubricant Embedded (Graphite)		
OFR22	Compact Flange			

Pilot Flanged
OFR11/12

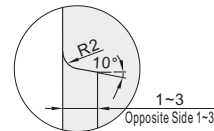


Center Flanged
OFR21/22

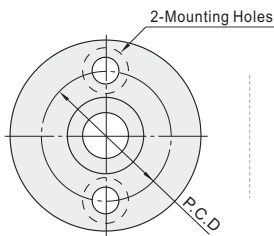


3.2/

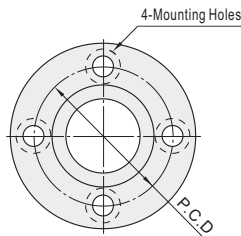
Detail of A



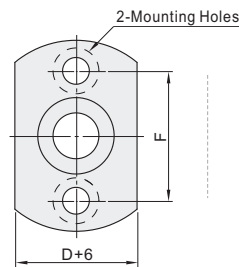
Round Flange
d=8~13



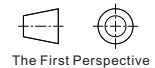
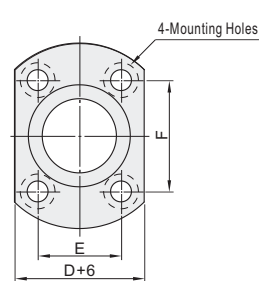
Round Flange
d=16~50



Compact Flange
d=8~13



Compact Flange
d=16~50



① The Tolerance of housing diameter matching with this product: H7 (for reference only).

Part Number		L		Dh7	Da	L1	H	T	h	d1	d2	P.C.D	E	F	Applicable Hex Socket Low Head Cap Screw
Code	dF7														
Pilot Flanged OFR11 OFR12	8	+0.028 +0.013	20 25 30	12	11.5	5	27					19		19	M3×10(2 pcs)
	10		20 25 30	14	13.5		29	4	2.3	3.3	6	21		21	
	12		20 25 30 35	18	17.5		36					26		26	M4×12(2 pcs)
	13	+0.034 +0.016	25 30 35 40	19	18.5	6	37	5	3	4.3	7.5	27		27	
	16		25 30 35 40 50	22	21.5		40					30	18	24	M4×12(4 pcs)
Center Flanged OFR21 OFR22	20		30 35 40 50 60	28	27.5	8	49					38	22	31	M5×16(4 pcs)
	25	+0.041 +0.020	30 35 40 50 60 70	33	32.5		54	6	3.7	5.3	9	43	25	35	
	30		30 35 40 50 60 70	38	37.5		63					50	30	40	M6×20(4 pcs)
	35		40 50 60 70	44	43.5	10	69	8	4.3	6.3	11	56	36	43	
	40	+0.050 +0.025	50 60 70 80	50	49.5		82					66	38	54	M8×25(4 pcs)
	50		60 70 80 100	62	61.5	13	94	10	5.3	8.5	14	78	50	60	

① Screws need to be purchased separately.



Part Number		L
Code	d	
OFR11	10	25
OFR12	12	25 30
OFR11—d10—L20		



Discount price	
Per	1~9 10~
Price	100% Additional quotation

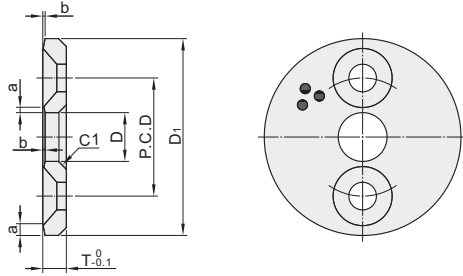


Oil-Free Copper Alloy Washers

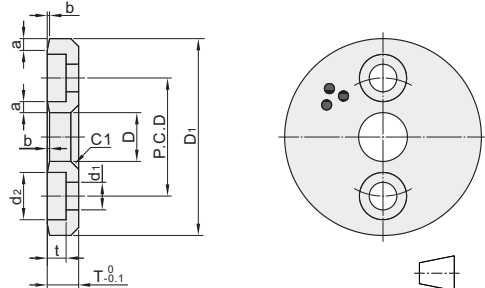
Code	Type	Material
OFU01	Flat Head Countersunk Screw Hole	High Tensile Brass Alloy(SP2)
OFU02	Low Head Screw Hole	Solid Lubricant Embedded (Graphite)



