



3 Type (Pairings)

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

1 2

d ₁ H7	d ₂	Left hand thread	CETOP-connector dimensions	b ₁ -0,12	b ₂	d ₃	d ₄	d ₅	d ₆	l ₁	l ₂	A/F	t	w Move-ment angle
5	M 5	M 5L	M 4	8	6	7,7	18	9	11	27	36	9	10	13°
6	M 6	M 6L	-	9	6,75	8,9	20	10	13	30	40	11	12	13°
8	M 8	M 8L	-	12	9	10,4	24	12,5	16	36	48	13	16	14°
10	M 10	M 10L	M 10 x 1,25	14	10,5	12,9	28	15	19	43	57	17	20	13°
12	M 12	M 12L	M 12 x 1,25	16	12	15,4	32	17,5	22	50	66	19	22	13°
14	M 14	M 14L	-	19	13,5	16,8	36	20	25	57	75	22	25	16°
16	M 16	M 16L	M 16 x 1,5	21	15	19,3	42	22	27	64	85	22	28	15°
18	M 18 x 1,5	M 18 x 1,5L	-	23	16,5	21,8	46	25	31	71	94	27	32	15°
20	M 20 x 1,5	M 20 x 1,5L	-	25	18	24,3	50	27,5	34	77	102	32	33	14°
22	M 22 x 1,5	M 22 x 1,5L	-	28	20	25,8	54	30	37	84	111	32	37	15°
25	M 24 x 2	M 24 x 2L	-	31	22	29,6	60	33,5	42	94	124	36	42	15°
30*	M 30 x 2	M 30 x 2L	-	37	25	34,8	70	40	51	110	145	41	51	17°

* only available in type W

Specification

- Housing steel
 - Zinc plated, blue passivated
 - d₁ = 5 up to 12: machined
 - d₁ = 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

- ISO Fundamental Tolerances → Page 2151
- Plastic Characteristics → Page 2158
- RoHS

Information

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

see also...

- More Information to Ball Joint Heads as well as Load Capacity → Page 1654
- Ball Joint Heads with Internal Thread GN 648.5 (Stainless Steel) → Page 1658
- Ball Joints GN 648.8 → Page 1660

On request

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

How to order	1	d ₁
	2	d ₂
GN 648.1-16-M16x1,5-N	3	Type