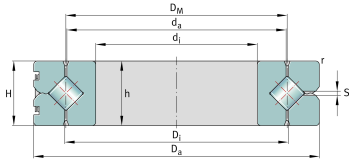


**SX011818-A** [↗](#)

Crossed roller bearing

Crossed roller bearingsdimension series 18 to
DIN 616

Technical information

**Main Dimensions & Performance Data**

| | | |
|----------------|-----------|----------------------------------|
| d ₁ | 90 mm | Bore Diameter |
| | 0,004 mm | Bore diameter upper tolerance |
| | -0,018 mm | Bore diameter lower tolerance |
| D _a | 115 mm | Outside Diameter |
| | 0 mm | Outside diameter upper tolerance |
| | -0,022 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 | 0,354 kg | Weight |

Dimensions

| | | |
|------------------|----------|---|
| D _i | 102,5 mm | Inner diameter outer ring |
| D _M | 102 mm | Rolling element pitch circle diameter |
| d _a | 101,5 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 |
| $S_{r \min}$ | 0,003 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 | 26.500 N | Basic dynamic load rating, axial |
| C_{0a} | 87.000 N | Basic static load rating, axial |
| C_r | 18.900 N | Basic dynamic load rating, radial (for radial load only) |
| C_{0r} | 43.000 N | Basic static load rating, radial (for radial load only) |
| $N_{G \text{ oil}}$ | 1.500 1/min | Limiting speed for oil lubrication with normal clearance |
| N_G Grease | 750 1/min | Limiting speed for grease lubrication with normal clearance |
| | 61818 | 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 |