

# Spindle ball bearing HY S 6200 E TXM P4+

16.07.2024



## Components

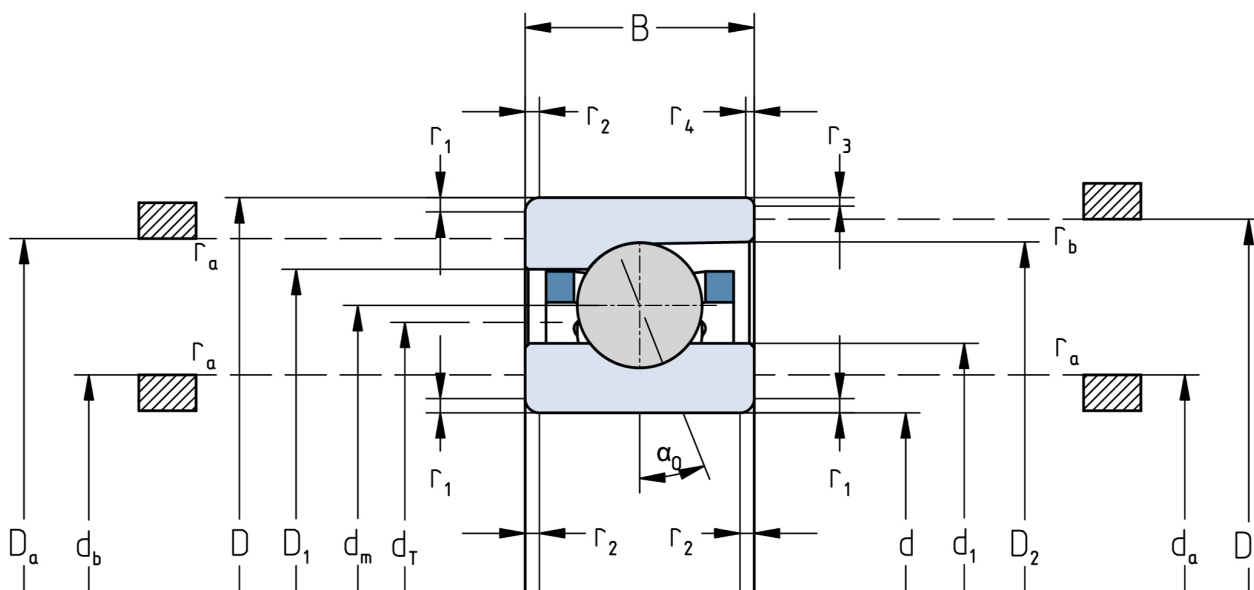
Bearing designation:	HY S 6200 E TXM
Bearing design:	S
Series / size:	6200
Ball material:	Ceramic
Cage:	TXM
Precision:	P4+ (UP+ Upon request)
Main dimensions [d x D x B]:	10 x 30 x 9 mm

## Load data

Static load capacity	$C_{0r}$ : 3500 N
Dynamic load capacity	$C_r$ : 7250 N
Fatigue load limit	$C_U$ : 132 N
Speed limit	$n_{grease}$ : 68250 1/min
Speed limit	$n_{oil}$ : 91000 1/min
Light preload	L: 60 N
Axial rigidity	$C_{ax}$ : 59 N/ $\mu$ m
Medium preload	M: 180 N
Axial rigidity	$C_{ax}$ : 89 N/ $\mu$ m
Heavy preload	S: 360 N
Axial rigidity	$C_{ax}$ : 119 N/ $\mu$ m
Spring preload	Ff: 250 N (for $n_{max}$ )

## Geometrical Data

Bore diameter	d: 10 mm	Oiling nozzle position	$d_T$ : 18.3 mm
Outer diameter	D: 30 mm	Pitch circle diameter	$d_m$ : 20 mm
Width of single bearing	B: 9 mm	Inner diameter of outer ring	$D_1$ : 24.5 mm
Ball diameter	$D_w$ : 5.556 mm	Undercut of associated component	$r_{a \max}$ : 0.6 mm
Number of balls	Z: 10	Undercut of associated component (open side)	$r_{b \max}$ : 0.6 mm
Chamfer (min)	$r_{1,2 \min}$ : 0.6 mm	Abutment diameter inner ring	$d_{a,b \min}$ : 13.7 mm
Chamfer (min), open side	$r_{3,4 \min}$ : 0.6 mm	Abutment diameter outer ring	$D_{a,b \max}$ : 27.5 mm
Outer diameter of inner ring	$d_1$ : 16 mm	Inner diameter of outer ring (open side)	$D_2$ : 25.7 mm
Outer diameter of inner ring (open side)	$d_2$ : -	Bearing weight	m: 0.025 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.