



# EXACTO HELICAL GEARS

TECHNICAL DATA SHEET

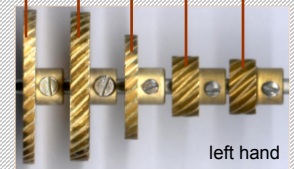
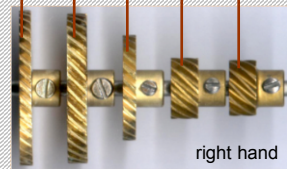
March 2002

Z (teeth)	36	36	35	35	24	24	14	14	12	12
Ø (mm)	39	39	38	38	27	27	15	15	14	14
hand	R	L	R	L	R	L	R	L	R	L
part	210	210a	211b	211y	210b	210c	211a	211c	211	211z
36	39	R	210	1:1 90° 38,1 (H)						
36	39	L	210a	1:1 0° 38,1 (H)	1:1 90° 38,1 (H)					
35	38	R	211b	1,03:1 90° 37,6	1,03:1 0° 37,6	1:1 90° 37,0				
35	38	L	211y	1,03:1 0° 37,6	1,03:1 90° 37,6	1:1 0° 37,0	1:1 90° 37,0			
24	27	R	210b	1,5:1 90° 31,8	1,5:1 0° 31,8	0,69:1 90° 31,2	0,69:1 0° 31,2	1:1 90° 25,4 (H)		
24	27	L	210c	1,5:1 0° 31,8	1,5:1 90° 31,8	0,69:1 0° 31,2	0,69:1 90° 31,2	1:1 0° 25,4 (H)	1:1 90° 25,4 (H)	
14	15	R	211a	2,57:1 90° 26,5	2,57:1 0° 26,5	0,40:1 90° 25,9	0,40:1 0° 25,9	1,71:1 90° 20,1	1,71:1 0° 20,1	1:1 90° 14,8
14	15	L	211c	2,57:1 0° 26,5	2,57:1 90° 26,5	2,5:1 0° 25,9	0,40:1 90° 25,9	1,71:1 0° 20,1	1,71:1 90° 20,1	1:1 0° 14,8
12	14	R	211	3:1 90° 25,4 (H)	3:1 0° 25,4 (H)	0,34:1 90° 24,9	0,34:1 0° 24,9	2:1 90° 19,1 (M)	2:1 0° 19,1 (M)	0,86:1 90° 13,8
12	14	L	211z	3:1 0° 25,4 (H)	3:1 90° 25,4 (H)	2,92:1 0° 24,9	2,92:1 90° 24,9	2:1 0° 19,1 (M)	2:1 90° 19,1 (M)	1,17:1 0° 13,8

part
face (mm)
Z

210	211b	210b	211a	211
3	5	3	6,3	6,3
36	35	24	14	12

210a	211y	210c	211c	211z
3	5	3	6,3	6,3
36	35	24	14	12



right hand convention: with the boss to the right, hand is right if helix descends from left to right

transmission ratio
0° = parallel
90° = orthogonal
distance between axis (mm)

Ø (mm): aprox. external diameter

(H) indicates meshings at hole distance (multiples of 1/2")

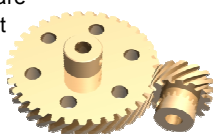
(M) indicates meshings at half hole distance (multiples of 1/4")

When meshing distance between axis is not at hole distance gears require special mountings

All helical gears are DP 34 (module 0,75), hobbled in brass on Swiss high precision Mikron machinery

Helical gears have a significantly smoother and more silent operation than normal gears

36 and 35 teeth gears are provided with 6 holes at standard spacing



0° - parallel axis meshings		
ratio	distance	gears
0,34:1	24,9	211 - 211y
0,40:1	25,9	211a - 211y
0,69:1	31,2	210c - 211b
0,69:1	31,2	210b - 211y
0,86:1	13,8	211 - 211c
1:1	12,7 (H)	211 - 211z
1:1	14,8	211a - 211c
1:1	25,4 (H)	210b - 210c
1:1	37,0	211b - 211y
1:1	38,1 (H)	210 - 210a
1,03:1	37,6	210a - 211b
1,03:1	37,6	210 - 211y
1,17:1	13,8	211a - 211z
1,5:1	31,8	210a - 210b
1,5:1	31,8	210 - 210c
1,71:1	20,1	210c - 211a
1,71:1	20,1	210b - 211c
2:1	19,1 (M)	210c - 211
2:1	19,1 (M)	210b - 211z
2,5:1	25,9	211b - 211c
2,57:1	26,5	210a - 211a
2,57:1	26,5	210 - 211c
2,92:1	24,9	211b - 211z
3:1	25,4 (H)	210a - 211
3:1	25,4 (H)	210 - 211z

90° - orthogonal axis meshings		
ratio	distance	gears
0,34:1	24,9	211 - 211b
0,40:1	25,9	211a - 211b
0,40:1	25,9	211c - 211y
0,69:1	31,2	210b - 211b
0,69:1	31,2	210c - 211y
0,86:1	13,8	211 - 211a
1:1	12,7 (H)	211 - 211
1:1	12,7 (H)	211z - 211z
1:1	14,8	211a - 211a
1:1	14,8	211c - 211c
1:1	25,4 (H)	210b - 210b
1:1	25,4 (H)	210c - 210c
1:1	37,0	211b - 211b
1:1	37,0	211y - 211y
1:1	38,1 (H)	210 - 210
1:1	38,1 (H)	210a - 210a
1,03:1	37,6	210 - 211b
1,03:1	37,6	210a - 211y
1,17:1	13,8	211c - 211z
1,5:1	31,8	210 - 210b
1,5:1	31,8	210a - 210c
1,71:1	20,1	210b - 211a
1,71:1	20,1	210c - 211c
2:1	19,1 (M)	210c - 211
2:1	19,1 (M)	210b - 211z
2,57:1	26,5	210 - 211a
2,57:1	26,5	210a - 211c
2,92:1	24,9	211y - 211z
3:1	25,4 (H)	210 - 211
3:1	25,4 (H)	210a - 211z



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