

Cylindrical single nut ZEM-E-S / ZEM-E-K¹⁾ / ZEM-E-A²⁾

Rexroth connection dimensions

With seals Left-hand version in some cases Preload class:
C0, C00, C1, C2, C3
Tolerance grade T3⁴⁾, T5, T7, T9



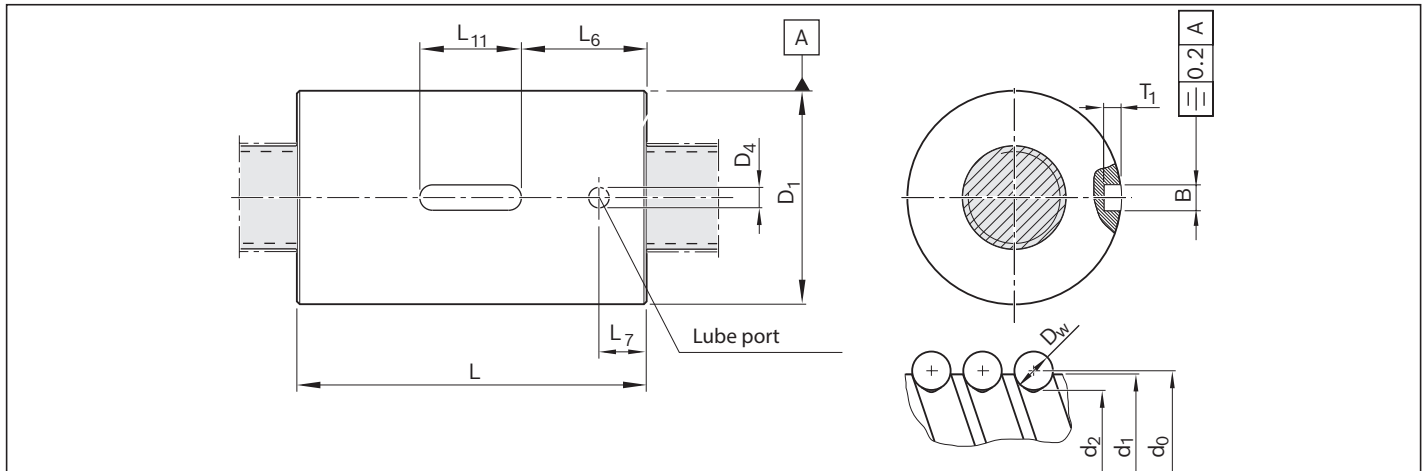
Ordering data:

BASA	20 x 5R x 3	ZEM-E-S - 5	00	1	2	T7	R	82Z120	41Z120	1250	0	1
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d_0 = nominal diameter
P = lead (R = right-hand, L = left-hand)
 D_w = ball diameter
i = number of ball track turns

