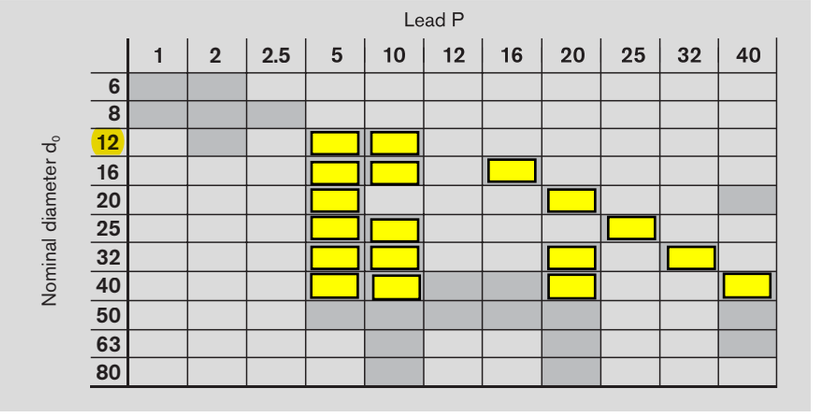
The ordering data given on Page 20 covers all the parameters of a precision ball screw assembly. Once you have defined the nominal diameter and lead and entered the total length, the functionality guides you through a succession of dialog boxes allowing you to select the desired options.

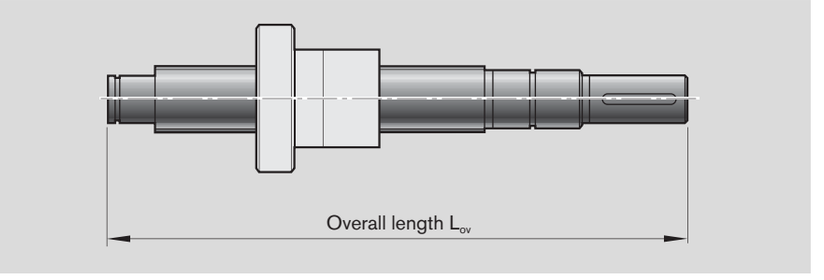
**Nominal diameters, leads**

Rexroth
Bosch Group

**GoTo Program products are highlighted below.**



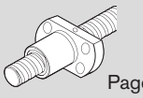

**Overall length $L_{ov}$ of a precision ball screw assembly**



## Nut type

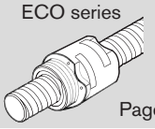
The various series versions and forms are shown below.

FEM-E-B Single nut with flange
Miniature series



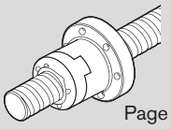
Page 22

ZEV-E-S Screw-in nut
ECO series



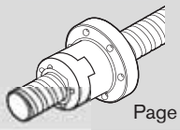
Page 24

FBZ-E-S Single nut with flange
ECO series



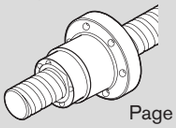
Page 26

FSZ-E-S Single nut with flange
ECOplus series



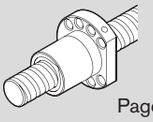
Page 28

FEP-E-S Single nut with flange
Speed series



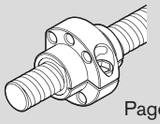
Page 30

FEM-E-C Single nut with flange
DIN 69 051, Part 5
Standard series



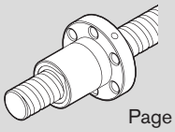
Page 32

SEM-E-C Adjustable-preload
single nut, DIN 69 051, Part 5
Standard series



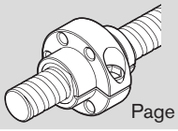
Page 34

FEM-E-S Single nut with flange
Standard series



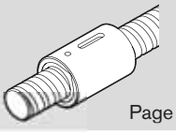
Page 36

SEM-E-S Adjustable-preload
single nut, Standard series



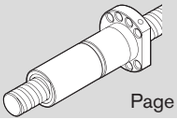
Page 38

ZEM-E-S Cylindrical single nut
Standard series



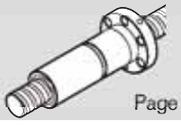
Page 40

FDM-E-C Double nut with flange
DIN 69 051, Part 5
Standard series



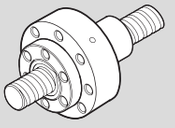
Page 42

FDM-E-S Double nut with flange
Standard series



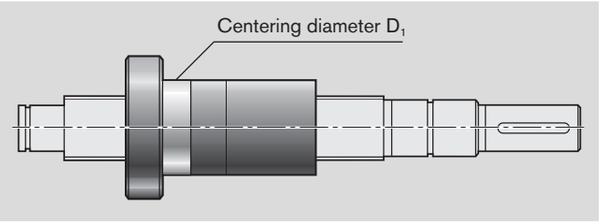
Page 44

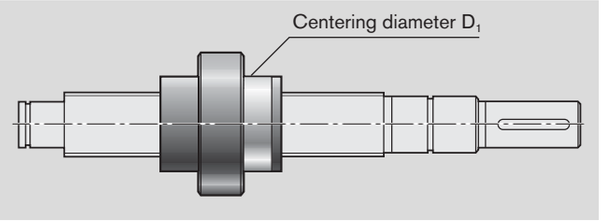
FAR-B-S
For driven nuts, please refer to
catalog R310EN 3304

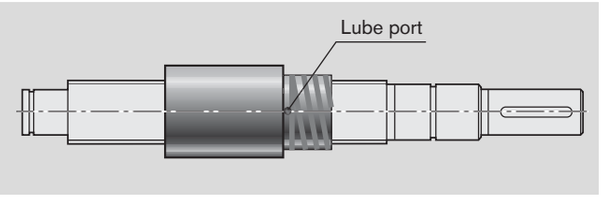


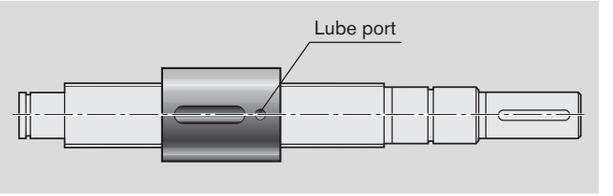
## Mounting direction of nut types

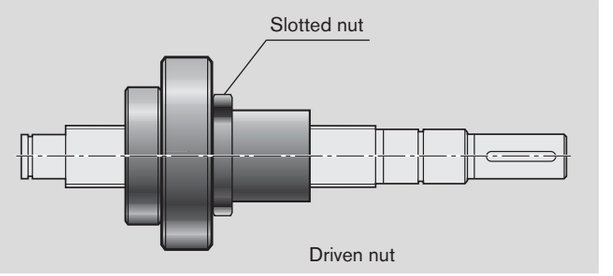
Definition: The centering diameter on a nut with flange, the slotted nut on a driven nut and the lube bore on a cylindrical nut points to the right end of the screw.



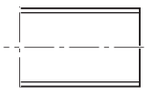
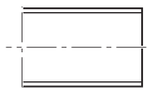
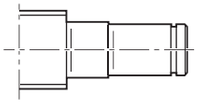
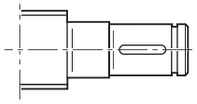
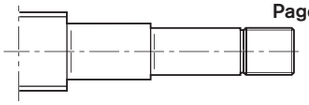
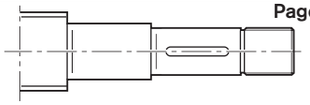
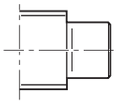
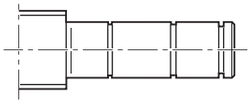
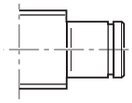
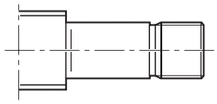
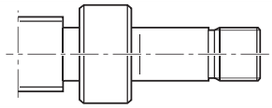
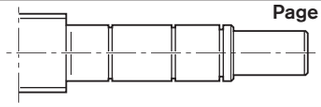
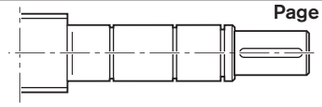
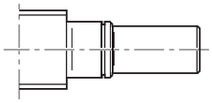
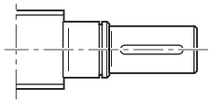
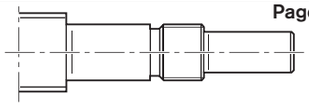
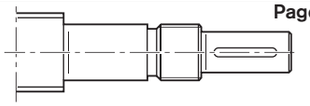
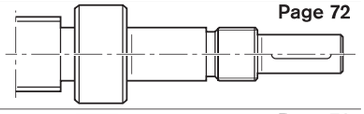
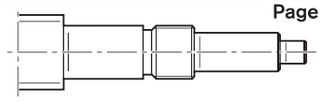
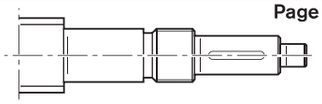
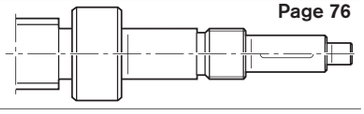



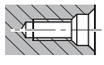
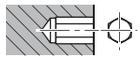



## Screw ends, forms for a left or right screw end

| Basic version | With keyway | Cut to size only “T” |
|---|---|---|
| 00 Page 52  | | 00  |
| 01 Page 54  | 02 Page 54  | |
| 11 Page 56  | 12 Page 56  | |
| 21 Page 58  | | |
| 31 Page 60  | | |
| 41 Page 62  | | |
| | | **End friction-welded with/without keyway** |
| 51 Page 64  | | 53 Page 64  |
| 61 Page 66  | 62 Page 66  | |
| 71 Page 68  | 72 Page 68  | |
| 81 Page 70  | 82 Page 70  | 83 84 Page 72  |
| 91 Page 74  | 92 Page 74  | 93 94 Page 76  |

**Machining of end face**

| Z Centering hole DIN 332-D | S Hex socket |
|---|---|
|  |  |

Inquiries and Orders

# Ordering Code

## Complete ball screw assembly with screw and nut

| Precision Ball Screw Assembly | SEM-E-S | 20 x 5R x 3-4 | 1 | 2 | T7 | R | 81Z120 | 41Z120 | 1250 | 1 | 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|

**Nut type**

- FEM-E-B Single nut with flange Miniature series
- ZEV-E-S Screw-in nut ECO series
- FBZ-E-S Single nut with flange ECO series
- FSZ-E-S Single nut with flange ECOplus series
- FEP-E-S Single nut with flange Speed series
- FEM-E-C Single nut with flange to DIN 69 051, Part 5
- FEM-E-S Single nut with flange, Rexroth mounting dimensions
- SEM-E-C Adjustable-preload single nut to DIN 69 051, Part 5
- SEM-E-S Adjustable-preload single nut, Rexroth mounting dim.
- ZEM-E-S Cylindrical single nut, Rexroth mounting dimensions
- FDM-E-C Double nut with flange to DIN 69 051, Part 5
- FDM-E-S Double nut with flange, Rexroth mounting dimensions

**Size**

- Nominal diameter (mm)
- Lead (mm)
- Direction of lead **R** … right, **L** … left
- Ball diameter (mm)
- Number of ball track turns in the nut

**Seal**

- **0** … none
- **1** … standard seal
- **2**[1] … reinforced seal
- **X** … not possible

**Preload**

- **0** … standard backlash
- **1** … reduced backlash
- **2**[2] … 5% (single nut)
- **3** … 2% (single nut) standard
- **4** … 10% (double nut)
- **5** … 7% (double nut)
- **6** … 3% (single nut)

**Precision**

**T5, T7, T9** (T3 available upon request)

**Screw**

**R** … precision-rolled screw

**Left screw end**

- Form
- Option
  - **Z** … centering to DIN 332-D
  - **S** … hex socket
  - **K** … none
- Version

**Right screw end**

see left screw end

**Overall length $L_{ov}$ (mm)**

**Documentation**

- **0** … standard (acceptance test report) – is always supplied
- **1** … lead test report
- **2** … torque test report
- **3** … lead and torque test report

**Lubrication**

- **0** … preserved
- **1** … preserved and nut with basic greasing

1) only for $d_0$ 25 to 40 of the precision-rolled version; note higher frictional torque!

2) only for $d_0$ 16 to 80

**Order form:** see Page 125.

**Note:** It is also possible to process inquiries based on a customer's drawings.

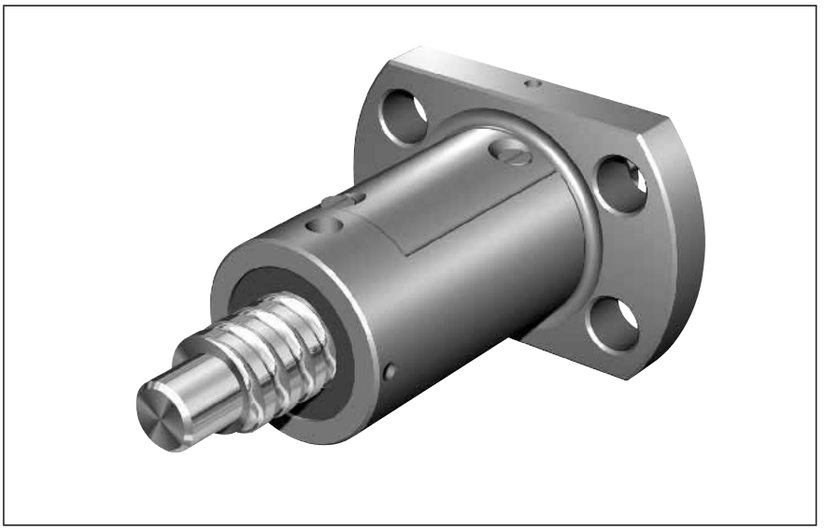
Nuts

# Miniature Single Nut with Flange FEM-E-B

## Miniature series

**Rexroth mounting dimensions**
**Flange type B**

With seals
With backlash or reduced backlash
For precision-rolled screws SN-R
of tolerance grade T5, T7



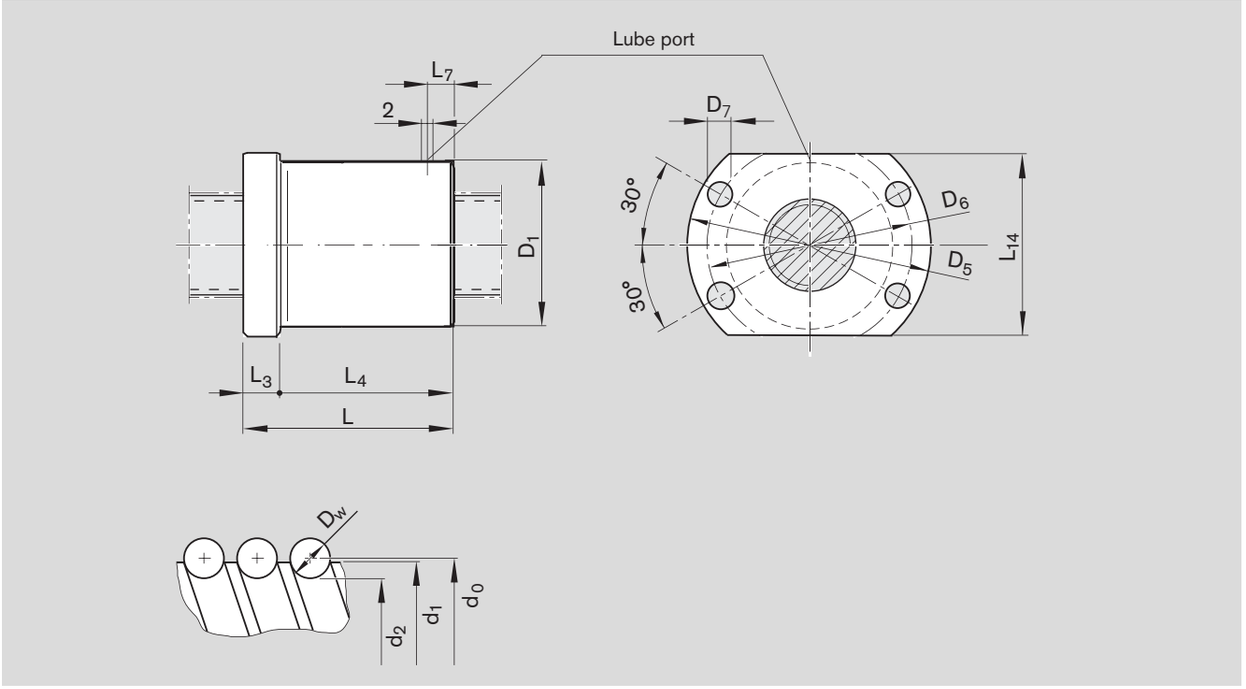
Ordering code:

| FEM-E-B | 6 x 2R x 0.8-4 | 1 | 1 | T7 | R | 83K060 | 41K050 | 250 | 0 | 1 |
|---|---|---|---|---|---|---|---|---|---|---|