Flat Head Countersunk Screw Hole
(Apply to Flat Head Countersunk Screw)
OFU01



Low Head Screw Hole
(Apply to Low Head Screw Hole)
OFU02

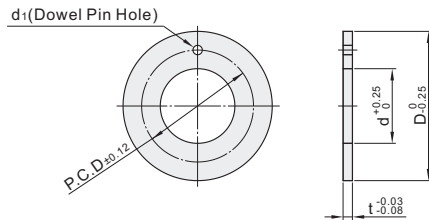


Part Number		T	D	D ₁	Mounting Hole							Chamfer		
Code	No.				P.C.D	Quantity	OFU01			OFU02			a	b
							Countersunk Screw			d ₁	d ₂	t		
Flat Head Countersunk Screw Hole OFU01	6	3(4)	6.2	25	15	2	M3	3.5	6	2.4	1.5	0.2		
	8		8.2	28	18									
	10		10.2	30	20									
	12		12.2	40	28									
	13		13.2	40	28									
	15		15.2	50	35									
	16		16.2	50	35									
	18		18.2	50	35									
Low Head Screw Hole OFU02	20	5	20.2	55	40	2	M5	4.5	7.5	3	2.5	0.3		
	25		25.2	60	45									
	30		30.2	70	50									
	35		35.2	80	60									
	40		40.2	80	60									
	45		45.2	100	75									
	50		50.3	100	75									
	50		50.3	100	75									

① For OFU02, T dimensions of No.6 ~ 18 are values in (). ② Screws need to be purchased separately.

Thrust Washers

Code	Type	Material			Surface Treatment	Allowable Temperature
		Base Plate	Middle Layer	Surface Layer		
OFW01	Thrust Washers	SPCC	Bronze Powder	PTFE	Tin Plating	-200 ~ 280°C



Part Number		t	d	D	Mounting Hole	
Code	No.				d1	P.C.D
OFW01	6	1.5	8	16	1.0	12
	8		10	18		14
	10		12	24		18
	12		14	26		20
	14		16	30	2.0	23
	16		18	32		25
	18		20	36		28
	20		22	38		30
	22		24	42	3.0	33
	25		28	48		38
	30		32	54		43
	35		38	62		50
	40		42	66	4.0	54
	45		48	72		60
	50		52	78		65
	50		52	78		65

Part Number		t
Code	No.	
OFW01	6	1.5

Discount price	
Per	1~29 30~
Price	100% Additional quotation

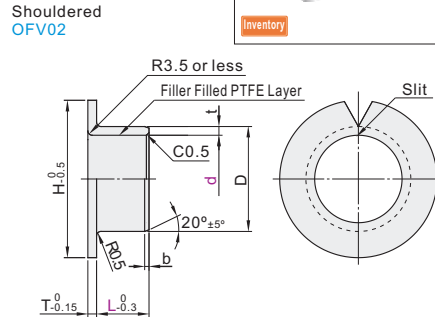
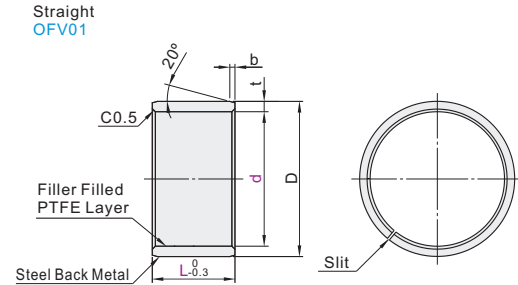
Delivery	
Per	1~29 30~
Price	100% Additional quotation

Multi-Layer Oil-Free Bushings

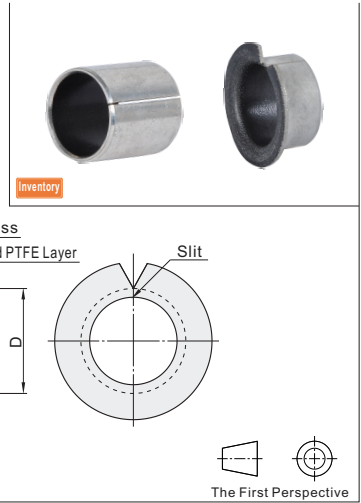
High-Precision Oil-Free Bushings

Multi-Layer Oil-Free Bushings

Code	Type	Material			Surface Treatment	Allowable Temperature
		Steel Back Metal GB	JIS	Middle Layer		
OFV01	Straight	SPCC	SPCC	Bronze Powder	PTFE	Tin Plating
OFV02	Shouldered	SPCC	SPCC	Bronze Powder	PTFE	Tin Plating



The Tolerance of housing diameter matching with this product: H7 (for reference only).



