

# SM TYPE

– Standard Type –



## part number structure

example **SMS 25 G UU -P**

specification  
**SM:** standard  
**SMS:** anti-corrosion

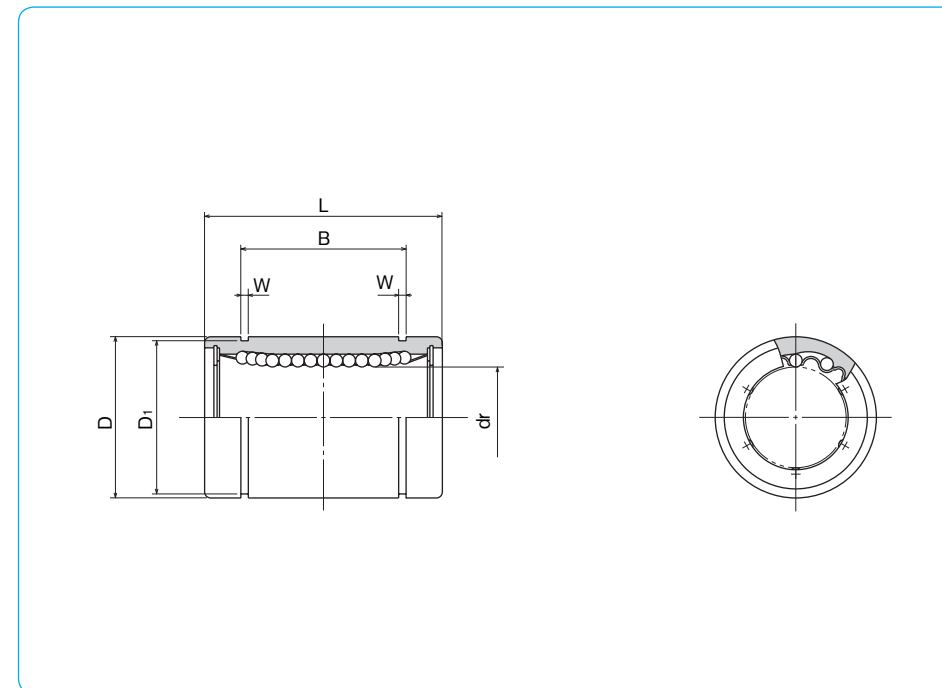
inner contact diameter (dr)

retainer material  
**blank:** standard/steel  
**G:** resin

accuracy grade  
**blank:** high  
**P:** precision

seal  
**blank:** without seal  
**U:** seal on one side  
**UU:** seals on both sides  
**Z:** doublelip-seal on one side  
**ZZ:** doublelip-seals on both sides

Doublelip-seal is available for size 6 to 30.



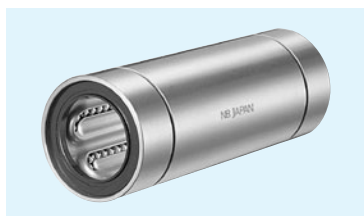
part number				number of ball circuits	major dimensions				
standard		anti-corrosion			dr tolerance $\mu\text{m}$		D		
steel retainer	resin retainer	stainless retainer	resin retainer		mm	precision	high	mm	tolerance $\mu\text{m}$
SM 3	SM 3G	SMS 3	SMS 3G	4	3			7	0
SM 4	SM 4G	SMS 4	SMS 4G	4	4	0	0	8	0
SM 5	SM 5G	SMS 5	SMS 5G	4	5	-5	-8	10	-9
SM 6	SM 6G	SMS 6	SMS 6G	4	6			12	0
SM 8s	SM 8sG	SMS 8s	SMS 8sG	4	8			15	-11
SM 8	SM 8G	SMS 8	SMS 8G	4	8			15	
SM 10	SM10G	SMS10	SMS10G	4	10	0	0	19	
SM 12	SM12G	SMS12	SMS12G	4	12	-6	-9	21	0
SM 13	SM13G	SMS13	SMS13G	4	13			23	-13
SM 16	SM16G	SMS16	SMS16G	4	16			28	
SM 20	SM20G	SMS20	SMS20G	5	20			32	0
SM 25	SM25G	SMS25	SMS25G	6	25	-7	-10	40	-16
SM 30	SM30G	SMS30	SMS30G	6	30			45	
SM 35	SM35G	SMS35	SMS35G	6	35			52	0
SM 40	SM40G	SMS40	SMS40G	6	40	0	0	60	0
SM 50	SM50G	SMS50	SMS50G	6	50	-8	-12	80	-19
SM 60	SM60G	SMS60	SMS60G	6	60	0	0	90	0
SM 80	SM80G	SMS80	SMS80G	6	80	-9	-15	120	-22
SM100	-	-	-	6	100	0	0	150	0
SM120	-	-	-	8	120	-10	-20	180	-25
SM150	-	-	-	8	150	0/-13	0/-25	210	0/-29

