

Reali-Slim® Thin Section Bearings

Identification and Part Numbering System

The Reali-Slim ball bearings are a lightweight, compact solution for applications where space is limited. The series is based on a single cross section that remains constant as the bore diameter increases.

- Save weight
- Use less space
- Reduce friction
- Increase design flexibility
- Provide excellent running accuracy

Description	Brand	Material	Series	Size	Size	Size	Type	Cage	Tolerance	Clearance
Example	KDN.	K	G	1	2	0	X	P	0	A
Position	0	1	2	3	4	5	6	7	8	9

Position 1 – Material, sealing solutions, coating

- D** – AISI 52100 steel rings and balls, shield on one side
- E** – AISI 52100 steel rings and balls, shield on both sides
- H** – AISI 52100 steel rings and balls, NBR seal on one side
- J** – AISI 52100 steel rings and balls, NBR seal on both sides
- K** – AISI 52100 steel rings and balls, no seals (open)
- L** – AISI 52100 steel rings - Endurakote coated, AISI 440C stainless balls, NBR seal on both sides¹⁾
- M** – M50 steel rings and balls, no seals (open)
- N** – AISI 52100 steel rings - Endurakote coated, AISI 440C stainless balls, no seals (open)¹⁾
- P** – 17-4PH steel rings and ceramic balls (hybrid bearing), no seals (open)¹⁾
- Q** – AISI 52100 steel rings and balls, no seals (open), low torque design
- S** – AISI 440C stainless steel rings and balls, no seals (open)¹⁾
- V** – AISI 440C stainless steel rings and balls, shield on both sides¹⁾
- W** – AISI 440C stainless steel rings and balls, NBR seal on both sides¹⁾
- X** – AISI 52100 steel rings and ceramic balls (hybrid bearing), no seals (open)
- Y** – AISI 440C stainless steel rings and ceramic balls (hybrid bearing), no seals (open)¹⁾
- Z** – Other

¹⁾ Designed for harsh environments

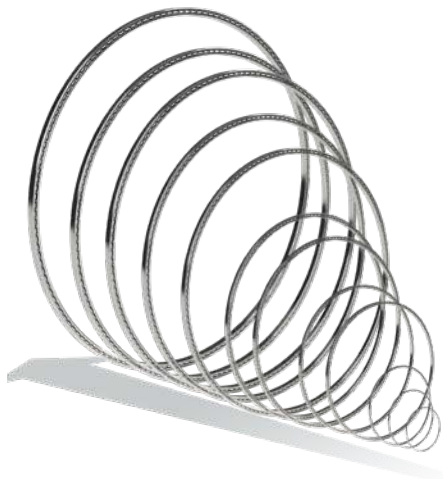
Position 2 – Standard series cross section in inches

Open Bearings

AA: 3/16" x 3/16" (.187 x .187)
 A: 1/4" x 1/4" (.250 x .250)
 B: 5/16" x 5/16" (.312 x .312)
 C: 3/8" x 3/8" (.375 x .375)
 D: 1/2" x 1/2" (.500 x .500)
 F: 3/4" x 3/4" (.750 x .750)
 G: 1" x 1" (1.000 x 1.000)

Sealed Bearings

JHA: 3/16" x 1/4" (.187 x .250)
 JA: 1/4" x 1/4" (.250 x .250)
 JB: 5/16" x 5/16" (.312 x .312)
 JU: 1/2" x 3/8" (.500 x .375)
 JG: 1" x 1" (1.000 x 1.000)



Position 3, 4 and 5 – Bearing bore size

Numeric Characters – Three-digit number divided by 10 = bearing bore diameter ["]²⁾

Alphanumeric Characters – Letter A and two digits; two-digit number divided by 10 = bearing bore diameter ["]²⁾

A – In combination with A in position 2: cross section series 0.187" x 0.187"
A – In combination with H in position 2: cross section series 0.187" x 0.25"

Examples

- _AA10: with AA in positions 2 & 3 = AA series 0.187" x 0.187" with bore diameter = 1.0"
- _HA15: with HA in positions 2 & 3 = HA series 0.187" x 0.250" with bore diameter = 1.5"
- _A020: with # following A in position 2 = A series 0.250" x 0.250" with bore diameter = 2.0"
- _F400: with # following F in position 2 = F series 0.750" x 0.750" with bore diameter = 40"