$d_0$ = nominal diameter
**P** = lead
(R = right-hand, L = left-hand)
$D_W$ = ball diameter
**i** = number of ball track turns

| Category | Size $d_0$ x P x $D_W$ - i | Part number | Load ratings dyn. C (N) | Load ratings stat. $C_0$ (N) | Speed[1] $v_{max}$ (m/min) |
|---|---|---|---|---|---|
| A | 6 x 1R x 0.8 - 4 | R1532 100 06 | 900 | 1290 | 3 |
| A | 6 x 2R x 0.8 - 4 | R1532 120 06 | 890 | 1280 | 6 |
| A | 8 x 1R x 0.8 - 4 | R1532 200 06 | 1020 | 1740 | 3 |
| A | 8 x 2R x 1.2 - 4 | R1532 220 06 | 1870 | 2760 | 6 |
| A | 8 x 2.5R x 1.588 - 3 | R1532 230 06 | 2200 | 2800 | 15 |
| A | 12 x 2R x 1.2 - 4 | R1532 420 06 | 2240 | 4160 | 12 |
| A | 12 x 5R x 2 - 3 | R1532 460 06 | 3800 | 5800 | 30 |
| A | 12 x 10R x 2 - 2 | R1532 490 06 | 2500 | 3600 | 60 |

1) See Page 97 Characteristic speed $d_0 \cdot n$ and Page 118 Critical speed $n_k$




| Size | Dimensions (mm) | | | | | | | | | | | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $d_0$ x P x $D_W$ - i | $d_1$ | $d_2$ | $D_1$ g6 | $D_5$ | $D_6$ | $D_7$ | L | $L_3$ | $L_4$ | $L_7$ | $L_{14}$ | m (kg) |
| **6 x 1R x 0.8 - 4** | 6.0 | 5.3 | 12 | 24 | 18 | 3.4 | 19.5 | 3.5 | 16 | 3.5 | 16 | 0.020 |
| **6 x 2R x 0.8 - 4** | 6.0 | 5.3 | 12 | 24 | 18 | 3.4 | 22.5 | 3.5 | 19 | 3.0 | 16 | 0.020 |
| **8 x 1R x 0.8 - 4** | 8.0 | 7.3 | 16 | 28 | 22 | 3.4 | 22.0 | 6.0 | 16 | 3.5 | 19 | 0.035 |
| **8 x 2R x 1.2 - 4** | 8.0 | 7.0 | 16 | 28 | 22 | 3.4 | 25.0 | 6.0 | 19 | 3.0 | 19 | 0.050 |
| **8 x 2.5R x 1.588 - 3** | 7.5 | 6.3 | 16 | 28 | 22 | 3.4 | 16.0 | 6.0 | 10 | 3.0 | 19 | 0.030 |
| **12 x 2R x 1.2 - 4** | 11.7 | 10.8 | 20 | 37 | 29 | 4.5 | 19.0 | 8.0 | 11 | 2.5 | 24 | 0.055 |
| **12 x 5R x 2 - 3** | 11.4 | 9.9 | 22 | 37 | 29 | 4.5 | 28.0 | 8.0 | 20 | 6.0 | 24 | 0.075 |
| **12 x 10R x 2 - 2** | 11.4 | 9.9 | 22 | 37 | 29 | 4.5 | 33.0 | 8.0 | 25 | 8.0 | 24 | 0.085 |

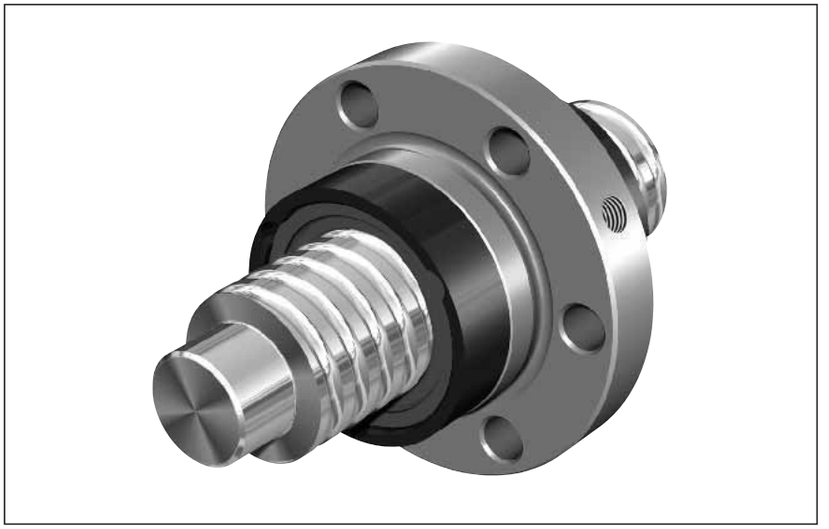
Nuts

# Single Nut with Flange and Recirculation Caps FSZ-E-S

## ECOplus series

**Rexroth mounting dimensions**

ECOplus load ratings in accordance with Standard series (see Page 36)
With seals
With backlash, reduced backlash, preload 2%; 3%; 5%
For precision-rolled screws SN-R of tolerance grade T5, T7, T9



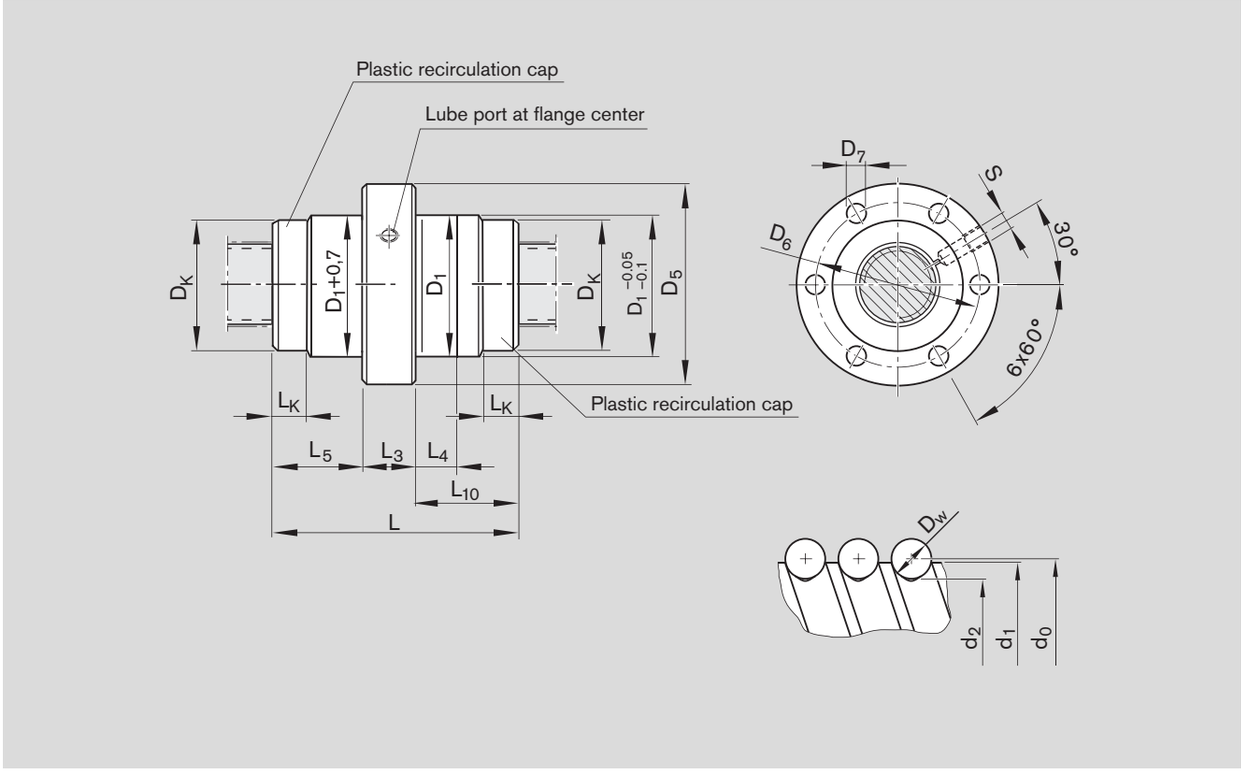
$d_0$ = nominal diameter
**P** = lead
(R = right-hand, L = left-hand)
$D_W$ = ball diameter
**i** = number of ball track turns

Ordering code:

| FSZ-E-S | 20 x 5R x 3-4 | 1 | 0 | T7 | R | 81K120 | 41K120 | 550 | 0 | 1 |
|---|---|---|---|---|---|---|---|---|---|---|

| Category | Size $d_0$ x P x $D_W$ - i | Part number | Load ratings dyn. C (N) | Load ratings stat. $C_0$ (N) | Speed[1] $v_{max}$ (m/min) |
|---|---|---|---|---|---|
| A | 20 x 5R x 3 - 4 | R1502 110 41 | 14300 | 21500 | 30 |
| A | 25 x 5R x 3 - 4 | R1502 210 41 | 15900 | 27200 | 30 |
| A | 25 x 10R x 3 - 4 | R1502 240 41 | 15700 | 27000 | 60 |
| A | 32 x 5R x 3.5 - 4 | R1502 310 41 | 21600 | 40000 | 23 |
| A | 32 x 10R x 3.969 - 5 | R1502 340 41 | 31700 | 58300 | 47 |
| A | 32 x 20R x 3.969 - 2 | R1502 370 41 | 13500 | 21800 | 94 |
| A | 40 x 5R x 3.5 - 5 | R1502 410 41 | 29100 | 64100 | 19 |
| A | 40 x 10R x 6 - 4 | R1502 440 41 | 50000 | 86400 | 38 |
| A | 40 x 20R x 6 - 3 | R1502 470 41 | 37900 | 62800 | 75 |

1) See Page 97 Characteristic speed $d_0 \cdot n$ and Page 118 Critical speed $n_k$




| Size | Dimensions (mm) | | | | | | | | | | | | | | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $d_0$ x P x $D_w$ - i | $d_1$ | $d_2$ | $D_1$ g6 | $D_5$ | $D_6$ | $D_7$ | $D_K$ | L ±0.5 | $L_3$ | $L_4$ | $L_5$ | $L_{10}$ | $L_K$ | S | m (kg) |
| 20 x 5R x 3 - 4 | 19 | 16.9 | 33 | 58 | 45 | 6.6 | 32.5 | 40 | 10 | 6 | 15.0 | 15.0 | 8.5 | M6 | 0.22 |
| 25 x 5R x 3 - 4 | 24 | 21.9 | 38 | 63 | 50 | 6.6 | 37.5 | 43 | 10 | 6 | 16.5 | 16.5 | 10.0 | M6 | 0.25 |
| 25 x 10R x 3 - 4 | 24 | 21.9 | 38 | 63 | 50 | 6.6 | 37.5 | 62 | 10 | 16 | 16.0 | 36.0 | 10.0 | M6 | 0.34 |
| 32 x 5R x 3.5 - 4 | 31 | 28.4 | 48 | 73 | 60 | 6.6 | 47.5 | 46 | 12 | 6 | 17.0 | 17.0 | 11.0 | M6 | 0.41 |
| 32 x 10R x 3.969 - 5 | 31 | 27.9 | 48 | 73 | 60 | 6.6 | 47.5 | 77 | 12 | 16 | 20.0 | 45.0 | 11.0 | M6 | 0.63 |
| 32 x 20R x 3.969 - 2 | 31 | 27.9 | 56 | 80 | 68 | 6.6 | 47.5 | 65 | 12 | 10 | 19.0 | 34.0 | 11.0 | M6 | 0.69 |
| 40 x 5R x 3.5 - 5 | 39 | 36.4 | 56 | 80 | 68 | 6.6 | 55.5 | 52 | 14 | 8 | 18.5 | 19.5 | 11.5 | M8x1 | 0.54 |
| 40 x 10R x 6 - 4 | 38 | 33.8 | 63 | 95 | 78 | 9.0 | 62.5 | 71 | 14 | 16 | 22.0 | 35.0 | 12.5 | M8x1 | 1.06 |
| 40 x 20R x 6 - 3 | 38 | 33.8 | 63 | 95 | 78 | 9.0 | 62.5 | 89 | 14 | 25 | 22.0 | 53.0 | 12.5 | M8x1 | 1.30 |

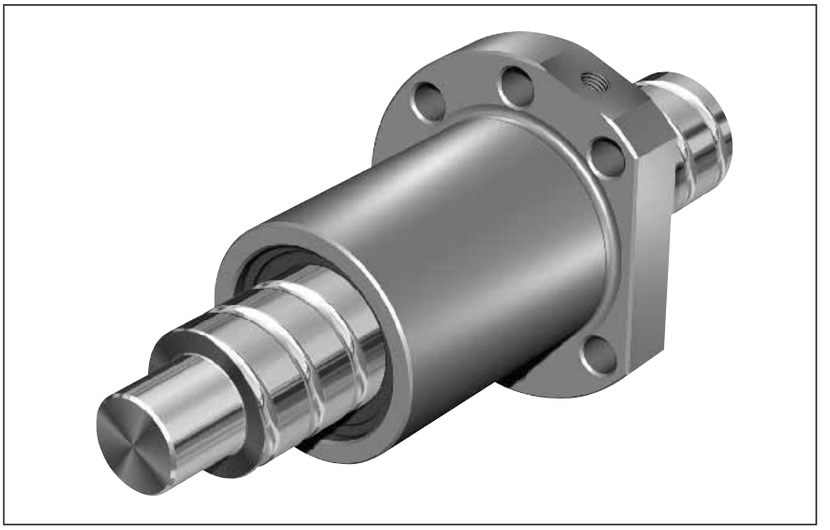
Nuts

# Single Nut with Flange FEM-E-C

## Standard series

**Mounting dimensions to DIN 69 051, Part 5**
**Flange type C**

With standard seals
Reinforced seals, see Page 108
With backlash, reduced backlash, preload 2%; 3%; 5%
For precision-rolled screws SN-R of tolerance grade T5, T7, T9

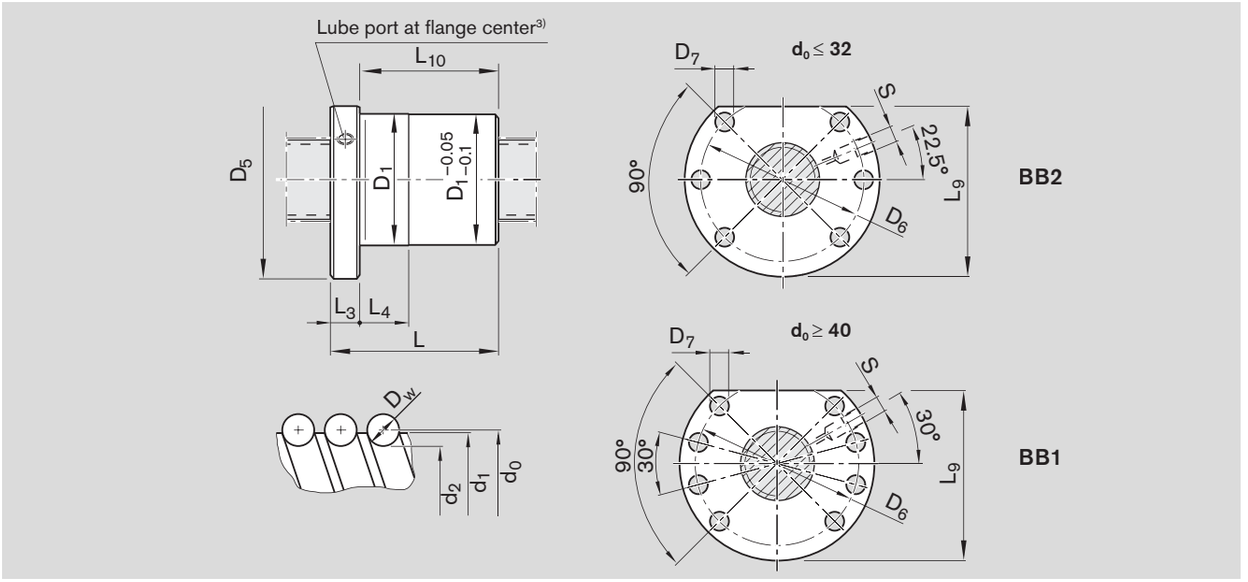


Ordering code: FEM-E-C | 20 x 5R x 3-4 | 1 | 2 | T7 | R | 82Z120 | 41Z120 | 1250 | 0 | 1

