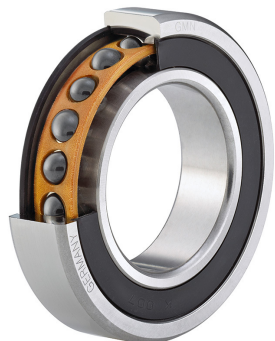


# Spindle ball bearing HY KH 61914 C TA P4+

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## Components

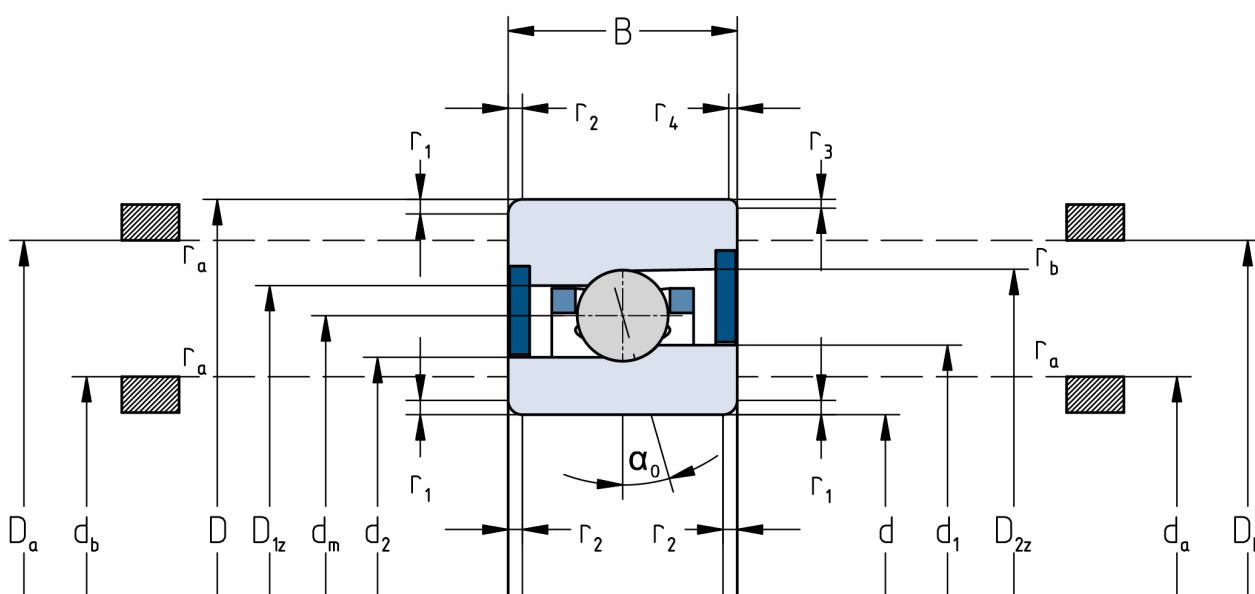
|                              |                            |
|------------------------------|----------------------------|
| Bearing designation:         | HY KH 61914 C TA           |
| Bearing design:              | KH                         |
| Series / size:               | 61914                      |
| Ball material:               | Ceramic                    |
| 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 | $C_r$ : 13000 N                |
| Fatigue load limit    | $C_U$ : 386 N                  |
| Speed limit           | $n_{grease}$ : 23250 1/min     |
| Speed limit           | $n_{oil}$ : 31000 1/min        |
| Light preload         | $L$ : 65 N                     |
| Axial rigidity        | $C_{ax}$ : 65 N/ $\mu$ m       |
| Medium preload        | $M$ : 200 N                    |
| Axial rigidity        | $C_{ax}$ : 98 N/ $\mu$ m       |
| Heavy preload         | $S$ : 390 N                    |
| Axial rigidity        | $C_{ax}$ : 128 N/ $\mu$ m      |
| Spring preload        | $F_f$ : 480 N (for $n_{max}$ ) |

## Geometrical Data

|                                          |                               |                                              |                                |
|------------------------------------------|-------------------------------|----------------------------------------------|--------------------------------|
| Bore diameter                            | d: 70 mm                      | Oiling nozzle position                       | d <sub>r</sub> : 82.3 mm       |
| Outer diameter                           | D: 100 mm                     | Pitch circle diameter                        | d <sub>m</sub> : 84.3 mm       |
| Width of single bearing                  | B: 16 mm                      | Inner diameter of outer ring                 | D <sub>1</sub> : 88.5 mm       |
| Ball diameter                            | D <sub>w</sub> : 6.35 mm      | Undercut of associated component             | r <sub>a max</sub> : 1 mm      |
| Number of balls                          | Z: 32                         | Undercut of associated component (open side) | r <sub>b max</sub> : 0.3 mm    |
| Chamfer (min)                            | r <sub>1,2 min</sub> : 1 mm   | Abutment diameter inner ring                 | d <sub>a,b min</sub> : 74.8 mm |
| Chamfer (min), open side                 | r <sub>3,4 min</sub> : 0.3 mm | Abutment diameter outer ring                 | D <sub>a,b max</sub> : 95.6 mm |
| Outer diameter of inner ring             | d <sub>1</sub> : 80.1 mm      | Inner diameter of outer ring (open side)     | D <sub>2</sub> : 90.8 mm       |
| Outer diameter of inner ring (open side) | d <sub>2</sub> : 78.5 mm      | Bearing weight                               | m: 0.33 kg                     |
|                                          |                               | Contact angle                                | Alpha 0: 17°                   |



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