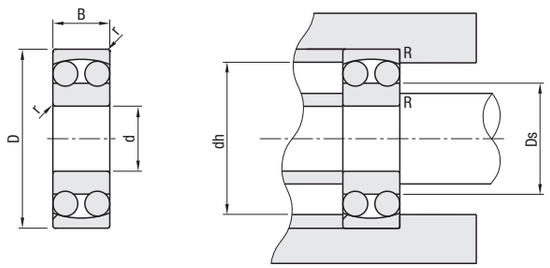
Self-Aligning Ball Bearings

Features: The self-aligning ability enables to tolerate mounting misalignment and deflection during rotation. Suitable for use with power transmission shafts that may sustain deflection.

RoHS 10

B1□□□

(Installation Diagram)



Material:EN 1.3505 Equiv.
Accuracy Grade: JIS B 1514 Class 0

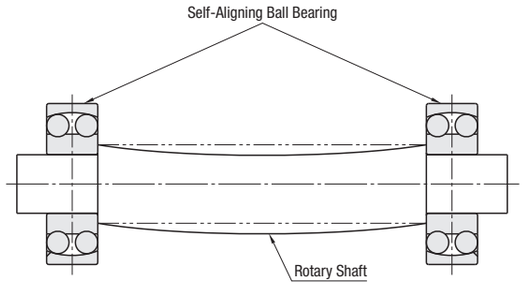
For details on the tolerance and allowable values of inner and outer rings, P.2243

Part Number	d	D	B	r (min)	Basic Load Rating		Allowable Rotational Speed	Relative Dimensions			Mass (g) (Reference)	Unit Price
					Cr (Dynamic) kN	Co (Static) kN	rpm (Reference)	Ds (min)	dh (max)	R (max)		
B1200	10	30	9	0.6	5.55	1.19	22000	14.0	26.0	0.6	33	
B1300		35	11		7.35	1.62	20000		31.0		57	
B1201	12	32	10		5.70	1.27	22000	16.0	28.0		39	
B1301		37	12	1	9.65	2.16	18000	17.0	32.0	1	66	
B1202	15	35	11	0.6	7.6	1.75	18000	19.0	31.0	0.6	51	
B1302		42	13	1	9.7	2.29	16000	20.0	37.0	1	93	
B1203	17	40	12	0.6	8.00	2.01	16000	21.0	36.0	0.6	72	
B1303		47	14	1	12.7	3.20	14000	22.0	42.0	1	130	
B1204	20	47			10.0	2.61	14000	25.0			120	
B1304		52	15	1.1	12.6	3.35	12000	26.5	45.5		165	

kgf=Nx0.101972

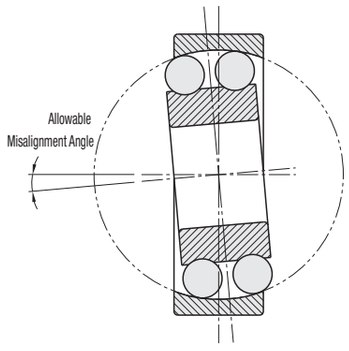
Design and Features

The outer ring raceway forms a spherical surface, whose center of curvature is common to the bearing center. Thus the inner ring, balls and cage are capable of freely revolving around the bearing center with self-aligning ability. Suitable for use with drive shafts, which tend to undergo deflection. This is also fit to use in a situation that alignment of a shaft and housing is difficult.



Allowable Misalignment Angle

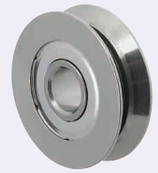
Note : Allowable misalignment angle of Self-Aligning Ball Bearings is approx. 0.07 ~ 0.12 radian (4° ~ 7°) at normal load condition, however this degree of allowable misalignment may be limited by the abutment and fillet dimensions around the bearing.



Ordering Example — Part Number: B1300

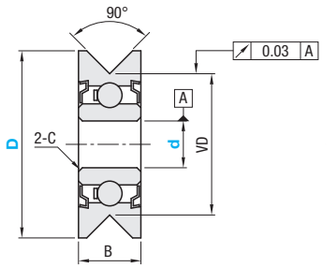
Stainless Steel Deep Groove Bearings

Features: The O.D. is decreased by directly machining a V groove on the outer ring of the bearing.