$d_0$ = nominal diameter
P = lead (R = right-hand, L = left-hand)
$D_W$ = ball diameter
i = number of ball track turns

| Category | Size $d_0$ x P x $D_W$ - i | Part number | Load ratings dyn. C (N) | Load ratings stat. $C_0$ (N) | Speed[1] $v_{max}$ (m/min) |
|---|---|---|---|---|---|
| A | 16 x 5R x 3 - 4 | R1502 010 65 | 12300 | 16100 | 30 |
| A | 16 x 10R x 3 - 3 | R1502 040 85 | 9600 | 12300 | 60 |
| A | 16 x 16R x 3 - 3 | R1502 060 65 | 9300 | 12000 | 96 |
| A | 20 x 5R x 3 - 4 | R1502 110 85 | 14300 | 21500 | 30 |
| A | 20 x 20R x 3.5 - 3 | R1502 170 65 | 13300 | 18800 | 120 |
| A | 25 x 5R x 3 - 4 | R1502 210 85 | 15900 | 27200 | 30 |
| A | 25 x 10R x 3 - 4 | R1502 240 85 | 15700 | 27000 | 60 |
| A | 25 x 25R x 3.5 - 3 | R1502 280 65 | 14700 | 23300 | 150 |
| A | 32 x 5R x 3.5 - 4 | R1502 310 85 | 21600 | 40000 | 23 |
| A | 32 x 10R x 3.969 - 5 | R1502 340 86 | 31700 | 58300 | 47 |
| A | 32 x 20R x 3.969 - 3 | R1502 370 65 | 19700 | 33700 | 94 |
| A | 32 x 32R x 3.969 - 3 | R1502 390 65 | 19500 | 34000 | 150 |
| B | 40 x 5R x 3.5 - 5 | R1502 410 86 | 29100 | 64100 | 19 |
| A | 40 x 10R x 6 - 4 | R1502 440 85 | 50000 | 86400 | 38 |
| C | 40 x 12R x 6 - 4 | R1502 450 65 | 49900 | 86200 | 45 |
| A | 40 x 16R x 6 - 4 | R1502 460 65 | 49700 | 85900 | 60 |
| A | 40 x 20R x 6 - 3 | R1502 470 85 | 37900 | 62800 | 75 |
| A | 40 x 40R x 6 - 3 | R1502 490 65 | 37000 | 62300 | 150 |
| B | 50 x 5R x 3.5 - 5 | R1502 510 86 | 32000 | 81300 | 15 |
| A | 50 x 10R x 6 - 6 | R1502 540 86 | 79700 | 166500 | 30 |
| C | 50 x 12R x 6 - 6 | R1502 550 66 | 79600 | 166400 | 36 |
| B | 50 x 16R x 6 - 6 | R1502 560 66 | 79400 | 166000 | 48 |
| A | 50 x 20R x 6.5 - 5 | R1502 570 86 | 75700 | 149700 | 60 |
| B | 50 x 40R x 6.5 - 3 | R1502 590 65 | 46500 | 85900 | 120 |
| B | 63 x 10R x 6 - 6 | R1502 640 86 | 88800 | 214300 | 24 |
| B | 63 x 20R x 6.5 - 5 | R1502 670 86 | 83900 | 190300 | 48 |
| C | 63 x 40R x 6.5 - 3 | R1502 690 65 | 53400 | 114100 | 95 |
| C | 80 x 10R x 6.5 - 6 | R1502 740 86 | 108400 | 291700 | 19 |
| B | 80 x 20R x 12.7 - 6[2] | R1502 770 96 | 262700 | 534200 | 30 |

1) See Page 97 Characteristic speed $d_0 \cdot n$ and Page 118 Critical speed $n_k$
2) Nuts 80 x 20R x 12.7 - 6 available up to a screw length of 2500 mm, with preload




| Size | Dimensions (mm) | | | | | | | | | | | | | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $d_0$ x P x $D_w$ - i | $d_1$ | $d_2$ | $D_1$ g6 | $D_5$ | Hole pattern | $D_6$ | $D_7$ | L | $L_3$ | $L_4$ | $L_9$ | $L_{10}$ | S[3] | m (kg) |
| 16 x 5R x 3 - 4 | 15.0 | 12.9 | 28 | 48 | BB2 | 38 | 5.5 | 38 | 12 | 10 | 44.0 | 26 | M6 | 0.19 |
| 16 x 10R x 3 - 3 | 15.0 | 12.9 | 28 | 48 | BB2 | 38 | 5.5 | 45 | 12 | 16 | 44.0 | 33 | M6 | 0.21 |
| 16 x 16R x 3 - 3 | 15.0 | 12.9 | 28 | 48 | BB2 | 38 | 5.5 | 61 | 12 | 20 | 44.0 | 49 | M6 | 0.26 |
| 20 x 5R x 3 - 4 | 19.0 | 16.9 | 36 | 58 | BB2 | 47 | 6.6 | 40 | 12 | 10 | 51.0 | 28 | M6 | 0.31 |
| 20 x 20R x 3.5 - 3 | 19.3 | 16.7 | 36 | 58 | BB2 | 47 | 6.6 | 77 | 12 | 25 | 51.0 | 65 | M6 | 0.49 |
| 25 x 5R x 3 - 4 | 24.0 | 21.9 | 40 | 62 | BB2 | 51 | 6.6 | 45 | 12 | 10 | 55.0 | 33 | M6 | 0.36 |
| 25 x 10R x 3 - 4 | 24.0 | 21.9 | 40 | 62 | BB2 | 51 | 6.6 | 64 | 12 | 16 | 55.0 | 52 | M6 | 0.47 |
| 25 x 25R x 3.5 - 3 | 24.0 | 21.4 | 40 | 62 | BB2 | 51 | 6.6 | 95 | 12 | 30 | 55.0 | 83 | M6 | 0.63 |
| 32 x 5R x 3.5 - 4 | 31.0 | 28.4 | 50 | 80 | BB2 | 65 | 9.0 | 48 | 13 | 10 | 71.0 | 35 | M6 | 0.62 |
| 32 x 10R x 3.969 - 5 | 31.0 | 27.9 | 50 | 80 | BB2 | 65 | 9.0 | 77 | 13 | 16 | 71.0 | 64 | M6 | 0.84 |
| 32 x 20R x 3.969 - 3 | 31.0 | 27.9 | 50 | 80 | BB2 | 65 | 9.0 | 84 | 13 | 25 | 71.0 | 71 | M6 | 0.90 |
| 32 x 32R x 3.969 - 3 | 31.0 | 27.9 | 50 | 80 | BB2 | 65 | 9.0 | 120 | 13 | 40 | 71.0 | 107 | M6 | 1.21 |
| 40 x 5R x 3.5 - 5 | 39.0 | 36.4 | 63 | 93 | BB1 | 78 | 9.0 | 54 | 15 | 10 | 81.5 | 39 | M8x1 | 1.03 |
| 40 x 10R x 6 - 4 | 38.0 | 33.8 | 63 | 93 | BB1 | 78 | 9.0 | 70 | 15 | 16 | 81.5 | 55 | M8x1 | 1.19 |
| 40 x 12R x 6 - 4 | 38.0 | 33.8 | 63 | 93 | BB1 | 78 | 9.0 | 75 | 15 | 25 | 81.5 | 60 | M8x1 | 1.27 |
| 40 x 16R x 6 - 4 | 38.0 | 33.8 | 63 | 93 | BB1 | 78 | 9.0 | 90 | 15 | 25 | 81.5 | 75 | M8x1 | 1.51 |
| 40 x 20R x 6 - 3 | 38.0 | 33.8 | 63 | 93 | BB1 | 78 | 9.0 | 88 | 15 | 25 | 81.5 | 73 | M8x1 | 1.44 |
| 40 x 40R x 6 - 3 | 38.0 | 33.8 | 63 | 93 | BB1 | 78 | 9.0 | 142 | 15 | 45 | 81.5 | 127 | M8x1 | 2.16 |
| 50 x 5R x 3.5 - 5 | 49.0 | 46.4 | 75 | 110 | BB1 | 93 | 11.0 | 54 | 15 | 10 | 97.5 | 39 | M8x1 | 1.39 |
| 50 x 10R x 6 - 6 | 48.0 | 43.8 | 75 | 110 | BB1 | 93 | 11.0 | 90 | 18 | 16 | 97.5 | 72 | M8x1 | 2.14 |
| 50 x 12R x 6 - 6 | 48.0 | 43.8 | 75 | 110 | BB1 | 93 | 11.0 | 105 | 18 | 25 | 97.5 | 87 | M8x1 | 2.38 |
| 50 x 16R x 6 - 6 | 48.0 | 43.8 | 75 | 110 | BB1 | 93 | 11.0 | 128 | 18 | 25 | 97.5 | 110 | M8x1 | 2.75 |
| 50 x 20R x 6.5 - 5 | 48.0 | 43.4 | 75 | 110 | BB1 | 93 | 11.0 | 132 | 18 | 25 | 97.5 | 114 | M8x1 | 2.73 |
| 50 x 40R x 6.5 - 3 | 48.0 | 43.4 | 75 | 110 | BB1 | 93 | 11.0 | 149 | 18 | 45 | 97.5 | 131 | M8x1 | 3.04 |
| 63 x 10R x 6 - 6 | 61.0 | 56.8 | 90 | 125 | BB1 | 108 | 11.0 | 90 | 22 | 16 | 110.0 | 68 | M8x1 | 2.56 |
| 63 x 20R x 6.5 - 5 | 61.0 | 56.4 | 95 | 135 | BB1 | 115 | 13.5 | 132 | 22 | 25 | 117.5 | 110 | M8x1 | 4.51 |
| 63 x 40R x 6.5 - 3 | 61.0 | 56.4 | 95 | 135 | BB1 | 115 | 13.5 | 149 | 22 | 45 | 117.5 | 127 | M8x1 | 5.04 |
| 80 x 10R x 6.5 - 6 | 78.0 | 73.3 | 105 | 145 | BB1 | 125 | 13.5 | 95 | 22 | 16 | 127.5 | 73 | M8x1 | 3.40 |
| 80 x 20R x 12.7 - 6 | 76.0 | 67.0 | 125 | 165 | BB1 | 145 | 13.5 | 170 | 25 | 25 | 147.5 | 145 | M8x1 | 10.20 |

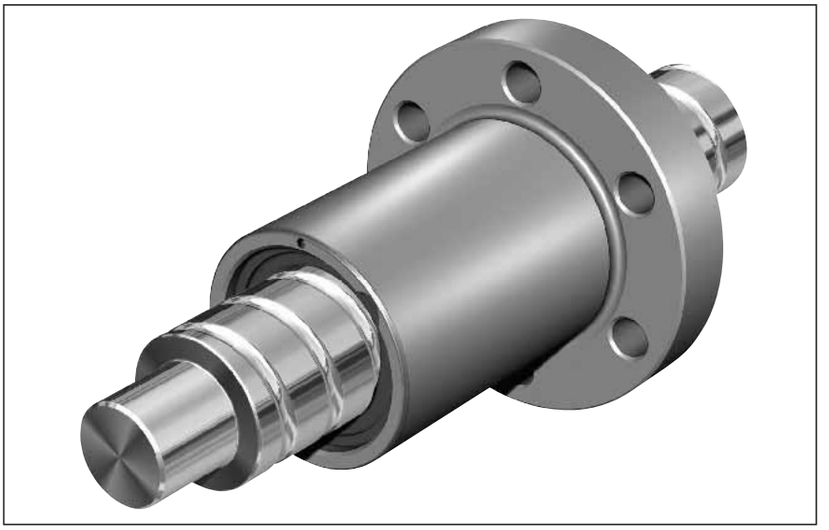
3) Lube port machining: flat surface $L_3 \leq 13$ mm, countersink $L_3 > 14$ mm

Nuts

# Single Nut with Flange FEM-E-S

## Standard series
**Rexroth mounting dimensions**

With standard seals
Reinforced seals, see Page 108
With backlash, reduced backlash, preload 2%; 3%; 5%
For precision-rolled screws SN-R of tolerance grade T5, T7, T9

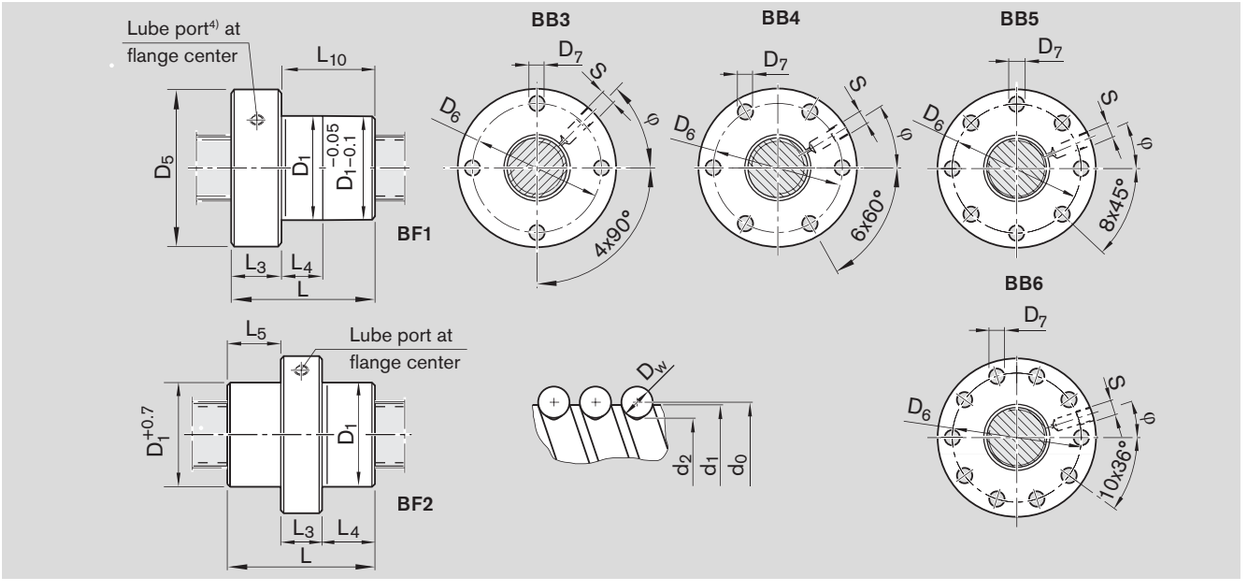


Ordering code: FEM-E-S | 20 x 5R x 3-4 | 1 | 2 | T7 | R | 82Z120 | 41Z120 | 1250 | 0 | 1

