

# Spindle ball bearing HY S 6211 C TA P4+

16.07.2024



## Components

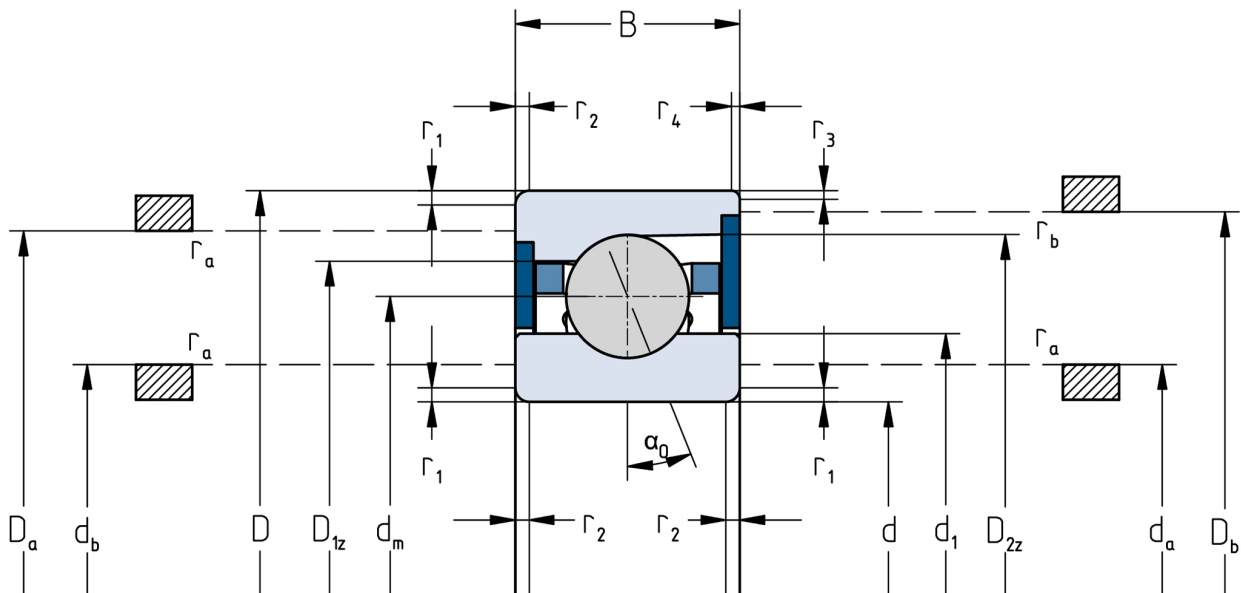
Bearing designation:	HY S 6211 C TA
Bearing design:	S
Series / size:	6211
Ball material:	Ceramic
Cage:	TA
Seal:	2RZ upon request
Precision:	P4+ (UP+ Upon request)
Main dimensions [d x D x B]:	55 x 100 x 21 mm

## Load data

Static load capacity	$C_{0r}$ : 44500 N
Dynamic load capacity	$C_r$ : 58000 N
Fatigue load limit	$C_U$ : 1684 N
Speed limit	$n_{grease}$ : 20625 1/min
Speed limit	$n_{oil}$ : 27500 1/min
Light preload	L: 300 N
Axial rigidity	$C_{ax}$ : 91 N/ $\mu$ m
Medium preload	M: 900 N
Axial rigidity	$C_{ax}$ : 150 N/ $\mu$ m
Heavy preload	S: 1800 N
Axial rigidity	$C_{ax}$ : 213 N/ $\mu$ m
Spring preload	Ff: 1830 N (for $n_{max}$ )

## Geometrical Data

Bore diameter	d: 55 mm	Oiling nozzle position	$d_f$ : 73.8 mm
Outer diameter	D: 100 mm	Pitch circle diameter	$d_m$ : 77.5 mm
Width of single bearing	B: 21 mm	Inner diameter of outer ring	$D_1$ : 85.8 mm
Ball diameter	$D_w$ : 14.288 mm	Undercut of associated component	$r_{a \max}$ : 1.5 mm
Number of balls	Z: 15	Undercut of associated component (open side)	$r_{b \max}$ : 1 mm
Chamfer (min)	$r_{1,2 \min}$ : 1.5 mm	Abutment diameter inner ring	$d_{a,b \min}$ : 63.8 mm
Chamfer (min), open side	$r_{3,4 \min}$ : 1 mm	Abutment diameter outer ring	$D_{a,b \max}$ : 93 mm
Outer diameter of inner ring	$d_1$ : 69 mm	Inner diameter of outer ring (open side)	$D_2$ : 92 mm
Outer diameter of inner ring (open side)	$d_2$ : -	Bearing weight	m: 0.51 kg
		Contact angle	Alpha 0: 15°



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