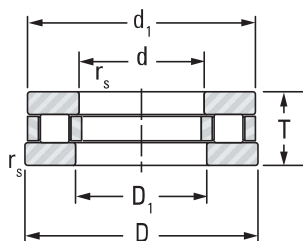


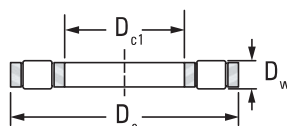


THRUST CYLINDRICAL ROLLER AND CAGE ASSEMBLIES, THRUST WASHERS

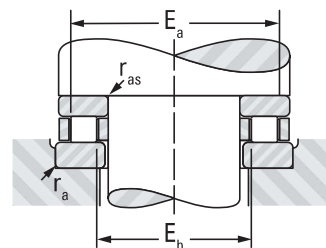
METRIC SERIES



811, 812

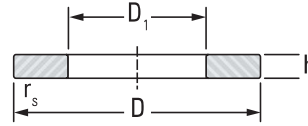
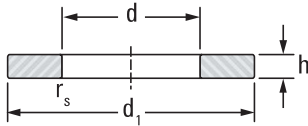


K.811, K.812



Raceway contact dimensions

Shaft Dia.	D _{c1}	D _c	D _w	T	E _b max	E _a min	r _{as} max r _a max	Assembly Designation	C	C ₀	Speed Rating Oil	Wt.
	Assembly Dimensions								Load Ratings			
	(E11)	(a13)							Dynamic	Static		
mm	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.		kN lbf.		min ⁻¹	kg lbs.
15	15	28	3.5	9	18	25	0.3	K.81102LPB	12.8	28.6	12000	0.006 0.013
	0.5906	1.1024	0.1378	0.354	0.709	0.984	0.012		2880	6430		
	15	28	3.5	9	18	25	0.3	K.81102TVP	12.8	28.6	12000	0.006 0.013
	0.5906	1.1024	0.1378	0.354	0.709	0.984	0.012		2880	6430		
17	17	30	3.5	—	20	27	0.3	K.81103LPB	14.2	33.4	11000	0.008 0.018
	0.6693	1.1811	0.1378	—	0.787	1.063	0.012		3190	7510		
	17	30	3.5	9	20	27	0.3	K.81103TVP	14.2	33.4	11000	0.008 0.018
	0.6693	1.1811	0.1378	0.354	0.787	1.063	0.012		3190	7510		
20	20	35	4.5	10	23	32	0.3	K.81104TVP	23.6	56.8	9500	0.009 0.020
	0.7874	1.3780	0.1772	0.394	0.906	1.260	0.012		5310	12800		
25	25	42	5.0	11	28	39	0.6	K.81105TVP	31.2	81.0	8000	0.014 0.031
	0.9843	1.6535	0.1969	0.433	1.102	1.535	0.024		7010	18200		
30	30	47	5.0	—	33	44	0.6	K.81106LPB	33.0	91.1	6700	0.026 0.057
	1.1811	1.8504	0.1969	—	1.299	1.732	0.024		7420	20500		
	30	47	5.0	11	33	44	0.6	K.81106TVP	33.0	91.1	6700	0.016 0.035
	1.1811	1.8504	0.1969	0.433	1.299	1.732	0.024		7420	20500		
	30	52	7.5	—	33	49	0.6	K.81206LPB	56.9	141	6300	0.052 0.115
	1.1811	2.0472	0.2953	—	1.299	1.929	0.024		12800	31700		
	30	52	7.5	16	33	49	0.6	K.81206TVP	56.9	141	6300	0.034 0.075
	1.1811	2.0472	0.2953	0.630	1.299	1.929	0.024		12800	31700		
35	35	52	5.0	—	38	49	0.6	K.81107LPB	34.8	101	6000	0.025 0.055
	1.3780	2.0472	0.1969	—	1.496	1.929	0.024		7820	22700		
	35	52	5.0	12	38	49	0.6	K.81107TVP	34.8	101	6000	0.020 0.044
	1.3780	2.0472	0.1969	0.472	1.496	1.929	0.024		7820	22700		
	35	62	7.5	—	41	56	1.0	K.81207LPB	61.6	164	5300	0.073 0.161
	1.3780	2.4409	0.2953	—	1.614	2.205	0.039		13800	36900		
	35	62	7.5	18	41	56	1.0	K.81207TVP	61.6	164	5300	0.055 0.121
	1.3780	2.4409	0.2953	0.709	1.614	2.205	0.039		13800	36900		
40	40	60	6.0	—	44	56	0.6	K.81108LPB	49.8	148	5300	0.044 0.097
	1.5748	2.3622	0.2362	—	1.732	2.205	0.024		11200	33300		
	40	60	6.0	13	44	56	0.6	K.81108TVP	49.8	148	5300	0.031 0.068
	1.5748	2.3622	0.2362	0.512	1.732	2.205	0.024		11200	33300		
	40	68	9.0	19	45	63	1.0	K.81208TVP	86.8	233	4800	0.076 0.168
	1.5748	2.6772	0.3543	0.748	1.772	2.480	0.039		19500	52400		
45	45	65	6.0	—	49	61	0.6	K.81109LPB	52.3	163	4800	0.035 0.077
	1.7717	2.5591	0.2362	—	1.929	2.402	0.024		11800	36600		
	45	65	6.0	14	49	61	0.6	K.81109TVP	52.3	163	4800	0.035 0.077
	1.7717	2.5591	0.2362	0.551	1.929	2.402	0.024		11800	36600		
	45	73	9.0	—	50	68	1.0	K.81209TVP	94.2	266	4500	0.083 0.183
	1.7717	2.8740	0.3543	—	1.969	2.677	0.039		21200	59800		



