

# Spindle ball bearing HY S 619/9 C TA P4+

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## Components

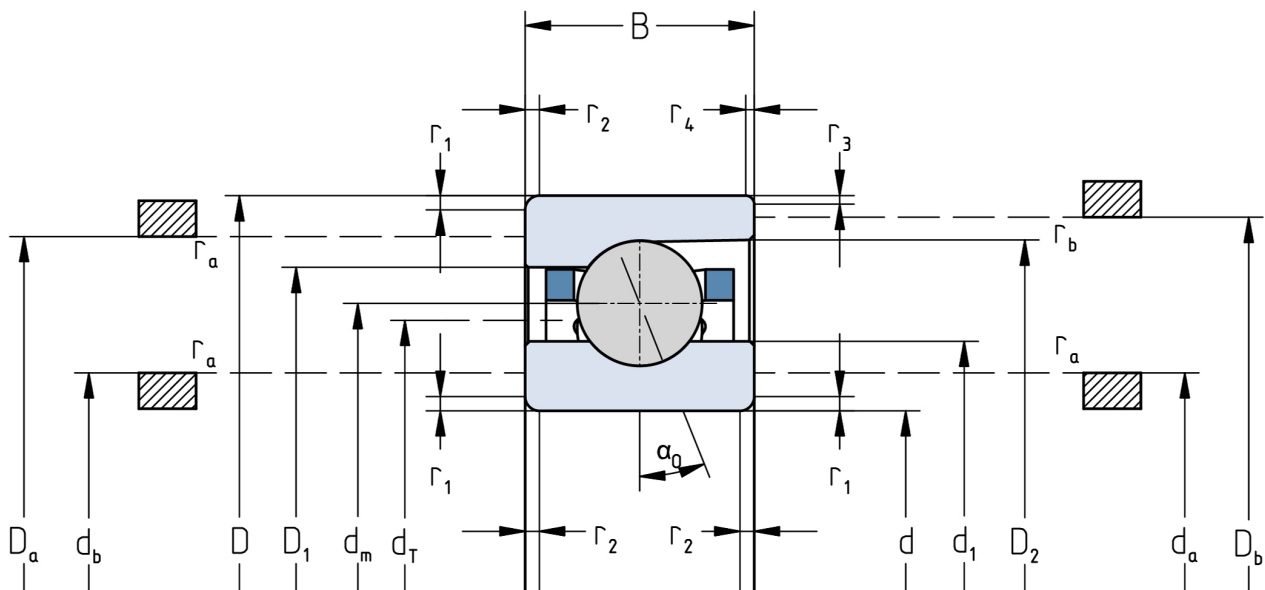
Bearing designation:	HY S 619/9 C TA
Bearing design:	S
Series / size:	619/9
Ball material:	Ceramic
Cage:	TA
Precision:	P4+
Main dimensions [d x D x B]:	9 x 20 x 6 mm

## Load data

Static load capacity	$C_{0r}$ : 1290 N
Dynamic load capacity	$C_r$ : 2800 N
Fatigue load limit	$C_U$ : 49 N
Speed limit	$n_{grease}$ : 108750 1/min
Speed limit	$n_{oil}$ : 145000 1/min
Light preload	L: 12 N
Axial rigidity	$C_{ax}$ : 14 N/ $\mu$ m
Medium preload	M: 40 N
Axial rigidity	$C_{ax}$ : 23 N/ $\mu$ m
Heavy preload	S: 75 N
Axial rigidity	$C_{ax}$ : 31 N/ $\mu$ m
Spring preload	Ff: 55 N (for $n_{max}$ )

## Geometrical Data

Bore diameter	d: 9 mm	Oiling nozzle position	$d_T$ : 13.7 mm
Outer diameter	D: 20 mm	Pitch circle diameter	$d_m$ : 14.8 mm
Width of single bearing	B: 6 mm	Inner diameter of outer ring	$D_1$ : 17.2 mm
Ball diameter	$D_w$ : 3.175 mm	Undercut of associated component	$r_{a max}$ : 0.3 mm
Number of balls	Z: 11	Undercut of associated component (open side)	$r_{b max}$ : 0.2 mm
Chamfer (min)	$r_{1,2 min}$ : 0.3 mm	Abutment diameter inner ring	$d_{a,b min}$ : 10.9 mm
Chamfer (min), open side	$r_{3,4 min}$ : 0.2 mm	Abutment diameter outer ring	$D_{a,b max}$ : 18.5 mm
Outer diameter of inner ring	$d_1$ : 12.4 mm	Inner diameter of outer ring (open side)	$D_2$ : 18 mm
Outer diameter of inner ring (open side)	$d_2$ : -	Bearing weight	m: 0.006 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.