

SM-G-L TYPE

– Long Type –



part number structure

example **SM25G-LUU**

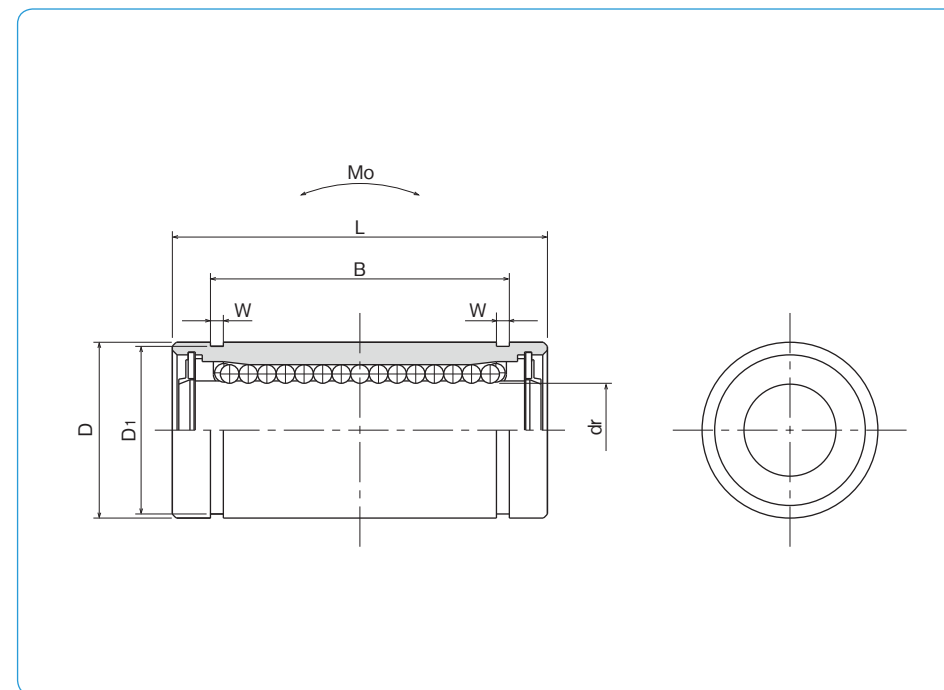
SM type

inner contact diameter (dr)

seals on both sides

long type

resin retainer



part number*	number of ball circuits	dr		D		L		B		
		mm	tolerance μm	mm	tolerance μm	mm	tolerance mm	mm	tolerance mm	
SM 6G-LUU	4	6	0	12	0	26	0	20.5	-0.2	
SM 8G-LUU	4	8		15	-13	32		25.5		
SM10G-LUU	4	10		19	0	39		32		
SM12G-LUU	4	12		21	0	41		34		
SM13G-LUU	4	13		23	-16	45		36		
SM16G-LUU	4	16		28	0	53		42		
SM20G-LUU	5	20		32	0	59		47.5		
SM25G-LUU	6	25		40	-19	83		69		0
SM30G-LUU	6	30		45	0	90		75		-0.3

*UU type is standard.

W	D ₁	eccentricity	basic load rating		allowable static moment M ₀	mass	shaft diameter
			dynamic C	static C ₀			
mm	mm	μm	N	N	N · m	g	mm
1.1	11.5	15	262	476	1.15	10	6
1.1	14.3		352	615	1.94	19	8
1.3	18		493	1,005	3.98	38	10
1.3	20		637	1,430	6.26	43	12
1.3	22		682	1,560	7.68	62	13
1.6	27		1,039	2,350	13.2	99	16
1.6	30.5	20	1,160	2,740	17.9	125	20
1.85	38		1,300	2,960	27.2	315	25
1.85	43		2,160	5,880	61.3	347	30