mm	L tolerance mm	B tolerance mm		W mm	D1 mm	eccentricity		radial clearance (maximum) $\mu\text{m}$	basic load rating dynamic C N	static Co N	mass g	shaft diameter mm
		mm	mm			precision $\mu\text{m}$	high $\mu\text{m}$					
10		-	-	-	-				69	105	1.4	3
12	0	-	-	-	-	4	8		88	127	2.0	4
15	-0.12	10.2		1.1	9.6			-3	167	206	4.0	5
19		13.5		1.1	11.5				206	265	8.5	6
17		11.5		1.1	14.3				176	216	11	8
24		17.5		1.1	14.3				274	392	17	8
29	0	22	0	1.3	18	8	12		372	549	36	10
30	-0.2	23	-0.2	1.3	20			-4	510	784	42	12
32		23		1.3	22				510	784	49	13
37		26.5		1.6	27				774	1,180	76	16
42		30.5		1.6	30.5			-6	882	1,370	100	20
59		41		1.85	38	10	15		980	1,570	240	25
64		44.5		1.85	43				1,570	2,740	270	30
70	0	49.5	0	2.1	49			-8	1,670	3,140	425	35
80	-0.3	60.5	-0.3	2.1	57	12	20	-10	2,160	4,020	654	40
100		74		2.6	76.5			-13	3,820	7,940	1,700	50
110		85		3.15	86.5				4,700	10,000	2,000	60
140		105.5		4.15	116	17	25		7,350	16,000	4,520	80
175	0	125.5	0	4.15	145			-20	14,100	34,800	8,600	100
200	-0.4	158.6	-0.4	4.15	175	20	30		16,400	40,000	15,000	120
240		170.6		5.15	204	25	40	-25	21,100	54,300	20,250	150

1N=0.102kgf

# SM-W TYPE

– Double-Wide Type –



## part number structure

example **SMS 25 G W UU**

specification  
**SM**: standard  
**SMS**: anti-corrosion

inner contact diameter (dr)

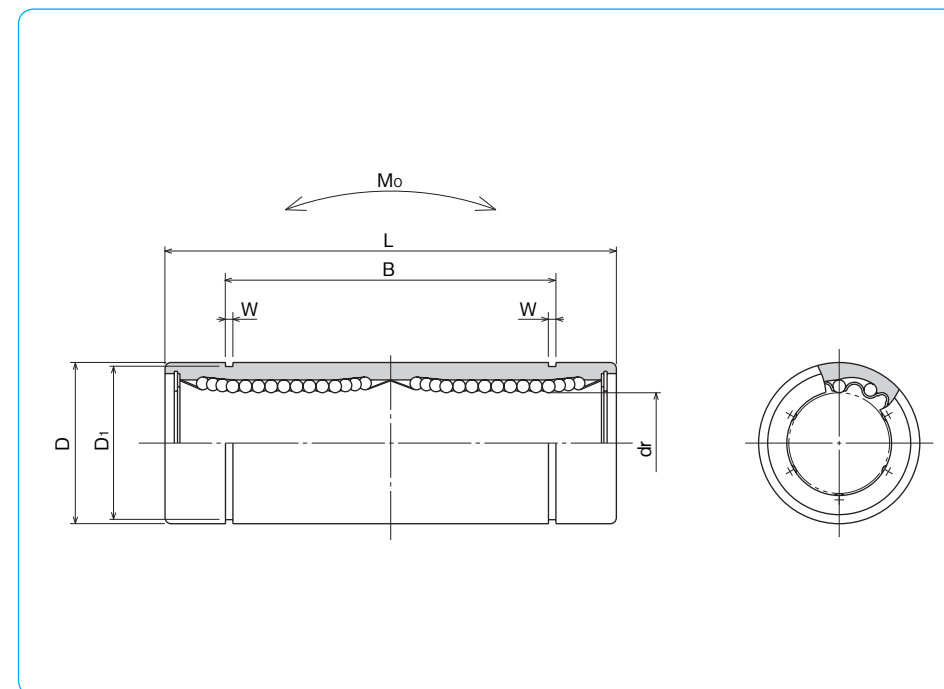
retainer material  
**blank**: standard/steel  
 anti-corrosion/stainless steel  
**G**: resin