WS.811, WS.812

GS.811, GS.812

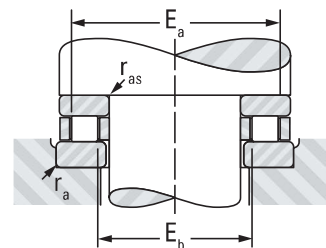
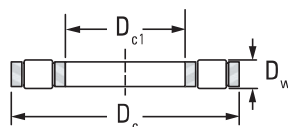
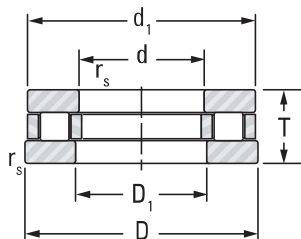
d	D ₁	D, d ₁	h		r _s min	Washer Designation		Wt.	Shaft Dia.
Washer Dimensions			Max.	Min.		Shaft Piloted	Housing Piloted		
mm in.	mm in.	mm in.	mm in.	mm in.	mm in.			kg lbs.	mm
15 0.591	16 0.630	28 1.102	2.75 0.108	2.64 0.104	0.3 0.012	WS.81102	GS.81102	0.010 0.022	15
15 0.591	16 0.630	28 1.102	2.75 0.108	2.64 0.104	0.3 0.012	WS.81102	GS.81102	0.010 0.022	
17 0.669	18 0.709	30 1.181	2.75 0.108	2.64 0.104	0.3 0.012	WS.81103	GS.81103	0.011 0.024	17
17 0.669	18 0.709	30 1.181	2.75 0.108	2.64 0.104	0.3 0.012	WS.81103	GS.81103	0.011 0.024	
20 0.787	21 0.827	35 1.378	2.75 0.108	2.62 0.103	0.3 0.012	WS.81104	GS.81104	0.014 0.031	20
25 0.984	26 1.024	42 1.654	3.00 0.118	2.87 0.113	0.6 0.024	WS.81105	GS.81105	0.021 0.046	25
30 1.181	32 1.260	47 1.850	3.00 0.118	2.87 0.113	0.6 0.024	WS.81106	GS.81106	0.023 0.051	30
30 1.181	32 1.260	47 1.850	3.00 0.118	2.87 0.113	0.6 0.024	WS.81106	GS.81106	0.023 0.051	
30 1.181	32 1.260	52 2.047	4.25 0.167	4.12 0.162	0.6 0.024	WS.81206	GS.81206	0.047 0.104	
30 1.181	32 1.260	52 2.047	4.25 0.167	4.12 0.162	0.6 0.024	WS.81206	GS.81206	0.047 0.104	
35 1.378	37 1.457	52 2.047	3.50 0.138	3.34 0.131	0.6 0.024	WS.81107	GS.81107	0.032 0.071	35
35 1.378	37 1.457	52 2.047	3.50 0.138	3.34 0.131	0.6 0.024	WS.81107	GS.81107	0.032 0.071	
35 1.378	37 1.457	62 2.441	5.25 0.207	5.09 0.200	1.0 0.039	WS.81207	GS.81207	0.085 0.187	
35 1.378	37 1.457	62 2.441	5.25 0.207	5.09 0.200	1.0 0.039	WS.81207	GS.81207	0.085 0.187	
40 1.575	42 1.654	60 2.362	3.50 0.138	3.34 0.131	0.6 0.024	WS.81108	GS.81108	0.043 0.095	40
40 1.575	42 1.654	60 2.362	3.50 0.138	3.34 0.131	0.6 0.024	WS.81108	GS.81108	0.043 0.095	
40 1.575	42 1.654	68 2.677	5.00 0.197	4.84 0.191	1.0 0.039	WS.81208	GS.81208	0.093 0.205	
45 1.772	47 1.850	65 2.559	4.00 0.157	3.84 0.151	0.6 0.024	WS.81109	GS.81109	0.054 0.119	45
45 1.772	47 1.850	65 2.559	4.00 0.157	3.84 0.151	0.6 0.024	WS.81109	GS.81109	0.054 0.119	
45 1.772	47 1.850	73 2.874	5.50 0.217	5.34 0.210	1.0 0.039	WS.81209	GS.81209	0.112 0.247	

Continued on next page.