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

SM-W TYPE

– Double-Wide Type –



part number structure

example **SMS25GWUU**

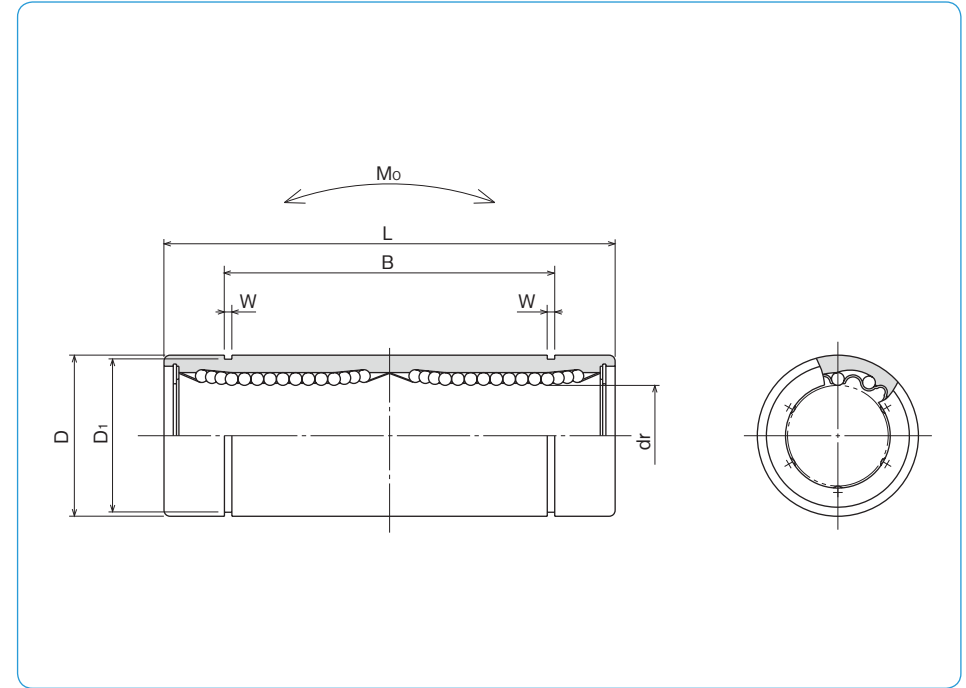
specification
SM: standard
SMS: anti-corrosion

inner contact diameter (dr)

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

seal
blank: without seal
UU: seals on both sides

double-wide type



part number				number of ball circuits	dr		major dimensions	
standard steel retainer	resin retainer	anti-corrosion stainless retainer	resin retainer		mm	tolerance μm	mm	tolerance μm
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	0 -12	40	0
SM30W	SM30GW	SMS30W	SMS30GW	6	30		45	-19
SM35W	SM35GW	SMS35W	SMS35GW	6	35		52	0
SM40W	SM40GW	SMS40W	SMS40GW	6	40		60	-22
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	D1 mm	eccentricity μm	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	82	0 -0.4	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	25	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=0.102kgf 1N·m=0.102kgf·m

KB-W TYPE (Euro Standard)

– Double-Wide Type –



part number structure

example **KBS25GWUU**

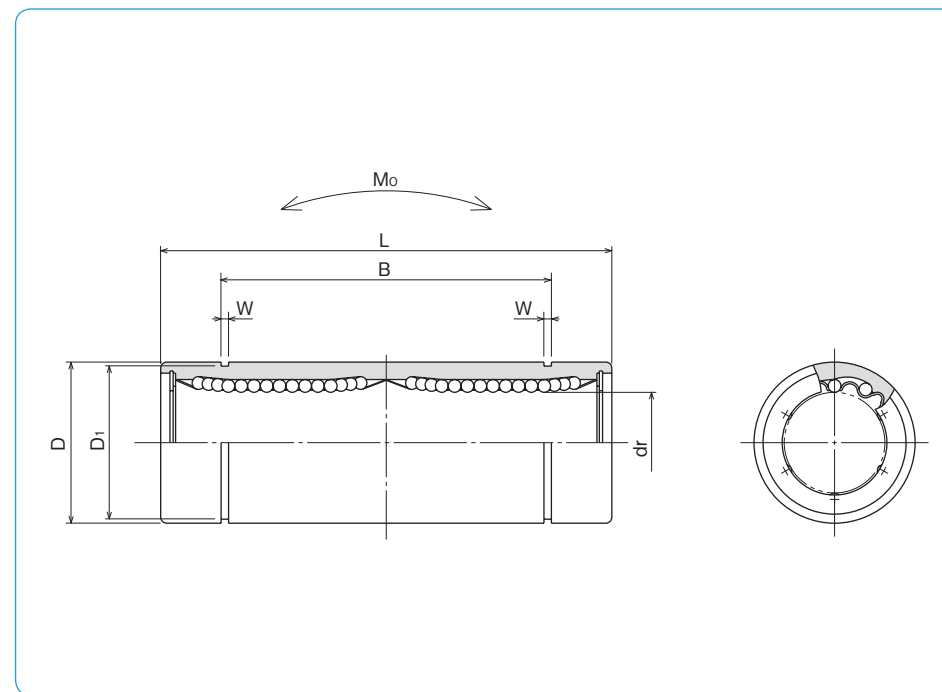
specification
KB: standard
KBS: anti-corrosion

