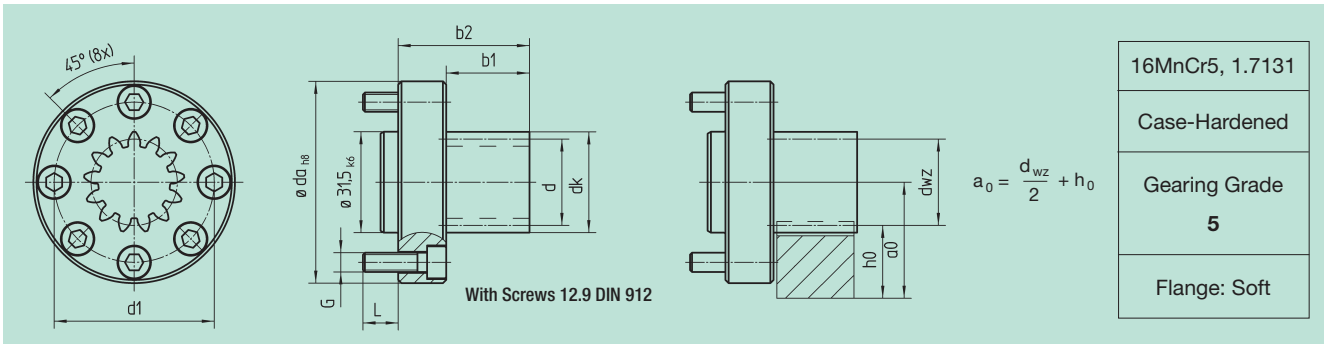
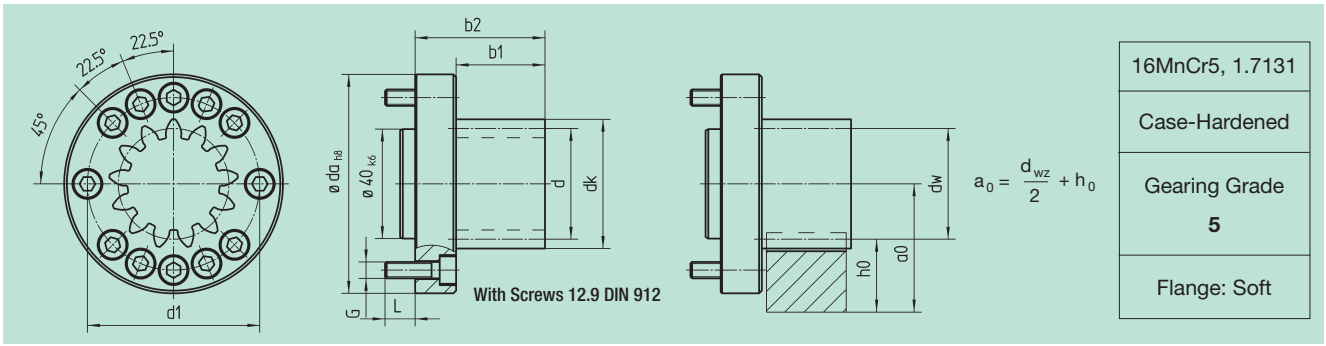
Bolt Circle-ø 50, straight tooth system



Order Code	No. of Teeth	Profile Modification Factor						Interface					
	z	x	d_{wz}	d_k	b_1	b_2	L	a_0	ISO	d_1	G	d_{ah8}	L	kg
Module 2														
78 21 813	13	0.366	27.47	31.5	26	41	81.68	35.73	9409-1-A-50	50	M6	63	11	0.5
78 21 817	17	-0.012	33.95	38.0	26	41	106.81	38.98	9409-1-A-50	50	M6	63	11	0.6

Further number of teeth on request, min. number of teeth 13, max. number of teeth 17