THRUST CYLINDRICAL ROLLER AND CAGE ASSEMBLIES, THRUST WASHERS — continued

METRIC SERIES



811, 812

K.811, K.812

Raceway contact dimensions

Shaft Dia.	D _{c1}	D _c	D _w	T	E _b max	E _a min	r _{as} max r _a max	Assembly Designation	C	C ₀	Speed Rating Oil	Wt.
	Assembly Dimensions								Load Ratings			
	(E11)	(a13)							Dynamic	Static		
mm	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.		kN lbf.		min ⁻¹	kg lbs.
50	50 1.9685	70 2.7559	6.0 0.2362	14 0.551	54 2.126	66 2.598	0.6 0.024	K,81110LPB	54.8 12300	177 39800	4300	0.052 0.115
	50 1.9685	70 2.7559	6.0 0.2362	14 0.551	54 2.126	66 2.598	0.6 0.024	K,81110TVP	54.8 12300	177 39800	4300	0.042 0.093
55	50 1.9685	78 3.0709	9.0 0.3543	22 0.866	55 2.165	73 2.874	1.0 0.039	K,81210TVP	101 22700	299 67200	4000	0.089 0.196
	55 2.1654	78 3.0709	6.0 0.2362	16 0.630	60 2.362	73 2.874	0.6 0.024	K,81111TVP	60.3 13600	207 46500	4000	0.066 0.146
55	55 2.1654	90 3.5433	11.0 0.4331	— —	61 2.402	84 3.307	1.0 0.039	K,81211LPB	138 31000	403 90600	3600	0.156 0.344
	55 2.1654	90 3.5433	11.0 0.4331	25 0.984	61 2.402	84 3.307	1.0 0.039	K,81211TVP	138 31000	403 90600	3600	0.140 0.309
60	60 2.3622	85 3.3465	7.5 0.2953	17 0.669	65 2.559	80 3.150	1.0 0.039	K,81112TVP	84.4 19000	281 63200	3600	0.103 0.227
	60 2.3622	95 3.7402	11.0 0.4331	26 1.024	66 2.598	89 3.504	1.0 0.039	K,81212LPB	129 29000	378 85000	3400	0.166 0.366
65	65 2.5591	90 3.5433	7.5 0.2953	18 0.709	70 2.756	85 3.346	1.0 0.039	K,81113TVP	88.3 19900	305 68600	3400	0.109 0.240
	65 2.5591	100 3.9370	11.0 0.4331	27 1.063	71 2.795	94 3.701	1.0 0.039	K,81213LPB	134 30100	403 90600	3200	0.176 0.388
70	70 2.7559	95 3.7402	7.5 0.2953	18 0.709	75 2.953	90 3.543	1.0 0.039	K,81114TVP	92.1 20700	328 73700	3200	0.056 0.123
	70 2.7559	105 4.1339	11.0 0.4331	27 1.063	76 2.992	99 3.898	1.0 0.039	K,81214LPB	138 31000	428 96200	3000	0.186 0.410
75	75 2.9528	100 3.9370	7.5 0.2953	19 0.748	80 3.150	95 3.740	1.0 0.039	K,81115LPB	86.1 19400	305 68600	3000	0.091 0.201
	75 2.9528	110 4.3307	11.0 0.4331	27 1.063	81 3.189	104 4.094	1.0 0.039	K,81215LPB	143 32100	453 101800	2800	0.197 0.434
80	80 3.1496	105 4.1339	7.5 0.2953	19 0.748	85 3.346	100 3.937	1.0 0.039	K,81116LPB	87.5 19700	316 71000	2800	0.103 0.227
	80 3.1496	115 4.5276	11.0 0.4331	28 1.102	86 3.386	109 4.291	1.0 0.039	K,81216LPB	147 33000	478 107500	2600	0.208 0.459
85	85 3.3465	110 4.3307	7.5 0.2953	19 0.748	90 3.543	105 4.134	1.0 0.039	K,81117LPB	88.9 20000	328 73700	2600	0.108 0.238
	85 3.3465	125 4.9213	12.0 0.4724	31 1.220	93 3.661	117 4.606	1.0 0.039	K,81217LPB	174 39100	572 128600	2400	0.376 0.829
90	90 3.5433	120 4.7244	9.0 0.3543	22 0.866	96 3.780	114 4.488	1.0 0.039	K,81118LPB	119 26800	432 97100	2400	0.156 0.344
	90 3.5433	135 5.3150	14.0 0.5512	35 1.378	98 3.858	127 5.000	1.0 0.039	K,81218LPB	215 48300	691 155300	2400	0.540 1.190