

RBC THIN SECTION BALL BEARINGS PART NUMBER DESIGNATION

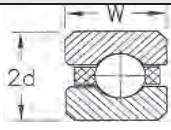
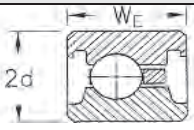
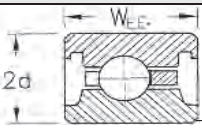
EXAMPLE	K	A	1	2	0	X	P	0	M*	RBC
NOMENCLATURE	Material	Series	Size			Type	Separator	Precision	Radial Play	
POSITION	1	2	3	4	5	6	7	8	9**	

POSITION 1: Material (& seal/shield options)				
	Material		Seals, Shields	Coating
	Rings	Balls		
A	52100		1 seal - PTFE	No
B	52100		2 seals - PTFE	No
D	52100		1 shield	No
E	52100		2 shields	No
F	52100		1 combo - PTFE seal & shield	No
G	52100		2 combo - PTFE seal & shield	No
H	52100		1 seal - molded rubber	No
J	52100		2 seals - molder rubber	No
K	52100		No seals or shields	No
L	52100	440C	2 combo - PTFE seal & shield	Thin Dense Chrome
M	M-50		No seals or shields	No
N	52100	440C	No seals or shields	Thin Dense Chrome
P	17-4 PH	Ceramic	No seals or shields	No
Q	52100		No seals or shields	No
R	52100	440C	No seals or shields	Zn Nickel plating
S	440C		No seals or shields	No
T	440C		1 seal - PTFE	No
U	440C		2 seals - PTFE	No
V	440C		2 shields	No
W	440C		2 seals - molded rubber	No
X	52100	Ceramic	No seals or shields	No
Y	440C	Ceramic	Ceramic balls	No
Z	OTHER			

POSITION 6: Type
SEE PAGE 5

POSITION 7: Ball Separators
SEE PAGE 6

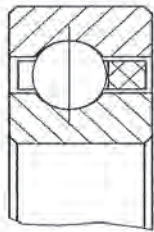
POSITION 8: RBC Precision Class	
CLASS	DESCRIPTION
0	ABEC 1F
3	ABEC 3F
4	ABEC 5F
6	ABEC 7F
	REFERENCE: ANSI/ABMA STD 26.2

POSITION 2: Series							POSITION 3, 4, 5: Size	
BEARING CROSS SECTION							<p style="margin: 0;">↑</p> <p style="margin: 0;">B</p> <p style="margin: 0;">BORE SIZE (INCHES) MULTIPLIED BY 10</p> <p style="margin: 0;">EXAMPLES: 030 = 3.00" BORE 075 = 7.50" BORE 250 = 25.00" BORE</p>	
BALL DIA (d)	STANDARD WIDTH	W (=2d)	EXTENDED WIDTH (5)	W _E (>2d)	EXTRA EXTENDED WIDTH (5)	W _{EE} (>2d)		
3/32	AA	.1875	HA	.2500	SA	.3125		
1/8	A	.2500	H	.3125	S	.3750		
5/32	B	.3125	I	.3750	T	.4375		
3/16	C	.3750	J	.4375	U	.5000		
1/4	D	.5000	K	.5781	V	.6563		
3/8	F	.7500	M	.8750	X	1.0000		
1/2	G	1.0000	N	1.1875	Y	1.3750		