Part Number	Code	d	L	D	OFV01			OFV02			Shaft Diameter	I.D. after Press-Fit Tolerance
					t	b	H	t/T	t (Tol.)	b		
3	4	5	6	5	+0.047		4.6	7	0.8		3	-0.025
4	5	6	8	6	+0.017		5.6	9			4	-0.034
5	6	8	10	7			7	10			5	-0.025
6	8	10	12	8	+0.055		8	12			6	-0.037
8	10	12	15	10	+0.025		10	15			8	+0.065
10	12	15	20	12			12	18	0		10	-0.040
12	15	20	25	14	+0.060	1.0	14	20	1.0	0.3	12	-0.025
13	15	20	25	15	+0.030		15	21			13	-0.040
15	15	20	25	17	+0.065		17	23			15	+0.068
16	18	20	25	18	+0.035		18	24			16	-0.043
18	20	25	30	20	+0.070		20	26			18	+0.071
20	20	25	30	23	+0.045		23	31			20	0
22	25	30	35	25	+0.080	1.5	25	33	1.5	0.5	22	-0.025
25	30	35	40	28	+0.045		28	36			25	-0.046
30	30	35	40	34	+0.085		34	42			30	0
35	35	40	50	39	+0.050		39	49	2.0	0.8	35	+0.085
40	40	50	60	44	+0.095	2.0	44	54			40	-0.025
50	50	60	70	55	+0.055	2.5	55	65	2.5	0.8	50	-0.050

L dimensions in () are available for OFV01 only.

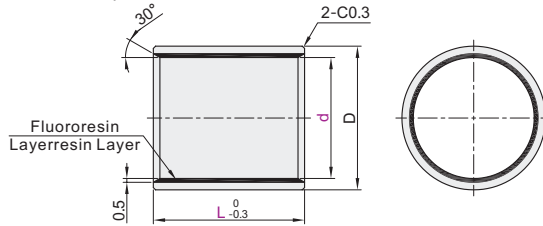
Shaft diameters are recommended dimensions.

OFV01/02 is a rolled bushing with a slit. Indicated values of D tolerance are reference after press fitted into ring gauge (± 0.002).

High-Precision Oil-Free Bushings

Code	Type	Material		Allowable Temperature
		Surface Layer	Inner Layer	
OFS01	Straight	Aluminum Alloy	Fluororesin	-50~140°C

Features: Applicable to linear and rotary motion.



Thread locking adhesive is recommended to affix bushings.



Code	Part Number	d	L	D
OFS01	4		5 6	7
	5		5 6 8	8
	6		5 6 8 10 12	9
	8	+0.02	6 8 10 12 15	11
	10	0	6 8 10 12 15 20	13
	12		10 12 15 20	15
	16		15 20 25	19

High-Precision Oil-Free Bushings

Part Number	Code	d	L
OFS01	4	5 6	5 6 8

OFS01—d5—L6



Please order as shown



Discount price
Per 1~9 10~
Price 100% Additional quotation



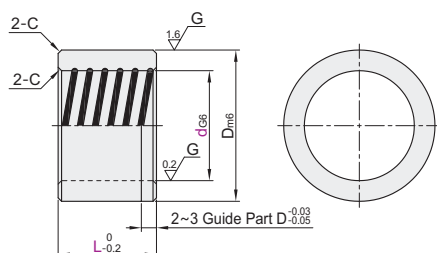
Delivery
12

Code	Type	Material		I.D. (Tol.)	O.D. (Tol.)
		GB	JIS		
OFX01	Straight	HT250	FC250	G6	m6
OFX11	Shouldered	Special Solid Lubricant	Special Solid Lubricant		h7
OFX21	Flanged				

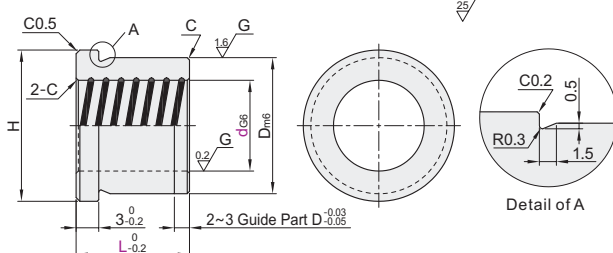
Features: Optimal for use in medium load and low speed applications.