inner contact diameter (dr)

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

seal
blank: without seal
UU: seals on both sides

double-wide type



part number				number of ball circuits	dr		major dimensions	
standard steel retainer	resin retainer	anti-corrosion stainless retainer	resin retainer		mm	tolerance μm	D mm	tolerance μm
KB 8W	KB 8GW	KBS 8W	KBS 8GW	4	8	+ 9	16	0/-9
KB12W	KB12GW	KBS12W	KBS12GW	4	12	- 1	22	0
KB16W	KB16GW	KBS16W	KBS16GW	4	16	+ 11	26	-11
KB20W	KB20GW	KBS20W	KBS20GW	5	20	- 1	32	0
KB25W	KB25GW	KBS25W	KBS25GW	6	25	+ 13	40	-13
KB30W	KB30GW	KBS30W	KBS30GW	6	30	- 2	47	0
KB40W	KB40GW	KBS40W	KBS40GW	6	40	+ 16	62	0
KB50W	KB50GW	KBS50W	KBS50GW	6	50	- 4	75	-15
KB60W	KB60GW	KBS60W	KBS60GW	6	60		90	0/-20

mm	L tolerance mm	B tolerance mm		W mm	D ₁ mm	eccentricity μm	basic load rating		allowable static moment Mo N·m	mass g	shaft diameter mm
		mm	mm				dynamic C N	static Co N			
46		33		1.1	15.2	15	421	804	4.3	40	8
61	0	45.8	0	1.3	21		813	1,570	11.7	80	12
68	-0.3	49.8	-0.3	1.3	24.9		921	1,780	14.2	115	16
80		61		1.6	30.5	17	1,370	2,740	25.0	180	20
112		82		1.85	38		1,570	3,140	44.0	430	25
123		104.2		1.85	44.5		2,500	5,490	78.9	615	30
151	0	121.2	0	2.15	59	20	3,430	8,040	147	1,400	40
192	-0.4	155.2	-0.4	2.65	72		6,080	15,900	396	2,320	50
209		170		3.15	86.5		7,550	20,000	487	3,920	60

