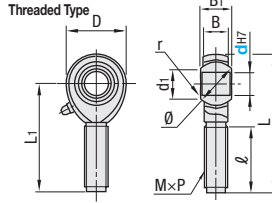
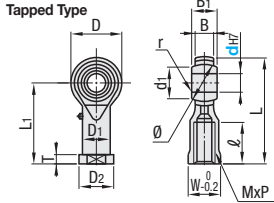


# Rod End Bearings

## Standard L Short Type



RoHS 10



- Mechanical Properties
  - Tensile Strength 275~314N/mm<sup>2</sup>
  - Tensile Proof Strength (0.2%) 216~245N/mm<sup>2</sup>
- The thread end of L Short Type has no surface treatment.
- The above drawing is for Standard Type. L Short Type does not have T/W dimension.

\* Tolerance of B Dimension and B-1 Dimensions

Type	B	B-1
①	0~-0.1	±0.1
②	+0.1~-0.4	0~-0.1
③	±0.3	0~-0.13

Type	Standard				L Short Type				Material		
	Tapped Type		Threaded Type		Tapped Type		Threaded Type		Holder	Spherical Inner Ring	Bushing (Liner)
	Right-Hand Thread	Left-Hand Thread	Right-Hand Thread	Left-Hand Thread	Right-Hand Thread	Left-Hand Thread	Right-Hand Thread	Left-Hand Thread			
① Steel	PHSC	PHSCL	PHSO	PHSOL	PHSCMN	PHSCLMN	PHSOMN	-	S35C (Trivalent Chromate)	*SUJ2(S8HRC-)	Special Copper Alloy
② Lubrication Free	PHSCM	PHSCLM	PHSOM	PHSOLM	PHSCMN	PHSCLMN	PHSOMN	-	d3, 4 S53C (Trivalent Chromate)	*SUJ2(S8HRC-)	Self-Lubricating Synthetic Resin
③ Stainless Steel Oil Free	PHSS	PHSSL	PHSOS	PHSOSL	PHSSN	PHSSLN	PHSOSN	-	SUS303	SUS440C(S8HRC-)	Polytetrafluoroethylene

### Applicable Shaft Fits

Usage Condition	Tolerance of Shaft Dimensions		
	Steel	Lubrication Free	Stainless Steel Oil Free
Normal Load	h7	p6	Recommended gap between Sleeve and Shaft -0.01 to 0.013
Non-directional Load	p6	p6	

### \* Hard Chrome Plating

Gap between Holder and Inner Ring	Unit: mm			Torque	Unit: N · m
	Steel	Lubrication Free	Stainless Steel Oil Free		
Radial Director Clearance	0.035 or Less	0.045 or Less	No regulation	No regulation	0.02~0.34
Axial Clearance	0.1 or Less	0.1 or Less	No regulation	No regulation	0.02~0.34

### Allowable Incline

Shaft Step Shape	Shaft Condition	Allowable Incline Angle α
Large	Stepped part of the shaft contacts the outer circumference of the holder.	Small (α1)
Medium	Stepped part of the shaft contacts the side or the inner circumference of the holder.	Medium (α2)
No	Shaft contacts the inner circumference of the holder.	Large (α3)

Part Number	Type	d	D	D1	D2	L		L1		MxP	ℓ		B	B1	T	W	d1	r	Static Load Capacity Radial Cs (kN)				Mass					
						Standard	Short	Standard	Short		Standard	Short							(1)(2)	(3)	(1)	(2)	(3)	(1)(2)	(3)			
Standard	L Short Type	3	12	6.5	8	27	-	21	-	M3x0.5	10	-	4.5	6	3	7	7.4	-	0.3	1.57	-	6.5	-	-	-	-	-	
		4	14	8	9.5	31	-	24	-	M4x0.7	12	12.5	7	6	4	8	7.7	8.8	-	5.59	3.92	0.98	16.5	16	-	-	-	
		5	16	9	11	35	28	27	20	M5x0.8	14	13.5	10	6.75	9	11	9	11.1	-	6.86	5	1.44	25	25	-	-	-	
		6	18	10	13	39	35	30	26	M6x1.0	16	16	12	9	12	5	14	10.4	12.7	-	9.8	7.45	2.69	43	43	-	-	
		8	22	12.5	16	47	42	36	31	M8x1.25	17	16	12	9	12	5	14	10.4	12.7	-	9.8	7.45	2.69	43	43	-	-	
		10	26	15	19	56	49	43	36	M10x1.5	21	19	-	14	10.5	14	6.5	17	12.9	15.2	-	13.2	-	-	72	72	-	-
		12	30	17.5	22	65	59	50	44	M12x1.75	24	24	18	12	16	8	19	15.4	17.6	-	16.7	11	5.88	107	107	-	-	
		14	34	20	25	74	66	57	49	M14x2.0	27	27	-	19	13.5	19	8	22	16.9	19.2	-	20.6	15.2	6.61	160	160	-	-
		14A	34	20	25	74	66	57	49	M14x2.0	27	27	-	19	13.5	19	8	22	16.9	19.2	-	20.6	15.2	6.61	160	160	-	-
		16	38	22	27	83	70	64	51	M16x2.0	33	33	20	15	21	10	27	19.4	21.9	-	25	20.2	8.33	210	210	-	-	
18	42	25	31	92	81	71	60	M18x2.5	36	-	25	16.5	23	10	27	21.9	21.9	-	29.4	-	-	295	295	-	-			
18A	42	25	31	92	81	71	60	M18x2.5	36	-	25	16.5	23	10	27	21.9	21.9	-	29.4	-	-	295	295	-	-			
20	46	27.5	34	100	87	77	64	M20x1.5	40	-	27	18	25	10	30	24.4	-	-	34.3	27.8	-	380	380	-	-			
22	50	30	37	109	99	84	74	M22x1.5	43	-	33	20	28	12	32	25.8	-	-	41.2	35.9	-	490	490	-	-			