Category	Size $d_0 \times P \times D_w \cdot i$	Part number	Load ratings ⁵⁾ dyn. C (N)	stat. C ₀ (N)	Linear speed ³⁾ v_{max} (m/min)
A	16 x 5R x 3 - 4	R1512 010 22	14,800	16,100	30
A	16 x 5R x 3 - 4	R1512 012 67 ¹⁾	14,800	16,100	30
A	16 x 10R x 3 - 3	R1512 040 12	11,500	12,300	60
A	16 x 10R x 3 - 3	R1512 042 08 ¹⁾	11,500	12,300	60
A	16 x 10R x 3 - 3	R1512 042 09 ¹⁾	11,500	12,300	60
A	16 x 16R x 3 - 2	R1512 060 12	7,560	7,600	96
A	16 x 16R x 3 - 2	R1512 062 10 ¹⁾	7,560	7,600	96
A	16 x 16R x 3 - 3	R1512 060 52	11,200	12,300	96
B	16 x 16R x 3 - 3	R1512 062 11 ¹⁾	11,200	12,300	96
B	20 x 5R x 3 - 4	R1512 112 43 ¹⁾	17,200	21,500	30
A	20 x 5R x 3 - 5	R1512 110 12	21,000	27,300	30
A	20 x 10R x 3 - 4	R1512 140 12	16,900	21,300	60
B	20 x 10R x 3 - 4	R1512 142 04 ¹⁾	16,900	21,300	60
A	20 x 20R x 3.5 - 2	R1512 170 12	10,900	12,100	120
B	20 x 20R x 3.5 - 3	R1512 170 52	16,000	18,800	120
A	20 x 20R x 3.5 - 3	R1512 172 07 ¹⁾	16,000	18,800	120
A	25 x 5R x 3 - 4	R1512 210 12	19,100	27,200	30
A	25 x 10R x 3 - 4	R1512 240 12	18,800	27,000	60
A	25 x 25R x 3.5 - 2	R1512 280 12	12,100	15,100	150
A	25 x 25R x 3.5 - 3	R1512 280 52	17,600	23,300	150
A	32 x 5R x 3.5 - 4	R1512 310 12	25,900	40,000	23
A	32 x 5R x 3.5 - 4	R1512 310 52 ²⁾	25,900	40,000	23
A	32 x 10R x 3.969 - 5	R1512 340 12	38,000	58,300	47
A	32 x 10R x 3.969 - 5	R1512 340 52 ²⁾	38,000	58,300	47
B	32 x 20R x 3.969 - 2	R1512 370 12	16,200	21,800	94
A	32 x 20R x 3.969 - 3	R1512 370 52	23,600	33,700	94
B	32 x 32R x 3.969 - 2	R1512 390 12	16,100	22,000	150
A	32 x 32R x 3.969 - 3	R1512 390 52	23,400	34,000	150
A	40 x 5R x 3.5 - 5	R1512 410 12	34,900	64,100	19
B	40 x 5R x 3.5 - 5	R1512 412 21 ¹⁾	34,900	64,100	19
A	40 x 10R x 6 - 4	R1512 440 12	60,000	86,400	38
B	40 x 10R x 6 - 6	R1512 440 22	86,500	132,200	38
A	40 x 20R x 6 - 3	R1512 470 12	45,500	62,800	75
A	40 x 40R x 6 - 2	R1512 490 12	30,600	40,300	150
A	40 x 40R x 6 - 3	R1512 490 52	44,400	62,300	150
B	50 x 5R x 3.5 - 5	R1512 510 12	38,400	81,300	15
A	50 x 10R x 6 - 6	R1512 540 12	95,600	166,500	30
B	50 x 20R x 6.5 - 3	R1512 570 12	57,500	87,900	60
B	63 x 10R x 6 - 6	R1512 640 12	106,600	214,300	24
B	80 x 10R x 6.5 - 6	R1512 740 12	130,100	291,700	19
Versions with left-hand lead					
A	16 x 5L x 3 - 4	R1552 010 02	14,800	16,100	30
B	20 x 5L x 3 - 5	R1552 110 12	21,000	27,300	30
B	20 x 5L x 3 - 4	R1552 112 04 ¹⁾	17,200	21,500	30
B	25 x 5L x 3 - 4	R1552 210 12	19,100	27,200	30
B	32 x 5L x 3.5 - 4	R1552 310 02	25,900	40,000	23
B	40 x 5L x 3.5 - 5	R1552 410 02	34,900	64,100	19
B	40 x 10L x 6 - 4	R1552 440 02	60,000	86,400	38

- 1) ZEM-E-K / nuts for Rexroth modules and drive units
- 2) ZEM-E-A / nuts with mounting dimensions as per DIN 69051, Part 5
- 3) See "Characteristic speed $d_0 \cdot n$ " on page 133 and "Critical speed n_{cr} " on page 174
- 4) Tolerance grade T3 for sizes shown in table page 12
- 5) The load ratings are valid for tolerance grade T3 and T5 only.
For other tolerance grades, please take into account the correction factor f_{ac} on page 133.