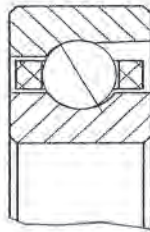
POSITION 9: Bearing Assembly Clearance or Tightness					
DIAMETRAL CLEARANCE (POSITIVE RADIAL PLAY)		RADIAL PRELOAD TIGHTNESS (NEGATIVE RADIAL PLAY)		AXIAL PRELOAD GAP (DUPLEX BRG)	
A	+0.0000 TO +0.0005	K	-0.0000 TO -0.0005	K	+0.0000 TO +0.0005
B	+0.0000 TO +0.0010	L	-0.0000 TO -0.0010	L	+0.0000 TO +0.0010
C	+0.0005 TO +0.0010	M	-0.0005 TO -0.0010	M	+0.0005 TO +0.0010
D	+0.0005 TO +0.0015	N	-0.0005 TO -0.0015	N	+0.0005 TO +0.0015
E	+0.0010 TO +0.0020	P	-0.0010 TO -0.0020	P	+0.0010 TO +0.0020
F	+0.0015 TO +0.0025	R	-0.0015 TO -0.0025	R	+0.0015 TO +0.0025
G	+0.0020 TO +0.0030	S	-0.0020 TO -0.0030	S	+0.0020 TO +0.0030
H	+0.0030 TO +0.0040	T	-0.0030 TO -0.0040	T	+0.0030 TO +0.0040
I	+0.0040 TO +0.0050	U	-0.0040 TO -0.0050	U	+0.0040 TO +0.0050
J	+0.0050 TO +0.0060	Z	PER VARIATION LOG	Z	PER VARIATION LOG
O	MATCH FOR NORMAL RADIAL PLAY				

RBC THIN SECTION BALL BEARING SELECTION

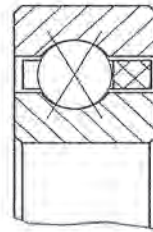
POSITION 6 TYPE						
Bearing Type	Ball Contact	LOAD CONDITION				Combined Radial, Axial & Moment
		Radial	Axial	Moment	Reversing Axial	
C	Radial	Good	Fair	Poor	Fair	Poor
A	Angular	Good	Very Good	Do not use	Do not use	Do not use
X	4-Point	Fair	Good	Good	Good	Fair
B	Double Angular	Very Good	Very Good	Very Good	Very Good	Good
F	Double Angular	Very Good	Very Good	Very Good	Very Good	Good
T	Double Angular	Very Good	Excellent	Do not use	Do not use	Do not use
M	Double Angular	Excellent	Excellent	Excellent	Excellent	Excellent
W	Double Angular	Excellent	Excellent	Excellent	Excellent	Excellent



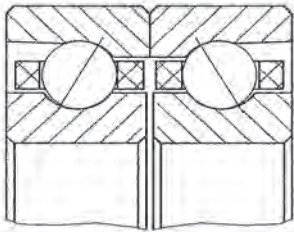
C-TYPE
(RADIAL CONTACT)



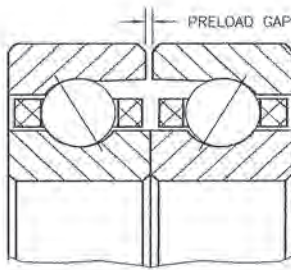
A-TYPE
(ANGULAR CONTACT)



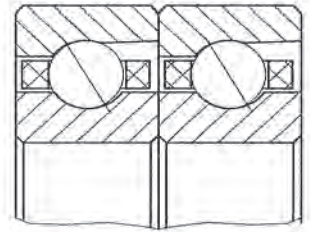
X-TYPE
(4-POINT CONTACT)



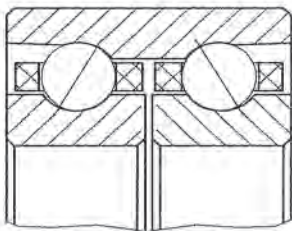
B-TYPE
DUPLEX BACK-TO-BACK (DB)



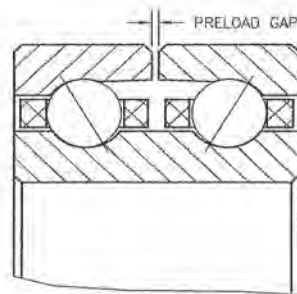
F-TYPE
DUPLEX FACE-TO-FACE (DF)



T-TYPE
DUPLEX TANDEM (DT)




