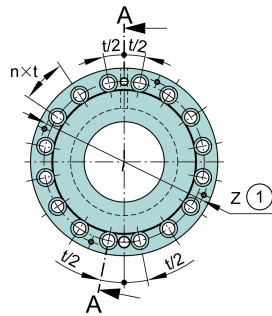


**ZARF90210-L-TV**

## Needle roller/axial cylindrical roller bearing

Needle roller/axial cylindrical roller bearings  
ZARF..-L, double direction, for screw  
mounting, long shaft locating washer

## Technical information



## Your current product variant

Cage	TV	Plastic Cage made from PA66
Locating Feature , bearing outer ring	L	Stepped shaft locating washer extended on one side

## Main Dimensions &amp; Performance Data

d	90 mm	Bore diameter
D	210 mm	Outside diameter
H	135 mm	Hight
C <sub>a</sub>	325.000 N	Basic dynamic load rating, axial
C <sub>0a</sub>	1.030.000 N	Basic static load rating, axial
C <sub>r</sub>	98.000 N	Basic dynamic load rating, radial
C <sub>0r</sub>	210.000 N	Basic static load rating, radial
C <sub>ua</sub>	95.000 N	Fatigue load limit, axial
C <sub>ur</sub>	29.000 N	Fatigue load limit, radial
n <sub>G Oil</sub>	1.800 1/min	Limiting speed for oil lubrication
n <sub>G Grease</sub>	700 1/min	Limiting speed for grease lubrication
M <sub>RL</sub>	10,5 Nm	Bearing friction torque
≈m	15,076 kg	Weight



### Mounting dimensions

$D_{a \max}$	161 mm	Maximum diameter of housing shoulder
$d_{a \min}$	125 mm	Minimum diameter shaft shoulder
$t_1$	0,4 mm	Position bore in the housing

### Dimensions

$H_1$	94,5 mm	Height outer ring over wave washer
C	32 mm	Width, outer ring
$C_1$	17,5 mm	Distance to lubrication hole
$D_1$	160 mm	Rip diameter shaft washer
$D_2$	130 mm	Heeldiameter wave washer long
$D_3$	158 mm	Outside diameter wave washer long
B	22,5 mm	Width, wave washer
$B_1$	47,5 mm	Width wave washer long
$B_2$	18 mm	Width heel wave washer long
$r_{\min}$	0,3 mm	Minimum chamfer dimension
$r_{1 \min}$	1 mm	Minimum chamfer dimension
$d_1$	8 mm	Diameter lubrication hole
J	180 mm	Pitch circle diameter (holes)
n	16	Number of screwing holes
$n \times t$	22,5 °	Split

### Temperature range







$T_{\min}$	-30 °C	Operating temperature min.
$T_{\max}$	120 °C	Operating temperature max.



### Additional information

$c_{aL}$	7.700 N/ $\mu$ m	Rigidity axial
$c_{kL}$	14.500 Nm/mrad	Tilting stiffness
$M_m$	372 kg*cm <sup>2</sup>	Mass moment of inertia
	2 $\mu$ m	Axial runout
radial	ZMA90/155	Recommended INA precision locknut for radial locking (not included)
axial	AM90	Locknut 2
$M_A$	960 Nm	Tightening torque nut
	100.669 N	Preload force axial
	130X160X12	Sealing ring
	M12	Screw size
$n_a$	16	Number of screws
$n_a \times t_a$	22,5 °	Division (screwing holes)

### Characteristics

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