$d_0$ = nominal diameter
**P** = lead
(R = right-hand, L = left-hand)
$D_W$ = ball diameter
**i** = number of ball track turns

| Category | Size $d_0$ x P x $D_W$ - i | Part number | Load ratings dyn. C (N) | Load ratings stat. $C_0$ (N) | Speed[1] $v_{max}$ (m/min) |
|---|---|---|---|---|---|
| A | 8 x 2.5R x 1.588 - 3 | R1532 230 03 | 2200 | 2800 | 15 |
| A | 12 x 5R x 2 - 3 | R1532 460 23 | 3800 | 5800 | 30 |
| B | 12 x 10R x 2 - 2 | R1532 490 13 | 2500 | 3600 | 60 |
| A | 16 x 5R x 3 - 4 | R1512 010 23 | 12300 | 16100 | 30 |
| A | 16 x 10R x 3 - 3 | R1512 040 13 | 9600 | 12300 | 60 |
| B | 16 x 16R x 3 - 2 | R1512 060 13 | 6300 | 7600 | 96 |
| A[2] | 20 x 5R x 3 - 4 | R1512 110 13 | 14300 | 21500 | 30 |
| A | 20 x 20R x 3.5 - 2 | R1512 170 13 | 9100 | 12100 | 120 |
| A[2] | 25 x 5R x 3 - 4 | R1512 210 13 | 15900 | 27200 | 30 |
| A[2] | 25 x 10R x 3 - 4 | R1512 240 13 | 15700 | 27000 | 60 |
| A | 25 x 25R x 3.5 - 2 | R1512 280 13 | 10100 | 15100 | 150 |
| A[2] | 32 x 5R x 3.5 - 4 | R1512 310 13 | 21600 | 40000 | 23 |
| A[2] | 32 x 10R x 3.969 - 5 | R1512 340 13 | 31700 | 58300 | 47 |
| A[2] | 32 x 20R x 3.969 - 2 | R1512 370 13 | 13500 | 21800 | 94 |
| A | 32 x 32R x 3.969 - 2 | R1512 390 13 | 13400 | 22000 | 150 |
| A | 40 x 5R x 3.5 - 5 | R1512 410 13 | 29100 | 64100 | 19 |
| A[2] | 40 x 10R x 6 - 4 | R1512 440 13 | 50000 | 86400 | 38 |
| A[2] | 40 x 20R x 6 - 3 | R1512 470 13 | 37900 | 62800 | 75 |
| A | 40 x 40R x 6 - 2 | R1512 490 13 | 25500 | 40300 | 150 |
| B | 50 x 5R x 3.5 - 5 | R1512 510 13 | 32000 | 81300 | 15 |
| A | 50 x 10R x 6 - 6 | R1512 540 13 | 79700 | 166500 | 30 |
| C | 50 x 16R x 6 - 6 | R1512 560 13 | 79400 | 166000 | 48 |
| B | 50 x 20R x 6.5 - 3 | R1512 570 13 | 47900 | 87900 | 60 |
| B | 50 x 40R x 6.5 - 2 | R1512 590 13 | 32100 | 55800 | 120 |
| A | 63 x 10R x 6 - 6 | R1512 640 13 | 88800 | 214300 | 24 |
| B | 63 x 20R x 6.5 - 3 | R1512 670 13 | 53200 | 112100 | 48 |
| C | 63 x 40R x 6.5 - 2 | R1512 690 13 | 36900 | 74300 | 95 |
| B | 80 x 10R x 6.5 - 6 | R1512 740 13 | 108400 | 291700 | 19 |
| B | 80 x 20R x 12.7 - 6[3] | R1512 770 23 | 262700 | 534200 | 30 |

1) See Page 97 Characteristic speed $d_0 \cdot n$ and Page 118 Critical speed $n_k$
2) Can be replaced in these sizes by FSZ-E-S




| Size | Dimensions (mm) | | | | | | | | | | | | | | | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $d_0$ x P x $D_W$ - i | $d_1$ | $d_2$ | $D_1$ g6 | $D_5$ | Hole pattern | $D_6$ | $D_7$ | Type | L | $L_3$ | $L_4$ | $L_5$ | $L_{10}$ | S[4] | φ (°) | m (kg) |
| 8 x 2.5R x 1.588 - 3 | 7.5 | 6.3 | 16 | 30 | BB4 | 23 | 3.4 | BF1 | 16 | 8 | 8.0 | – | 8 | M4 | 30.0 | 0.05 |
| 12 x 5R x 2 - 3 | 11.4 | 9.9 | 24 | 40 | BB4 | 32 | 4.5 | BF1 | 28 | 12 | 10.0 | – | 16 | M6 | 330.0 | 0.12 |
| 12 x 10R x 2 - 2 | 11.4 | 9.9 | 24 | 40 | BB4 | 32 | 4.5 | BF1 | 33 | 12 | 16.0 | – | 21 | M6 | 330.0 | 0.14 |
| 16 x 5R x 3 - 4 | 15.0 | 12.9 | 28 | 53 | BB3 | 40 | 6.6 | BF1 | 38 | 12 | 10.0 | – | 26 | M6 | 315.0 | 0.24 |
| 16 x 10R x 3 - 3 | 15.0 | 12.9 | 28 | 53 | BB3 | 40 | 6.6 | BF1 | 45 | 12 | 16.0 | – | 33 | M6 | 315.0 | 0.25 |
| 16 x 16R x 3 - 2 | 15.0 | 12.9 | 33 | 58 | BB4 | 45 | 6.6 | BF2 | 45 | 15 | 15.0 | 15.0 | – | M6 | 30.0 | 0.39 |
| 20 x 5R x 3 - 4 | 19.0 | 16.9 | 33 | 58 | BB4 | 45 | 6.6 | BF1 | 40 | 12 | 10.0 | – | 28 | M6 | 30.0 | 0.28 |
| 20 x 20R x 3.5 - 2 | 19.3 | 16.7 | 38 | 63 | BB4 | 50 | 6.6 | BF2 | 57 | 20 | 18.5 | 18.5 | – | M6 | 30.0 | 0.60 |
| 25 x 5R x 3 - 4 | 24.0 | 21.9 | 38 | 63 | BB4 | 50 | 6.6 | BF1 | 45 | 12 | 10.0 | – | 33 | M6 | 30.0 | 0.35 |
| 25 x 10R x 3 - 4 | 24.0 | 21.9 | 38 | 63 | BB4 | 50 | 6.6 | BF1 | 64 | 12 | 16.0 | – | 52 | M6 | 30.0 | 0.44 |
| 25 x 25R x 3.5 - 2 | 24.0 | 21.4 | 48 | 73 | BB4 | 60 | 6.6 | BF2 | 70 | 25 | 22.5 | 22.5 | – | M6 | 18.0 | 1.09 |
| 32 x 5R x 3.5 - 4 | 31.0 | 28.4 | 48 | 73 | BB4 | 60 | 6.6 | BF1 | 48 | 13 | 10.0 | – | 35 | M6 | 30.0 | 0.54 |
| 32 x 10R x 3.969 - 5 | 31.0 | 27.9 | 48 | 73 | BB4 | 60 | 6.6 | BF1 | 77 | 13 | 16.0 | – | 64 | M6 | 30.0 | 0.72 |
| 32 x 20R x 3.969 - 2 | 31.0 | 27.9 | 56 | 80 | BB4 | 68 | 6.6 | BF1 | 64 | 15 | 25.0 | – | 49 | M6 | 30.0 | 1.02 |
| 32 x 32R x 3.969 - 2 | 31.0 | 27.9 | 56 | 80 | BB4 | 68 | 6.6 | BF2 | 88 | 20 | 34.0 | 34.0 | – | M6 | 30.0 | 1.40 |
| 40 x 5R x 3.5 - 5 | 39.0 | 36.4 | 56 | 80 | BB4 | 68 | 6.6 | BF1 | 54 | 15 | 10.0 | – | 39 | M8x1 | 30.0 | 0.71 |
| 40 x 10R x 6 - 4 | 38.0 | 33.8 | 63 | 95 | BB4 | 78 | 9.0 | BF1 | 70 | 15 | 16.0 | – | 55 | M8x1 | 30.0 | 1.29 |
| 40 x 20R x 6 - 3 | 38.0 | 33.8 | 63 | 95 | BB4 | 78 | 9.0 | BF1 | 88 | 15 | 25.0 | – | 73 | M8x1 | 30.0 | 1.54 |
| 40 x 40R x 6 - 2 | 38.0 | 33.8 | 72 | 110 | BB4 | 90 | 11.0 | BF2 | 102 | 40 | 31.0 | 31.0 | – | M8x1 | 19.0 | 3.59 |
| 50 x 5R x 3.5 - 5 | 49.0 | 46.4 | 68 | 98 | BB4 | 82 | 9.0 | BF1 | 54 | 15 | 10.0 | – | 39 | M8x1 | 30.0 | 1.02 |
| 50 x 10R x 6 - 6 | 48.0 | 43.8 | 72 | 110 | BB4 | 90 | 11.0 | BF1 | 90 | 18 | 16.0 | – | 72 | M8x1 | 30.0 | 2.02 |
| 50 x 16R x 6 - 6 | 48.0 | 43.8 | 72 | 110 | BB4 | 90 | 11.0 | BF1 | 128 | 18 | 25.0 | – | 110 | M8x1 | 30.0 | 2.58 |
| 50 x 20R x 6.5 - 3 | 48.0 | 43.4 | 85 | 125 | BB4 | 105 | 11.0 | BF1 | 92 | 22 | 25.0 | – | 70 | M8x1 | 30.0 | 3.40 |
| 50 x 40R x 6.5 - 2 | 48.0 | 43.4 | 85 | 125 | BB4 | 105 | 11.0 | BF1 | 109 | 22 | 45.0 | – | 87 | M8x1 | 30.0 | 3.87 |
| 63 x 10R x 6 - 6 | 61.0 | 56.8 | 85 | 125 | BB4 | 105 | 11.0 | BF1 | 90 | 22 | 16.0 | – | 68 | M8x1 | 30.0 | 2.62 |
| 63 x 20R x 6.5 - 3 | 61.0 | 56.4 | 95 | 140 | BB4 | 118 | 14.0 | BF1 | 92 | 22 | 25.0 | – | 70 | M8x1 | 30.0 | 3.71 |
| 63 x 40R x 6.5 - 2 | 61.0 | 56.4 | 95 | 140 | BB4 | 118 | 14.0 | BF1 | 109 | 22 | 45.0 | – | 87 | M8x1 | 30.0 | 4.21 |
| 80 x 10R x 6.5 - 6 | 78.0 | 73.3 | 105 | 150 | BB4 | 125 | 14.0 | BF1 | 95 | 22 | 16.0 | – | 73 | M8x1 | 30.0 | 3.78 |
| 80 x 20R x 12.7 - 6 | 76.0 | 67.0 | 125 | 180 | BB5 | 152 | 18.0 | BF1 | 170 | 25 | 25.0 | – | 145 | M8x1 | 22.5 | 11.00 |

3) Nuts 80 x 20R x 12.7 - 6 available up to a screw length of 2500 mm, with preload

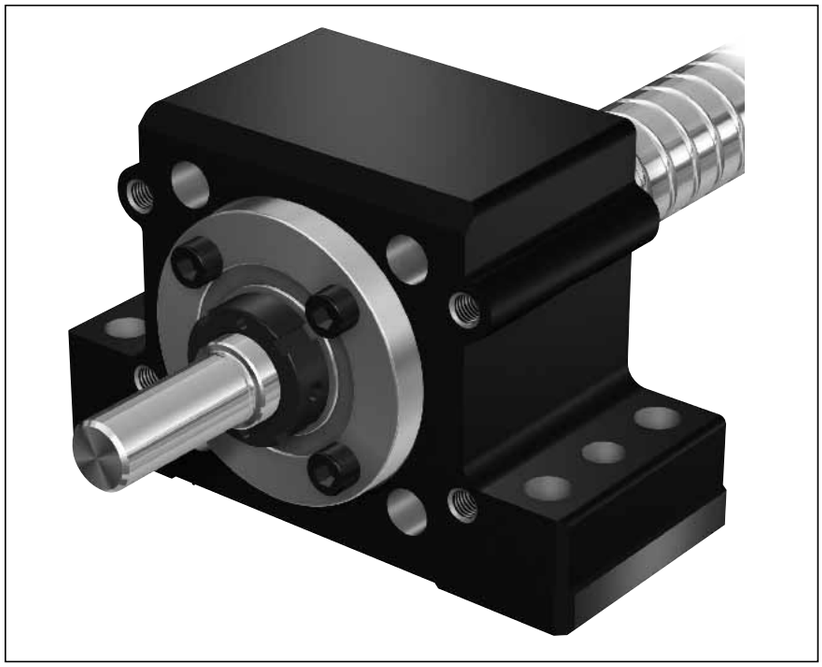
4) Lube port machining: flat surface $L_3 \leq 13$ mm, countersink $L_3 > 14$ mm. For size 8 x 2.5, a funnel-type lube nipple DIN 3405 is provided.

Bearings

# Pillow Block Unit SEC-F

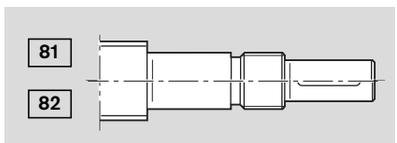
## Fixed bearing with angular-contact thrust ball bearing LGF-B-…

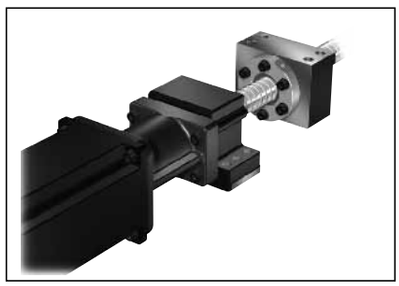
The pillow block unit consists of:
– precision pillow block housing made of aluminum with reference edges on two sides
– angular-contact thrust ball bearing LGF...
– slotted nut NMZ
The nut is supplied unmounted.

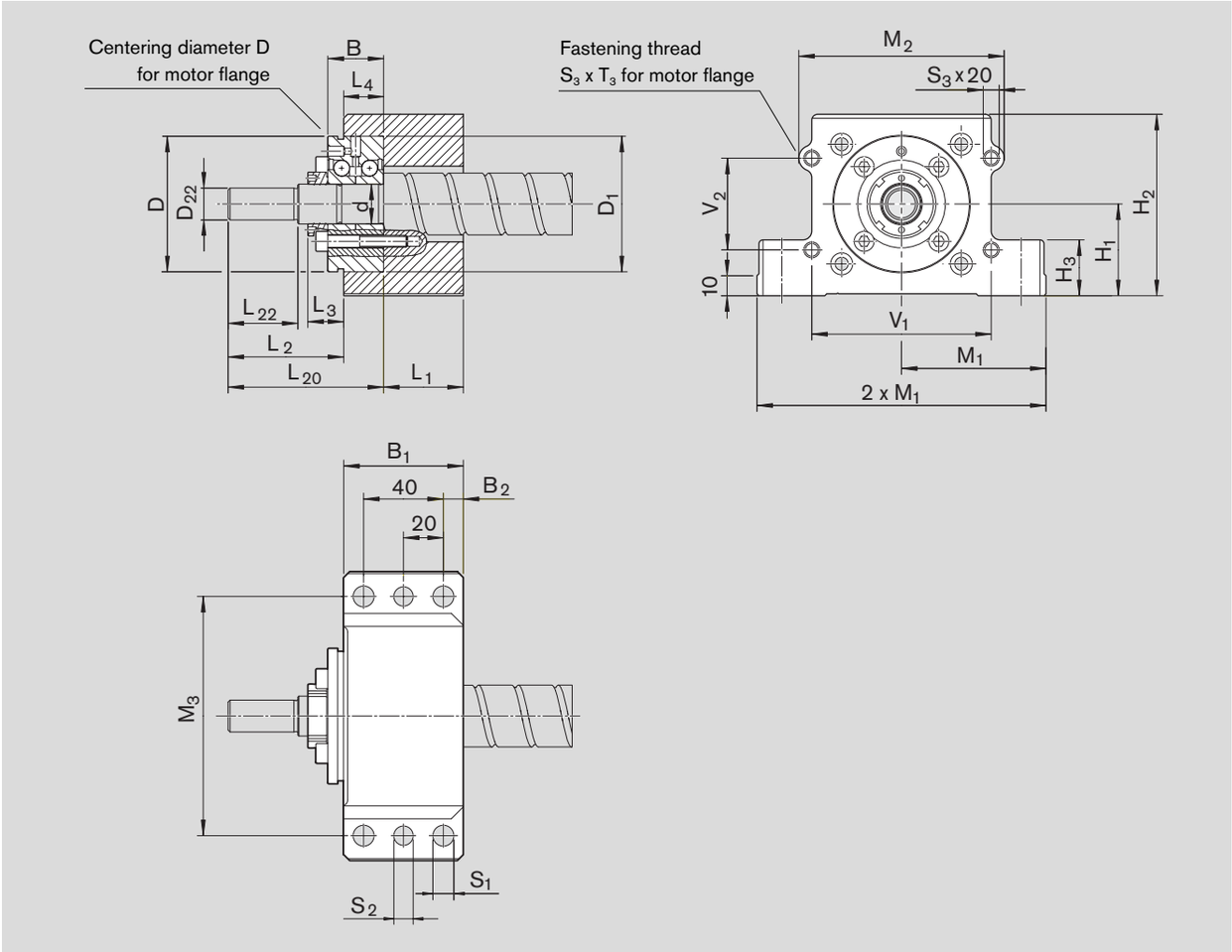


| Size | Pillow block unit complete | Angular-contact thrust ball bearing | | | | | | Slotted nut | | Weight complete |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Load ratings (axial) | | Dimensions (mm) | | | Designation | | Designation | |
| | | dyn. C | stat. $C_0$ | | | | | $M_A$ | | |
| $d_0$ x P | Part number | (N) | (N) | d | D | B | | (Nm) | | (kg) |
| 20x5/20/40 | R1594 012 00 | 17000 | 24700 | 12 | 55 | 25 | LGF-B-1255 | 8.0 | NMZ 12x1 | 1.49 |
| 32x5/10/20/32 | R1594 020 00 | 26000 | 47000 | 20 | 68 | 28 | LGF-B-2068 | 18.0 | NMZ 20x1 | 1.88 |
| 40x5/10/12/16/20/40 | R1594 030 00 | 29000 | 64000 | 30 | 80 | 28 | LGF-B-3080 | 32.0 | NMZ 30x1.5 | 2.75 |