Bolt Circle-ø 63, straight tooth system



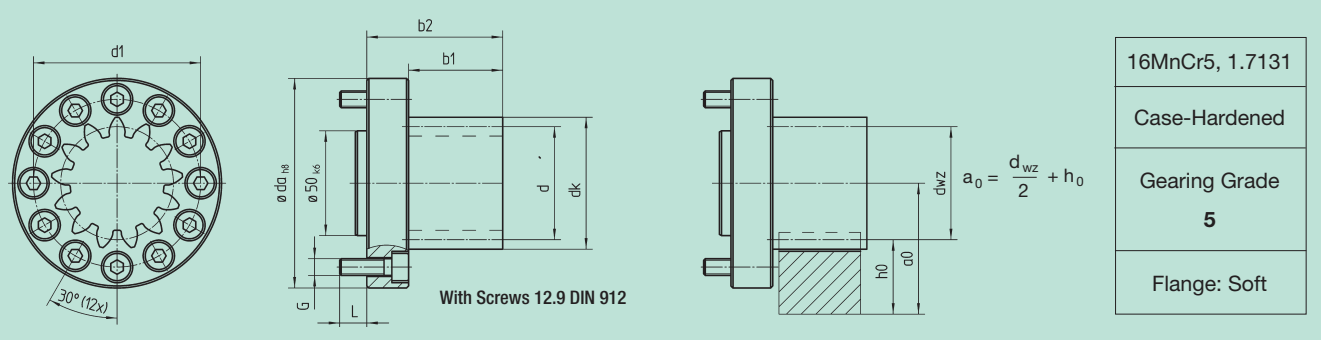
Order Code	No. of Teeth	Profile Modification Factor						Interface					
	z	x	d_{wz}	d_k	b_1	b_2	L	a_0	ISO	d_1	G	d_{ah8}	L	kg
Module 2														
78 22 813	13	0.366	27.47	31.5	26	41	81.68	35.73	9409-1-A-63	63	M6	80	11	0.8
78 22 817	17	-0.012	33.95	38.0	26	41	106.81	38.98	9409-1-A-63	63	M6	80	11	0.8
78 22 824	24	0.202	48.81	52.8	26	41	150.80	46.40	9409-1-A-63	63	M6	80	11	1.0

Further number of teeth on request, min. number of teeth 13, max. number of teeth 24

Module 3														
78 32 813	13	0.366	41.20	47.2	32.5	47.5	122.52	46.60	9409-1-A-63	63	M6	80	11	1.0

Further number of teeth on request, min. number of teeth 13, max. number of teeth 15

Bolt Circle-ø 80, straight tooth system



16MnCr5, 1.7131
Case-Hardened
Gearing Grade **5**
Flange: Soft

Order Code	No. of Teeth	Profile Modification Factor							Interface					
	z	x	d_{wz}	d_k	b_1	b_2	L	a_0	ISO	d_1	G	d_{ah8}	L	kg
Module 2														
78 23 813	13	0.366	27.47	31.5	26	46	81.68	35.73	9409-1-A-80	80	M6	100	13	1.4
78 23 824 (1)	24	0.202	48.81	52.8	26	46	150.80	46.40	9409-1-A-80	80	M6	100	13	1.6

Further number of teeth on request, min. number of teeth 13, max. number of teeth 31

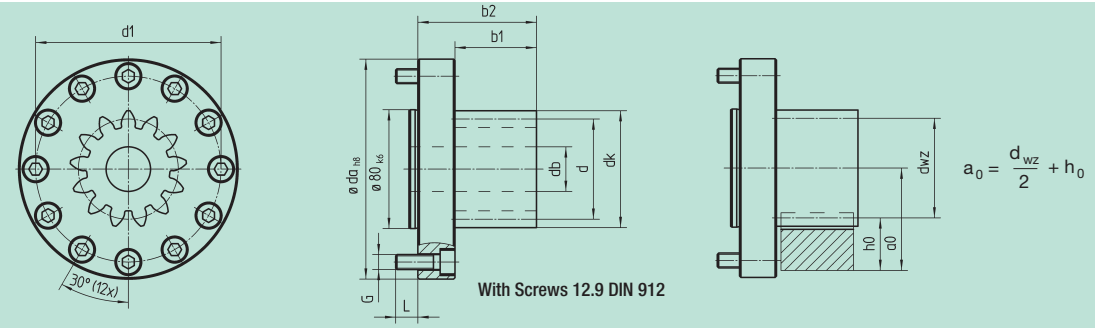
Module 3														
78 33 813	13	0.366	41.20	47.2	32.5	52.5	122.52	46.60	9409-1-A-80	80	M6	100	13	1.6
78 33 820	20	0.080	60.48	66.5	32.5	52.5	188.50	56.24	9409-1-A-80	80	M6	100	13	2.0

Further number of teeth on request, min. number of teeth 13, max. number of teeth 20

Module 4														
78 43 813	13	0.366	54.93	62.9	45	65	163.36	62.47	9409-1-A-80	80	M6	100	13	2.1
78 43 814	14	0.397	59.17	67.2	45	65	175.93	64.59	9409-1-A-80	80	M6	100	13	2.2

(1) Also available as pinion for counter bearing.

