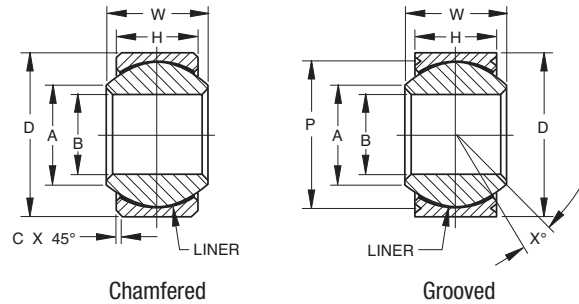


MS14104A & MS14101A EXTENDED LIFE, SELF-LUBRICATED SPHERICAL BEARING, NARROW

• AS81820 TYPE A

- Type A (100,000 Cycles)
- Narrow series, self-lubricated
- High temperature – very low wear
-65°F to +325°F (-53.9°C to +162.8°C)
- Material: Outer ring: CRES 17-4PH, AMS 5643, HRC 28 min.
Inner ring: CRES 440C, AMS 5630, HRC 55 min.
Liner: Fibriloid® qualified to AS81820 Type A



SPECIFICATIONS AND ORDERING INFORMATION

Narrow Series: DIMENSIONS – TOLERANCES

03-823 Chamfered 03-825 Grooved Dash No.	MS14104A Chamfered MS14101A Grooved Dash No.	B BORE DIA.		D OUTSIDE DIA.		H RACE WIDTH		W BALL WIDTH		A SHOULDER DIA.		c ⁽¹⁾		p ⁽²⁾ Groove Pitch Diameter		X° Ref.
		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	
		+0.000, -0.0005 +0.00, -0.13		+0.000, -0.0005 +0.00, -0.13		±.005 ±.13		+0.00, -0.002 +0.0, -0.05		Min.		+0.010, -0.000 +0.25, -0.00		+0.000 in., -0.008 in. +0.00 mm, -0.20mm		
Chamfered/Grooved Part Numbers		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	
-03L	-3	.1900	4.826	.5625	14.288	.218	5.54	.281	7.14	.293	7.44	.010	.25	.500	12.70	10
-04L	-4	.2500	6.350	.6562	16.667	.250	6.35	.343	8.71	.364	9.25	.010	.25	.594	15.09	10
-05L ⁽¹⁾	-5 ⁽¹⁾	.3125	7.938	.7500	19.050	.281	7.14	.375	9.52	.419	10.64	.010	.25	.660	16.76	10
-05AL ⁽²⁾	-5A ⁽²⁾	.3750	9.525	.7500	19.050	.281	7.14	.375	9.52	.419	10.64	.010	.25	.660	16.76	10
-06L	-6	.4375	11.112	.8125	20.638	.312	7.92	.406	10.31	.475	12.06	.020	.51	.712	18.08	9
-07L	-7	.4375	11.112	.9062	23.017	.343	8.71	.437	11.10	.530	13.46	.020	.51	.806	20.47	8
-08L	-8	.5000	12.700	1.0000	25.400	.390	9.91	.500	12.70	.600	15.24	.020	.51	.876	22.25	8
-09L	-9	.5625	14.288	1.0937	27.780	.437	11.10	.562	14.27	.670	17.02	.020	.51	.970	24.64	8
-10L	-10	.6250	15.875	1.1875	30.162	.500	12.70	.625	15.88	.739	18.77	.020	.51	1.063	27.00	8
-12L	-12	.7500	19.050	1.4375	36.512	.593	15.06	.750	19.05	.920	23.37	.030	.76	1.313	33.35	8
-14L	-14	.8750	22.225	1.5625	39.688	.703	17.86	.875	22.22	.980	24.89	.030	.76	1.438	36.53	8
-16L	-16	1.0000	25.400	1.7500	44.450	.797	20.24	1.000	25.40	1.118	28.40	.030	.76	1.626	41.30	9

⁽¹⁾Chamfered Type only.

⁽²⁾Grooved Type only.