**Screw end form 81–82 suitable for motor mounting, see Chapter Screw Ends.**






| Size | Dimensions (mm) | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $d_0$ x P | $B_1$ | $B_2$ | $L_1$ | $L_2$ | $L_3$ | $L_4$ | $L_{20}$ | $L_{22}$ | $D_1$ | $D_{22}$ | $M_1$ ±0.015 | $M_2$ | $M_3$ | $H_1$ ±0.015 | $H_2$ | $H_3$ | $S_1$ | $S_2$ | $S_3$ | $V_1$ | $V_2$ |
| **20x5/20/40** | 60 | 10.0 | 42 | 42 | 15 | 18 | 60 | 25 | 55 | 10 | 72.5 | 80 | 120 | 41 | 81 | 28 | 10.5 | 9.7 | M8 | 66 | 50 |
| **32x5/10/20/32** | 60 | 10.0 | 40 | 58 | 18 | 20 | 78 | 35 | 68 | 16 | 72.5 | 103 | 120 | 46 | 91 | 28 | 10.5 | 9.7 | M8 | 90 | 46 |
| **40x5/10/12/16/20/40** | 65 | 12.5 | 45 | 73 | 20 | 20 | 93 | 50 | 80 | 25 | 90.0 | 116 | 150 | 56 | 111 | 33 | 13.0 | 11.7 | M10 | 100 | 65 |

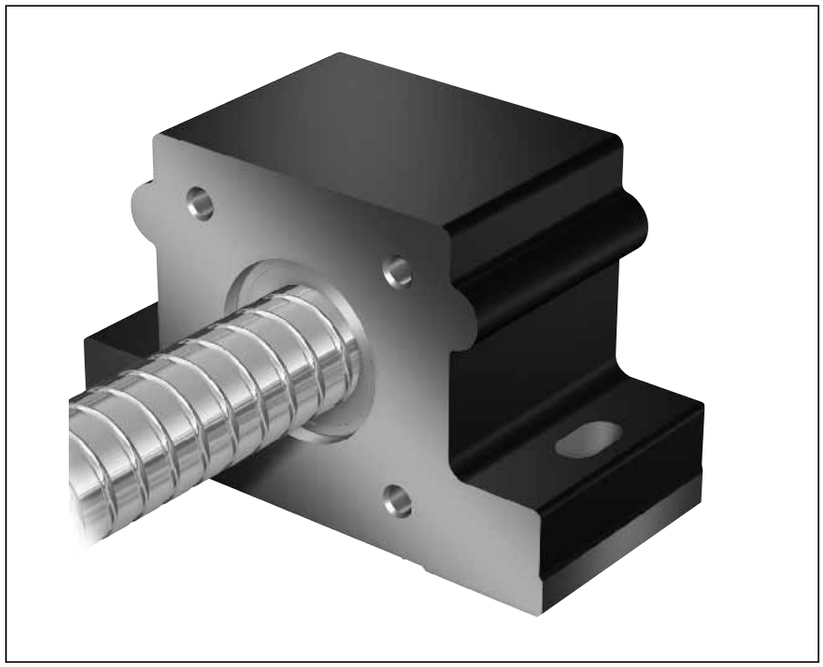
Bearings

# Pillow Block Unit SEC-L

## Floating bearing with deep-groove ball bearing to DIN 625

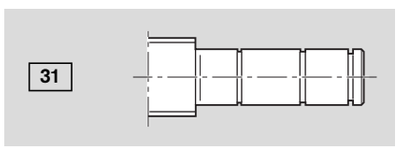
The pillow block unit consists of:
- precision pillow block housing made of aluminum with reference edges on two sides
- deep-groove ball bearing to DIN 625... .2RS
- retaining ring to DIN 471

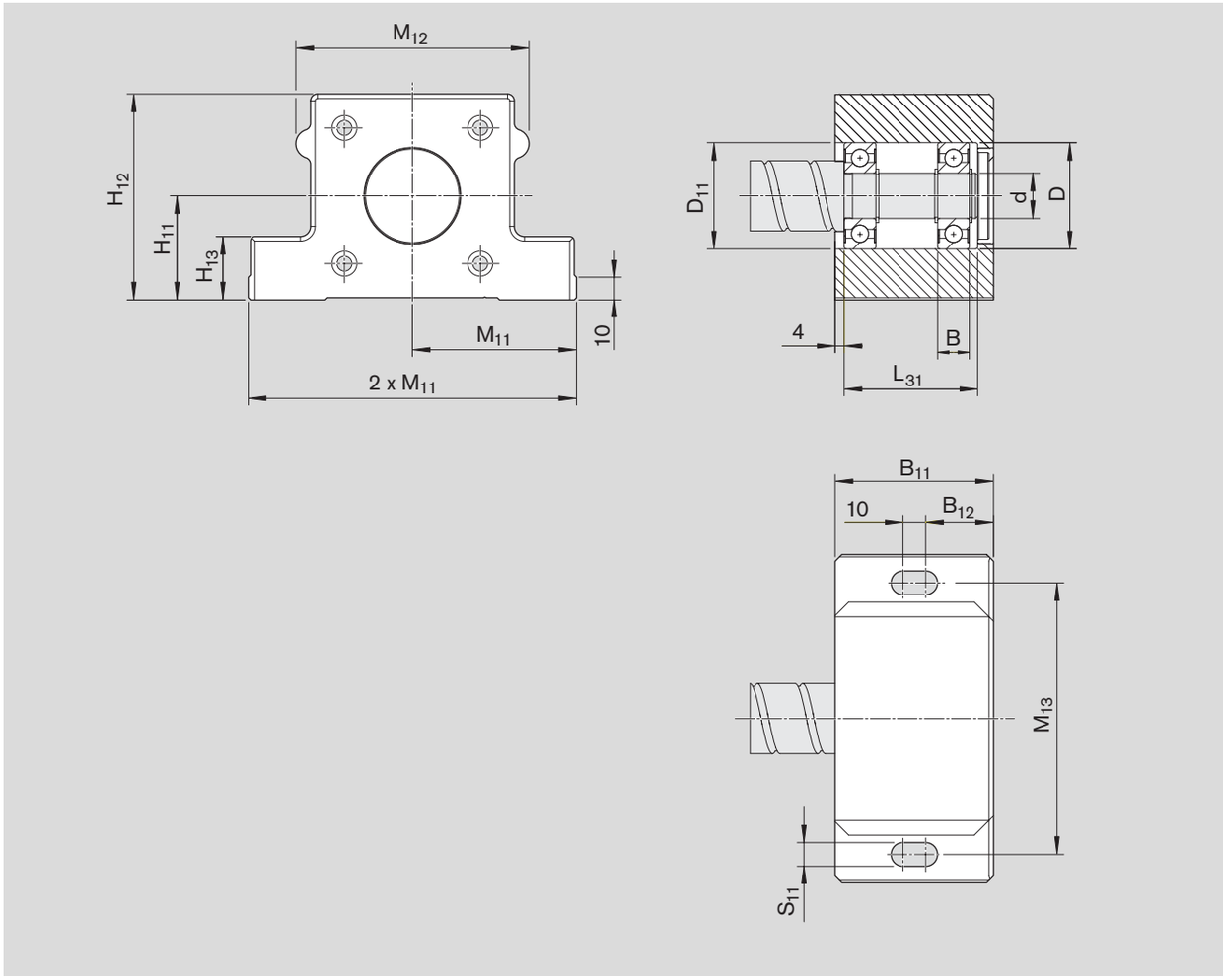
All parts are supplied unmounted.



| Size | Pillow block unit complete | Deep-groove ball bearing to DIN 625 | | | | | | Retaining ring to DIN 471 | Weight complete |
|---|---|---|---|---|---|---|---|---|---|
| | | Load ratings (radial) | | Dimensions (mm) | | | Designation DIN 625... | | |
| | | dyn. C | stat. $C_0$ | | | | | | |
| $d_0$ x P | Part number | (N) | (N) | d | D | B | | | (kg) |
| **20x5/20/40** | R1594 615 00 | 7800 | 3250 | 15 | 35 | 11 | 6202.2RS | 15x1 | 1.24 |
| **32x5/10/20/32** | R1594 620 00 | 12700 | 5700 | 20 | 47 | 14 | 6204.2RS | 20x1.2 | 1.66 |
| **40x5/10/12/16/20/40** | R1594 630 00 | 19300 | 9800 | 30 | 62 | 16 | 6206.2RS | 30x1.5 | 2.74 |

**Suitable for screw ends: Form**






| Size | Dimensions (mm) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $d_0$ x P | $B_{11}$ | $B_{12}$ | $L_{31}$ | $D_{11}$ | $M_{11}$ ±0.015 | $M_{12}$ | $M_{13}$ | $H_{11}$ ±0.015 | $H_{12}$ | $H_{13}$ | $S_{11}$ |
| **20x5/20/40** | 60 | 25 | 47 | 35 | 72.5 | 80 | 120 | 41 | 81 | 28 | 10.5 |
| **32x5/10/20/32** | 70 | 30 | 60 | 47 | 72.5 | 103 | 120 | 46 | 91 | 28 | 10.5 |
| **40x5/10/12/16/20/40** | 80 | 35 | 68 | 62 | 90.0 | 116 | 150 | 56 | 111 | 33 | 13.0 |

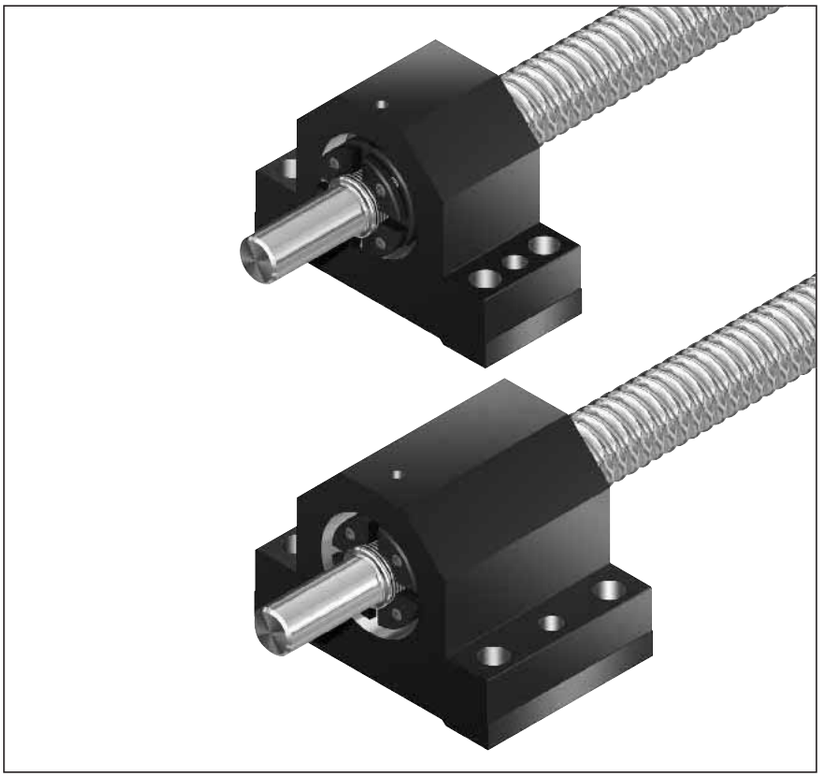
Bearings

# Pillow Block Unit SEB-F

**Fixed bearing with angular-contact thrust ball bearing**
**LGN-B-…**
**LGN-C-…**

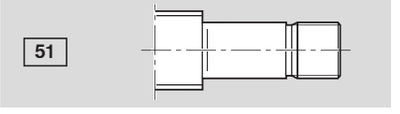
The pillow block unit consists of:
- precision pillow block housing made of steel with reference edges on two sides
- angular-contact thrust ball bearing LGN...
- slotted nut NMA or NMZ
- housing nut GWR

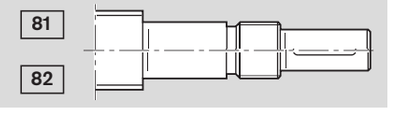
The nut is supplied unmounted.

