

# Spindle ball bearing KH 61914 E TA P4+

16.07.2024



## Components

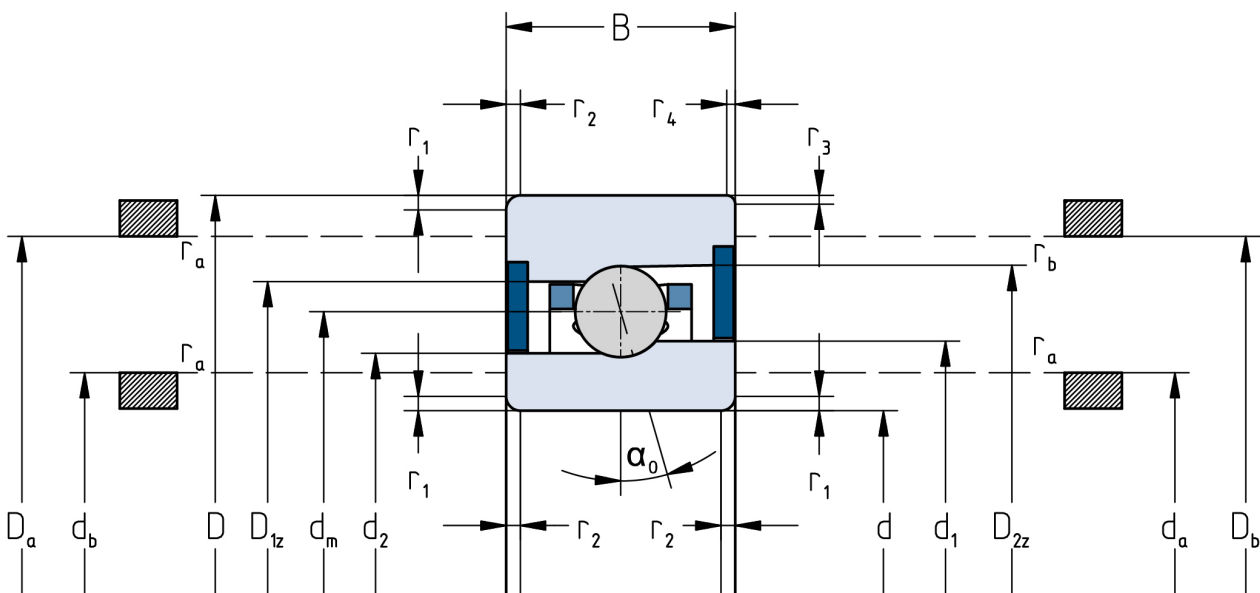
Bearing designation:	KH 61914 E TA
Bearing design:	KH
Series / size:	61914
Ball material:	Steel 100Cr6
Cage:	TA
Seal:	2RZ optional (with grease)
Precision:	P4+
Main dimensions [d x D x B]:	70 x 100 x 16 mm

## Load data

Static load capacity	$C_{0r}$ : 10200 N
Dynamic load capacity	$C_r$ : 12400 N
Fatigue load limit	$C_U$ : 527 N
Speed limit	$n_{grease}$ : 16875 1/min
Speed limit	$n_{oil}$ : 22500 1/min
Light preload	L: 100 N
Axial rigidity	$C_{ax}$ : 122 N/ $\mu$ m
Medium preload	M: 310 N
Axial rigidity	$C_{ax}$ : 182 N/ $\mu$ m
Heavy preload	S: 620 N
Axial rigidity	$C_{ax}$ : 235 N/ $\mu$ m
Spring preload	Ff: 1000 N (for $n_{max}$ )

## Geometrical Data

Bore diameter	d: 70 mm	Oiling nozzle position	$d_f$ : 82.3 mm
Outer diameter	D: 100 mm	Pitch circle diameter	$d_m$ : 84.3 mm
Width of single bearing	B: 16 mm	Inner diameter of outer ring	$D_1$ : 88.5 mm
Ball diameter	$D_w$ : 6.35 mm	Undercut of associated component	$r_{a max}$ : 1 mm
Number of balls	Z: 32	Undercut of associated component (open side)	$r_{b max}$ : 0.3 mm
Chamfer (min)	$r_{1,2 min}$ : 1 mm	Abutment diameter inner ring	$d_{a,b min}$ : 74.8 mm
Chamfer (min), open side	$r_{3,4 min}$ : 0.3 mm	Abutment diameter outer ring	$D_{a,b max}$ : 95.6 mm
Outer diameter of inner ring	$d_1$ : 80.1 mm	Inner diameter of outer ring (open side)	$D_2$ : 90.8 mm
Outer diameter of inner ring (open side)	$d_2$ : 78.5 mm	Bearing weight	m: 0.35 kg
		Contact angle	Alpha 0: 25°



The given speed limits apply to individual bearings with spring preload. Correction factors must be considered for all properties which deviate from this.