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 sides[1)]

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 sides[1)]

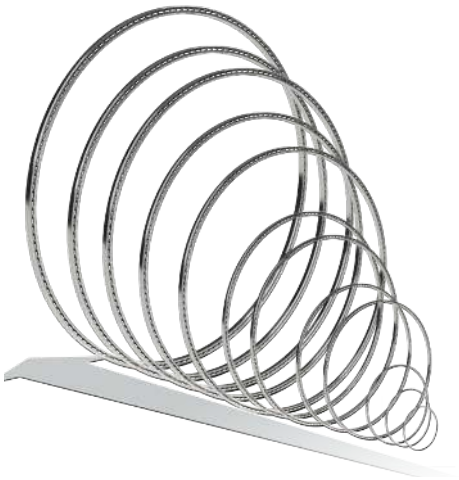
W – AISI 440C stainless steel rings and balls, NBR seal on both sides[1)]

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

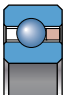
Open Bearings

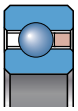
AA

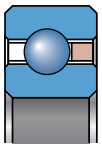
3/16" x 3/16"
(*.187 x .187)

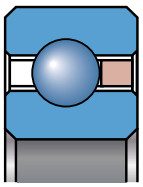
A

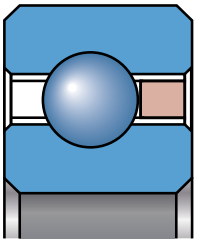
1/4" x 1/4"
(.250 x .250)

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)

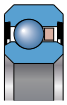
Sealed Bearings

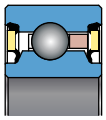
JHA

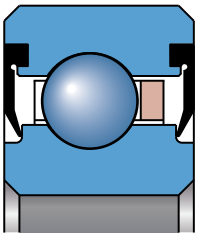
3/16" x 1/4"
(.187 x .250)

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 ["]

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"

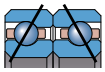
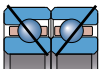
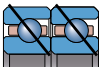
[2)] Deviation for A17: bore diameter = 1.75"

Reali-Slim® Thin Section Bearings

Identification and Part Numbering System

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 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 Vespel[3] 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
- **A** Clearance 0.0000 to 0.0005"
- **B** Clearance 0.0000 to 0.0010"
- **C** Clearance 0.0005 to 0.0010"
- **D** Clearance 0.0005 to 0.0015"
- **E** Clearance 0.0010 to 0.0020"
- **F** Clearance 0.0015 to 0.0025"
- **G** Clearance 0.0020 to 0.0030"
- **H** Clearance 0.0030 to 0.0040"
- **I** Clearance 0.0040 to 0.0050"
- **J** Clearance 0.0050 to 0.0060"
- **K** Preload 0.0000 to 0.0005"
- **L** Preload 0.0000 to 0.0010"
- **M** Preload 0.0005 to 0.0010"
- **N** Preload 0.0005 to 0.0015"
- **P** Preload 0.0010 to 0.0020"
- **Q** Preload 0.0010 to 0.0015"
- **R** Preload 0.0015 to 0.0025"
- **S** Preload 0.0020 to 0.0030"
- **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.

Scan to learn more about Reali-Slim thin section bearings at skf.com

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