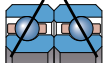

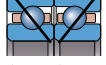



²⁾ Deviation for A17: bore diameter = 1.75"

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Position 6 – Bearing type

- A**  Angular contact ball bearing (not ground for universal duplexing)
- B**  Set of two angular contact ball bearings arranged back-to-back (duplex pair)
- C**  Radial contact ball bearing
- F**  Set of two angular contact ball bearings arranged face-to-face (duplex pair)
- T**  Set of two angular contact ball bearings arranged in tandem (duplex pair)
- U**  Angular contact ball bearing for universal matching
- X**  Four-point contact ball bearing
- Z** – Other

Position 7 – Cage/separator

Snap type



- D** One-piece, snap-type, machined phenolic laminate cage (C & X)
- L** One-piece, snap-type, PA12 cage (C & X)
- N** Segmental strip, snap-type, PA12 (C & X)
- P** One-piece, snap-type, stamped brass or non-metallic composite cage (C & X)
- T** One-piece, snap-type, stamped stainless steel cage (C & X)
- V** One-piece, snap-type, stamped brass cage (C & X)
- X** One-piece, snap-type, PEEK cage (C & X)

Circular pocket



- G** One-piece, circular pocket, glass fibre reinforced PA66 cage (A)
- H** One-piece, circular pocket, machined phenolic laminate cage (A)
- J** Segmental strip, circular pocket, PA12 (A)
- K** Two-piece, riveted, machined phenolic laminate cage (A, C, X)
- Q** One-piece, circular pocket, PEEK cage (A)
- R** One-piece, circular pocket, stamped brass or non-metallic composite cage (A)
- U** One-piece, circular pocket, stamped stainless steel cage (A)

Formed wire



- M** Wire strip or segmental, snap-type, stainless steel (A, C, X)
- W** Wire strip or segmental, snap-type, stainless steel (C & X)

Full complement



- F** No cage/separator – full complement of ball set (A, C, X)
- S** Helical coil spring, stainless steel separator (C & X)
- Z** Other (i.e. PTFE tubing space slugs, PTFE or Vespel³⁾ SP-1 polyamide toroid ball spacers, steel spacer balls) (A, C, X)

³⁾ Vespel is a registered trademark of DuPont Polymers, Inc.

Position 8 – Tolerances

ABEC Specifications are per ABMA Standard 26.2

- 0** Tolerance to Kaydon class 1 (ABEC 1F)
- 1** Dimensional tolerance to Kaydon class 1 and runout to class 4
- 2** Dimensional tolerance to Kaydon class 1 and runout to class 6
- 3** Tolerance to Kaydon class 3 (ABEC 3F)
- 4** Tolerance to Kaydon class 4 (ABEC 5F)
- 6** Tolerance to Kaydon class 6 (ABEC 7)
- 8** Other – non-standardized

Position 9 – Bearing internal clearance or preload

Radial clearance or preload for radial contact and four-point contact ball bearings

Axial clearance or preload for matched angular contact ball bearings
Values are valid for unmounted bearings

- | | |
|--|--|
| – Standard internal clearance or preload | J Clearance 0.0050 to 0.0060" |
| A Clearance 0.0000 to 0.0005" | K Preload 0.0000 to 0.0005" |
| B Clearance 0.0000 to 0.0010" | L Preload 0.0000 to 0.0010" |
| C Clearance 0.0005 to 0.0010" | M Preload 0.0005 to 0.0010" |
| D Clearance 0.0005 to 0.0015" | N Preload 0.0005 to 0.0015" |
| E Clearance 0.0010 to 0.0020" | P Preload 0.0010 to 0.0020" |
| F Clearance 0.0015 to 0.0025" | Q Preload 0.0010 to 0.0015" |
| G Clearance 0.0020 to 0.0030" | R Preload 0.0015 to 0.0025" |
| H Clearance 0.0030 to 0.0040" | S Preload 0.0020 to 0.0030" |
| I Clearance 0.0040 to 0.0050" | Z Other internal clearance or preload not specified above |

Blank Standard default clearance (see Precision Tolerances tables in Section 3 of the [Kaydon Bearing Solutions Catalog](#) for default clearance by bearing size)

- Type X or C = Diametral Preload or Clearance
- Duplexed Type A = Axial Preload or Clearance

Note: Above internal bearing fits apply to unmounted bearings only. Mounting fits can greatly affect final internal bearing fit.



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