

**FAG****HCB7000-E-T-P4S-UL**

## Spindle bearing

Spindle bearing HCB70...-E, adjusted, in pairs or sets, contact angle  $\alpha = 25^\circ$ , with ceramic balls, restricted tolerances

## Technical information



## Your current product variant

|                         |          |  |
|-------------------------|----------|--|
| Contact angle           | E        | Contact angle 25°  |
| Sealing                 | Without  |  |
| Outer shape             | Standard | Standard   |
| 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               | 10 mm         | Bore diameter                         |
| D               | 26 mm         | Outside diameter                      |
| B               | 8 mm          | Width                                 |
| $C_r$           | 3.950 N       | Basic dynamic load rating, radial     |
| $C_{0r}$        | 1.350 N       | Basic static load rating, radial      |
| $C_{ur}$        | 108 N         | Fatigue load limit, radial            |
| $n_G$<br>Grease | 85.000 1/min  | Limiting speed for grease lubrication |
| $n_G$<br>Oil    | 130.000 1/min | Limiting speed for oil lubrication    |
| $\approx m$     | 0,018 kg      | Weight                                |





### Mounting dimensions

|                |         |   |
|----------------|---------|---|
| $d_a$          | 14 mm   | Diameter shaft shoulder                           |
| $d_a$          | h12     | Diameter shaft shoulder clearance                 |
| $D_a$          | 22 mm   | Shoulder diameter outer ring                      |
| $D_a$          | H12     | Shoulder diameter outer ring clearance            |
| $r_{a \max}$   | 0,3 mm  | Maximum recess radius                             |
| $r_{a1 \max}$  | 0,1 mm  | Maximum recess radius                             |
| $E_{tk \min}$  | 15,7 mm | Minimum diameter injection pitch                  |
| $E_{tk \max}$  | 16,8 mm | Maximum diameter injection pitch                  |
| $E_{tk1 \min}$ | 15,7 mm | Minimum diameter injection pitch                  |
| $E_{tk1 \max}$ | 16,8 mm | Maximum diameter injection pitch                  |
| $a$            | 8,2 mm  | Distance between the apexes of the pressure cones |

### Dimensions

|              |        |                           |
|--------------|--------|---------------------------|
| $r_{\min}$   | 0,3 mm | Minimum chamfer dimension |
| $r_{1 \min}$ | 0,3 mm | Minimum chamfer dimension |
| $\alpha$     | 25 °   | Contact angle             |

### Temperature range

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



### Additional information

|           |               |                       |
|-----------|---------------|-----------------------|
| $F_{VL}$  | 12 N          | Preload force light   |
| $F_{VM}$  | 57 N          | Preload force medium  |
| $F_{VH}$  | 130 N         | Preload force heavy   |
| $K_{aEL}$ | 33 N          | Lift-off force light  |
| $K_{aEM}$ | 167 N         | Lift-off force medium |
| $K_{aEH}$ | 392 N         | Lift-off force heavy  |
| $c_{aL}$  | 25 N/ $\mu$ m | Axial rigidity light  |
| $c_{aM}$  | 45 N/ $\mu$ m | Axial rigidity medium |
| $c_{aH}$  | 62 N/ $\mu$ m | Axial rigidity heavy  |

### Characteristics

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