

## Cylindrical single nut ZEM-E-S / ZEM-E-K<sup>1)</sup> / ZEM-E-A<sup>2)</sup>

### Rexroth connection dimensions

With seals Left-hand version in some cases

Preload class: C0, C00, C1, C2, C3

Tolerance grade T3<sup>4)</sup>, 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 $d_0 \times P \times D_w - i$	Part number	Load ratings <sup>5)</sup>		Linear speed <sup>3)</sup> $v_{max}$ (m/min)
			dyn. C (N)	stat. C <sub>0</sub> (N)	
B	16 x 5R x 3 - 4	R1512 010 22	14,800	16,100	30
B	16 x 5R x 3 - 4	R1512 012 67 <sup>1)</sup>	14,800	16,100	30
B	16 x 10R x 3 - 3	R1512 040 12	11,500	12,300	60
B	16 x 10R x 3 - 3	R1512 042 08 <sup>1)</sup>	11,500	12,300	60
B	16 x 10R x 3 - 3	R1512 042 09 <sup>1)</sup>	11,500	12,300	60
B	16 x 16R x 3 - 2	R1512 060 12	7,560	7,600	96
B	16 x 16R x 3 - 2	R1512 062 10 <sup>1)</sup>	7,560	7,600	96
B	16 x 16R x 3 - 3	R1512 060 52	11,200	12,300	96
B	16 x 16R x 3 - 3	R1512 062 11 <sup>1)</sup>	11,200	12,300	96
B	20 x 5R x 3 - 4	R1512 112 43 <sup>1)</sup>	17,200	21,500	30
B	20 x 5R x 3 - 5	R1512 110 12	21,000	27,300	30
B	20 x 10R x 3 - 4	R1512 140 12	16,900	21,300	60
B	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
B	20 x 20R x 3.5 - 3	R1512 172 07 <sup>1)</sup>	16,000	18,800	120
B	25 x 5R x 3 - 4	R1512 210 12	19,100	27,200	30
B	25 x 10R x 3 - 4	R1512 240 12	18,800	27,000	60
B	25 x 25R x 3.5 - 2	R1512 280 12	12,100	15,100	150
B	25 x 25R x 3.5 - 3	R1512 280 52	17,600	23,300	150
B	32 x 5R x 3.5 - 4	R1512 310 12	25,900	40,000	23
B	32 x 5R x 3.5 - 4	R1512 310 52 <sup>2)</sup>	25,900	40,000	23
B	32 x 10R x 3.969 - 5	R1512 340 12	38,000	58,300	47
B	32 x 10R x 3.969 - 5	R1512 340 52 <sup>2)</sup>	38,000	58,300	47
B	32 x 20R x 3.969 - 2	R1512 370 12	16,200	21,800	94
B	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
B	32 x 32R x 3.969 - 3	R1512 390 52	23,400	34,000	150
B	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 <sup>1)</sup>	34,900	64,100	19
B	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
B	40 x 20R x 6 - 3	R1512 470 12	45,500	62,800	75
B	40 x 40R x 6 - 2	R1512 490 12	30,600	40,300	150
B	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
B	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
C	80 x 10R x 6.5 - 6	R1512 740 12	130,100	291,700	19
<b>Versions with left-hand lead</b>					
B	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 <sup>1)</sup>	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

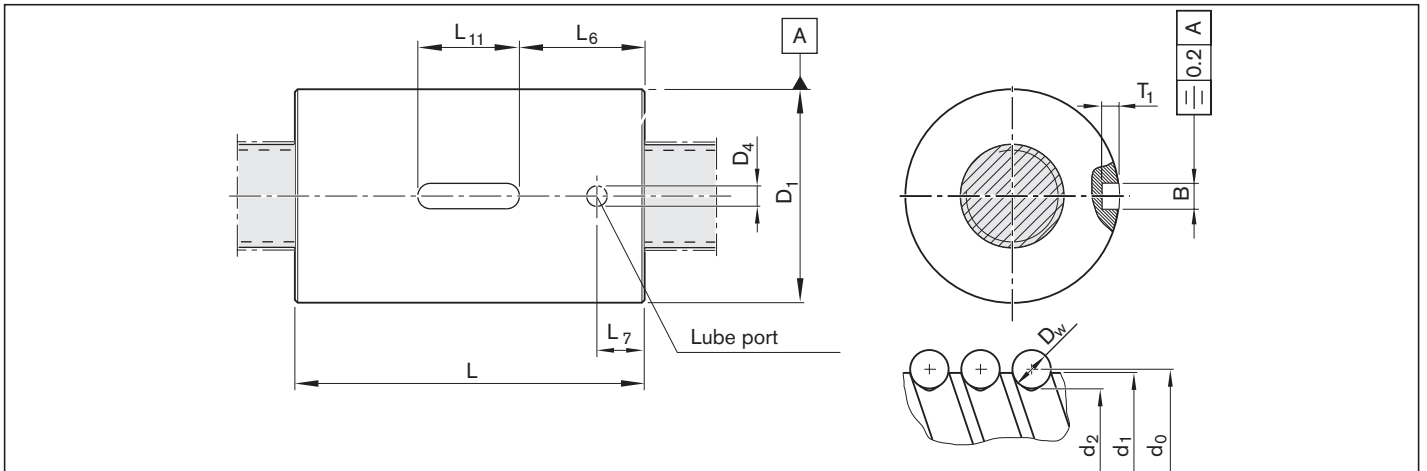
2) ZEM-E-A / nuts with mounting dimensions as per DIN 69051, Part 5

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 $d_0 \times P \times D_w - i$	(mm)											Mass  m (kg)
	$d_1$	$d_2$	$D_1$ g6	$D_4$	$L$ $\pm 0.1$	$L_6$	$L_7$	$L_{11}$ $+0.2$	$B$ P9	$T_1$ $+0.1$		
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 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	
<b>Versions with left-hand lead</b>												
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	