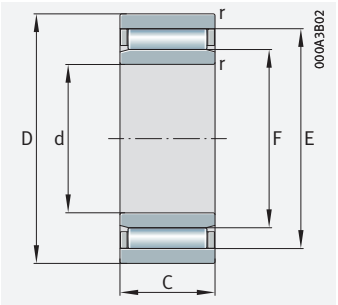
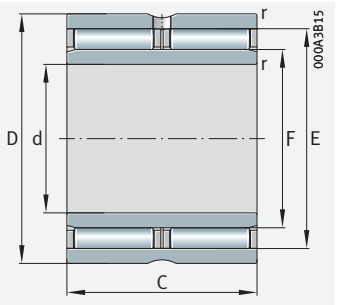
# Needle roller bearings without ribs

With inner ring
Open




*NAO, NAO..-IS1*
*(with lubrication hole in inner ring)*




*NAO..-ZW-ASR1*

## d = 6 – 90 mm

| Main dimensions | | | Basic load ratings | | Fatigue limit load | Limiting speed | Speed rating | Mass | Designation |
|---|---|---|---|---|---|---|---|---|---|
| d | D | B | dyn. $C_r$ | stat. $C_{0r}$ | $C_{ur}$ | $n_G$ | $n_{\vartheta r}$ | m | ➤*936* \| *1.12*<br>➤*937* \| *1.13*<br>X-life ➤*930* |
| | | | N | N | N | $min^{-1}$ | $min^{-1}$ | ≈ g | |
| **6** | 17 | 10 | 5 300 | 5 500 | 940 | 29 500 | 23 800 | 14 | **NAO6×17×10-TV-IS1-XL** |
| **9** | 22 | 12 | 11 300 | 9 900 | 1 770 | 26 000 | 17 900 | 23,5 | **NAO9×22×12-TV-XL** |
| **12** | 24 | 13 | 10 100 | 11 800 | 1 930 | 23 600 | 15 000 | 30 | **NAO12×24×13-XL** |
| | 28 | 12 | 13 000 | 12 500 | 2 250 | 22 900 | 14 300 | 40 | **NAO12×28×12-IS1-XL** |
| **15** | 28 | 13 | 11 100 | 14 300 | 2 350 | 21 300 | 12 100 | 29 | **NAO15×28×13-XL** |
| | 32 | 12 | 15 100 | 16 200 | 2 900 | 20 900 | 11 400 | 50 | **NAO15×32×12-IS1-XL** |
| **17** | 30 | 13 | 11 800 | 15 900 | 2 600 | 20 400 | 11 100 | 42 | **NAO17×30×13-XL** |
| | 35 | 16 | 22 600 | 25 500 | 4 250 | 19 200 | 10 100 | 78 | **NAO17×35×16-XL** |
| **20** | 35 | 17 | 16 800 | 26 000 | 4 300 | 18 100 | 10 000 | 76 | **NAO20×35×17-XL** |
| | 37 | 16 | 23 500 | 27 500 | 4 650 | 17 200 | 9 100 | 82 | **NAO20×37×16-XL** |
| **25** | 40 | 17 | 22 100 | 34 000 | 5 400 | 15 100 | 8 100 | 88 | **NAO25×40×17-XL** |
| | 42 | 16 | 26 000 | 33 500 | 5 600 | 14 600 | 7 800 | 86 | **NAO25×42×16-IS1-XL** |
| | 42 | 32 | 45 000 | 67 000 | 11 300 | 14 600 | 7 800 | 190 | **NAO25×42×32-ZW-ASR1-XL** |
| **30** | 45 | 17 | 23 500 | 38 500 | 6 200 | 13 100 | 7 100 | 102 | **NAO30×45×17-XL** |
| | 45 | 26 | 31 500 | 56 000 | 9 100 | 13 100 | 7 200 | 157 | **NAO30×45×26-ZW-ASR1-XL** |
| | 47 | 16 | 27 500 | 37 500 | 6 300 | 12 700 | 6 900 | 109 | **NAO30×47×16-XL** |
| | 47 | 18 | 31 000 | 43 000 | 7 500 | 12 700 | 6 900 | 119 | **NAO30×47×18-XL** |
| **35** | 50 | 17 | 24 200 | 41 500 | 6 600 | 11 500 | 6 500 | 113 | **NAO35×50×17-XL** |
| | 55 | 20 | 37 000 | 57 000 | 9 100 | 11 300 | 6 200 | 190 | **NAO35×55×20-XL** |
| **40** | 55 | 17 | 25 500 | 46 000 | 7 300 | 10 300 | 5 900 | 127 | **NAO40×55×17-XL** |
| **50** | 68 | 20 | 32 000 | 66 000 | 10 900 | 8 500 | 5 100 | 230 | **NAO50×68×20-IS1-XL** |
| **70** | 100 | 30 | 80 000 | 176 000 | 31 500 | 5 800 | 3 350 | 850 | **NAO70×100×30-XL** |
| **80** | 110 | 30 | 76 000 | 172 000 | 30 000 | 5 200 | 3 200 | 920 | **NAO80×110×30-XL** |
| **90** | 120 | 30 | 80 000 | 188 000 | 32 500 | 4 700 | 2 950 | 1 044 | **NAO90×120×30-XL** |

***medias*** *https://www.schaeffler.de/std/1F9A*