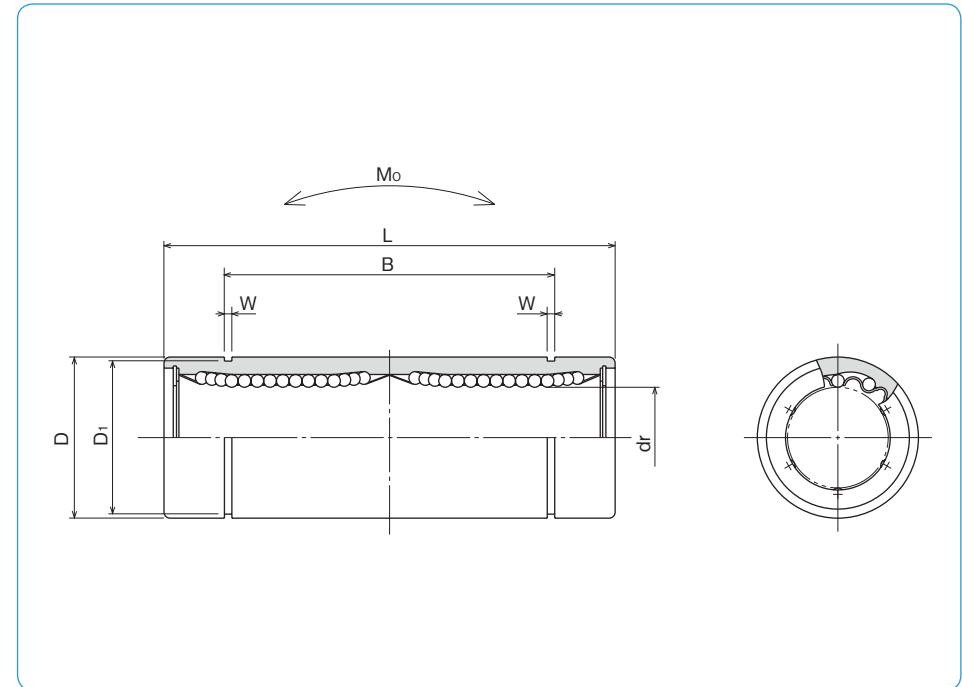
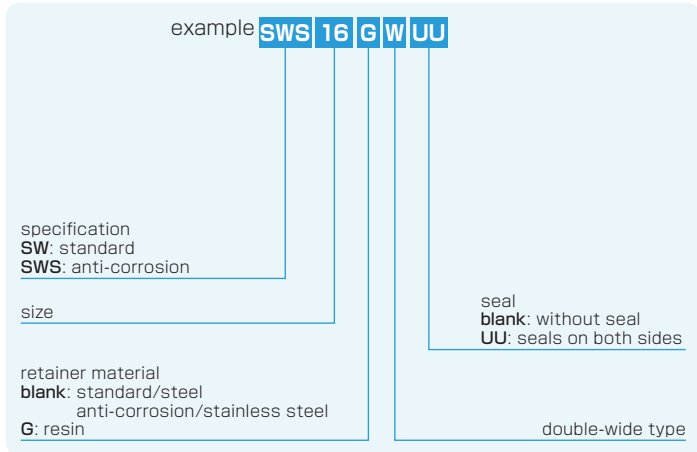
1N≒0.102kgf 1N·m≒0.102kgf·m

SW-W TYPE (Inch Standard)

– Double-Wide Type –



part number structure



part number				number of ball circuits	dr		major dimensions	
standard		anti-corrosion			inch (mm)	tolerance inch/(μm)	D	
steel retainer	resin retainer	stainless retainer	resin retainer				inch (mm)	tolerance inch/(μm)
SW 4W	SW 4GW	SWS 4W	SWS 4GW	4	.2500 (6.350)		.5000 (12.700)	⁰ / _{-.00050 (-13)}
SW 6W	SW 6GW	SWS 6W	SWS 6GW	4	.3750 (9.525)	⁰ / _{-.00040 (-10)}	.6250 (15.875)	⁰ / _{-.00065 (-16)}
SW 8W	SW 8GW	SWS 8W	SWS 8GW	4	.5000 (12.700)		.8750 (22.225)	⁰ / _{-.00075 (-19)}
SW10W	SW10GW	SWS10W	SWS10GW	4	.6250 (15.875)		1.1250 (28.575)	⁰ / _{-.00100 (-25)}
SW12W	SW12GW	SWS12W	SWS12GW	5	.7500 (19.050)	⁰ / _{-.00050 (-12)}	1.2500 (31.750)	⁰ / _{-.00090 (-22)}
SW16W	SW16GW	SWS16W	SWS16GW	6	1.0000 (25.400)		1.5625 (39.688)	⁰ / _{-.00100 (-25)}
SW20W	SW20GW	SWS20W	SWS20GW	6	1.2500 (31.750)	⁰ / _{-.00060 (-15)}	2.0000 (50.800)	⁰ / _{-.00100 (-25)}
SW24W	SW24GW	SWS24W	SWS24GW	6	1.5000 (38.100)		2.3750 (60.325)	⁰ / _{-.00100 (-25)}
SW32W	SW32GW	SWS32W	SWS32GW	6	2.0000 (50.800)		3.0000 (76.200)	⁰ / _{-.00100 (-25)}

