



# W 628/5-2Z Stainless steel deep groove ball bearing with integral sealing

## Stainless steel deep groove ball bearing with integral sealing

Stainless steel single row deep groove ball bearing with seals or shields on both sides, provide greater chemical and corrosion resistance. As with deep groove ball bearings generally, they are particularly versatile, have low friction and are optimized for low noise and low vibration, which enables high rotational speeds. They accommodate radial and axial loads in both directions, are easy to mount, and require less maintenance than other bearing types. The integral sealing can significantly prolong bearing service life because it keeps lubricant in the bearings and contaminants out.

- Greater chemical and corrosion resistance
- Integral sealing prolongs bearing service life
- Typical benefits of single row deep groove ball bearings

## Overview

### Dimensions

|                  |       |
|------------------|-------|
| Bore diameter    | 5 mm  |
| Outside diameter | 11 mm |
| Width            | 4 mm  |

### Performance

|                           |               |
|---------------------------|---------------|
| Basic dynamic load rating | 0.403 kN      |
| Basic static load rating  | 0.143 kN      |
| Reference speed           | 120 000 r/min |
| Limiting speed            | 60 000 r/min  |

### Properties

|                                      |                 |
|--------------------------------------|-----------------|
| Filling slots                        | Without         |
| Number of rows                       | 1               |
| Locating feature, bearing outer ring | None            |
| Bore type                            | Cylindrical     |
| Cage                                 | Sheet metal     |
| Matched arrangement                  | No              |
| Radial internal clearance            | CN              |
| Tolerance class                      | Normal          |
| Material, bearing                    | Stainless steel |
| Coating                              | Without         |

|                       |                      |
|-----------------------|----------------------|
| Sealing               | Shield on both sides |
| Sealing type          | Non-contact          |
| Lubricant             | Grease               |
| Relubrication feature | Without              |

# Technical Specification



## Dimensions

|           |              |                   |
|-----------|--------------|-------------------|
| d         | 5 mm         | Bore diameter     |
| D         | 11 mm        | Outside diameter  |
| B         | 4 mm         | Width             |
| $d_1$     | ≈ 6.81 mm    | Shoulder diameter |
| $d_2$     | ≈ 6.81 mm    | Recess diameter   |
| $D_2$     | ≈ 9.9 mm     | Recess diameter   |
| $r_{1,2}$ | min. 0.15 mm | Chamfer dimension |

## Abutment dimensions

|       |              |                                   |
|-------|--------------|-----------------------------------|
| $d_a$ | min. 6.2 mm  | Diameter of shaft abutment        |
| $d_a$ | max. 6.7 mm  | Diameter of shaft abutment        |
| $D_a$ | max. 10 mm   | Diameter of housing abutment      |
| $r_a$ | max. 0.15 mm | Radius of shaft or housing fillet |



## Calculation data

|                           |       |               |
|---------------------------|-------|---------------|
| Basic dynamic load rating | C     | 0.403 kN      |
| Basic static load rating  | $C_0$ | 0.143 kN      |
| Fatigue load limit        | $P_u$ | 0.006 kN      |
| Reference speed           |       | 120 000 r/min |
| Limiting speed            |       | 60 000 r/min  |
| Minimum load factor       | $k_r$ | 0.02          |
| Calculation factor        | $f_0$ | 7.1           |

## Mass

|              |           |
|--------------|-----------|
| Mass bearing | 0.0015 kg |
|--------------|-----------|

## Tolerance class

|                        |        |
|------------------------|--------|
| Dimensional tolerances | Normal |
| Radial run-out         | Normal |

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