Bolt Circle-ø 125, straight tooth system



16MnCr5, 1.7131
Case-Hardened
Gearing Grade **5**
Flange: Soft

Order Code	No. of Teeth	Profile Modification Factor							Interface						
	z	x	d_{wz}	d_k	b_1	b_2	L	a_0	ISO	d_1	G	d_{ah8}	L	d_b	kg
Module 3															
78 34 813	13	0.366	41.20	47.2	32.5	57.5	122.52	46.60	9409-1-A-125	125	M10	148	15	–	3.8
78 34 413	13	0.366	41.20	47.2	32.5	57.5	122.52	46.60	–	125	M12	148	17	–	3.8
78 34 820	20	0.080	60.48	66.5	32.5	57.5	188.50	56.24	9409-1-A-125	125	M10	148	15	–	4.2
78 34 420	20	0.080	60.48	66.5	32.5	57.5	188.50	56.24	–	125	M12	148	17	–	4.2
78 34 427	27	0.294	82.76	88.8	32.5	57.5	254.47	67.38	–	125	M12	148	17	–	4.9
78 34 433	33	0.477	101.86	107.9	32.5	57.5	311.02	76.93	–	125	M12	148	17	–	5.6

Further number of teeth on request, min. number of teeth 13, max. number of teeth 34

Module 4															
78 44 813	13	0.366	54.93	62.9	45	70	163.36	62.47	9409-1-A-125	125	M10	148	15	–	4.4
78 44 413	13	0.366	54.93	62.9	45	70	163.36	62.47	–	125	M12	148	17	–	4.4
78 44 820	20	0.190	81.52	89.5	45	70	256.10	75.76	9409-1-A-125	125	M10	148	15	–	5.4
78 44 420	20	0.190	81.52	89.5	45	70	256.10	75.76	–	125	M12	148	17	–	5.4
78 44 821 (1)	21	0.110	84.88	92.9	45	70	263.89	77.44	9409-1-A-125	125	M10	148	15	–	5.5
78 44 421	21	0.110	84.88	92.9	45	70	263.89	77.44	–	125	M12	148	17	–	5.5
78 44 824	24	0.202	97.61	105.6	45	70	301.59	83.81	9409-1-A-125	125	M10	148	15	–	6.1
78 44 424	24	0.202	97.61	105.6	45	70	301.59	83.81	–	125	M12	148	17	–	6.1

Further number of teeth on request, min. number of teeth 13, max. number of teeth 24

Module 5															
78 54 813	13	0.366	68.66	78.7	55	80	204.20	68.33 (2)	9409-1-A-125	125	M10	148	15	–	5.1
78 54 413	13	0.366	68.66	78.7	55	80	204.20	68.33 (2)	–	125	M12	148	17	–	5.1
78 54 417	17	-0.012	84.88	94.9	55	80	267.04	79.44 (2)	–	125	M12	148	17	–	6.0
78 54 819	19	0.049	95.49	105.5	55	80	298.45	81.75 (2)	9409-1-A-125	125	M10	148	15	–	6.6
78 54 419	19	0.049	95.49	105.5	55	80	298.45	81.75 (2)	–	125	M12	148	17	–	6.6

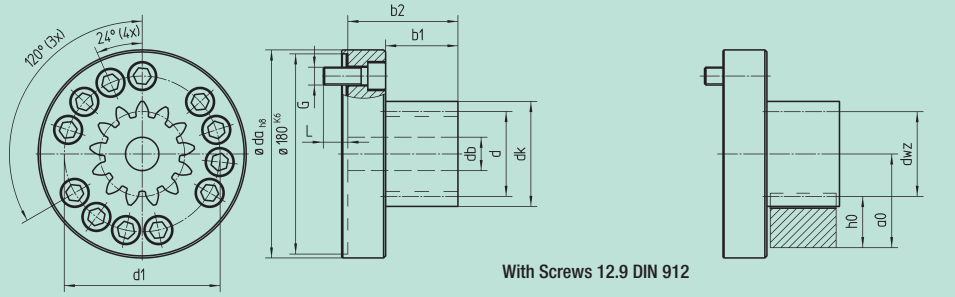
Further number of teeth on request, min. number of teeth 13, max. number of teeth 19

Module 6															
78 64 813	13	0.366	82.40	94.4	65	90	245.04	84.20	9409-1-A-125	125	M10	148	15	25	5.8
78 64 413	13	0.366	82.40	94.4	65	90	245.04	84.20	–	125	M12	148	17	25	5.9
78 64 814	14	0.397	88.76	100.8	65	90	263.89	87.38	9409-1-A-125	125	M10	148	15	25	6.3
78 64 816	16	-0.042	95.49	107.5	65	90	301.59	90.75	9409-1-A-125	125	M10	148	15	25	6.8

Further number of teeth on request, min. number of teeth 13, max. number of teeth 16

(1) Also available as pinion for counter bearing.
(2) For 29 55 ... $a'_0 = a_0 + 10$.