L		B		W	D ₁	eccentricity inch (μm)	basic load rating		allowable static moment Mo N·m	mass g	shaft diameter inch (mm)
inch (mm)	tolerance inch/(mm)	inch (mm)	tolerance inch/(mm)	inch (mm)	inch (mm)		dynamic C N	static Co N			
1.3750 (34.925)		1.0220 (25.959)		.0390 (0.992)	.4687 (11.906)	.0006 (15)	323	530	2.0	17.5	1/4 (6.350)
1.5938 (40.481)		1.2716 (32.298)		.0390 (0.992)	.5880 (14.935)		353	630	2.7	28	3/8 (9.525)
2.3750 (60.325)	⁰ / _{-.012 (-0.3)}	1.9250 (48.895)	⁰ / _{-.012 (-0.3)}	.0459 (1.168)	.8209 (20.853)		813	1,570	11.5	80	1/2 (12.700)
2.8125 (71.438)		2.2079 (56.080)		.0559 (1.422)	1.0590 (26.899)	.0008 (20)	1,230	2,350	20.0	160	5/8 (15.875)
3.0937 (78.581)		2.3314 (59.218)		.0559 (1.422)	1.1760 (29.870)		1,370	2,740	26.5	195	3/4 (19.050)
4.2813 (108.744)		3.5094 (89.139)		.0679 (1.727)	1.4687 (37.306)		1,570	3,140	41.2	410	1 (25.400)
5.0000 (127.000)	⁰ / _{-.016 (-0.4)}	4.0094 (101.839)	⁰ / _{-.016 (-0.4)}	.0679 (1.727)	1.8859 (47.904)	.0010 (25)	2,500	5,490	84.8	820	1-1/4 (31.750)
5.6875 (144.463)		4.8236 (122.519)		.0859 (2.184)	2.2389 (56.870)		3,430	8,040	143	1,250	1-1/2 (38.100)
7.7500 (196.850)		6.3834 (162.138)		.1029 (2.616)	2.8379 (72.085)		6,080	15,900	399	2,350	2 (50.800)

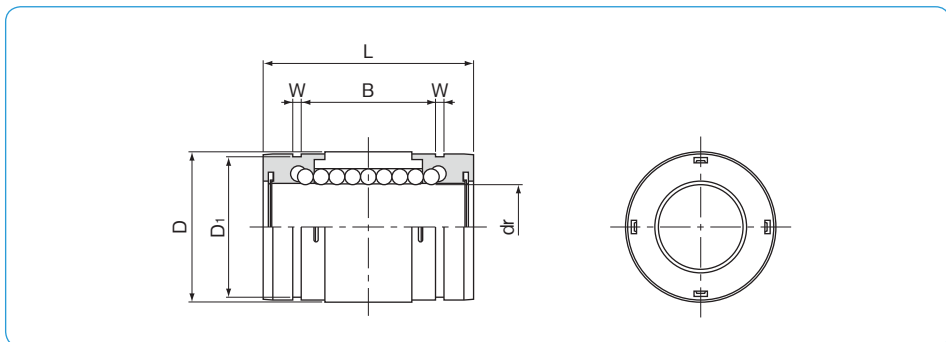
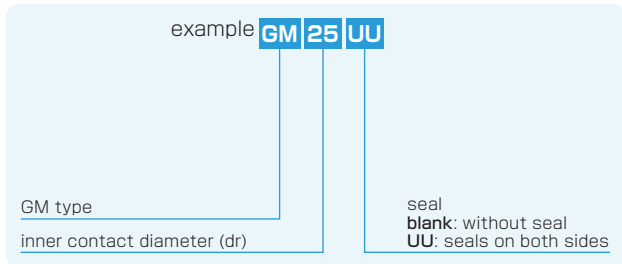
1N≒0.225lbf 1N·m≒0.738lb·ft
 1kg≒2.205lbs

