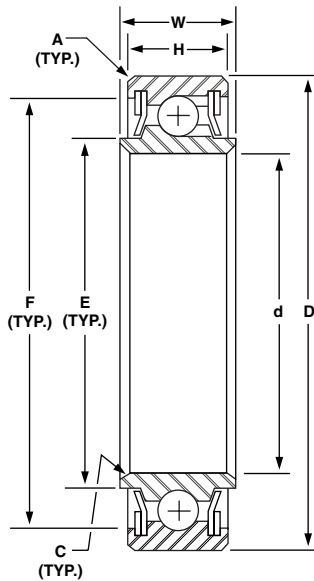




KP--B Series (AS27642)



Full ball complement (no retainer)

Notes:

1. Rings and balls are manufactured from premium quality AISI 52100 chrome steel.
2. Operating temperature range: -65 to +250 °F.
3. All bearings include removable PTFE seals.
4. Bearings are lubricated with MIL-PRF-81322 grease, 80% minimum fill, unless otherwise specified.
5. External surfaces (except bore) are cadmium plated per AMS-QQ-P-416. All dimensions apply after plating.
6. Custom sizes, materials, tolerances, radial internal clearances, lubrication, plating, etc., are available upon request.
7. See "Airframe Part Numbering System" on page 5 for correct NHBB nomenclature.
8. All dimensions are in inches, unless otherwise specified.

Refer to the Qualifications and Manufacturing Schedule for a current list of the Precision Division's AS7949 qualifications and manufacturing capabilities.

KP--B (AS27642) — Qualified to SAE AS7949

NHBB BASIC P/N	MS27642 DASH NO.	BORE d	O.D. D	RING WIDTH		BALL COMPLEMENT		RING SHOULDER DIAMETER		RING CHAMFER X 45°		LOAD RATINGS (LBS.)				APPROX. WEIGHT LBS.	MAX. STARTING TORQUE <sup>^</sup> OZ.-IN.
				OUTER H	INNER W	NO.	DIA.	OUTER F	INNER E	OUTER A	INNER C	STATIC		DYNAMIC RADIAL <sup>+</sup> RING ROTATION			
												RADIAL LIMIT	THRUST AXIAL LIMIT	INNER	OUTER		
		+0.000 -0.010	+0.000 -0.010	+0.000 -0.005	+0.000 -0.005			REF.	REF.	+0.015 -0.000	+0.015 -0.000	RADIAL	THRUST			LBS.	OZ.-IN.
KP16B <sup>(1)</sup>	-16	1.0000 <sup>(3)</sup>	1.7500	.375	.437	23	3/16	1.589	1.189	.024	.024	8085	3600	4260	3960	.14	5.0
KP21B <sup>(1)</sup>	-21	1.3130	2.0625	.375	.437	28	3/16	1.912	1.512	.024	.024	9840	4400	4590	4290	.16	7.0
KP23B <sup>(1)</sup>	-23	1.4380	2.1875	.375	.437	30	3/16	1.988	1.624	.024	.024	10500	4700	4650	4360	.17	9.0
KP25B <sup>(1)</sup>	-25	1.5630	2.3125	.375	.437	32	3/16	2.108	1.743	.024	.024	11300	5000	4680	4420	.19	9.0
KP29B <sup>(1)</sup>	-29	1.8130	2.5625	.375	.437	36	3/16	2.349	1.980	.024	.024	12700	5600	4760	4530	.21	14.0
KP33B <sup>(1)</sup>	-33	2.0630	2.8125	.375	.437	41	3/16	2.647	2.278	.024	.024	14400	6400	4820	4630	.23	14.0
KP37B <sup>(1)</sup>	-37	2.3130	3.0625	.375	.437	45	3/16	2.886	2.516	.024	.024	15800	7000	4880	4690	.26	20.0
KP47B <sup>(1)</sup>	-47	2.9380	3.8750	.469	.531	45	15/64	3.609	3.149	.039	.039	24700	10900	6600	6390	.49	30.0
KP49B <sup>(1)</sup>	-49	3.0630	4.0000	.469	.531	44	1/4	3.785	3.262	.039	.039	27500	12100	8150	7840	.53	32.0
KP52B <sup>(2)</sup>	-52	3.2500	4.1875	.469	.531	46	1/4	3.914	3.444	.039	.039	28700	12600	8210	7880	.65	(4)
KP56B <sup>(2)</sup>	-56	3.5000	4.4375	.469	.531	50	1/4	4.248	3.730	.039	.039	31200	13700	8240	7970	.70	(4)
KP60B <sup>(2)</sup>	-60	3.7500	4.6875	.469	.531	53	1/4	4.505	3.987	.039	.039	33100	14600	8290	8010	.74	(4)
KP64B <sup>(2)</sup>	-64	4.0000	4.9375	.469	.531	56	1/4	4.728	4.246	.039	.039	35000	15400	8350	8100	.78	(4)
KP68B <sup>(2)</sup>	-68	4.2500	5.3125	.531	.593	53	9/32	5.060	4.516	.039	.039	41900	18400	10280	9900	.87	(4)
KP72B <sup>(2)</sup>	-72	4.5000	5.5625	.531	.593	56	9/32	5.322	4.776	.039	.039	44300	19500	10330	10000	.92	(4)
KP76B <sup>(2)</sup>	-76	4.7500	5.8125	.531	.593	59	9/32	5.594	5.045	.039	.039	46700	20500	10350	10050	1.00	(4)
KP80B <sup>(2)</sup>	-80	5.0000	6.0625	.531	.593	61	9/32	5.786	5.242	.039	.039	48200	21200	10360	10090	1.04	(4)
KP84B <sup>(2)</sup>	-84	5.2500	6.3125	.531	.593	64	9/32	6.048	5.504	.039	.039	50600	22300	10420	10120	1.09	(4)

(1) Radial internal clearance: .0003 to .0010

(2) Radial internal clearance: .0003 to .0015

(3) Bore (d) tolerance: +.0000 / -.0005

(4) Consult factory for torque estimate.

+Dynamic radial load ratings are for operation up to 250 °F. Reduce load ratings by 20% for 250 to 350 °F operation. Dynamic radial load ratings are based on an average life of 10,000 complete 90° cycles.

<sup>^</sup>Torque limits are for bearings lubricated with MIL-PRF-81322 grease. For bearings lubricated with MIL-PRF-23827, multiply torque limits by a factor of 1.2.