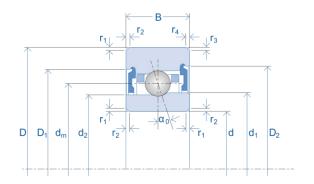


Data Sheet High Precision Ball Bearings

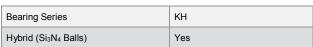


 D_{b}

 d_{T}



Part Number	HY KH 61914 E TA	
Bearing Size	61914	



Bearing Dimensions

Bore Diameter	d [mm]	70
Outer Diameter	D [mm]	100
Bearing Width	B [mm]	16
Pitch Circle	d _m [mm]	85.0
Ball Diameter	D _w [mm]	6.35
OD Inner Ring	d ₁ [mm]	80.1
OD Inner Ring (Open Side)	d ₂ [mm]	78.5
ID Outer Ring	D ₁ [mm]	91.3
ID Outer Ring (Open Side)	D ₂ [mm]	93.4
Chamfer	r _{1,2} [mm]	1.0
Chamfer (Open Side)	r _{3,4} [mm]	0.3

Number of Balls	Z [Qty.]	32
Contact Angle	α ₀ [°]	25
Bearing Weight	m [kg]	0.346

Bearing Load Ratings

Dynamic Radial Load Rating	C [N]	12,400
Static Radial Load Rating Steel Balls	C ₀ [N]	10,100
Static Radial Load Rating Si ₃ N ₄ balls	C _{0 HY} [N]	7,050

Mating Part Dimensions

Da

Geometrical Data

db

Abutment Diameter Inner Ring	d _{a,b} min. [mm]	76.0
Abutment Diameter Outer Ring	D _{a,b} max. [mm]	94.5
Chamfer Associated Component	r _a max. [mm]	0.6
Chamfer Associated Component (Open Side)	r _b max. [mm]	0.3

Bearing RPM Ratings

Speed Value with Oil Lubrication	n _{oil} [1/min]	28,125
Speed Value with Grease Lubrication	n _{grease} [1/min]	21,250

Bearing Preload Data

Light Pre-Load	Fv [N]	100
Light Axial Rigidity	C _{ax} [N/µm]	122
Medium Pre-Load	F _v [N]	310
Medium Axial Rigidity	C _{ax} [N/µm]	182
Heavy Pre-Load	F _v [N]	620
Heavy Axial Rigidity	C _{ax} [N/µm]	235
Minimum Spring Pre-Load	F _f [N]	590

Notes:

- 1. Position of the oiling Nozzle (d_T) for bearings with TA cage/ TXM cage upon request
- 2. The stated load and speed values are given for a spring preloaded single bearing with oil/air or oil mist lubrication. If specific applications differ, please consult correction factors and/or GMN USA engineers.