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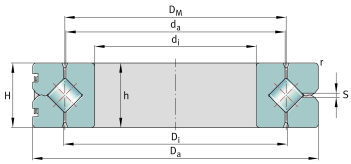
SCHAEFFLER

SX011814-A

Crossed roller bearing

Crossed roller bearingsdimension series 18 to
DIN 616

Technical information



Main Dimensions & Performance Data

d_1	70 mm	Bore Diameter
	0,004 mm	Bore diameter upper tolerance
	-0,015 mm	Bore diameter lower tolerance
D_a	90 mm	Outside Diameter
	0 mm	Outside diameter upper tolerance
	-0,022 mm	Outside diameter lower tolerance
H	10 mm	Height of the assembled bearing
h_i	10 mm	Height inner ring
	0,06 mm	Width upper tolerance
	-0,06 mm	Width lower tolerance
≈m	0,168 kg	Weight

Dimensions

D_i	80,5 mm	Inner diameter outer ring
D_M	80 mm	Rolling element pitch circle diameter
d_a	79,5 mm	Outer diameter inner ring
h	10 mm	Height of individual ring
	0 mm	Height of individual ring upper tolerance
	-0,01 mm	Height of individual ring lower tolerance
r_{min}	0,6 mm	Chamfer dimension
S	1,2 mm	Diameter of lubrication hole

Temperature range

T_{min}	-30 °C	Operating temperature min.
T_{max}	80 °C	Operating temperature max.

Calculation factors

	0,01 mm	Running accuracy, radial
	0,01 mm	Running accuracy, axial
$S_{r\ min}$	0,003 mm	Minimum radial bearing clearance, at standard bearing clearance
$S_{r\ max}$	0,015 mm	Maximum radial bearing clearance, at standard bearing clearance
$S_{k\ min}$	0,006 mm	Minimum axial tilting clearance, at standard bearing clearance
$S_{k\ max}$	0,03 mm	Maximum axial tilting clearance, at standard bearing clearance
C_a	16.600 N	Basic dynamic load rating, axial
C_{0a}	52.000 N	Basic static load rating, axial
C_r	11.800 N	Basic dynamic load rating, radial (for radial load only)
C_{0r}	25.500 N	Basic static load rating, radial (for radial load only)
$N_{G\ oil}$	1.910 1/min	Limiting speed for oil lubrication with normal clearance
N_G Grease	955 1/min	Limiting speed for grease lubrication with normal clearance
	61814	Dimensions identical to ISO dimension series 18

Characteristics

Radial load

Axial load in one direction

Axial load in two directions


Grease Lubrication


Oil Lubrication


Not sealed


Small design envelope