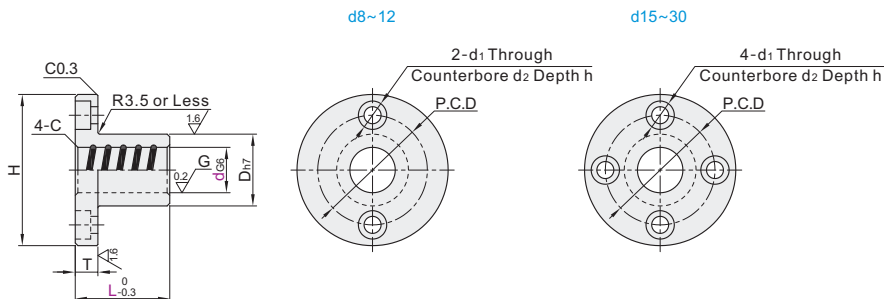
Straight
OFX01



Shouldered
OFX11

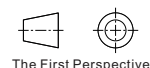


Flanged
OFX21



Recommended Housing I.D. Tolerance: $+0.05 \sim +0.02$; Recommended Mating Shaft Tolerance: e7 or h7 (for reference only).

Thread locking adhesive is recommended to affix bushings.



Part Number			L		Dm6		H	C
Code	dG6							
Straight OFX01	6	$+0.012$ $+0.004$	(6)	8 10 12	10	$+0.015$ $+0.006$	12	0.3
	8	$+0.014$ $+0.005$	8	10 12 15	12		14	
	10		10	12 15 20	16	$+0.018$ $+0.007$	18	
	12		10	12 15 20 25	18		20	
	15	$+0.017$ $+0.006$	15	20 25 30	22		24	
Shouldered OFX11	16		15	20 25 30	23	$+0.021$ $+0.008$	25	0.5
	20		20	25 30 40	28		30	
	25	$+0.020$ $+0.007$	25	30 40 50	32	$+0.025$ $+0.009$	34	
	30		30	40 50 60	38		40	

() marked L dimension is available for OFX01 only.

Part Number			Dh7		L	H	T	d1	d2	h	P.C.D
Code	dG6										
Flanged OFX21	8	$+0.014$ $+0.005$	15	0 -0.018	20	32	5	3.5	6	3.1	24
	10		19		25	40					29
	12	$+0.017$ $+0.006$	21	0 -0.021	30	42	6	4.5	7.5	4.1	32
	15		28		40	48					38
	20		32		50	54					43
	25	$+0.020$ $+0.007$	40	0 -0.025	60	62	8	5.5	9	5.1	51
	30		45		70	74	10	6.6	11	6.1	60



Straight		
Part Number	dG6	L
OFX01	6	6 8 10 12
OFX11	8	8 10 12 15

OFX01—d8—L10

Flanged		
Part Number	dG6	Dh7
OFX21	8	$+0.014$ $+0.005$
	10	15

OFX21—d10



Discount price		
Per	1~9	10~
Price	100%	Additional quotation



Delivery	
12	

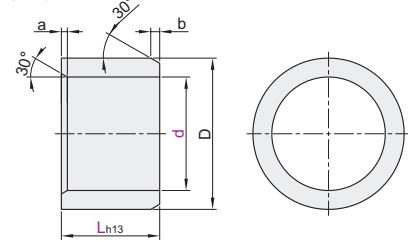
Oil Free Bushings

◀ Straight/Shouldered Polyacetal Resin/PTFE Resin

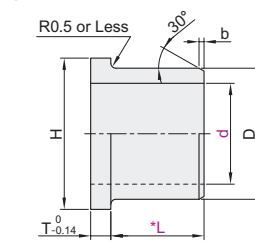
☑ Polyacetal Resin

Code	Type	Material	Allowable Temperature
OFY01	Straight	Polyacetal Resin	-40~80°C
OFY11	Shouldered	Lubricant and Special Filler Added	

Straight OFY01



Shouldered OFY11



Inventory

① When $L \leq 10$, $L_{-0.3}^0$;
When $L \geq 12$, $L_{-0.5}^0$



The First Perspective

① This product is an injection molding product, the existence of concave points on the surface (injection water hole) is a normal phenomenon, does not affect the use.