GM TYPE

– Single Type –



part number structure



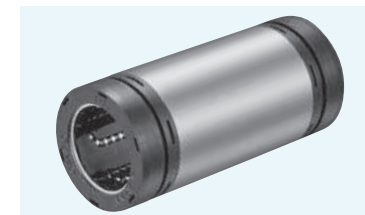
part number	number of ball circuits	dr mm	major dimensions							basic load rating dynamic C N	static Co N	mass g
			tolerance μm	D mm	tolerance μm	L mm	B mm	W mm	D ₁ mm			
GM 6	4	6	0	12	0	19	11.3	1.1	11.5	206	265	5
GM 8	4	8		15	-11	24	15.3	1.1	14.3	274	392	10
GM10	4	10		19	0	29	19.4	1.3	18	372	549	18
GM12	4	12	-9	21	0	30	20.4	1.3	20	510	784	23
GM13	4	13		23	-13	32	20.4	1.3	22	510	784	27
GM16	4	16		28	0	37	23.3	1.6	27	774	1,180	45
GM20	6	20	0	32	0	42	27.3	1.6	30.5	882	1,370	70
GM25	6	25		40	-16	59	37.3	1.85	38	980	1,570	150
GM30	6	30		45	0	64	40.8	1.85	43	1,570	2,740	180

GM-AJ type (clearance adjustable type) is also manufactured. Please contact NB for details.

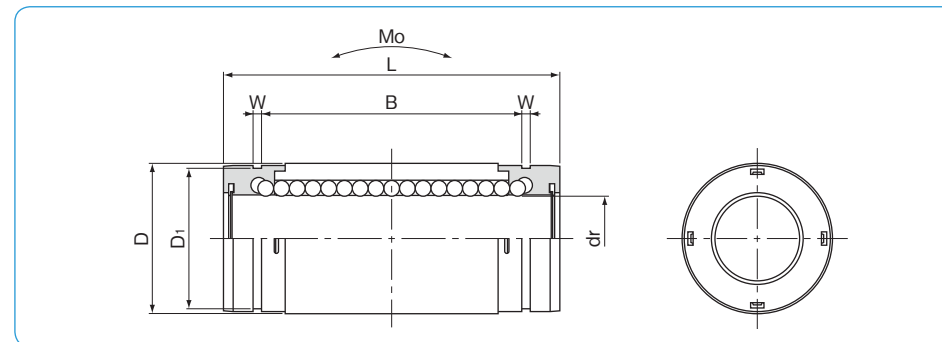
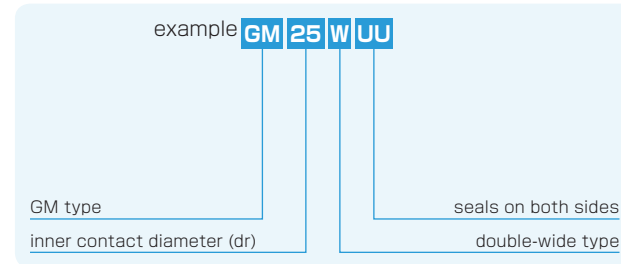
1N \approx 0.102kgf

GM-W TYPE

– Double-Wide Type –



part number structure



part number	number of ball circuits	dr mm	major dimensions							basic load rating dynamic C N	static Co N	allowable static moment Mo N·m	mass g
			tolerance μm	D mm	tolerance μm	L mm	B mm	W mm	D ₁ mm				
GM 6W UU	4	6	0	12	0	28	20.3	1.1	11.5	323	530	1.5	9
GM 8W UU	4	8		15	-13	36	27.3	1.1	14.3	431	784	3.3	18
GM10W UU	4	10		19	0	41	31.4	1.3	18	588	1,100	5.0	31
GM12W UU	4	12	-10	21	0	46	36.4	1.3	20	813	1,570	7.6	42
GM13W UU	4	13		23	-16	48	36.4	1.3	22	813	1,570	8.1	50
GM16W UU	4	16		28	0	53	39.3	1.6	27	1,230	2,350	13.8	76
GM20W UU	6	20	0	32	0	65	50.3	1.6	30.5	1,400	2,740	20.0	130
GM25W UU	6	25		40	-19	91	69.3	1.85	38	1,560	3,140	34.8	280
GM30W UU	6	30		45	0	99	75.8	1.85	43	2,490	5,490	57.5	334

*UU type is standard.

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