LOAD RATINGS

03-823 Chamfered 03-825 Grooved Dash No.	Oscillating Radial Load Rating ⁽³⁾		Radial Limit Load Rating ⁽³⁾		Axial Limit Load Rating ⁽³⁾		No Load Rotational Breakaway Torque				Weight Max. Ref.	
	lbF.	N	lbF.	N	lbF.	N	Standard		"K" Type		lbs.	kg
Chamfered/Grooved Part Numbers	lbF.	N	lbF.	N	lbF.	N	in.-lbs.	N-m	in.-lbs.	N-m	lbs.	kg
-03L	1500	6700	3975	17600	150	670	.25-5	.03-.56	0-0.5	0-0.06	.02	.010
-04L	3320	14600	6040	27000	430	1900	.25-5	.03-.56	0-0.5	0-0.06	.02	.010
-05L ⁽¹⁾	5460	24500	8750	39000	700	3100	.25-8	.03-.90	0-1	0-0.11	.03	.015
-05AL ⁽²⁾	5460	24500	8750	39000	700	3100	.25-8	.03-.90	0-1	0-0.11	.03	.015
-06L	6600	29000	10540	46500	1100	4900	.25-8	.03-.90	0-1	0-0.11	.04	.017
-07L	8050	36000	13200	58500	1400	6200	.25-8	.03-.90	0-1	0-0.11	.05	.023
-08L	10400	46500	17900	80000	2100	9300	.25-8	.03-.90	0-1	0-0.11	.07	.032
-09L	13000	58500	23200	104000	3680	16300	.25-8	.03-.90	0-1	0-0.11	.09	.041
-10L	16450	73500	30500	137000	4720	20800	.25-8	.03-.90	0-1	0-0.11	.12	.056
-12L	23600	104000	46400	208000	6750	30000	.25-8	.03-.90	0-1	0-0.11	.21	.095
-14L	30250	134000	62200	275000	9350	41500	.25-12	.03-1.4	0-2	0-0.23	.27	.122
-16L	38000	170000	82200	365000	12160	54000	.25-12	.03-1.4	0-2	0-0.23	.39	.175

⁽¹⁾Chamfered Type only.

⁽²⁾Grooved Type only.

⁽³⁾Load ratings based on AS81820. -3 and -4 sizes are limited by pin bending.

P/N Series	RBC P/N	DESCRIPTION
MS14104A-XX	03-823XX-XXL	Narrow Chamfered
MS14101A-XX	03-825XX-XXL	Narrow Grooved
MS14102A-XX	03-824XX-XXL	Wide Chamfered
MS14103A-XX	03-826XX-XXL	Wide Grooved

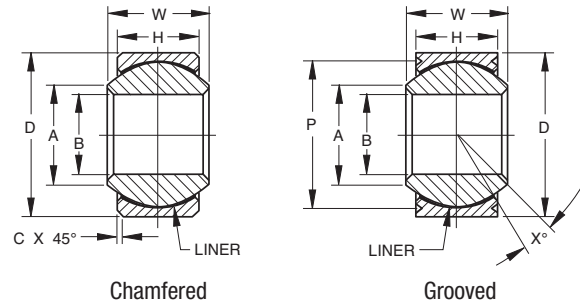
Bearing configuration	Part number designations for a 0.2500 in. bore, grooved spherical bearing	
Base P/N (no options)	03-825-04L	MS14101A-4
Low breakaway torque	03-825-04LK	MS14101A-4K
Cadmium plating	03-825-04LP	MS14101A-4P
1st oversize O.D. (0.010 in.)	03-825-04LT	MS14101A-4T
2nd oversize O.D. (0.020 in.)	03-825-04LU	MS14101A-4U
PH13-BMO ball material	03-825-04LC	MS14101A-4C
Zinc Nickel plating	03-825-04LZ	MS14101A-4E

World Leader in self-lubricating liner systems™

For more information visit our web site at rbcbearings.com

MS14102A & MS14103A EXTENDED LIFE, SELF-LUBRICATED SPHERICAL BEARING, WIDE

- **AS81820 TYPE A**
- Type A (100,000 Cycles)
- Wide series, self-lubricated
- High temperature – very low wear
-65°F to +325°F (-53.9°C to +162.8°C)
- Material: Outer ring: CRES 17-4PH, AMS 5643, HRC 28 min.
Inner ring: CRES 440C, AMS 5630, HRC 55 min.
Liner: Fibriloid® qualified to AS81820 Type A