② The Tolerance of housing diameter matching with this product: H7; Shaft Tolerance: h9 (for reference only).

☑ Straight

Part Number	Code	d	L	D	Chamfer
					a b
3	+	0.054	3 5 6	4.5	
4	+	0.014	4 6 8	5.5	
5	+	0.068	5 8 10 12 18	7	0.3
6	+	0.020	4 5 6 8 10 11	8	
8			5 6 8 10 11 12 15	10	
10	+	0.083	4 5 6 8 10 12 15 18 20	12	0.5
10A	+	0.025	10 16	14	
12			6 8 10 12 15 20 25 30	14	
14			8 10 12 15 20 25	16	
15	+	0.102	10 12 15 17 20 25	17	
16	+	0.032	10 12 15 20 25	18	0.5
18			15 20 25	20	
20			12 15 28	22	0.8
20A			10 15 20 23 25 30	23	
22	+	0.124	15 20 25 30	25	
25	+	0.040	10 12 15 20 25 30	28	
30			20 25 30 40	34	
35			15 20 25 30 40 50	39	
40	+	0.150	20 30 40 50	44	1.2
45	+	0.050	30 40 50	50	
50			10 20 30 40 50	55	

① d is the standard H7 tolerance after pressing into the seat (ISO 3547-1).

☑ Shouldered

Part Number	Code	d	L	D	H	T	Chamfer
							b
3	+	0.054	2.25 4.25	4.5	7.5		
4	+	0.014	2.25 5.25	5.5	9.5		0.75
5	+	0.068	3 4	7	11		0.3
6	+	0.020	3 4 5 7 9	8	12		
8	+	0.083	4 5 6 8 9 11	10	15		
10	+	0.025	4 5 6 7 8 9 11 14 16	12	18		0.5
12			3 4 5 6 8 9 11 12 14 16 17 19	14	20	1	
14			4.2 7 9 11 16	16	22		
15	+	0.102	8 11 14 16 19 24	17	23		
16	+	0.032	11 16	18	24		
18			11 16 19	20	26		
20			10 15 20	23	30		0.8
22	+	0.124	10	25	33	1.5	
25	+	0.040	10 15 20	28	35		
30			7 14 24 30 35	34	42		
35			14 24	39	47		
40	+	0.150	28 38	44	52	2	1.2
45	+	0.050	23 43 48	50	58		
50			18 28 38 48	55	63		

① d is the standard H7 tolerance after pressing into the seat (ISO 3547-1).



Please order as shown

☑ Straight

Part Number	Code	d	L
OFY01	3	3 5 6	
	4	4 6 8	

OFY01—d4—L6



Discount price
Per 1~9 10~
Price 100% Additional quotation

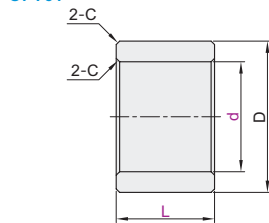


Delivery
12

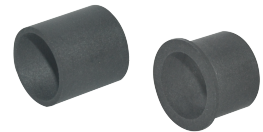
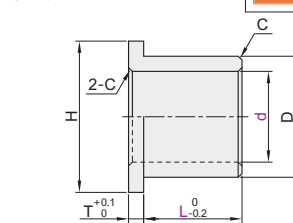
☑ PTFE Resin

Code	Type	Material	Allowable Temperature
OFY51	Straight	PTFE Resin	-200~200°C
OFY61	Shouldered	Lubricant and Special Filler Added	

Straight OFY51



Shouldered OFY61



Inventory

① OFY51: When $L \leq 8$, $L_{-0.2}^0$; When $L \geq 10$, $L_{-0.25}^0$.

② The Tolerance of housing diameter matching with this product: H7; Shaft Tolerance: g6 (for reference only).



