

**SX011814-A**

## Crossed roller bearing

Crossed roller bearings dimension series 18 to  
DIN 616

## Technical information

**Main Dimensions & Performance Data**

d <sub>1</sub>	70 mm	Bore Diameter
	0,004 mm	Bore diameter upper tolerance
	-0,015 mm	Bore diameter lower tolerance
D <sub>a</sub>	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 <sub>i</sub>	10 mm	Height inner ring
	0,06 mm	Width upper tolerance
	-0,06 mm	Width lower tolerance
≈m	0,168 kg	Weight

**Dimensions**

D <sub>i</sub>	80,5 mm	Inner diameter outer ring
D <sub>M</sub>	80 mm	Rolling element pitch circle diameter
d <sub>a</sub>	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 <sub>min</sub>	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)
$N_{G \text{ oil}}$	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