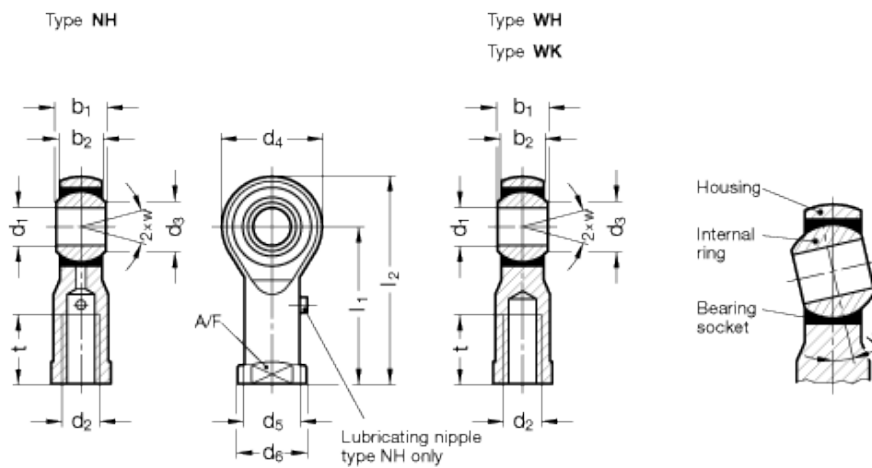


# GN 648.5

Ball joints with female thread



INOX  
Stainless Steel



## technical informations

### Housing

AISI 431 stainless steel.

### Standard executions available

- Version NH (lubrication possible): bronze CuSn8 bearing socket, hardened, ground and polished steel internal ring, hard chrome plated.
- Version WH (self lubricated): bronze CuSn8 bearing socket with PTFE-insert, hardened, ground and polished steel internal ring, hard chrome plated.

### Special executions on request (For sufficient quantities)

- Version WK (self lubricated): AISI 316 Ti stainless steel bearing socket with PTFE-insert, hardened, ground and polished German material no. 1.4034 stainless steel internal ring.
- Ball joints DIN ISO 12240-4, series E (narrow model) on request.

### Features and applications

Ball joints GN 648.5 are similar to DIN ISO 12240-4, series K (formerly DIN 648 K).