The First Perspective

Part Number	Code	d	L	D	I.D. after Press-Fit Tolerance	H	T	C
3	+	0.179	3 5	6	+0.120			
4	+	0.129	3 5 8	7	+0.090	9	1.5	0.3
5	+	0.182	5 8 10	8	+0.040	11		
6	+	0.147	5 8 10	9	+0.122	12		
8	+	0.197	8 10 12 15	12	+0.072	16		
10	+	0.210	8 10 12 15	14	+0.125	18	2	0.5
12	+	0.160	10 12 15 20	16	+0.131	20		
16	+	0.162	12 15 20 25	22	+0.144	28	3	0.8
20	+	0.239	15 20 25 30	26	+0.096	32		
					+0.105			
					+0.110			
					+0.080			



Please order as shown

Part Number	Code	d	L
OFY51	3	3 5	
OFY61	4	3 5 8	

OFY51—d4—L5

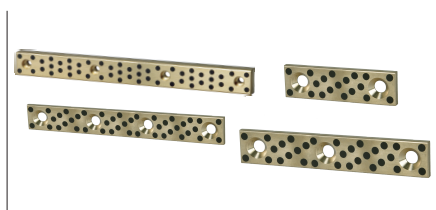


Discount price
Per 1~9 10~
Price 100% Additional quotation

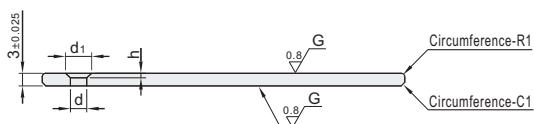


Delivery
12

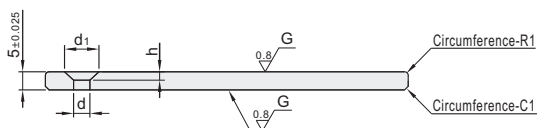
Code	Type	Plate Thickness	Material
OBG01	Flat Head Countersunk Screw Hole	3	High Tensile Brass Alloy(SP2) Solid Lubricant Embedded (Graphite)
OBG02		5	
OBG11	Low Head Screw Hole	5	
OBG12		10	



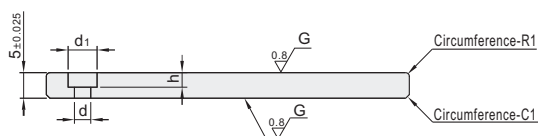
OBG01
(Plate Thickness 3mm)



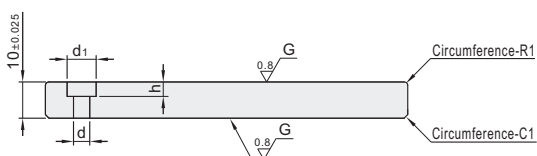
OBG02
(Plate Thickness 5mm)



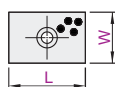
OBG11
(Plate Thickness 5mm)



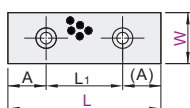
OBG12
(Plate Thickness 10mm)



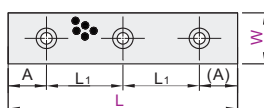
1K(1-Hole Type)



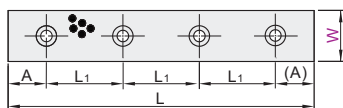
2K(2-Hole Type)



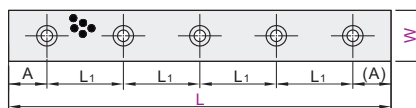
3K(3-Hole Type)



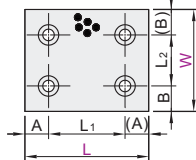
4K(4-Hole Type)



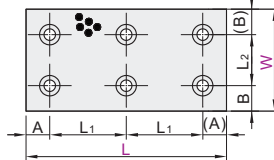
5K(5-Hole Type)



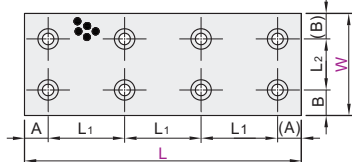
4K(4-Hole Type)



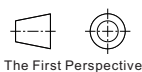
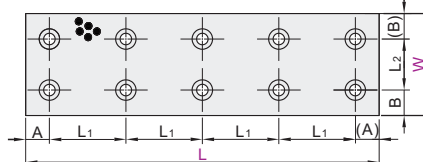
6K(6-Hole Type)



8K(8-Hole Type)



10K(10-Hole Type)



Oil Free Slide Plates

Upper-Lower Surface Ground Copper Alloy

① OBG11 is applicable to W dimension 20mm only.