SPECIFICATIONS AND ORDERING INFORMATION

Wide Series: DIMENSIONS – TOLERANCES

03-824 Chamfered 03-826 Grooved Dash No.	MS14102A Chamfered MS14103A Grooved Dash No.	B BORE DIA.		D OUTSIDE DIA.		H RACE WIDTH		W BALL WIDTH		A SHOULDER DIA.		C ⁽¹⁾		P ⁽²⁾ Groove Pitch Diameter		X° Ref.
		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	
		+0.000, -0.0005 +0.00, -0.13		+0.000, -0.0005 +0.00, -0.13		±.005 ±.13		+0.00, -0.002 +0.0, -0.05		Min.		+0.010, -0.000 +0.25, -0.00		+0.000 in., -0.008 in. +0.00 mm, -0.20mm		
Chamfered/Grooved Part Numbers		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	
-03L	-3	.1900	4.826	.6250	15.875	.327	8.31	.437	11.10	.300	7.62	.010	.25	.563	14.30	15
-04L	-4	.2500	6.350	.6250	15.875	.327	8.31	.437	11.10	.300	7.62	.010	.25	.563	14.30	15
-05L	-5	.3125	7.938	.6875	17.462	.317	8.05	.437	11.10	.360	9.14	.010	.25	.625	15.88	14
-06L	-6	.3750	9.525	.8125	20.638	.406	10.31	.500	12.70	.466	11.84	.020	.51	.712	18.08	8
-07AL ⁽²⁾	-07A ⁽²⁾	.4375	11.112	.9062	23.017	.442	11.23	.562	14.27	.537	13.64	.020	.51	.806	20.47	10
-07L	-7	.4375	11.112	.9375	23.812	.442	11.23	.562	14.27	.537	13.64	.200	.51	.837	21.26	10
-08L	-8	.5000	12.700	1.0000	25.400	.505	12.83	.625	15.88	.607	15.42	.020	.51	.900	22.86	9
-09L	-9	.5625	14.288	1.1250	28.575	.536	13.61	.687	17.45	.721	18.31	.020	.51	1.025	26.04	10
-10L	-10	.6250	15.875	1.1875	30.162	.567	14.40	.750	19.05	.747	18.97	.020	.51	1.087	27.61	12
-12L	-12	.7500	19.050	1.3750	34.925	.630	16.00	.875	22.22	.845	21.46	.030	.76	1.251	31.78	13
-14L	-14	.8750	22.225	1.6250	41.275	.755	19.18	.875	22.22	.995	25.27	.030	.76	1.501	38.13	6
-16L	-16	1.0000	25.400	2.1250	53.975	1.005	25.53	1.375	34.92	1.269	32.23	.030	.76	2.001	50.83	12

⁽¹⁾Chamfered Type only.

⁽²⁾Grooved Type only.

LOAD RATINGS

03-824 Chamfered 03-826 Grooved Dash No.	Oscillating Radial Load Rating ⁽³⁾		Radial Limit Load Rating ⁽³⁾		Axial Limit Load Rating ⁽³⁾		No Load Rotational Breakaway Torque				Weight Max. Ref.	
	lbF.	N	lbF.	N	lbF.	N	Standard	"K" Type	Standard	"K" Type	lbs.	kg
Chamfered/Grooved Part Numbers	lbF.	N	lbF.	N	lbF.	N	in.-lbs.	N-m	in.-lbs.	N-m	lbs.	kg
-03L	4900	21600	2500	11100	1770	7800	.25-5	.03-.56	0.5	0-06	.031	.014
-04L	4900	21600	5500	24400	1770	7800	.25-5	.03-.56	0.5	0-06	.031	.014
-05L	6050	27000	9400	41800	1640	7350	.25-8	.03-.90	.10	0-11	.035	.016
-06L	8310	36500	13700	60900	2630	11600	.25-8	.03-.90	.10	0-11	.060	.027
-07AL ⁽²⁾	11750	52000	19700	87600	3650	16300	.25-8	.03-.90	.10	0-11	.080	.036
-07L	11750	52000	20700	92000	3650	16300	.25-8	.03-.90	.10	0-11	.080	.036
-08L	14950	65500	21400	95000	4970	22000	.25-8	.03-.90	.10	0-11	.100	.045
-09L	18100	80000	26600	118000	5370	24000	.25-8	.03-.90	.10	0-11	.135	.061
-10L	20250	90000	29000	128500	6130	27500	.25-8	.03-.90	.10	0-11	.160	.072
-12L	26200	116000	37000	164500	7730	34500	.25-8	.03-.90	.10	0-11	.240	.110
-14L	33600	150000	62500	290000	10800	48000	.25-12	.03-1.4	.20	0-23	.350	.160
-16L	56250	250000	104000	462500	19300	86500	.25-12	.03-1.4	.20	0-23	.970	.440

⁽¹⁾Chamfered Type only.

⁽²⁾Grooved Type only.

⁽³⁾Load ratings based on AS81820. -3 and -4 sizes are limited by pin bending.

P/N Series	RBC P/N	DESCRIPTION
MS14104A-XX	03-823XX-XXL	Narrow Chamfered
MS14101A-XX	03-825XX-XXL	Narrow Grooved
MS14102A-XX	03-824XX-XXL	Wide Chamfered
MS14103A-XX	03-826XX-XXL	Wide Grooved

Bearing configuration	Part number designations for a 0.2500 in. bore, grooved spherical bearing	
Base P/N (no options)	03-826-04L	MS14103A-4
Low breakaway torque	03-826-04LK	MS14103A-4K
Cadmium plating	03-826-04LP	MS14103A-4P
1st oversize O.D. (0.010 in.)	03-826-04LT	MS14103A-4T
2nd oversize O.D. (0.020 in.)	03-826-04LU	MS14103A-4U
PH13-BMO ball material	03-826-04LC	MS14103A-4C
Zinc Nickel plating	03-826-04LZ	MS14103A-4E

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