seal  
**blank**: without seal  
**UU**: seals on both sides  
**ZZ**: doublelip-seals on both sides

double-wide type

Doublelip-seal is available for size 6 to 30.

part number				number of ball circuits	dr		major dimensions	
standard steel retainer	resin retainer	anti-corrosion stainless retainer	resin retainer		mm	tolerance $\mu\text{m}$	D mm	tolerance $\mu\text{m}$
SM 3W	SM 3GW	SMS 3W	SMS 3GW	4	3	0 -10	7	0
SM 4W	SM 4GW	SMS 4W	SMS 4GW	4	4		8	-11
SM 5W	SM 5GW	SMS 5W	SMS 5GW	4	5		10	0
SM 6W	SM 6GW	SMS 6W	SMS 6GW	4	6		12	-13
SM 8W	SM 8GW	SMS 8W	SMS 8GW	4	8		15	0
SM10W	SM10GW	SMS10W	SMS10GW	4	10		19	-16
SM12W	SM12GW	SMS12W	SMS12GW	4	12		21	0
SM13W	SM13GW	SMS13W	SMS13GW	4	13		23	-19
SM16W	SM16GW	SMS16W	SMS16GW	4	16		28	0
SM20W	SM20GW	SMS20W	SMS20GW	5	20		32	-22
SM25W	SM25GW	SMS25W	SMS25GW	6	25		40	0
SM30W	SM30GW	SMS30W	SMS30GW	6	30		45	-25
SM35W	SM35GW	SMS35W	SMS35GW	6	35		52	0
SM40W	SM40GW	SMS40W	SMS40GW	6	40		60	-28
SM50W	SM50GW	SMS50W	SMS50GW	6	50		80	0
SM60W	SM60GW	SMS60W	SMS60GW	6	60		0/-20	90



mm	L tolerance mm	B tolerance mm		W mm	D <sub>1</sub> mm	eccentricity $\mu\text{m}$	basic load rating		allowable static moment Mo N·m	mass g	shaft diameter mm
		mm	mm				dynamic C N	static Co N			
19	0 -0.3	—	—	—	—	10	138	210	0.51	3.2	3
23		—	—	—	—		176	254	0.63	4.8	4
28		20.4	0 -0.3	1.1	9.6		265	412	1.38	11	5
35		27		1.1	11.5		323	530	2.18	16	6
45		35		1.1	14.3		431	784	4.31	31	8
55		44		1.3	18		588	1,100	7.24	62	10
57	46	1.3		20	813	1,570	10.9	80	12		
61	46	1.3		22	813	1,570	11.6	90	13		
70	53	1.6	27	1,230	2,350	19.7	145	16			
80	61	1.6	30.5	1,400	2,740	26.8	180	20			
112	0 -0.4	82	0 -0.4	1.85	38	20	1,560	3,140	43.4	440	25
123		89		1.85	43		2,490	5,490	82.8	480	30
135		99		2.1	49		2,650	6,270	110	795	35
151		121		2.1	57		3,430	8,040	147	1,170	40
192		148		2.6	76.5		6,080	15,900	397	3,100	50
209		170		3.15	86.5		7,550	20,000	530	3,500	60

1N  $\approx$  0.102kgf 1N · m  $\approx$  0.102kgf · m