Standard Elements	Main dimensions												Movement angle	Weight
Description	d <sub>1 H7</sub>	d <sub>2</sub>	b <sub>1 -0.12</sub>	b <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	d <sub>5</sub>	d <sub>6</sub>	l <sub>1</sub>	l <sub>2</sub>	A/F	t	w	g
GN 648.5-5-M5-NH	5	M5	8	6	7.7	18	9	11	27	36	9	10	13	19
GN 648.5-5-M5L-NH	5	M6	8	6	7.7	18	9	11	27	36	9	10	13	19
GN 648.5-6-M6-NH	6	M6	9	6.75	8.9	20	10	13	30	40	11	12	13	26
GN 648.5-6-M6L-NH	6	M6	9	6.75	8.9	20	10	13	30	40	11	12	13	26
GN 648.5-8-M8-NH	8	M8	12	9	10.4	24	12.5	16	36	48	13	16	14	48
GN 648.5-8-M8L-NH	8	M8	12	9	10.4	24	12.5	16	36	48	13	16	14	48
GN 648.5-10-M10-NH	10	M10	14	10.5	12.9	28	15	19	43	57	17	20	13	76
GN 648.5-10-M10L-NH	10	M10	14	10.5	12.9	28	15	19	43	57	17	20	13	75
GN 648.5-12-M12-NH	12	M12	16	12	15.4	32	17.5	22	50	66	19	22	13	112
GN 648.5-12-M12L-NH	12	M12	16	12	15.4	32	17.5	22	50	66	19	22	13	111
GN 648.5-14-M14-NH	14	M14	19	13.5	16.8	36	20	25	57	75	22	25	16	165
GN 648.5-14-M14L-NH	14	M14	19	13.5	16.8	36	20	25	57	75	22	25	16	163
GN 648.5-16-M16-NH	16	M16	21	15	19.3	42	22	27	64	85	22	28	15	227
GN 648.5-16-M16L-NH	16	M16	21	15	19.3	42	22	27	64	85	22	28	15	225
GN 648.5-18-M18x1.5-NH	18	M18x1.5	23	16.5	21.8	46	25	31	71	94	27	32	15	322
GN 648.5-18-M18x1.5L-NH	18	M18x1.5	23	16.5	21.8	46	25	31	71	94	27	32	15	308
GN 648.5-20-M20x1.5-NH	20	M20x1.5	25	18	24.3	50	27.5	34	77	102	32	33	14	401
GN 648.5-20-M20x1.5L-NH	20	M20x1.5	25	18	24.3	50	27.5	34	77	102	32	33	14	407
GN 648.5-22-M22x1.5-NH	22	M22x1.5	28	20	25.8	54	30	37	84	111	32	37	15	510
GN 648.5-22-M22x1.5L-NH	22	M22x1.5	28	20	25.8	54	30	37	84	111	32	37	15	517
GN 648.5-25-M24x2-NH	25	M24x2	31	22	29.6	60	33.5	42	94	124	36	42	15	734
GN 648.5-25-M24x2L-NH	25	M24x2	31	22	29.6	60	33.5	42	94	124	36	42	15	734
GN 648.5-30-M30x2-NH	30	M30x2	37	25	34.8	70	40	51	110	145	41	51	17	1130
GN 648.5-30-M30x2L-NH	30	M30x2	37	25	34.8	70	40	51	110	145	41	51	17	1130
GN 648.5-5-M5-WH	5	M5	8	6	7.7	18	9	11	27	36	9	10	13	18
GN 648.5-5-M5L-WH	5	M5	8	6	7.7	18	9	11	27	36	9	10	13	18
GN 648.5-6-M6-WH	6	M6	9	6.75	8.9	20	10	13	30	40	11	12	13	25
GN 648.5-6-M6L-WH	6	M6	9	6.75	8.9	20	10	13	30	40	11	12	13	25
GN 648.5-8-M8-WH	8	M8	12	9	10.4	24	12.5	16	36	48	13	16	14	44
GN 648.5-8-M8L-WH	8	M8	12	9	10.4	24	12.5	16	36	48	13	16	14	45
GN 648.5-10-M10-WH	10	M10	14	10.5	12.9	28	15	19	43	57	17	20	13	70
GN 648.5-10-M10L-WH	10	M10	14	10.5	12.9	28	15	19	43	57	17	20	13	75
GN 648.5-12-M12-WH	12	M12	16	12	15.4	32	17.5	22	50	66	19	22	13	109
GN 648.5-12-M12L-WH	12	M12	16	12	15.4	32	17.5	22	50	66	19	22	13	110
GN 648.5-14-M14-WH	14	M14	19	13.5	16.8	36	20	25	57	75	22	25	16	164
GN 648.5-14-M14L-WH	14	M14	19	13.5	16.8	36	20	25	57	75	22	25	16	160
GN 648.5-16-M16-WH	16	M16	27	15	19.3	42	22	27	64	85	22	28	15	222
GN 648.5-16-M16L-WH	16	M16	21	15	19.3	42	22	27	64	85	22	28	15	220
GN 648.5-18-M18x1.5-WH	18	M18x1.5	23	16.5	21.8	46	25	31	71	94	27	32	15	309
GN 648.5-18-M18x1.5L-WH	18	M18x1.5	23	16.5	21.8	46	25	31	71	94	27	32	15	305
GN 648.5-20-M20x1.5-WH	20	M20x1.5	25	18	24.3	50	27.5	34	77	102	32	33	14	399
GN 648.5-20-M20x1.5L-WH	20	M20x1.5	25	18	24.3	50	27.5	34	77	102	32	33	14	400

