

## Ball Joint Heads

### Steel, with Internal Thread

#### SPECIFICATION

##### Types (pairings)

- Type **N**: Brass / Steel lubrication possible
- Type **W**: Steel-PTFE / Steel self lubricated

##### Housing Steel

- zinc plated, blue passivated
- d<sub>i</sub> = 5 up to 12: machined
- d<sub>i</sub> = 14 up to 25: forged

##### Pairings

Type N (lubrication possible)

Bearing socket

Brass, CuZn40Al1

Internal ring

Steel, 100Cr6

hardened, ground, polished

Type W (self lubricated)

Bearing socket

Steel, zinc plated

with PTFE-insert

Internal ring

Steel, 100Cr6

hardened, ground, polished

#### INFORMATION

Ball joint heads GN 648.1 are similar to DIN ISO 12240-4, series K (formerly DIN 648 K).

- More information to ball joints as well as load capacity (see page 1134)

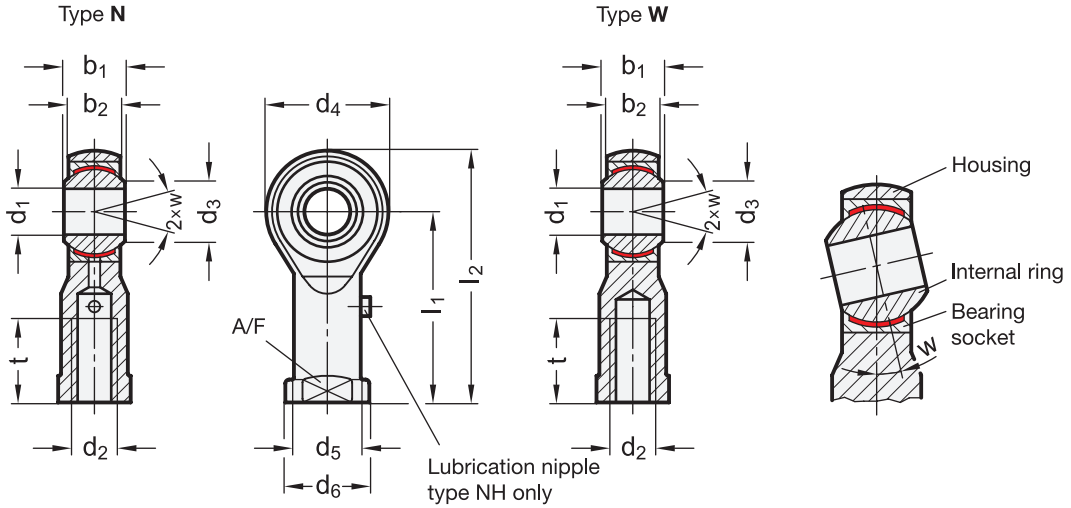
#### ON REQUEST

- narrow model (ISO 12240-1, series E)

#### TECHNICAL INFORMATION

- ISO-Fundamental Tolerances (see page A21)





\* Complete with type index of the Ball joint heads  
 N W

GN 648.1

Description	d1 H7	d2	b1 -0.12	b2	d3	d4	d5	d6	l1	l2	A/F	t	w	α
GN 648.1-5-M4-*	5	M 4***	8	6	7.7	18	9	11	27	36	9	10	13°	19
GN 648.1-5-M5-*	5	M 5	8	6	7.7	18	9	11	27	36	9	10	13°	20
GN 648.1-5-M5L-*	5	M 5L	8	6	7.7	18	9	11	27	36	9	10	13°	19
GN 648.1-6-M6-*	6	M 6	9	6.75	8.9	20	10	13	30	40	11	12	13°	25
GN 648.1-6-M6L-*	6	M 6L	9	6.75	8.9	20	10	13	30	40	11	12	13°	25
GN 648.1-8-M8-*	8	M 8	12	9	10.4	24	12.5	16	36	48	13	16	14°	45
GN 648.1-8-M8L-*	8	M 8L	12	9	10.4	24	12.5	16	36	48	13	16	14°	45
GN 648.1-10-M10-*	10	M 10	14	10.5	12.9	28	15	19	43	57	17	20	13°	75
GN 648.1-10-M10L-*	10	M 10L	14	10.5	12.9	28	15	19	43	57	17	20	13°	74
GN 648.1-10-M10x1,25-*	10	M 10 x 1.25***	14	10.5	12.9	28	15	19	43	57	17	20	13°	75
GN 648.1-12-M12-*	12	M 12	16	12	15.4	32	17.5	22	50	66	19	22	13°	110
GN 648.1-12-M12L-*	12	M 12L	16	12	15.4	32	17.5	22	50	66	19	22	13°	111
GN 648.1-12-M12x1,25-*	12	M 12 x 1.25***	16	12	15.4	32	17.5	22	50	66	19	22	13°	110
GN 648.1-14-M14-*	14	M 14	19	13.5	16.8	36	20	25	57	75	22	25	16°	167
GN 648.1-14-M14L-*	14	M 14L	19	13.5	16.8	36	20	25	57	75	22	25	16°	167
GN 648.1-16-M16-*	16	M 16	21	15	19.3	42	22	27	64	85	22	28	15°	225
GN 648.1-16-M16L-*	16	M 16L	21	15	19.3	42	22	27	64	85	22	28	15°	224
GN 648.1-16-M16x1,5-*	16	M 16 x 1.5***	21	15	19.3	42	22	27	64	85	22	28	15°	225
GN 648.1-18-M18x1,5-*	18	M 18 x 1.5	23	16.5	21.8	46	25	31	71	94	27	32	15°	318
GN 648.1-18-M18x1,5L-*	18	M 18 x 1.5L	23	16.5	21.8	46	25	31	71	94	27	32	15°	320
GN 648.1-20-M20x1,5-*	20	M 20 x 1.5	25	18	24.3	50	27.5	34	77	102	32	33	14°	405
GN 648.1-20-M20x1,5L-*	20	M 20 x 1.5L	25	18	24.3	50	27.5	34	77	102	32	33	14°	408
GN 648.1-22-M22x1,5-*	22	M 22 x 1.5	28	20	25.8	54	30	37	84	111	32	37	15°	505
GN 648.1-22-M22x1,5L-*	22	M 22 x 1.5L	28	20	25.8	54	30	37	84	111	32	37	15°	512
GN 648.1-25-M24x2-*	25	M 24 x 2	31	22	29.6	60	33.5	42	94	124	36	42	15°	720
GN 648.1-25-M24x2L-*	25	M 24 x 2L	31	22	29.6	60	33.5	42	94	124	36	42	15°	725
GN 648.1-30-M30x2-*	30**	M 30 x 2	37	25	34.8	70	40	51	110	145	41	51	17°	1100
GN 648.1-30-M30x2L-*	30**	M 30 x 2L	37	25	34.8	70	40	51	110	145	41	51	17°	1130

\*\* only available in type W | \*\*\* Cetop | L - Left-hand thread

Weight type W