Bolt Circle-ø 140, straight tooth system



$$a_0 = \frac{d_{wz}}{2} + h_0$$

16MnCr5, 1.7131
Case-Hardened
Gearing Grade **5**
Flange: Soft

Order Code	No. of Teeth	Profile Modification Factor							Interface						
	z	x	d_{wz}	d_k	b_1	b_2	L	a_0	ISO	d_1	G	d_{ah8}	L	d_b	kg
Module 4															
78 46 813	13	0.366	54.93	62.9	45	79	163.36	62.47	–	140	M16	187	22	–	8.1
78 46 820	20	0.190	81.52	89.5	45	79	256.10	75.76	–	140	M16	187	22	–	9.1
78 46 821	21	0.110	84.88	92.9	45	79	263.89	77.44	–	140	M16	187	22	–	9.2

Further number of teeth on request, min. number of teeth 13, max. number of teeth 26

Module 5															
78 56 815	15	0.227	77.27	87.3	55	89	235.62	72.64 (2)	–	140	M16	187	22	–	9.2
78 56 820	20	0.080	100.80	110.8	55	89	314.16	84.40 (2)	–	140	M16	187	22	–	10.6

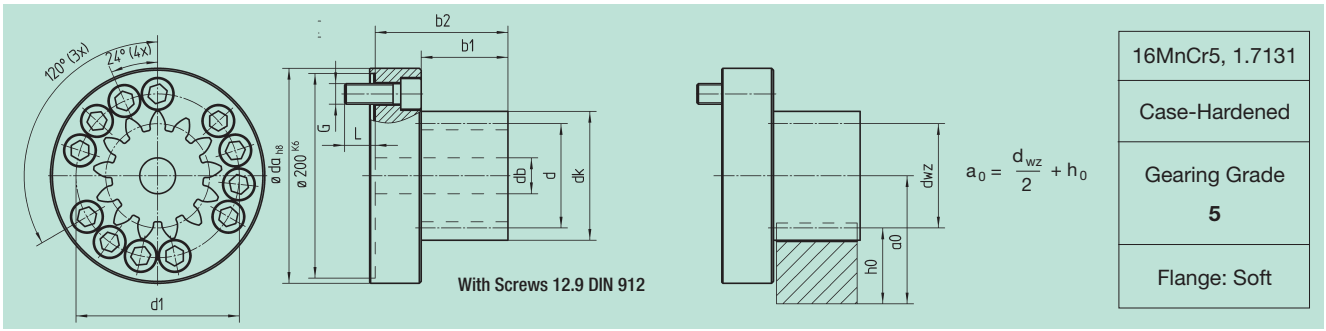
Further number of teeth on request, min. number of teeth 13, max. number of teeth 21

Module 6															
78 66 813	13	0.366	82.40	94.4	65	99	245.04	84.20	–	140	M16	187	22	25	9.5
78 66 817 (1)	17	-0.012	101.86	113.9	65	99	320.44	93.93	–	140	M16	187	22	25	10.9

Further number of teeth on request, min. number of teeth 13, max. number of teeth 17

(1) Also available as pinion for counter bearing.
(2) For 29 55 ... $a'_0 = a_0 + 10$.

Bolt Circle-ø 160, straight tooth system



Order Code	No. of Teeth	Profile Modification Factor							Interface						
	z	x	d_{wz}	d_k	b_1	b_2	L	a_0	ISO	d_1	G	d_{ah8}	L	d_b	kg
Module 5															
78 57 813	13	0.366	68.66	78.7	55	100	204.20	68.33 (2)	–	160	M20	210	30	–	13.8
78 57 820	20	0.080	100.80	110.8	55	100	314.16	84.40 (2)	–	160	M20	210	30	–	15.6

Further number of teeth on request, min. number of teeth 13, max. number of teeth 23

Module 6															
78 67 813	13	0.366	82.39	94.4	65	110	245.04	84.20	–	160	M20	210	30	25	14.5
78 67 817	17	-0.012	101.86	113.9	65	110	320.44	93.93	–	160	M20	210	30	25	15.9
78 67 819	19	0.049	114.59	126.6	65	110	358.14	100.30	–	160	M20	210	30	25	17.0

Further number of teeth on request, min. number of teeth 13, max. number of teeth 19

Module 8															
78 87 813	13	0.366	109.86	125.9	85	130	326.73	125.93	–	160	M20	210	30	30	17.8

(2) For 29 55 ... $a'_0 = a_0 + 10$.