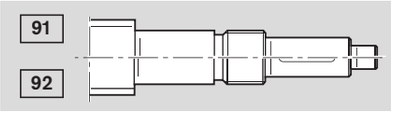


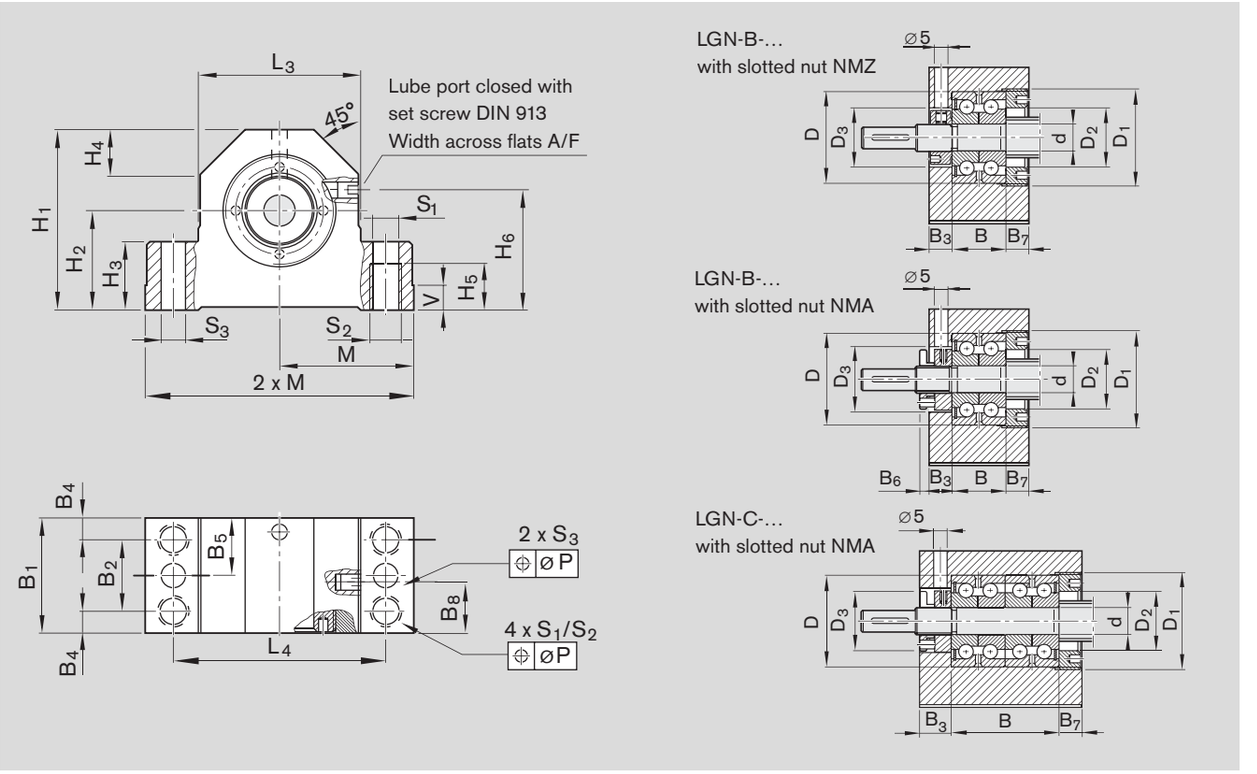
| Size | Pillow block unit complete | Angular-contact thrust ball bearing | | | | | | Slotted nut | | Weight complete |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Load ratings (axial) | | Dimensions (mm) | | | Designation | | Designation | |
| | | dyn. C | stat. $C_0$ | | | | | $M_A$ | | |
| $d_0$ x P | Part number | (N) | (N) | d | D | B | | (Nm) | | (kg) |
| 6x1/2 | R1591 106 00 | 6900 | 8500 | 6 | 24 | 15 | LGN-B-0624 | 2.0 | NMZ 6x0.5 | 0.38 |
| 8x1/2/2.5 | R1591 106 00 | 6900 | 8500 | 6 | 24 | 15 | LGN-B-0624 | 2.0 | NMZ 6x0.5 | 0.38 |
| 12x2/5/10 | R1591 106 20 | 6900 | 8500 | 6 | 24 | 15 | LGN-B-0624 | 2.0 | NMZ 6x0.5 | 0.38 |
| 16x5/10/16 | R1591 110 20 | 13400 | 18800 | 10 | 34 | 20 | LGN-B-1034 | 6.0 | NMZ 10x1 | 0.87 |
| 20x5/20 | R1591 112 20 | 17000 | 24700 | 12 | 42 | 25 | LGN-B-1242 | 8.0 | NMZ 12x1 | 1.12 |
| 25x5/10/25 | R1591 117 20 | 18800 | 31000 | 17 | 47 | 25 | LGN-B-1747 | 15.0 | NMZ 17x1 | 1.65 |
| 25x5/10/25 | R1591 117 30 | 18800 | 31000 | 17 | 47 | 25 | LGN-B-1747 | 15.0 | NMA 17x1 | 1.69 |
| 32x5/10/20/32 | R1591 120 20 | 26000 | 47000 | 20 | 52 | 28 | LGN-B-2052 | 18.0 | NMZ 20x1 | 1.93 |
| 32x5/10/20/32 | R1591 120 30 | 26000 | 47000 | 20 | 52 | 28 | LGN-B-2052 | 18.0 | NMA 20x1 | 2.03 |
| 40x10/12/16/20/40 | R1591 225 30 | 44500 | 111000 | 25 | 57 | 56 | LGN-C-2557 | 25.0 | NMA 25x1.5 | 5.13 |
| 40x5 | R1591 130 20 | 29000 | 64000 | 30 | 62 | 28 | LGN-B-3062 | 32.0 | NMZ 30x1.5 | 2.64 |
| 40x5 | R1591 130 30 | 29000 | 64000 | 30 | 62 | 28 | LGN-B-3062 | 32.0 | NMA 30x1.5 | 2.77 |
| 50x5 | R1591 135 30 | 41000 | 89000 | 35 | 72 | 34 | LGN-B-3572 | 40.0 | NMA 35x1.5 | 4.66 |
| 50x10/12/16/20/40 | R1591 230 30 | 47500 | 127000 | 30 | 62 | 56 | LGN-C-3062 | 32.0 | NMA 30x1.5 | 7.04 |
| 63x10/20/40 | R1591 140 30 | 72000 | 149000 | 40 | 90 | 46 | LGN-A-4090 | 55.0 | NMA 40x1.5 | 10.49 |
| 80x10/20 | R1591 150 30 | 113000 | 250000 | 50 | 110 | 54 | LGN-A-50110 | 85.0 | NMA 50x1.5 | 15.61 |

**Suitable for screw ends: Form**
For screws 8 x1/2/2.5:
Form 53, 83, 93






| Size | Dimensions (mm) | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $d_0$ x P | M js7 | $L_3$ | $L_4$ | $H_1$ | $H_2$ ±0.02 | $H_3$ | $H_4$ | $H_5$ | $H_6$ | $B_1$ | $B_2$ | $B_3$ | $B_4$ | $B_5$ | $B_6$ | $B_7$ | $B_8$ | V | $S_1$ H12 | $S_2$ | $S_3$ | A/F | $D_1$ | $D_2$ | $D_3$ | P |
| 6x1/2 | 31.0 | 38 | 50 | 34 | 18 | 13 | 8 | 9 | 22 | 32 | 16 | 8.5 | 8.0 | 16.0 | – | 8.5 | 16.0 | 6 | 5.3 | M6 | 3.7 | 3 | M26x1.5 | 16.5 | 18 | 0.10 |
| 8x1/2/2.5 | 31.0 | 38 | 50 | 34 | 18 | 13 | 8 | 9 | 22 | 32 | 16 | 8.5 | 8.0 | 16.0 | – | 8.5 | 16.0 | 6 | 5.3 | M6 | 3.7 | 3 | M26x1.5 | 16.5 | 18 | 0.10 |
| 12x2/5/10 | 31.0 | 38 | 50 | 41 | 22 | 13 | 8 | 9 | 22 | 32 | 16 | 8.5 | 8.0 | 16.0 | – | 8.5 | 16.0 | 6 | 5.3 | M6 | 3.7 | 3 | M26x1.5 | 16.5 | 18 | 0.10 |
| 16x5/10/16 | 43.0 | 52 | 68 | 58 | 32 | 22 | 14 | 15 | 37 | 37 | 23 | 8.5 | 7.0 | 18.5 | – | 8.5 | 18.5 | 8 | 8.4 | M10 | 7.7 | 4 | M36x1.5 | 22.0 | 27 | 0.15 |
| 20x5/20 | 47.0 | 60 | 77 | 64 | 34 | 22 | 16 | 15 | 40 | 42 | 25 | 8.5 | 8.5 | 21.0 | – | 8.5 | 21.0 | 8 | 8.4 | M10 | 7.7 | 4 | M45x1.5 | 28.0 | 32 | 0.15 |
| 25x5/10/25 | 54.0 | 66 | 88 | 72 | 39 | 27 | 18 | 18 | 45 | 46 | 29 | 10.5 | 8.5 | 23.0 | – | 10.5 | 23.0 | 10 | 10.5 | M12 | 9.7 | 4 | M50x1.5 | 31.0 | 36 | 0.20 |
| 25x5/10/25 | 54.0 | 66 | 88 | 72 | 39 | 27 | 18 | 18 | 45 | 46 | 29 | 10.5 | 8.5 | 23.0 | 7.5 | 10.5 | 23.0 | 10 | 10.5 | M12 | 9.7 | 4 | M50x1.5 | 31.0 | 36 | 0.20 |
| 32x5/10/20/32 | 56.0 | 70 | 92 | 77 | 42 | 27 | 19 | 18 | 48 | 49 | 29 | 10.5 | 10.0 | 24.5 | – | 10.5 | 24.5 | 10 | 10.5 | M12 | 9.7 | 4 | M55x1.5 | 36.0 | 42 | 0.20 |
| 32x5/10/20/32 | 56.0 | 70 | 92 | 77 | 42 | 27 | 19 | 18 | 48 | 49 | 29 | 10.5 | 10.0 | 24.5 | 7.5 | 10.5 | 24.5 | 10 | 10.5 | M12 | 9.7 | 4 | M55x1.5 | 36.0 | 42 | 0.20 |
| 40x10/12/16/20/40 | 63.0 | 80 | 105 | 98 | 58 | 32 | 23 | 21 | 64 | 89 | 62 | 20.5 | 13.5 | 44.5 | – | 12.5 | 54.5 | 12 | 12.6 | M14 | 9.7 | 4 | M62x1.5 | 43.0 | 48 | 0.20 |
| 40x5 | 63.0 | 80 | 105 | 90 | 50 | 32 | 22 | 21 | 56 | 53 | 32 | 12.5 | 10.5 | 26.5 | – | 12.5 | 26.5 | 12 | 12.6 | M14 | 9.7 | 4 | M65x1.5 | 47.0 | 53 | 0.20 |
| 40x5 | 63.0 | 80 | 105 | 90 | 50 | 32 | 22 | 21 | 56 | 53 | 32 | 12.5 | 10.5 | 26.5 | 7.5 | 12.5 | 26.5 | 12 | 12.6 | M14 | 9.7 | 4 | M65x1.5 | 47.0 | 53 | 0.20 |
| 50x5 | 72.0 | 92 | 118 | 105 | 58 | 38 | 25 | 22 | 63 | 70 | 43 | 20.5 | 13.5 | 35.0 | – | 15.5 | 32.5 | 12 | 12.5 | M14 | 9.7 | 4 | M78x2 | 54.0 | 60 | 0.20 |
| 50x10/12/16/20/40 | 72.0 | 92 | 118 | 112 | 65 | 38 | 25 | 22 | 70 | 92 | 65 | 20.5 | 13.5 | 46.0 | – | 15.5 | 57.5 | 12 | 12.5 | M14 | 9.7 | 4 | M78x2 | 54.0 | 53 | 0.20 |
| 63x10/20/40 | 95.0 | 130 | 160 | 138 | 73 | 50 | 35 | 22 | 78 | 85 | 58 | 22.5 | 13.5 | 42.5 | – | 16.5 | 39.5 | 16 | 12.5 | M14 | 9.7 | 4 | M95x2 | 68.0 | 72 | 0.20 |
| 80x10/20 | 102.5 | 145 | 175 | 165 | 93 | 50 | 40 | 36 | 98 | 98 | 58 | 25.5 | 20.0 | 49.0 | – | 18.5 | 45.5 | 16 | 17.3 | M20 | 11.7 | 4 | M115x2 | 85.0 | 90 | 0.20 |

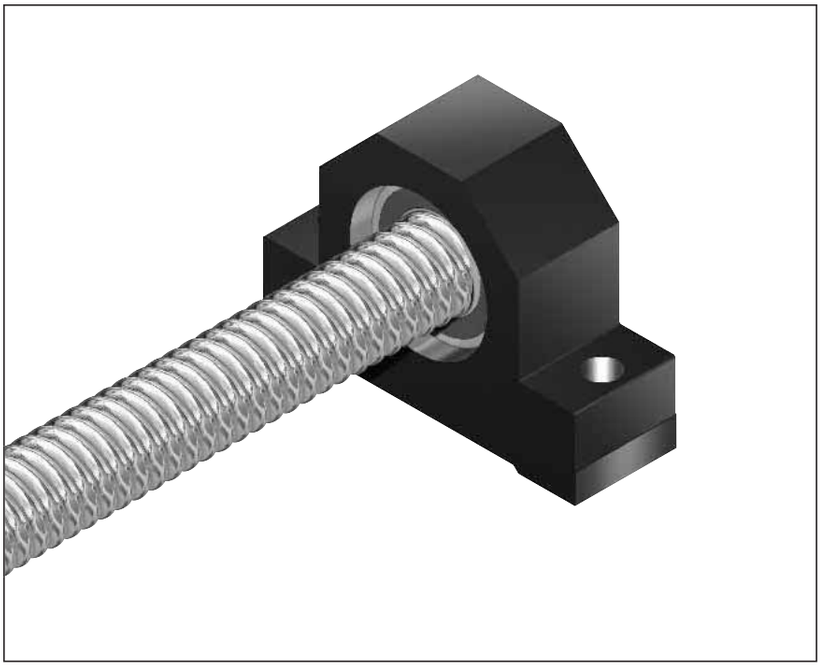
Bearings

# Pillow Block Unit SEB-L

## Floating bearing with deep-groove ball bearing to DIN 625

The pillow block unit consists of:
- precision pillow block housing made of steel with reference edge on one side
- deep-groove ball bearing to DIN 625-... .2RS
- retaining ring to DIN 471
- cover

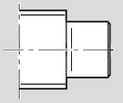
All parts are supplied unmounted.



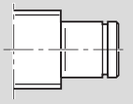
| Size | Pillow block unit complete | Deep-groove ball bearing to DIN 625 | | | | | | Retaining ring to DIN 471 | Weight complete |
|---|---|---|---|---|---|---|---|---|---|
| | | Load ratings (radial) | | Dimensions (mm) | | | Designation DIN 625... | | |
| | | dyn. C | stat. $C_0$ | | | | | | |
| $d_0$ x P | Part number | (N) | (N) | d | D | B | | | (kg) |
| **8x1/2/2.5** | R1591 605 00 | 1900 | 590 | 5 | 16 | 5 | 625.2RS | 5x0.6 | 0.14 |
| **12x2/5/10** | R1591 606 20 | 2450 | 900 | 6 | 19 | 6 | 626.2RS | 6x0.7 | 0.18 |
| **16x5/10/16** | R1591 610 20 | 6000 | 2240 | 10 | 30 | 9 | 6200.2RS | 10x1 | 0.54 |
| **20x5/20/40** | R1591 612 20 | 6950 | 2650 | 12 | 32 | 10 | 6201.2RS | 12x1 | 0.73 |
| **25x5/10/25** | R1591 617 20 | 9500 | 4150 | 17 | 40 | 12 | 6203.2RS | 17x1 | 0.96 |
| **32x5/10/20/32** | R1591 620 20 | 12700 | 5700 | 20 | 47 | 14 | 6204.2RS | 20x1.2 | 1.24 |
| **40x5** | R1591 630 20 | 19300 | 9800 | 30 | 62 | 16 | 6206.2RS | 30x1.5 | 1.66 |
| **40x10/12/16/20/40** | R1591 630 10 | 19300 | 9800 | 30 | 62 | 16 | 6206.2RS | 30x1.5 | 1.82 |
| **50x5** | R1591 635 10 | 25500 | 13200 | 35 | 72 | 17 | 6207.2RS | 35x1.5 | 2.66 |
| **50x10/12/16/20/40** | R1591 635 20 | 25500 | 13200 | 35 | 72 | 17 | 6207.2RS | 35x1.5 | 2.87 |
| **63x10/20/40** | R1591 650 20 | 36500 | 20800 | 50 | 90 | 20 | 6210.2RS | 50x2 | 5.39 |
| **80x10/20** | R1591 660 20 | 52000 | 31000 | 60 | 110 | 22 | 6212.2RS | 60x2 | 7.09 |

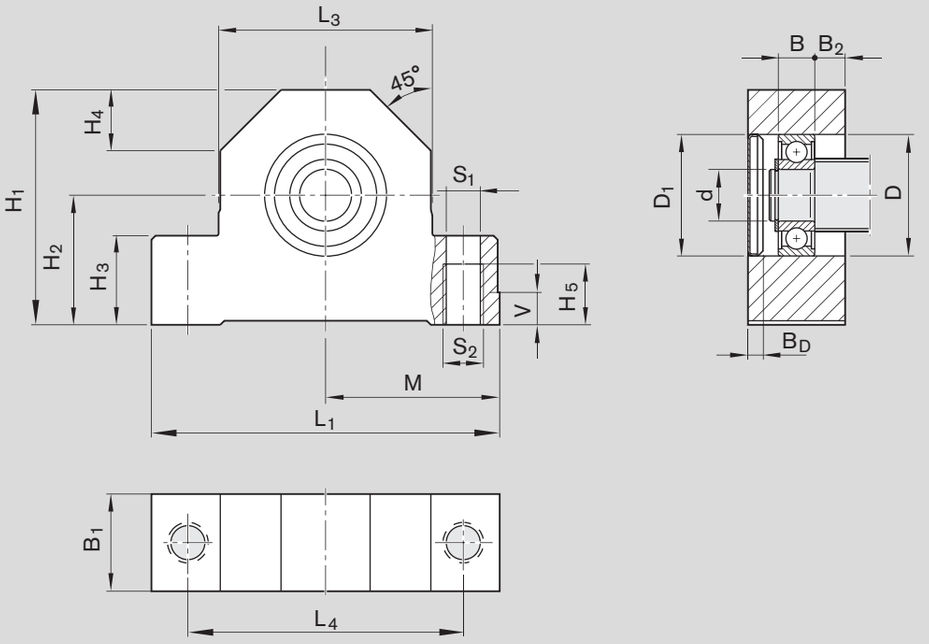
**Suitable for screw ends: Form**
For screws 12 x 2: Form 41

