

**SX011820-A**

Crossed roller bearing

Crossed roller bearings dimension series 18 to
DIN 616

Technical information

**Main Dimensions & Performance Data**

d ₁	100 mm	Bore Diameter
	0,004 mm	Bore diameter upper tolerance
	-0,018 mm	Bore diameter lower tolerance
D _a	125 mm	Outside Diameter
	0 mm	Outside diameter upper tolerance
	-0,025 mm	Outside diameter lower tolerance
H	13 mm	Height of the assembled bearing
h _i	13 mm	Height inner ring
	0,06 mm	Width upper tolerance
	-0,06 mm	Width lower tolerance
≈m	402 g	Weight

Dimensions

D _i	112,5 mm	Inner diameter outer ring
D _M	112 mm	Rolling element pitch circle diameter
d _a	111,5 mm	Outer diameter inner ring
h	13 mm	Height of individual ring
	0 mm	Height of individual ring upper tolerance
	-0,01 mm	Height of individual ring lower tolerance
r _{min}	1 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
$S_{r \min}$	0,005 mm	Minimum radial bearing clearance, at standard bearing clearance
$S_{r \max}$	0,02 mm	Maximum radial bearing clearance, at standard bearing clearance
$S_{k \min}$	0,01 mm	Minimum axial tilting clearance, at standard bearing clearance
$S_{k \max}$	0,04 mm	Maximum axial tilting clearance, at standard bearing clearance
C_a	28.000 N	Basic dynamic load rating, axial
C_{0a}	97.000 N	Basic static load rating, axial
C_r	20.000 N	Basic dynamic load rating, radial (for radial load only)
C_{0r}	47.500 N	Basic static load rating, radial (for radial load only)
$N_{G \text{ oil}}$	1.360 1/min	Limiting speed for oil lubrication with normal clearance
N_G Grease	680 1/min	Limiting speed for grease lubrication with normal clearance
	61820	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