① Steel, ② Lubrication Free, ③ Stainless Steel Oil Free

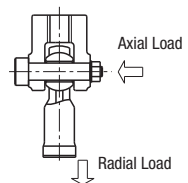
Part Number	Type	d	D	L		L1		MxP	ℓ		B	B1	d1			r	Static Load Capacity Radial Cs (kN)				Mass				
				Standard	Short	Standard	Short		Standard	Short			(1)(2)	(3)	(1)		(2)	(3)	(1)	(2)	(3)				
Standard	L Short Type	3	12	33	-	27	-	M3x0.5	15	-	4.5	6	7.4	-	0.3	-	1.57	-	4.5	-	-	-	-	-	-
		4	14	37	-	30	-	M4x0.7	17	-	5.3	7	7.6	-	0.3	-	2.25	-	6.5	-	-	-	-	-	
		5	16	41	28	33	20	M5x0.8	20	7	6	8	7.7	8.8	-	0.3	3.43	3.43	0.98	12.5	12	-	-	-	
		6	18	45	33	36	24	M6x1.0	22	10	6.75	9	9	11.1	-	0.3	4.9	4.9	1.44	19	19	-	-	-	
		8	22	53	40	42	29	M8x1.25	25	12	9	12	10.4	12.7	-	0.3	6.86	6.86	2.69	32	32	-	-	-	
		10	26	61	46	48	33	M10x1.5	29	14	10.5	14	12.9	15.2	-	0.3	10.8	9.41	4.16	54	54	-	-	-	
		12	30	69	54	54	39	M12x1.75	33	18	12	16	15.4	17.6	-	0.3	16.7	11	5.88	85	85	-	-	-	
		14	34	77	60	60	43	M14x2.0	36	19	13.5	19	16.9	19.2	-	0.3	20.6	15.2	6.61	126	126	-	-	-	
		14A	34	77	60	60	43	M14x2.0	36	19	13.5	19	16.9	19.2	-	0.3	20.6	15.2	6.61	126	126	-	-	-	
		16	38	85	65	66	46	M16x2.0	40	20	15	21	19.4	19.4	-	0.3	25	20.2	8.33	185	185	-	-	-	
18	42	93	74	72	53	M18x2.5	44	25	16.5	23	21.9	21.9	-	0.3	29.4	-	-	260	260	-	-	-			
18A	42	93	74	72	53	M18x2.5	44	25	16.5	23	21.9	21.9	-	0.3	29.4	-	-	260	260	-	-	-			
20	46	101	84	78	61	M20x1.5	47	30	18	25	24.4	-	-	0.3	34.3	27.8	-	340	340	-	-	-			
22	50	109	91	84	66	M22x1.5	51	33	20	28	25.8	-	-	0.3	41.2	35.9	-	435	435	-	-	-			

① Steel, ② Lubrication Free, ③ Stainless Steel Oil Free \*No Grease Nipple for PHSO(L)5 - 6 and PHSO(L)N5 - 6.

Ordering Example PHC5

kgf=Nx0.101972

### \*Cautions on Installation



⊙ Rod End cannot bear the thrust load.

⊙ L Short Type is available for the types whose prices are shown in the below Standard Type price table (d3 and d4 are not available).

d	Standard											
	PHSC, PHSCL		PHSO, PHSOL		PHSCMN, PHSCLMN		PHSOMN, PHSOLMN		PHSS, PHSSL		PHSOSN, PHSOSL	
	Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate
3	1~9 pc(s)	10~30 pc.	1~9 pc(s)	10~30 pc.	1~9 pc(s)	10~50 pc.	1~9 pc(s)	10~50 pc.	1~9 pc(s)	10~30 pc.	1~9 pc(s)	10~30 pc.
4	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
14A	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
18A	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-

⊙ For orders larger than indicated quantity, please check with WOS.