GN 648.5-22-M22x1.5-WH	22	M22x1.5	28	20	25.8	54	30	37	84	111	32	37	15	515
GN 648.5-22-M22x1.5L-WH	22	M22x1.5	28	20	25.8	54	30	37	84	111	32	37	15	535
GN 648.5-25-M24x2-WH	25	M24x2	31	22	29.6	60	33.5	42	94	124	36	42	15	714
GN 648.5-25-M24x2L-WH	25	M24x2	31	22	29.6	60	33.5	42	94	124	36	42	15	730
GN 648.5-30-M30x2-WH	30	M30x2	37	25	34.8	70	40	51	110	145	41	51	17	1130
GN 648.5-30-M30x2L-WH	30	M30x2	37	25	34.8	70	40	51	110	145	41	51	17	1130
GN 648.5-5-M5-WK	5	M5	8	6	7.7	18	9	11	27	36	9	10	13	18
GN 648.5-5-M5L-WK	5	M5	8	6	7.7	18	9	11	27	36	9	10	13	18
GN 648.5-6-M6-WK	6	M6	9	6.75	8.9	20	10	13	30	40	11	12	13	25
GN 648.5-6-M6L-WK	6	M6	9	6.75	8.9	20	10	13	30	40	11	12	13	25
GN 648.5-8-M8-WK	8	M8	12	9	10.4	24	12.5	16	36	48	13	16	14	45
GN 648.5-8-M8L-WK	8	M8	12	9	10.4	24	12.5	16	36	48	13	16	14	44
GN 648.5-10-M10-WK	10	M10	14	10.5	12.9	28	15	19	43	57	17	20	13	72
GN 648.5-10-M10L-WK	10	M10	14	10.5	12.9	28	15	19	43	57	17	20	13	70
GN 648.5-12-M12-WK	12	M12	16	12	15.4	32	17.5	22	50	66	19	22	13	107
GN 648.5-12-M12L-WK	12	M12	16	12	15.4	32	17.5	22	50	66	19	22	13	107
GN 648.5-14-M14-WK	14	M14	19	13.5	16.8	36	20	25	57	75	22	25	16	161
GN 648.5-14-M14L-WK	14	M14	19	13.5	16.8	36	20	25	57	75	22	25	16	158
GN 648.5-16-M16-WK	16	M16	21	15	19.3	42	22	27	64	85	22	28	15	223
GN 648.5-16-M16L-WK	16	M16	21	15	19.3	42	22	27	64	85	22	28	15	313
GN 648.5-18-M18x1.5-WK	18	M18x1.5	23	16.5	21.8	46	25	31	71	94	27	32	15	390
GN 648.5-18-M18x1.5L-WK	18	M18x1.5	23	16.5	21.8	46	25	31	71	94	27	32	15	399
GN 648.5-20-M20x1.5-WK	20	M20x1.5	25	18	24.3	50	27.5	34	77	102	32	33	14	401
GN 648.5-20-M20x1.5L-WK	20	M20x1.5	25	18	24.3	50	27.5	34	77	102	32	33	14	407
GN 648.5-22-M22x1.5-WK	22	M22x1.5	28	20	25.8	54	30	37	84	111	32	37	15	515
GN 648.5-22-M22x1.5L-WK	22	M22x1.5	28	20	25.8	54	30	37	84	111	32	37	15	517
GN 648.5-25-M24x2-WK	25	M24x1	31	22	29.6	60	33.5	42	94	124	36	42	15	712
GN 648.5-25-M24x2L-WK	25	M24x2	31	22	29.6	60	33.5	42	94	124	36	42	15	719
GN 648.5-30-M30x2-WK	30	M30x2	37	25	34.8	70	40	51	110	145	41	51	17	1130
GN 648.5-30-M30x2L-WK	30	M30x2	37	25	34.8	70	40	51	110	145	41	51	17	1130



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