Size	(mm)										Mass
d ₀ x P x D _w - i	d ₁	d ₂	D ₁	D ₄	L	L ₆	L ₇	L ₁₁	B	T ₁	m
			g6		±0.1			+0.2	P9	+0.1	(kg)
16 x 5R x 3 - 4	15.0	12.9	28	4	35	14.5	9.5	12	5	3.0	0.09
16 x 5R x 3 - 4	15.0	12.9	33	2	45	14.5	9.5	16	5	3.0	0.17
16 x 10R x 3 - 3	15.0	12.9	28	4	45	14.5	9.5	16	5	3.0	0.12
16 x 10R x 3 - 3	15.0	12.9	38	4	54	19.0	9.5	16	5	3.0	0.35
16 x 10R x 3 - 3	15.0	12.9	33	4	45	14.5	9.5	16	5	3.0	0.20
16 x 16R x 3 - 2	15.0	12.9	33	4	45	14.5	9.5	16	5	3.0	0.20
16 x 16R x 3 - 2	15.0	12.9	28	4	45	14.5	9.5	16	5	3.0	0.12
16 x 16R x 3 - 3	15.0	12.9	28	4	61	22.5	9.5	16	5	3.0	0.16
16 x 16R x 3 - 3	15.0	12.9	38	4	61	22.5	9.5	16	5	3.0	0.42
20 x 5R x 3 - 4	19.0	16.9	38	4	40	21.0	9.5	12	5	3.0	0.21
20 x 5R x 3 - 5	19.0	16.9	33	4	45	14.5	9.5	16	5	3.0	0.16
20 x 10R x 3 - 4	19.0	16.9	33	4	60	22.0	9.5	16	5	3.0	0.16
20 x 10R x 3 - 4	19.0	16.9	38	4	64	22.0	9.5	20	5	3.0	0.46
20 x 20R x 3.5 - 2	19.0	16.7	38	4	64	22.0	9.5	20	5	3.0	0.34
20 x 20R x 3.5 - 3	19.0	16.7	36	4	77	28.5	9.5	20	5	3.0	0.37
20 x 20R x 3.5 - 3	19.0	16.7	38	4	77	28.5	9.5	20	5	3.0	0.44
25 x 5R x 3 - 4	24.0	21.9	38	4	45	14.5	9.5	16	5	3.0	0.19
25 x 10R x 3 - 4	24.0	21.9	38	4	64	22.0	9.5	20	5	3.0	0.28
25 x 25R x 3.5 - 2	24.0	21.4	48	4	80	30.0	10.5	20	5	3.0	0.73
25 x 25R x 3.5 - 3	24.0	21.4	40	4	95	37.5	10.5	20	5	3.0	0.50
32 x 5R x 3.5 - 4	31.0	28.4	48	4	48	14.0	9.5	20	5	3.0	0.32
32 x 5R x 3.5 - 4	31.0	28.4	50	4	48	14.0	9.5	20	5	3.0	0.35
32 x 10R x 3.969 - 5	31.0	27.9	48	4	77	28.5	9.5	20	5	3.0	0.50
32 x 10R x 3.969 - 5	31.0	27.9	50	4	77	28.5	9.5	20	5	3.0	0.61
32 x 20R x 3.969 - 2	31.0	27.9	56	4	64	22.0	9.5	20	5	3.0	0.74
32 x 20R x 3.969 - 3	31.0	27.9	50	4	84	32.0	9.5	20	5	3.0	0.66
32 x 32R x 3.969 - 2	31.0	27.9	56	4	88	34.0	9.5	20	5	3.0	1.03
32 x 32R x 3.969 - 3	31.0	27.9	50	4	120	50.0	9.5	20	5	3.0	0.97
40 x 5R x 3.5 - 5	39.0	36.4	56	4	54	17.0	9.5	20	5	3.0	0.44
40 x 5R x 3.5 - 5	39.0	36.4	63	4	70	25.0	14.0	20	5	3.0	0.82
40 x 10R x 6 - 4	38.0	33.8	63	4	70	25.0	14.0	20	5	3.0	0.88
40 x 10R x 6 - 6	38.0	33.8	63	4	90	35.0	14.0	20	5	3.0	1.15
40 x 20R x 6 - 3	38.0	33.8	63	4	88	34.0	14.0	20	5	3.0	1.13
40 x 40R x 6 - 2	38.0	33.8	72	4	113	46.5	14.0	20	5	3.0	2.23
40 x 40R x 6 - 3	38.0	33.8	63	4	142	61.0	14.0	20	5	3.0	1.85
50 x 5R x 3.5 - 5	49.0	46.4	68	4	54	17.0	9.5	20	5	3.0	0.62
50 x 10R x 6 - 6	48.0	43.8	72	5	90	35.0	14.0	20	5	3.0	1.34
50 x 20R x 6.5 - 3	48.0	43.4	85	5	92	30.0	14.0	32	6	3.5	2.39
63 x 10R x 6 - 6	61.0	56.8	85	5	90	29.0	14.0	32	6	3.5	1.59
80 x 10R x 6.5 - 6	78.0	73.3	105	5	95	31.5	15.0	32	6	3.5	2.23
Versions with left-hand lead											
16 x 5L x 3 - 4	15.0	12.9	28	4	35	14.5	9.5	12	5	3.0	0.09
20 x 5L x 3 - 5	19.0	16.9	33	4	45	14.5	9.5	16	5	3.0	0.16
20 x 5L x 3 - 4	19.0	16.9	38	4	40	21.0	9.5	12	5	3.0	0.21
25 x 5L x 3 - 4	24.0	21.9	38	4	45	14.5	9.5	16	5	3.0	0.19
32 x 5L x 3.5 - 4	31.0	28.4	48	4	48	14.0	9.5	20	5	3.0	0.32
40 x 5L x 3.5 - 5	39.0	36.4	56	4	54	17.0	9.5	20	5	3.0	0.44
40 x 10L x 6 - 4	38.0	33.8	63	4	70	25.0	14.0	20	5	3.0	0.88