21



41





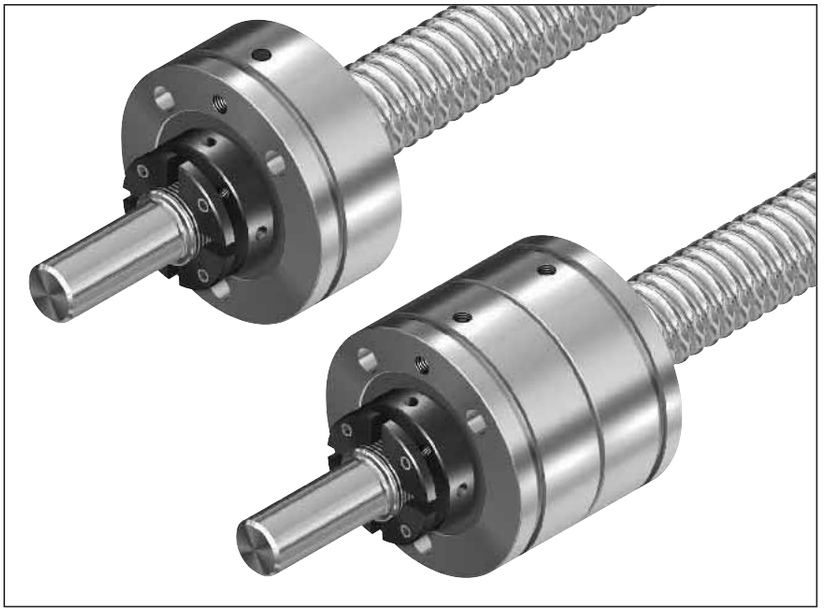

| Size | Dimensions (mm) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $d_0$ x P | $L_1$ | $L_3$ | $L_4$ | $H_1$ | $H_2$ ±0.02 | $H_3$ | $H_4$ | $H_5$ | $B_1$ | $B_2$ | M js7 | V | $S_1$ H12 | $S_2$ | $D_1$ J6 | Cover $B_D$ |
| **8x1/2/2.5** | 62 | 38 | 50 | 34 | 18 | 13 | 11 | 9 | 13 | 4.0 | 31.0 | 6 | 5.3 | M6 | 16 | 2.6 |
| **12x2/5/10** | 62 | 38 | 50 | 41 | 22 | 13 | 11 | 9 | 15 | 4.5 | 31.0 | 6 | 5.3 | M6 | 19 | 2.6 |
| **16x5/10/16** | 86 | 52 | 68 | 58 | 32 | 22 | 15 | 15 | 24 | 7.5 | 43.0 | 8 | 8.4 | M10 | 30 | 3.8 |
| **20x5/20/40** | 94 | 60 | 77 | 64 | 34 | 22 | 17 | 15 | 26 | 8.0 | 47.0 | 8 | 8.4 | M10 | 32 | 3.8 |
| **25x5/10/25** | 108 | 66 | 88 | 72 | 39 | 27 | 19 | 18 | 28 | 8.0 | 54.0 | 10 | 10.5 | M12 | 40 | 3.7 |
| **32x5/10/20/32** | 112 | 70 | 92 | 77 | 42 | 27 | 20 | 18 | 34 | 10.0 | 56.0 | 10 | 10.5 | M12 | 47 | 4.8 |
| **40x5** | 126 | 80 | 105 | 90 | 50 | 32 | 23 | 21 | 38 | 11.0 | 63.0 | 12 | 12.6 | M14 | 62 | 4.5 |
| **40x10/12/16/20/40** | 126 | 80 | 105 | 98 | 58 | 32 | 23 | 21 | 38 | 11.0 | 63.0 | 12 | 12.6 | M14 | 62 | 4.5 |
| **50x5** | 144 | 92 | 118 | 105 | 58 | 38 | 25 | 22 | 41 | 12.0 | 72.0 | 12 | 12.5 | M14 | 72 | 5.0 |
| **50x10/12/16/20/40** | 144 | 92 | 118 | 112 | 65 | 38 | 25 | 22 | 41 | 12.0 | 72.0 | 12 | 12.5 | M14 | 72 | 5.0 |
| **63x10/20/40** | 190 | 130 | 160 | 138 | 73 | 50 | 35 | 22 | 46 | 13.0 | 95.0 | 16 | 12.5 | M14 | 90 | 5.0 |
| **80x10/20** | 205 | 145 | 175 | 165 | 93 | 50 | 40 | 36 | 50 | 14.0 | 102.5 | 16 | 17.3 | M20 | 110 | 6.0 |

Bearings

# Bearing LAF

**Fixed bearing with angular-contact thrust ball bearing LGF**
**Double-thrust, screw-down,**
**Series LGF-B-…**
**LGF-A-…**
**Double-thrust, screw-down,**
**Series LGF-C-…**

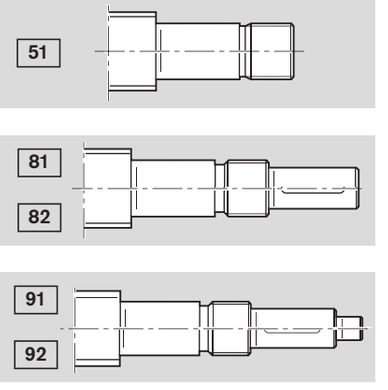
The fixed bearing consists of:
- angular-contact thrust ball bearing LGF
- slotted nut NMA..., NMZ...

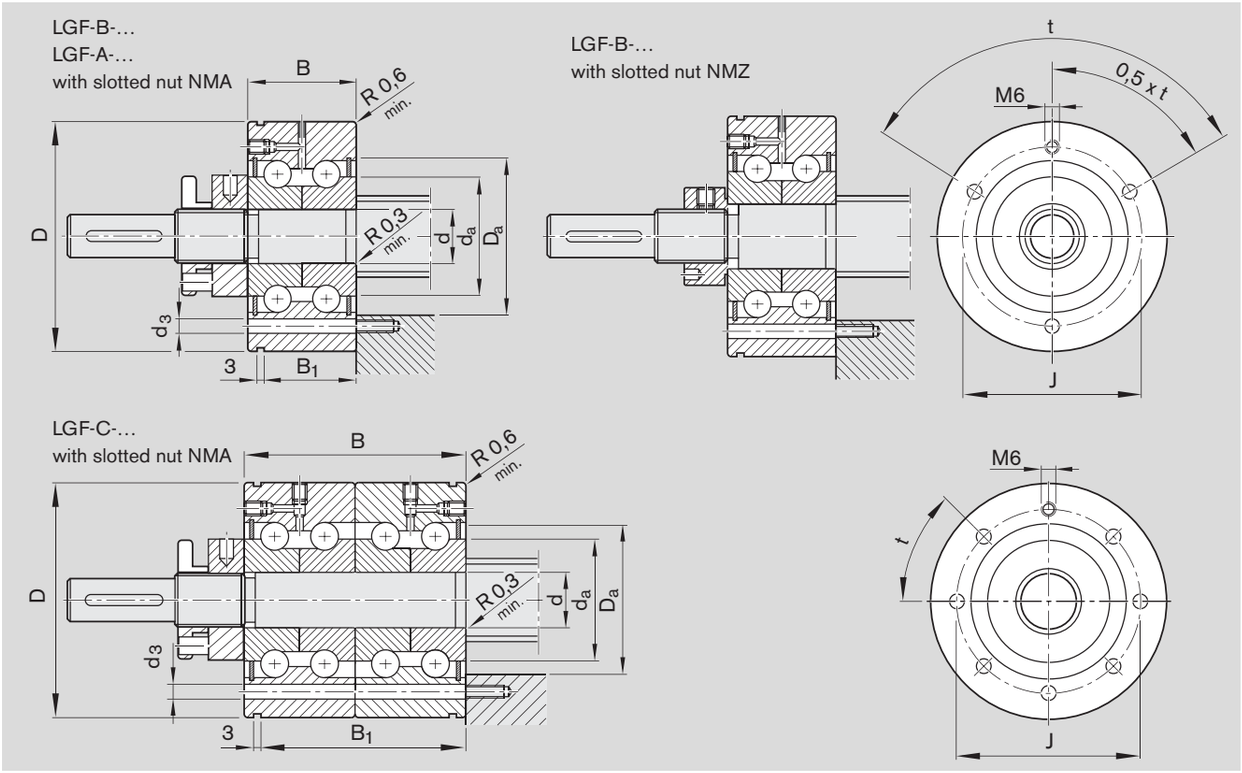


| Size | Angular-contact thrust ball bearing with slotted nut | Single parts | | | | Weight complete |
|---|---|---|---|---|---|---|
| | | Angular-contact thrust ball bearing | | Slotted nut | | |
| $d_0$ x P | Part number | Designation | Part number | Designation | Part number | (kg) |
| 20x5/20/40 | R1590 012 00 | LGF-B-1255 | R3414 009 06 | NMZ 12x1 | R3446 003 04 | 0.385 |
| 25x5/10/25 | R1590 017 00 | LGF-B-1762 | R3414 010 06 | NMZ 17x1 | R3446 004 04 | 0.485 |
| | R1590 017 30 | | | NMA 17x1 | R3446 014 04 | 0.520 |
| 32x5/10/20/32 | R1590 020 00 | LGF-B-2068 | R3414 001 06 | NMZ 20x1 | R3446 005 04 | 0.645 |
| | R1590 020 30 | | | NMA 20x1 | R3446 015 04 | 0.740 |
| 40x5 | R1590 030 00 | LGF-B-3080 | R3414 011 06 | NMZ 30x1.5 | R3446 006 04 | 0.855 |
| | R1590 030 30 | | | NMA 30x1.5 | R3446 016 04 | 0.980 |
| 40x10/12/16/20/40 | R1590 325 30 | LGF-C-2575 | R3414 015 06 | NMA 25x1.5 | R3446 011 04 | 1.600 |
| 50x5 | R1590 035 30 | LGF-B-3590 | R3414 026 06 | NMA 35x1.5 | R3446 012 04 | 1.360 |
| 50x10/12/16/20/40 | R1590 330 30 | LGF-C-3080 | R3414 027 06 | NMA 30x1.5 | R3446 016 04 | 1.760 |
| 63x10/20/40 | R1590 040 30 | LGF-B-40115 | R3414 028 06 | NMA 40x1.5 | R3446 018 04 | 2.500 |
| 80x10/20 | R1590 050 30 | LGF-A-50140 | R3414 029 06 | NMA 50x1.5 | R3446 019 04 | 5.130 |

| Size | Load ratings | | Bearing friction torque with seal | Rigidity (axial) | Rigidity against tilting | Limit speed (grease) |
|---|---|---|---|---|---|---|
| | dyn. C | stat. $C_0$ | $M_{RL}$ | $R_{aL}$ | $R_{kl}$ | $n_G$ |
| $d_0$ x P | (N) | (N) | (Nm) | (N/µm) | (Nm/mrad) | ($min^{-1}$) |
| 20x5/20/40 | 17000 | 24700 | 0.16 | 375 | 50 | 3800 |
| 25x5/10/25 | 18800 | 31000 | 0.24 | 450 | 80 | 3300 |
| 32x5/10/20/32 | 26000 | 47000 | 0.30 | 650 | 140 | 3000 |
| 40x5 | 29000 | 64000 | 0.50 | 850 | 300 | 2200 |
| 40x10/12/16/20/40 | 44500 | 111000 | 0.60 | 1300 | 450 | 2600 |
| 50x5 | 41000 | 89000 | 0.60 | 900 | 400 | 2000 |
| 50x10/12/16/20/40 | 47500 | 127000 | 0.75 | 1500 | 620 | 2200 |
| 63x10/20/40 | 72000 | 149000 | 1.30 | 1200 | 750 | 1600 |
| 80x10/20 | 113000 | 250000 | 2.60 | 1400 | 1500 | 1200 |

**Suitable for screw ends: Form**





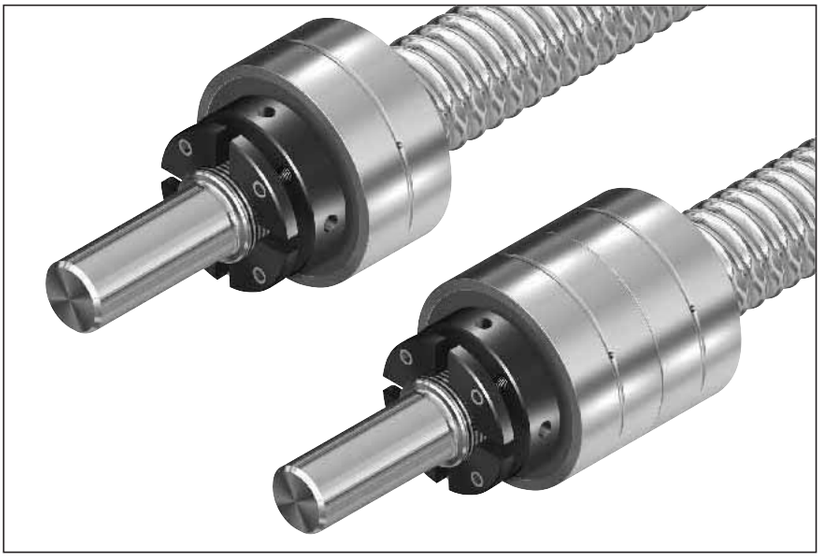

| Size | Dimensions (mm) | | | | Mounting dimensions (mm) | | | | | Mounting holes | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | d | D | B | $B_1$ | J | $D_a$ | | $d_a$ | | Quantity | $d_3$ | t |
| $d_0$ x P | | | | | | min. | max. | min. | max. | | (mm) | (°) |
| **20x5/20/40** | $12_{-0.010}$ | $55_{-0.013}$ | $25_{-0.25}$ | 17 | 42 | 30 | 33 | 16 | 29 | 3 | 6.8 | 120 |
| **25x5/10/25** | $17_{-0.010}$ | $62_{-0.013}$ | $25_{-0.25}$ | 17 | 48 | 34 | 37 | 23 | 33 | 3 | 6.8 | 120 |
| **32x5/10/20/32** | $20_{-0.010}$ | $68_{-0.013}$ | $28_{-0.25}$ | 19 | 53 | 40 | 43 | 25 | 39 | 4 | 6.8 | 90 |
| **40x5** | $30_{-0.010}$ | $80_{-0.013}$ | $28_{-0.25}$ | 19 | 63 | 50 | 53 | 40 | 49 | 6 | 6.8 | 60 |
| **40x10/12/16/20/40** | $25_{-0.005}$ | $75_{-0.010}$ | $56_{-0.50}$ | 47 | 58 | 45 | 48 | 32 | 44 | 8 | 6.5 | 45 |
| **50x5** | $35_{-0.010}$ | $90_{-0.015}$ | $34_{-0.25}$ | 25 | 75 | 59 | 62 | 45 | 58 | 4 | 8.8 | 90 |
| **50x10/12/16/20/40** | $30_{-0.005}$ | $80_{-0.010}$ | $56_{-0.50}$ | 47 | 63 | 50 | 53 | 40 | 49 | 12 | 6.5 | 30 |
| **63x10/20/40** | $40_{-0.010}$ | $115_{-0.015}$ | $46_{-0.25}$ | 36 | 94 | 71 | 80 | 56 | 70 | 12 | 8.5 | 30 |
| **80x10/20** | $50_{-0.005}$ | $140_{-0.010}$ | $54_{-0.25}$ | 45 | 113 | 88 | 100 | 63 | 87 | 12 | 10.5 | 30 |

# Bearing LAN

## Fixed bearing with angular-contact thrust ball bearing LGN

**Double-thrust,**
**Series LGN-B-…**
**LGN-A-…**
**Double-thrust, in pairs,**
**Series LGN-C-…**

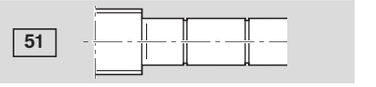
The fixed bearing consists of:
- angular-contact thrust ball bearing LGN
- slotted nut NMA..., NMZ...

