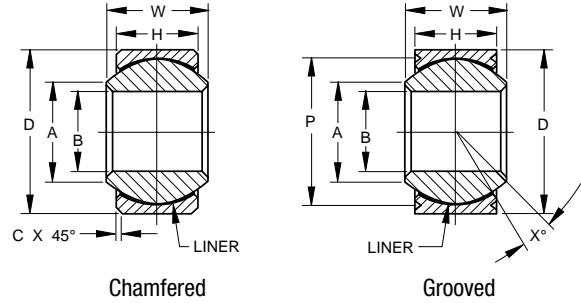


MS14104 & MS14101 SELF-LUBRICATED SPHERICAL BEARING, NARROW

- **AS81820 (formerly MIL-B-81820)**
- Narrow series, self-lubricated
- High temperature — 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® or “E” Uniflon® qualified to AS81820



SPECIFICATIONS AND ORDERING INFORMATION

DIMENSIONS – TOLERANCES

03-823 Chamfered 03-825 Grooved Dash No.	NE NEG Dash No.	MS14104 Chamfered MS14101 Grooved Dash No.	B		D		H		W		A		C ⁽¹⁾		p ⁽²⁾ Groove Pitch Diameter		X° Ref.
			+ .0000, -.0005 +.000, -.013	+ .0000, -.0005 +.000, -.013	±.005 ±.13	+ .000, -.002 +.00, -.05	Min.		+ .010, -.000 +.25, -.00	+ .000 in., -.008 in. +.00 mm, -.20mm							
Chamfered/Grooved Part Numbers			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	
-03	3	-3	.1900	4.826	.5625	14.288	.218	5.54	.281	7.14	.293	7.44	.010	.25	.500	12.70	10
-04	4	-4	.2500	6.350	.6562	16.667	.250	6.35	.343	8.71	.364	9.25	.010	.25	.594	15.09	10
-05 ⁽¹⁾	5 ⁽¹⁾	-5 ⁽¹⁾	.3125	7.938	.7500	19.050	.281	7.14	.375	9.52	.419	10.64	.010	.25	.660	16.76	10
-05A ⁽²⁾	5A ⁽²⁾	-5A ⁽²⁾	.3125	7.938	.7500	19.050	.281	7.14	.375	9.52	.419	10.64	.010	.25	.660	16.76	10
-06	6	-6	.3750	9.525	.8125	20.638	.312	7.92	.406	10.31	.475	12.06	.020	.51	.712	18.08	9
-07	7	-7	.4375	11.112	.9062	23.017	.343	8.71	.437	11.10	.530	13.46	.020	.51	.806	20.47	8
-08	8	-8	.5000	12.700	1.0000	25.400	.390	9.91	.500	12.70	.600	15.24	.020	.51	.876	22.25	8
-09	9	-9	.5625	14.288	1.0937	27.780	.437	11.10	.562	14.27	.670	17.02	.020	.51	.970	24.64	8
-10	10	-10	.6250	15.875	1.1875	30.162	.500	12.70	.625	15.88	.739	18.77	.020	.51	1.063	27.00	8
-12	12	-12	.7500	19.050	1.4375	36.512	.593	15.06	.750	19.05	.920	23.37	.030	.76	1.313	33.35	8
-14	14	-14	.8750	22.225	1.5625	39.688	.703	17.86	.875	22.22	.980	24.89	.030	.76	1.438	36.53	8
-16	16	-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. See page 17 for groove dimensions.

LOAD RATINGS

03-823 Chamfered 03-825 Grooved Dash No.	NE NEG 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
-03	3	1500	6700	3975	17600	150	670	.25-5	.03-.56	0-0.5	0-0.06	.02	.010
-04	4	3320	14600	6040	27000	430	1900	.25-5	.03-.56	0-0.5	0-0.06	.02	.010
-05 ⁽¹⁾	5 ⁽¹⁾	5460	24500	8750	39000	700	3100	.25-8	.03-.90	0-1	0-0.11	.03	.015
-05A ⁽²⁾	5A ⁽²⁾	5460	24500	8750	39000	700	3100	.25-8	.03-.90	0-1	0-0.11	.03	.015
-06	6	6600	29000	10540	46500	1100	4900	.25-8	.03-.90	0-1	0-0.11	.04	.017
-07	7	8050	36000	13200	58500	1400	6200	.25-8	.03-.90	0-1	0-0.11	.05	.023
-08	8	10400	46500	17900	80000	2100	9300	.25-8	.03-.90	0-1	0-0.11	.07	.032
-09	9	13000	58500	23200	104000	3680	16300	.25-8	.03-.90	0-1	0-0.11	.09	.041
-10	10	16450	73500	30500	137000	4720	20800	.25-8	.03-.90	0-1	0-0.11	.12	.056
-12	12	23600	104000	46400	208000	6750	30000	.25-8	.03-.90	0-1	0-0.11	.21	.095
-14	14	30250	134000	62200	275000	9350	41500	.25-12	.03-1.4	0-2	0-0.23	.27	.122
-16	16	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.

Bearing configuration	Part number designations for a 0.2500 in. bore, grooved spherical bearing		
Base P/N (no options)	03-825-04	NEG4	MS14101-4
Low breakaway torque	03-825-04K	NEG4K	MS14101-4K
Cadmium plating	03-825-04P	NEG4C	MS14101-4P
1st oversize O.D. (0.010 in.)	03-825-04T	NEG4Q	MS14101-4T
2nd oversize O.D. (0.020 in.)	03-825-04U	NEG4U	MS14101-4U
PH13-BMO ball material	03-825-04C	NEG4PH	MS14101-4C
Zinc Nickel plating	03-825-04Z	NEG4Z	MS14101-4E