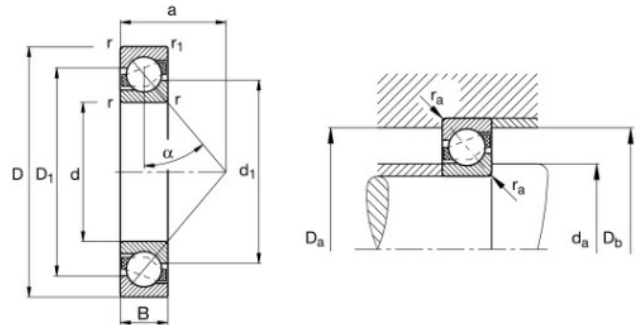


## 7214-B-TVP-UO

Angular contact ball bearings, single row



### Technical sheet of 7214-B-TVP-UO

#### What are the Benefits of choosing 7214-B-TVP-UO bearings?

- **High speed and high precision:** Extremely high limiting speed, rotational accuracy reaches P5 level or higher, suitable for precision equipment.
- **Flexible assembly:** A single unit can withstand unidirectional axial and radial forces; bidirectional load-bearing or anti-tipping can be achieved through DB/DF/DT combinations.
- **Compact structure:** Small footprint and light weight, suitable for small and medium-sized equipment.

<b>Type :</b>	Single row angular contact ball bearings	
<b>Model :</b>	<a href="#">7214-B-TVP-UO</a>	
<b>Main dimensions :</b>	70 mm × 125 mm × 24 mm	Bore Dia × Outside Dia × Width Dia
<b>M kg:</b>	1.1	Mass
<b>HS Code :</b>	8482103000	Bearing customs code
<b>d mm:</b>	70	inner ring diameter
<b>D mm:</b>	125	Outer ring diameter
<b>B(T) mm:</b>	24	Overall Width
<b>Cr kN:</b>	73.982	Radial dynamic load rating
<b>C0r kN:</b>	61.986	Radial static load rating

<b>Grease r/min:</b>	5396	Reference speed
<b>Oil r/min:</b>	7193	Limiting speed

### Detailed parameters and installation dimensions:

Part Number	7214-B-TVP-UO
Design Type	B = Modified internal construction
Series	72..-B-XL-TVP
X-Life	XL
Limiting speed (oil) - $n_G$	7193 min <sup>-1</sup>
Reference speed (grease) - $n_B$	5396 min <sup>-1</sup>
Bearing Mass - m	1.1 kg   2.425 lb
Reference From	FAG 7214-B-TVP-UO
Dimension Inside - d $\phi$	70 mm   2.756 inch
Dimension Outside - D $\Phi$	125 mm   4.921 inch
Dimension Width - B	24 mm   0.945 inch
Rows NO.	single
Accuracy class	PN
Dimension - r(min.)	1.5 mm   0.059 inch
Dimension - $r_1$ (min.)	1 mm   0.039 inch
Seal	Open
Bearing pair	UO = Universal design for mounting in pairs, bearing pair is clearance-free in O and X arrangement
Dimension - $D_1$	104.04 mm   4.096 inch
Radial static Capacity - $C_{0r}$	61986 N   13934 lbf
Bore Type	Z = Cylindrical Bore
Heat stabilization	S0 = up to 150°
Dimension - $d_1$	92.32 mm   3.635 inch
Dimension - a	52.9 mm   2.083 inch
Manufacturer Part Code	7214-B-TVP-UO
Contact angle - $\alpha$	40 °
Mounting dimensions - $d_a$ (min.)	79 mm   3.110 inch
Mounting dimensions - $D_a$ (max.)	116 mm   4.567 inch
Mounting dimensions - $D_b$ (max.)	119.4 mm   4.701 inch
Bearing Type	Angular contact ball bearings, single row
Mounting dimensions - $r_a$ (max.)	1.5 mm   0.059 inch
Mounting dimensions - $r_{a1}$ (max.)	1 mm   0.039 inch
Temperature - T(min)	-30°C
Temperature - T(max)	120°C
Ring Material	GCr15SiMn
Cage	TVP = Solid cage made from glass fibre reinforced polyamide (plastic cage)
Radial Dynamic Capacity - $C_r$	73982 N   16631 lbf
Ball Material	GCr15SiMn

Radial Fatigue Capacity - C <sub>ur</sub>	4295 N   965 lbf
Equivalent	7214-B-TVP-UO,7214B.TVP.UO
Lubricant	Without
Tolerance for axial clearance or preload per set - Tol(+)	12 µm

### What are the applications of the 7214-B-TVP-UO bearing?

- **Motor/Machine Tool Spindles:** Used in high-speed motors, electric spindles, and grinding heads. High limiting speed, P5/P4 rotational accuracy ensures smooth machining.
- **Automotive Transmissions:** Used in gearboxes, compressors, and water pumps. Withstands complex loads, high reliability, and adaptable to medium speeds.
- **General Purpose Pumps/Fans:** Used in centrifugal pumps and cooling fans. Compact structure, low friction, long service life, and maintenance-free operation.
- **Light Industry/Textiles:** Used in textile spindles and packaging machinery. High speed, low vibration, suitable for continuous operation.

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