

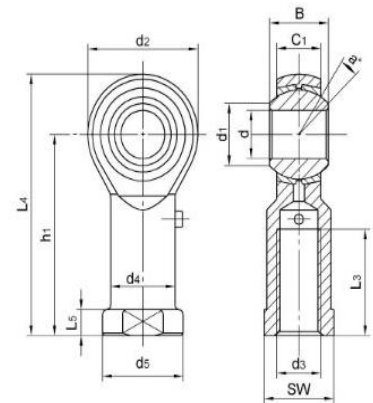
A rod end bearing, also known as a heim joint (N. America) or rose joint (U.K. and elsewhere), is a mechanical articulating joint. Such joints are used on the ends of control rods, steering links, tie rods, or anywhere a precision articulating joint is required, and where a clevis end (which requires perfect 90 degree alignment between the attached shaft and the second component) is unsuitable. A ball swivel with an opening through which a bolt or other attaching hardware may pass is pressed into a circular casing with a threaded shaft attached. The threaded portion may be either male or female.

The heim joint's advantage is that the ball insert permits the rod or bolt passing through it to be misaligned to a limited degree (an angle other than 90 degrees). A link terminated in two heim joints permits misalignment of their attached shafts (viz., other than 180 degrees) when used in tension. When used in compression, the through-rods are forced to the extreme ends of their ball's misalignment range, which cocks the link at an oblique angle.

Rod end bearing:PHS Series



**Ball:** Gcr15 Steel, heat treated, HRC58-64°; Precision ground, polished  
**Body:** Carbon steel, Zinc plated, chromate treated  
**Race:** Brass  
**Sliding contact surfaces:** Steel/Brass



Motion(shanghai)Industrial Development Co.,Ltd

Part No.	Dimensions(mm)													Ball ID	a0	Load		weight
	d H7	B	C1	d1	d2	d3-6H	h1	L3	(L4)	L5	d4	d5	sw		mis.	(KN)		≈Kg
															angle	Cr	Cor	
PHS3	3	6	4.5	5.1	12	M3	21	10	27	3	7	9	7	7.93	14	1.8	4.5	0.006
PHS4	4	7	5.25	6.5	14	M4	24	12	31	4	7.8	9.5	8	9.52	13	2.2	5.6	0.013
PHS5	5	8	6	7.7	16	M5	27	11	35	4	9	11	9	11.11	13	2.5	6.6	0.016
PHS6	6	9	6.75	8.9	18	M6	30	13	39	5	10	13	11	12.7	13	3.2	8.1	0.025
PHS8	8	12	9	10.3	22	M8	36	16	47	5	12.5	16	14	15.87	14	5.4	12.6	0.043
PHS10	10	14	10.5	12.9	26	M10	43	20	56	6.5	15	19	17	19.05	13	7.5	16.6	0.072
PHS12	12	16	12	15.4	30	M12	50	23	65	6.5	17.5	22	19	22.22	13	10	22	0.107
PHS14	14	19	13.5	16.8	34	M14	57	27	74	8	20	25	22	25.4	16	13	27.8	0.16
PHS15	15	20	14	18.1	36	M14	61	30	79	8	21	26	22	26.98	16	14.5	29	0.186
PHS16	16	21	15	19.3	38	M16	64	32	83	8	22	27	22	28.58	15	16	34.5	0.21
PHS17	17	22	16	20.6	40	M16x1.5	67	34	87	10	24	31	27	30.16	14	18	36	0.259
PHS18	18	23	16.5	21.8	42	M18X1.5	71	35	92	10	25	31	27	31.75	15	19.5	40.8	0.295
PHS20	20	25	18	24.3	46	M20x1.5	77	39	100	10	27.5	34	30	34.92	14	23	46.5	0.38
PHS22	22	28	20	25.8	50	M22X1.5	84	42	109	12	30	37	32	38.1	15	29	52.6	0.49
PHS25	25	31	22	29.5	60	M24x2	94	48	124	12	33.5	42	36	42.86	15	40.5	74.1	0.75
PHS28	28	35	24	32.3	66	M27x2	103	53	136	12	37	46	41	47.63	15	46.1	88.7	0.95

PHS30	30	37	25	34.8	70	M30x2	110	56	145	15	40	50	41	50.8	17	54.3	94	1.13
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