

**FAG****HS7019-C-T-P4S-UL**

## High speed spindle bearing

High speed spindle bearing HS70...-C, adjusted, in pairs or sets, contact angle  $\alpha = 15^\circ$ , restricted tolerances

## Technical information



## Your current product variant

Contact angle	C	Contact angle $15^\circ$
Sealing	Without	Not sealed
Cage	T	Laminated fabric cage
Tolerance class	P4S	Tolerance class P4S, FAG standard better than P4 to ISO 492:2023
Arrangement bearing set	U	Single bearing
Preload	L	Preload light

## Main Dimensions &amp; Performance Data

d	95 mm	Bore diameter
D	145 mm	Outside diameter
B	24 mm	Width
$C_r$	36.500 N	Basic dynamic load rating, radial
$C_{0r}$	27.500 N	Basic static load rating, radial
$C_{ur}$	2.650 N	Fatigue load limit, radial
$n_{G \text{ Grease}}$	13.000 1/min	Limiting speed for grease lubrication
$n_{G \text{ Oil}}$	20.000 1/min	Limiting speed for oil lubrication
$n_G$	20.000 1/min	Limiting speed
$\approx m$	1,25 kg	Weight





### Mounting dimensions

$d_a$	105 mm	Diameter shaft shoulder
$d_a$	h12	Diameter shaft shoulder clearance
$D_a$	136 mm	Shoulder diameter outer ring
$D_a$	H12	Shoulder diameter outer ring clearance
$r_{a \max}$	1,5 mm	Maximum recess radius
$r_{a1 \max}$	0,6 mm	Maximum recess radius
$E_{tk \min}$	114,3 mm	Minimum diameter injection pitch
$E_{tk \max}$	116,8 mm	Maximum diameter injection pitch
$E_{tk1 \min}$	110,7 mm	Minimum diameter injection pitch
$E_{tk1 \max}$	116,8 mm	Maximum diameter injection pitch
$a$	28,1 mm	Distance between the apexes of the pressure cones

### Dimensions

$r_{\min}$	1,5 mm	Minimum chamfer dimension
$r_{1 \min}$	1,5 mm	Minimum chamfer dimension
$\alpha$	15 °	Contact angle

### Temperature range

$T_{\min}$	-30 °C	Operating temperature min.
$T_{\max}$	100 °C	Operating temperature max.



### Additional information

$F_{VL}$	127 N	Preload force light
$F_{VM}$	382 N	Preload force medium
$F_{VH}$	764 N	Preload force heavy
$K_{aEL}$	380 N	Lift-off force light
$K_{aEM}$	1.192 N	Lift-off force medium
$K_{aEH}$	2.480 N	Lift-off force heavy
$c_{aL}$	67 N/ $\mu$ m	Axial rigidity light
$c_{aM}$	105 N/ $\mu$ m	Axial rigidity medium
$c_{aH}$	143 N/ $\mu$ m	Axial rigidity heavy

### Characteristics

-  Radial load
-  Axial load in one direction
-  Grease Lubrication
-  Oil Lubrication
-  Not sealed