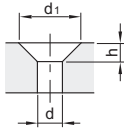
② Only () marked L dimensions are available for OBG01.

Part Number		L	Mounting Hole Qty.	Hole Position	A	L ₁	B	L ₂
Code	W							
Flat Head Countersunk Screw Hole (Plate Thickness 3 mm) OBG01	20	(30)	1	—	—	—	—	—
		(40)	—	—	—	20	—	—
		(50)	2	—	—	30	—	—
		(60)	—	—	—	40	—	—
		80	—	—	10	60	—	—
	30	100	—	—	—	40	—	—
		120	3	—	—	50	—	—
		150	—	—	—	65	—	—
		200	4	—	—	60	—	—
		250	5	—	13	56	—	—
	40	300	—	—	14	68	—	—
		(30)	1	—	—	—	—	—
		(40)	—	—	—	20	—	—
		(50)	2	—	—	30	—	—
		(60)	—	—	—	40	—	—
Low Head Screw Hole (Plate Thickness 5 mm) OBG02	20	80	—	Single Row	10	60	—	—
		100	—	—	—	40	—	—
		120	3	—	—	50	—	—
		150	—	—	—	65	—	—
		200	4	—	—	60	—	—
	30	250	5	—	13	56	—	—
		300	—	—	14	68	—	—
		(40)	1	—	—	—	—	—
		(60)	2	—	10	40	—	—
		80	—	—	—	60	—	—
	40	100	—	—	—	38	—	—
		120	3	—	12	48	—	—
		150	—	—	—	63	—	—
		200	4	—	13	58	—	—
		250	5	—	13	56	—	—
	50	300	—	—	14	68	—	—
		(30)	1	—	—	—	—	—
		(40)	—	—	—	20	—	—
		(50)	2	—	—	30	—	—
		(60)	—	—	—	40	—	—

Part Number		L	Mounting Hole Qty.	Hole Position	A	L ₁	B	L ₂
Code	W							
Flat Head Countersunk Screw Hole (Plate Thickness 5 mm) OBG02	50	50	1	—	—	—	—	—
		60	2	—	10	40	—	—
		80	—	—	—	60	—	—
		100	—	—	—	37	—	—
		120	3	—	—	47	—	—
	60	150	—	—	13	62	—	—
		200	4	—	—	58	—	—
		250	5	—	—	56	—	—
		300	—	Single Row	14	68	—	—
		60	2	—	10	40	—	—
	80	80	—	—	—	60	—	—
		100	—	—	—	37	—	—
		120	3	—	—	47	—	—
		150	—	—	13	62	—	—
		200	4	—	—	58	—	—
Low Head Screw Hole (Plate Thickness 10 mm) OBG12	60	250	5	—	—	56	—	—
		300	—	—	14	68	—	—
		80	4	—	10	60	—	—
		100	—	—	—	74	—	—
		120	3	—	—	47	—	—
	80	150	6	Double Row	13	62	20	40
		200	—	—	—	87	—	—
		250	8	—	14	74	—	—
		300	10	—	—	68	—	—

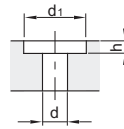
Hole Machining Details

OBG01 (Hex Socket Flat Head Cap Screw)



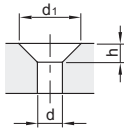
W	d	d ₁	h	Screw Specifications
20	4.3	9.5	2.5	M4-20
30	5.3	11.1	2.8	M5-20
40	—	—	—	—

OBG11 (Hex Socket Extra Low Head Cap Screw)



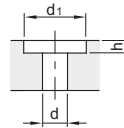
W	d	d ₁	h	Screw Specifications
20	4.3	8	3	M4-10

OBG02 (Hex Socket Flat Head Cap Screw)



W	d	d ₁	h	Screw Specifications
20	4.3	9.5	2.5	M4-20
30	5.3	11.1	2.8	M5-20
40	6.5	13.1	3.3	M6-20
50	—	—	—	—
60	8.5	17.6	4.3	M8-20
80	—	—	—	—

OBG12 (Hex Socket Extra Low Head Cap Screw)



W	d	d ₁	h	Screw Specifications
20	4.3	8	4.2	M4-20
30	5.3	9.5	5.2	M5-20
40	6.5	11	6.2	M6-20
50	—	—	—	—
60	8.5	15	6.2	M8-20
80	—	—	—	—

① Screws need to be purchased separately.