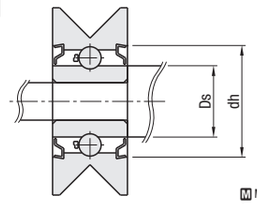


RoHS 10

SZV



(Installation Diagram)



Material: EN 1.4125 Equiv.
Accuracy Grade: JIS B 1514 Class 0

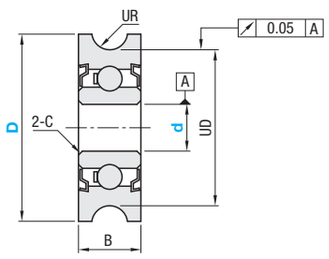
Part Number		D	B	VD	C Chamfer	Basic Load Rating		Relative Dimensions		Mass (g) (Reference)	Unit Price
Type	d					Cr (Dynamic) N	Co (Static) N	Ds (min)	dh (max)		
SZV	3	12	4	9.06	(0.25)	542	186	4.5	7.5	1.3	
	3	14		11.06						1.9	
	4	12		9.06				5.5		1.2	
	4	14		11.06						1.8	
	6	16		13.06		650	235	7.5	10	2.1	

V Groove valley radii is R0.2.

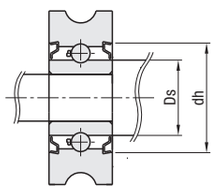
kgf=Nx0.101972

RoHS 10

SZU



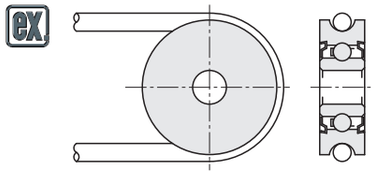
(Installation Diagram)



Material: EN 1.4125 Equiv.
Accuracy Grade: JIS B 1514 Class 0

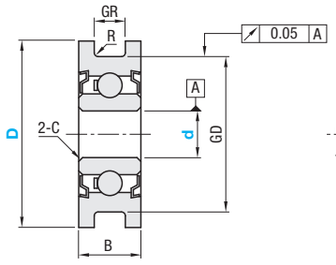
Part Number		D	B	UD	UR (Groove Radius)	C Chamfer	Basic Load Rating		Relative Dimensions		Mass (g) (Reference)	Unit Price
Type	d						Cr (Dynamic) N	Co (Static) N	Ds (min)	dh (max)		
SZU	3	12	4	10	1.15	(0.25)	542	186	4.5	7.5	1.2	
	3	14		12							1.8	
	4	12		10					5.5		1.1	
	4	14		12							1.8	
	6	16		14			650	235	7.5	10	2.1	

kgf=Nx0.101972

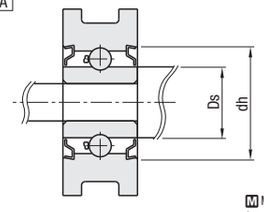


RoHS 10

SZG



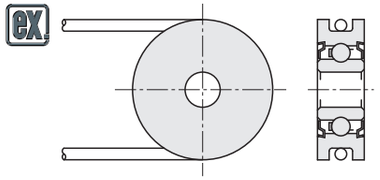
(Installation Diagram)



Material: EN 1.4125 Equiv.
Accuracy Grade: JIS B 1514 Class 0

Part Number		D	B	GD	GR (Groove Width)	C Chamfer	R (Corner R)	Basic Load Rating		Relative Dimensions		Mass (g) (Reference)	Unit Price
Type	d							Cr (Dynamic) N	Co (Static) N	Ds (min)	dh (max)		
SZG	3	12	4	10	2	(0.25)	0.25	542	186	4.5	7.5	1.3	
	3	14		12								1.8	
	4	12		10						5.5		1.2	
	4	14		12								1.8	
	6	16		14				650	235	7.5	10	2.1	

kgf=Nx0.101972



Ordering Example — Part Number: SZV3 - 12; SZU3 - 12