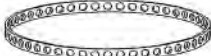
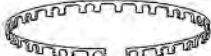
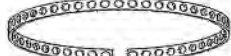






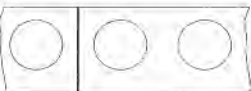





M-TYPE
SUPERDUPLEX™ BACK-TO-BACK



W-TYPE
SUPERDUPLEX™ FACE-TO-FACE

RBC THIN SECTION BALL BEARING SELECTION

POSTION 7: Separators

BRG TYPE	CLOSED RING		ONE STRIP OR SEGMENTS		ADVANTAGE LIMITATIONS	MATL/TYPE CODE		
	SHAPE	FABRICATION METHOD	POCKET RETENTION					
		C-TYPE & X-TYPE		A-TYPE		C-TYPE & X-TYPE		A-TYPE
C-TYPE & X-TYPE	ONE STRIP or SEGMENTS	MOLDED		Higher ball count. Available for all diameters over 4". Recommended for operating temperature range: -40° to 210°F	N Nylon P12 C Composite			
	CLOSED RING	MACHINED		Low torque and light weight applications. Can be oil impregnated as required. Not recommended for high speed or high temperatures.	D Phenolic			
		MOLDED	Low torque and light weight applications. High speed limits. Not recommended for temperatures outside -65° to 250°F range.	L GFR Nylon				
	SEGMENTS	STAMPED, FORMED and BRAZED		Ideal for commercial applications with moderate torque and speed requirements. Not recommended for low torque applications	Q PEEK			
	CLOSED RING			ONE-PIECE DIE-FORMED	High strength, improved corrosion resistance. High temperature capabilities. Not recommended for low torque applications	E Brass P Brass or (Composite) U CRES		
	1 STRIP or SEGMENTS	FORMED WIRE		Ideal for applications with moderate torque and high speed. Limited availability	V Brass W Spring Steel or CRES			
A-TYPE	ONE STRIP or SEGMENTS	MOLDED		Higher ball count. Available for all diameters over 4". Recommended for operating temperature range: -40° to 210°F	J Nylon P12 C Composite			
	CLOSED RING	MACHINED		Higher ball count. Available for all diameters over 4". Recommended for operating temperature range: -40° to 210°F	H Phenolic			
		MOLDED	Low torque and light weight applications. Can be oil impregnated as required. Not recommended for temperatures above 250°F	G GFR Nylon				
	SEGMENTS	STAMPED, FORMED and BRAZED		Low torque and light weight applications. High speed limits. Not recommended for temperatures outside of -65° to 250°F range.	Q Peek			
	CLOSED RING			ONE-PIECE DIE-FORMED	Ideal for commercial applications with moderate torque and speed requirements. Not recommended for low torque applications	E Brass R Brass or (Composite) U CRES		
	1 STRIP or SEGMENTS	FORMED WIRE		High strength, improved corrosion resistance. High temperature capabilities. Not recommended for low torque applications	V Brass M Spring Steel or CRES			
A-TYPE, C-TYPE or X-TYPE	PER PIECE	SLUGS; MOLD or MACHINED TUBES		Low torque applications, higher capacity than standard bearing. Not intended for use in high speed applications. Material may have temperature limitations.	S PTFE/PFA K PEEK			
		SPACER BALLS		High temperature applications, offers higher resistance to wear. Lower load capacity in A-type bearings	Z Various			
		TOROIDS		Low torque applications, higher capacity than standard bearing. Not intended for use in high speed applications. Material may have temperature limitations.	T PTFE/PFA			
	N/A	FULL COMP		Highest loading capacity and maximum stiffness. Higher torque and lower speedlimits. Not recommended for low torque and/or high speed.	F N/A			

ITB DOES NOT SUPPLY "ONE-PIECE" CLOSED MOLDED (P & R) CAGES. WE SELL STRIP N-CAGES AS P-CAGES, AND J-CAGES AS R-CAGES.