Please order as shown

Part Number		L
Code	W	
OBG01	20	(30)
OBG02	20	(40)
OBG01—W20—L30		



Discount price	
Per	1~9 10~
Price	100% Additional quotation



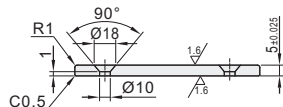
Delivery	
Per	12

Oil Free Slide Plates

Dimension Selectable Copper Alloy

Flat Head Countersunk Screw Hole

Code	Type	Material
OBJ01	Dimension Selectable	Flat Head Countersunk Screw Hole High Tensile Brass Alloy(SP2) Solid Lubricant Embedded (Graphite)

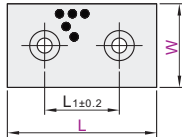


Thread Locking Treatment

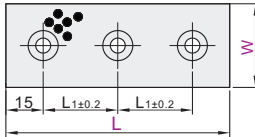
- The threads are coated with special resin which excels in elasticity, abrasion and oil resistance.
- Thread locking will begin to lose its effectiveness gradually after the fourth use.



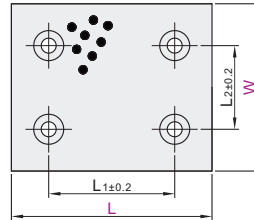
2K(2-Hole Type)



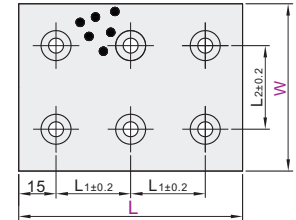
3K(3-Hole Type)



4K(4-Hole Type)

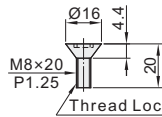


6K(6-Hole Type)



Applicable Screw: Hex Socket Flat Head Cap Screw

Slide Direction



Thread Locking Compound

Screws need to be purchased separately.

The First Perspective

Code	W	L	Mounting Hole Type	L1	L2
OBJ01	28	50	2K	20	
		75		45	
		100		70	
	38	50	2K	20	
		75		45	
		100		70	
	48	50	3K	60	
		75		45	
		100		70	
	75	100	4K	70	45
		125		95	
		150		60	
	100	100	6K	70	
		125		95	
		150		60	



Part Number	Code	W	L
OBJ01	28	50	75

OBJ01 — W28 — L50



Discount price

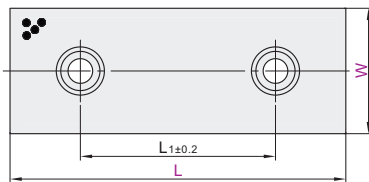
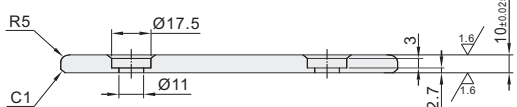
Per 1~9 10~

Price 100% Additional quotation

Delivery 12

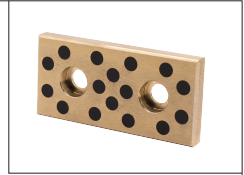
Low Head Screw Hole

Code	Type	Material
OBJ11	Dimension Selectable	Low Head Screw Hole High Tensile Brass Alloy(SP2) Solid Lubricant Embedded (Graphite)

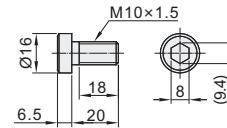


The length wise (R) is R2, when W=28 or 38.

Slide Direction: For W=28 and 38, only long side (L) direction is available.



Applicable Screw: Hex Socket Low Head Cap Screw



Screws need to be purchased separately. The First Perspective

Code	W	L	L1
OBJ11	28	75	45
		100	50
		125	75
		150	100
	38	75	45
		100	50
		125	75
		150	100
	48	75	45
		100	50
		125	75
		150	100
	58	75	45
		100	50
		125	75
		150	100

Code	W	L	L1
OBJ11	75	75	25
		100	50
		125	75
		150	100
	100	75	25
		100	50
		125	75
		150	100
	125	75	25
		100	50
		125	75
		150	100
	150	75	25
		100	50
		125	75
		150	100



Part Number	Code	W	L
OBJ11	28	75	100

OBJ11 — W28 — L75



Discount price

Per 1~9 10~

Price 100% Additional quotation

Delivery 12