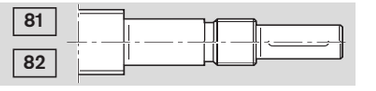


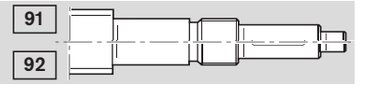
| Size | Angular-contact thrust ball bearing with slotted nut | Single parts | | | | Weight complete |
|---|---|---|---|---|---|---|
| | | Angular-contact thrust ball bearing | | Slotted nut | | |
| $d_0$ x P | Part number | Designation | Part number | Designation | Part number | (kg) |
| 6x1/2 | R1590 106 00 | LGN-B-0624 | R3414 002 06 | NMZ 6x0.5 | R3446 001 04 | 0.040 |
| 8x1/2/2.5 | R1590 106 00 | LGN-B-0624 | R3414 002 06 | NMZ 6x0.5 | R3446 001 04 | 0.040 |
| 12x2/5/10 | R1590 106 00 | LGN-B-0624 | R3414 002 06 | NMZ 6x0.5 | R3446 001 04 | 0.040 |
| 16x5/10/16 | R1590 110 00 | LGN-B-1034 | R3414 003 06 | NMZ 10x1 | R3446 002 04 | 0.110 |
| 20x5/20/40 | R1590 112 00 | LGN-B-1242 | R3414 004 06 | NMZ 12x1 | R3446 003 04 | 0.215 |
| 25x5/10/25 | R1590 117 00 | LGN-B-1747 | R3414 005 06 | NMZ 17x1 | R3446 004 04 | 0.248 |
| | R1590 117 30 | | | NMA 17x1 | R3446 014 04 | 0.290 |
| 32x5/10/20/32 | R1590 120 00 | LGN-B-2052 | R3414 006 06 | NMZ 20x1 | R3446 005 04 | 0.345 |
| | R1590 120 30 | | | NMA 20x1 | R3446 015 04 | 0.440 |
| 40x5 | R1590 130 00 | LGN-B-3062 | R3414 007 06 | NMZ 30x1.5 | R3446 006 04 | 0.465 |
| | R1590 130 30 | | | NMA 30x1.5 | R3446 016 04 | 0.590 |
| 40x10/12/16/20/40 | R1590 225 30 | LGN-C-2557 | R3414 014 06 | NMA 25x1.5 | R3446 011 04 | 0.840 |
| 50x5 | R1590 135 30 | LGN-B-3572 | R3414 022 06 | NMA 35x1.5 | R3446 012 04 | 0.740 |
| 50x10/12/16/20/40 | R1590 230 30 | LGN-C-3062 | R3414 023 06 | NMA 30x1.5 | R3446 016 04 | 0.980 |
| 63x10/20/40 | R1590 140 30 | LGN-A-4090 | R3414 024 06 | NMA 40x1.5 | R3446 018 04 | 1.250 |
| 80x10/20 | R1590 150 30 | LGN-A-50110 | R3414 025 06 | NMA 50x1.5 | R3446 019 04 | 2.930 |

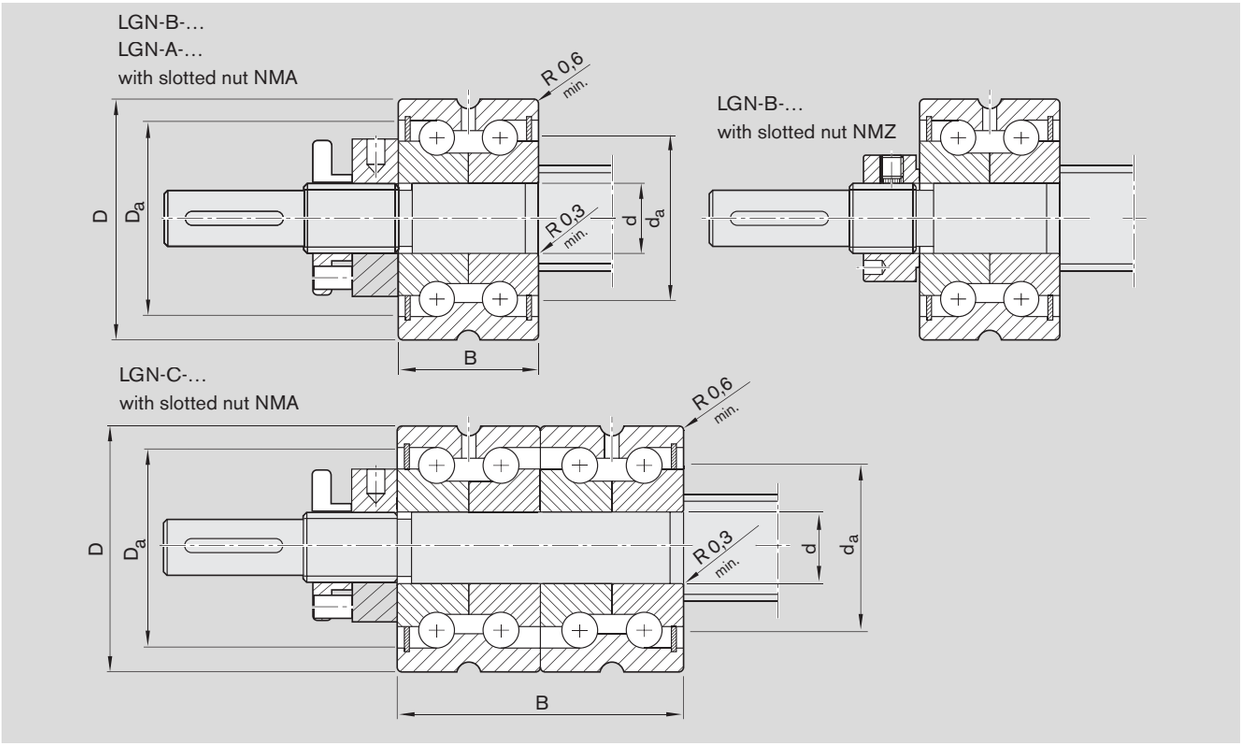
| Size | Load ratings | | Bearing friction torque with seal | Rigidity (axial) | Rigidity against tilting | Limit speed (grease) |
|---|---|---|---|---|---|---|
| | dyn. C | stat. $C_0$ | $M_{RL}$ | $R_{aL}$ | $R_{kl}$ | $n_G$ |
| $d_0$ x P | (N) | (N) | (Nm) | N/µm | (Nm/mrad) | ($min^{-1}$) |
| 6x1/2 | 6900 | 8500 | 0.04 | 200 | 8 | 6800 |
| 8x1/2/2.5 | 6900 | 8500 | 0.04 | 200 | 8 | 6800 |
| 12x2/5/10 | 6900 | 8500 | 0.04 | 200 | 8 | 6800 |
| 16x5/10/16 | 13400 | 18800 | 0.12 | 325 | 25 | 4600 |
| 20x5/20/40 | 17000 | 24700 | 0.16 | 375 | 50 | 3800 |
| 25x5/10/25 | 18800 | 31000 | 0.24 | 450 | 80 | 3300 |
| 32x5/10/20/32 | 26000 | 47000 | 0.30 | 650 | 140 | 3000 |
| 40x5 | 29000 | 64000 | 0.50 | 850 | 300 | 2200 |
| 40x10/12/16/20/40 | 44500 | 111000 | 0.60 | 1300 | 450 | 2600 |
| 50x5 | 41000 | 89000 | 0.60 | 900 | 400 | 2000 |
| 50x10/12/16/20/40 | 47500 | 127000 | 0.75 | 1500 | 620 | 2200 |
| 63x10/20/40 | 72000 | 149000 | 1.30 | 1200 | 750 | 1600 |
| 80x10/20 | 113000 | 250000 | 2.60 | 1400 | 1500 | 1200 |

**Suitable for screw ends: Form**
For screws 8 x 2.5: Form 53, 83, 93
For screws 6 x 1; 6 x 2; 8 x 1; 8 x 2: Form 83





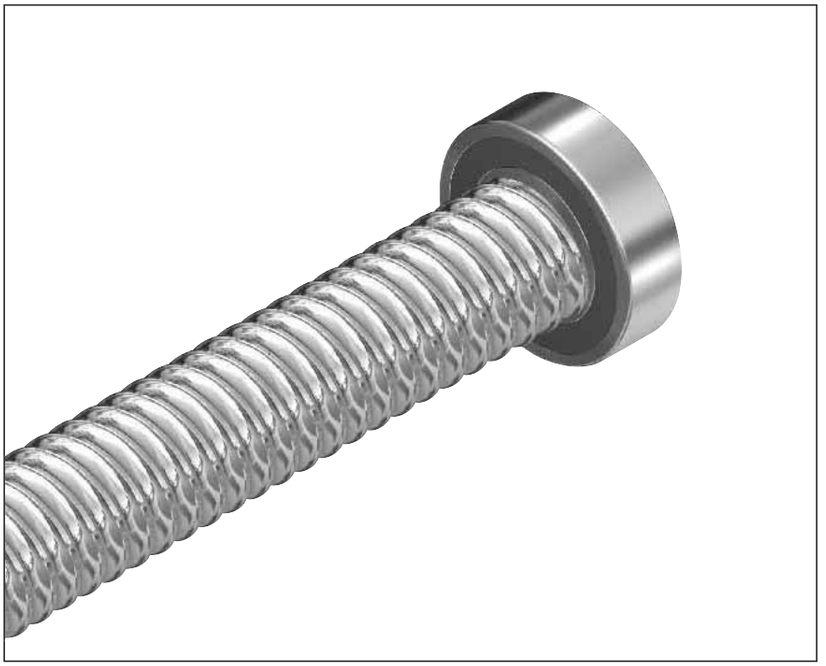

| Size | Dimensions (mm) | | | Mounting dimensions (mm) | | | |
|---|---|---|---|---|---|---|---|
| | d | D | B | $D_a$ | | $d_a$ | |
| $d_0$ x P | | | | min. | max. | min. | max. |
| 6x1/2 | 6 $^{-0.010}$ | 24 $^{-0.010}$ | 15 $^{-0.25}$ | 16 | 19 | 9 | 15 |
| 8x1/2/2.5 | 6 $^{-0.010}$ | 24 $^{-0.010}$ | 15 $^{-0.25}$ | 16 | 19 | 9 | 15 |
| 12x2/5/10 | 6 $^{-0.010}$ | 24 $^{-0.010}$ | 15 $^{-0.25}$ | 16 | 19 | 9 | 15 |
| 16x5/10/16 | 10 $^{-0.010}$ | 34 $^{-0.010}$ | 20 $^{-0.25}$ | 25 | 28 | 14 | 24 |
| 20x5/20/40 | 12 $^{-0.010}$ | 42 $^{-0.010}$ | 25 $^{-0.25}$ | 30 | 33 | 16 | 29 |
| 25x5/10/25 | 17 $^{-0.010}$ | 47 $^{-0.010}$ | 25 $^{-0.25}$ | 34 | 37 | 23 | 33 |
| 32x5/10/20/32 | 20 $^{-0.010}$ | 52 $^{-0.010}$ | 28 $^{-0.25}$ | 40 | 43 | 25 | 39 |
| 40x5 | 30 $^{-0.010}$ | 62 $^{-0.010}$ | 28 $^{-0.25}$ | 50 | 53 | 40 | 49 |
| 40x10/12/16/20/40 | 25 $^{-0.005}$ | 57 $^{-0.010}$ | 56 $^{-0.05}$ | 45 | 48 | 32 | 44 |
| 50x5 | 35 $^{-0.010}$ | 72 $^{-0.011}$ | 34 $^{-0.25}$ | 59 | 62 | 45 | 58 |
| 50x10/12/16/20/40 | 30 $^{-0.005}$ | 62 $^{-0.010}$ | 56 $^{-0.50}$ | 50 | 53 | 40 | 49 |
| 63x10/20/40 | 40 $^{-0.005}$ | 90 $^{-0.010}$ | 46 $^{-0.25}$ | 71 | 80 | 56 | 70 |
| 80x10/20 | 50 $^{-0.005}$ | 110 $^{-0.010}$ | 54 $^{-0.25}$ | 88 | 100 | 63 | 87 |

Bearings

# Bearing LAD

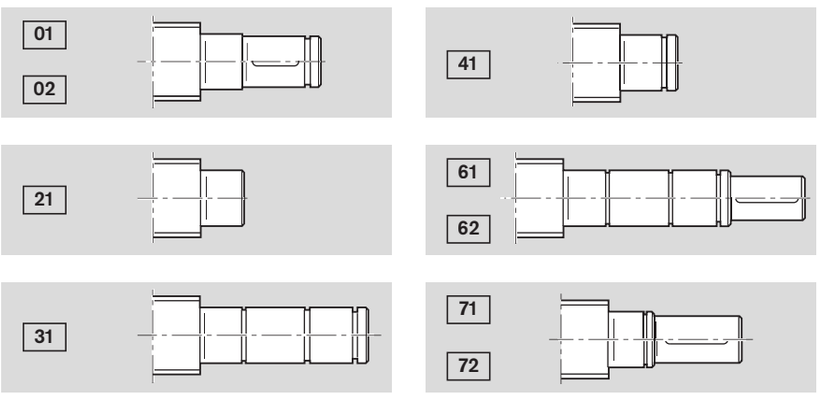
## Floating bearing with deep-groove ball bearing

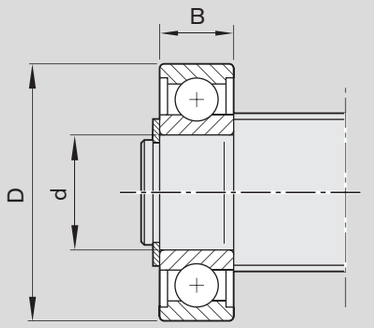
The floating bearing consists of:
- deep-groove ball bearing to DIN 625... .2RS
- retaining ring DIN 471 (2 pcs)



| Size | Deep-groove ball bearing with retaining ring | Single parts | | | | Load ratings | |
|---|---|---|---|---|---|---|---|
| | | Deep-groove ball bearing DIN 625 | | Retaining ring DIN 471 | | | |
| $d_0$ x P | Part number | Designation | Part number | Designation | Part number | dyn. C (N) | stat. $C_0$ (N) |
| **8x1/2/2.5** | R1590 605 00 | 625.2RS | R3414 048 00 | 5x0.6 | R3410 742 00 | 1900 | 590 |
| **12x2/5/10** | R1590 606 00 | 626.2RS | R3414 043 00 | 6x0.7 | R3410 736 00 | 2450 | 900 |
| **16x5/10/16** | R1590 610 00 | 6200.2RS | R3414 049 00 | 10x1 | R3410 745 00 | 6000 | 2240 |
| **20x5/20/40** | R1590 612 00 | 6201.2RS | R3414 042 00 | 12x1 | R3410 712 00 | 6950 | 2650 |
| | R1590 615 00 | 6202.2RS | R3414 074 00 | 15x1 | R3410 748 00 | 7800 | 3250 |
| **25x5/10/25** | R1590 617 00 | 6203.2RS | R3414 050 00 | 17x1 | R3410 749 00 | 9500 | 4150 |
| **32x5/10/20/32** | R1590 620 00 | 6204.2RS | R3414 038 00 | 20x1.2 | R3410 735 00 | 12700 | 5700 |
| | R1590 625 00 | 6205.2RS | R3414 063 00 | 25x1.2 | R3410 750 00 | 14300 | 6950 |
| **40x5/10/12/16/20/40** | R1590 630 00 | 6206.2RS | R3414 051 00 | 30x1.5 | R3410 724 00 | 19300 | 9800 |
| **50x5/10/12/16/20/40** | R1590 635 00 | 6207.2RS | R3414 075 00 | 35x1.5 | R3410 725 00 | 25500 | 13200 |
| **63x10/20/40** | R1590 650 00 | 6210.2RS | R3414 077 00 | 50x2 | R3410 727 00 | 36500 | 20800 |
| **80x10/20** | R1590 660 00 | 6212.2RS | R3414 078 00 | 60x2 | R3410 764 00 | 52000 | 31000 |

**Suitable for screw ends: Form**
For screws 8 x 1; 8 x 2: Form 41






| Size | Dimensions (mm) | | | Weight complete |
|---|---|---|---|---|
| $d_0$ x P | d | D | B | (kg) |
| 8x1/2/2.5 | 5 | 16 | 5 | 0.005 |
| 12x2/5/10 | 6 | 19 | 6 | 0.008 |
| 16x5/10/16 | 10 | 30 | 9 | 0.030 |
| 20x5/20/40 | 12 | 32 | 10 | 0.035 |
| | 15 | 35 | 11 | 0.043 |
| 25x5/10/25 | 17 | 40 | 12 | 0.064 |
| 32x5/10/20/32 | 20 | 47 | 14 | 0.106 |
| | 25 | 52 | 15 | 0.125 |
| 40x5/10/12/16/20/40 | 30 | 62 | 16 | 0.195 |
| 50x5/10/12/16/20/40 | 35 | 72 | 17 | 0.288 |
| 63x10/20/40 | 50 | 90 | 20 | 0.453 |
| 80x10/20 | 60 | 110 | 22 | 0.783 |