

FAG

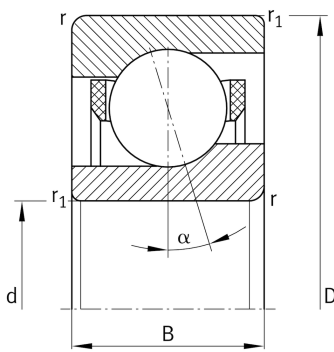
HCM71916-E-T-P4S-UL-XL

Angular contact ball bearing

High speed spindle bearing HCM719...-E, adjusted, in pairs or sets, contact angle $\alpha = 25^\circ$, with ceramic balls, restricted tolerances

X-life

Technical information



Main Dimensions & Performance Data

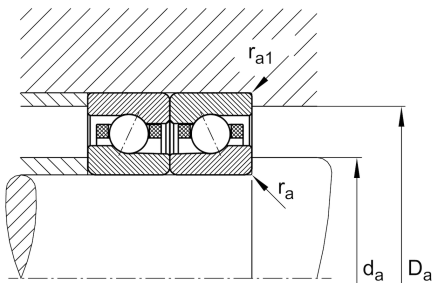
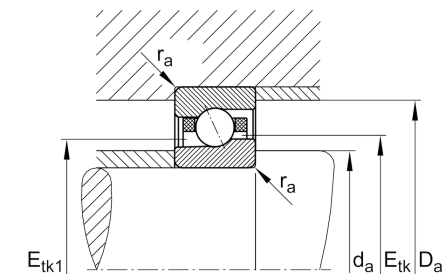
d	80 mm	Bore diameter
D	110 mm	Outside diameter
B	16 mm	Width
C_r	27.000 N	Basic dynamic load rating, radial
C_{0r}	15.800 N	Basic static load rating, radial
C_{ur}	1.270 N	Fatigue load limit, radial
$n_{G \text{ Grease}}$	20.000 1/min	Limiting speed for grease lubrication
$n_{G \text{ Oil}}$	30.000 1/min	Limiting speed for oil lubrication
$\approx m$	284 g	Weight

Mounting dimensions

d_a	86 mm	Diameter shaft shoulder
d_a	h12	Diameter shaft shoulder clearance
D_a	104 mm	Shoulder diameter outer ring
D_a	H12	Shoulder diameter outer ring clearance
$r_{a \text{ max}}$	0,6 mm	Maximum recess radius
$r_{a1 \text{ max}}$	0,3 mm	Maximum recess radius
$E_{tk \text{ min}}$	89,3 mm	Minimum diameter injection pitch
$E_{tk \text{ max}}$	92,1 mm	Maximum diameter injection pitch
$E_{tk1 \text{ min}}$	85,7 mm	Minimum diameter injection pitch
$E_{tk1 \text{ max}}$	92,1 mm	Maximum diameter injection pitch
a	30,1 mm	Distance between the apexes of the pressure cones

Dimensions

r_{min}	1 mm	Minimum chamfer dimension
$r_{1 \text{ min}}$	0,6 mm	Minimum chamfer dimension
α	25 °	Contact angle





Temperature range

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

Additional information

F_{VL}	184 N	Preload force light
F_{VM}	483 N	Preload force medium
F_{VH}	1.003 N	Preload force heavy
K_{aEL}	528 N	Lift-off force light
K_{aEM}	1.396 N	Lift-off force medium
K_{aEH}	2.943 N	Lift-off force heavy
c_{aL}	144 N/μm	Axial rigidity light
c_{aM}	202 N/μm	Axial rigidity medium
c_{aH}	263 N/μm	Axial rigidity heavy