



Rod End Bearings

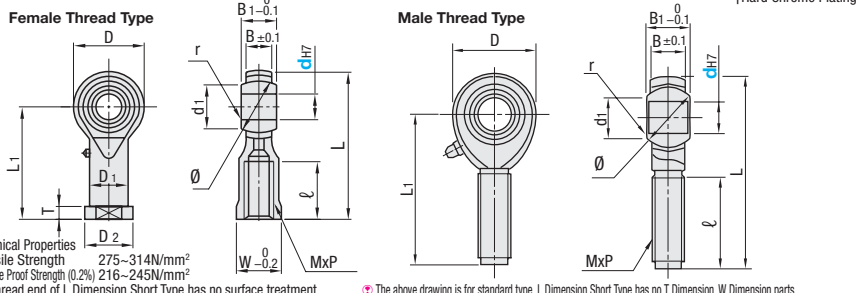
-Standard Type-

Price Reduction
Average 10%

CAD Data



Type	Standard Type				L Dimension Short Type				Holder	Spherical Inner Ring	Bushing (Liner)
	Female Thread		Male Thread		Female Thread		Male Thread				
	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	PHSCN	PHSCLN	PHSON	PHSOLN	1.1181/C35E (Trivalent Chromate) C3-4 1.1181/C35E (Trivalent Chromate)	1.3505/100D6 (58HRc-1) 1.3505/100D6 (58HRc-1)	Special Copper Alloy Self-Lubricating Synthetic Resin
(2) Oil Free	PHSCM	PHSCLM	PHSOM	PHSOLM	PHSCMN	PHSCLMN	PHSONM	PHSOLMN	Other than above 1.1181/C35E (Trivalent Chromate)	1.3505/100D6 (58HRc-1) 1.3505/100D6 (58HRc-1)	Polytetrafluoroethylene Polytetrafluoroethylene
(3) Stainless Steel Oil Free	PHSS	PHSSL	PHSOS	PHSOSL	PHSSN	PHSSLN	PHSONS	PHSOSLN	1.4305/X10C/N518-9	1.4725/X10C/M17 (58HRc-1)	Polytetrafluoroethylene
(4) Aluminum Oil Free	PHSA	PHSAL	-	-	-	-	-	-	Aluminum Alloy	1.3505/100D6 (58HRc-1) Corrosion Resistance Coating	Special Fluororesin



•Mechanical Properties
- Tensile Strength 275-314N/mm²
- Tensile Proof Strength (0.2%) 216-245N/mm²

•The thread end of L Dimension Short Type has no surface treatment. •The above drawing is for standard type. L Dimension Short Type has no T Dimension, W Dimension parts.

Part Number	Type	d	D	D1	D2	L		MxP	B		B1	T	W	d1	r	Static Load Capacity Radial Cs (kN)	Mass (g)		
						Standard	Short		(1)	(2)(3)									
Female Thread Type																			
Standard Type L Short Type																			
Right-Hand Thread																			
PHSC	PHSCL	PHSO	PHSOL	PHSCN	PHSCLN	PHSON	PHSOLN	M10x1.5	21	19	23	10.3	11	14	6.5	17	13.2	61	41
PHSCM	PHSCLM	PHSOM	PHSOLM	PHSCMN	PHSCLMN	PHSONM	PHSOLMN	M10x1.5	21	19	23	10.3	11	14	6.5	17	13.2	61	41
PHSS	PHSSL	PHSOS	PHSOSL	PHSSN	PHSSLN	PHSONS	PHSOSLN	M10x1.5	21	19	23	10.3	11	14	6.5	17	13.2	61	41
PHSA	PHSAL	-	-	-	-	-	-	M10x1.5	21	19	23	10.3	11	14	6.5	17	13.2	61	41
Left-Hand Thread																			
PHSCL	PHSCLN	PHSCLM	PHSCLMN	PHSCLN	PHSCLN	PHSCLN	PHSCLN	M10x1.5	21	19	23	10.3	11	14	6.5	17	13.2	61	41
PHSCLM	PHSCLMN	PHSCLM	PHSCLMN	PHSCLM	PHSCLMN	PHSCLM	PHSCLMN	M10x1.5	21	19	23	10.3	11	14	6.5	17	13.2	61	41
PHSSL	PHSSLN	PHSSL	PHSSLN	PHSSL	PHSSLN	PHSSL	PHSSLN	M10x1.5	21	19	23	10.3	11	14	6.5	17	13.2	61	41
PHSAL	PHSAL	-	-	-	-	-	-	M10x1.5	21	19	23	10.3	11	14	6.5	17	13.2	61	41
For L Dimension Short Type, available dimensions are d5 to d22 are applicable.																			

•(1) Steel, (2) Oil Free, (3) Stainless Steel Oil Free, (4) Aluminum Oil Free kgf=Nx0.101972

Part Number	Type	d	D	Standard	Short	Standard	Short	MxP	B		B1	d1	r	Static Load Capacity Radial Cs (kN)	Mass (g)				
									(1)	(2)(3)									
Male Thread Type																			
Standard Type L Dimension Short Type																			
Right-Hand Thread																			
PHSO	PHSON	PHSOM	PHSOLM	PHSON	PHSON	PHSON	PHSON	M10x1.5	21	19	23	10.3	11	14	6.5	17	13.2	61	41
PHSO	PHSON	PHSOM	PHSOLM	PHSON	PHSON	PHSON	PHSON	M10x1.5	21	19	23	10.3	11	14	6.5	17	13.2	61	41
PHSO	PHSON	PHSOM	PHSOLM	PHSON	PHSON	PHSON	PHSON	M10x1.5	21	19	23	10.3	11	14	6.5	17	13.2	61	41
Left-Hand Thread																			
PHSOL	PHSOLN	PHSOLM	PHSOLMN	PHSOLN	PHSOLN	PHSOLN	PHSOLN	M10x1.5	21	19	23	10.3	11	14	6.5	17	13.2	61	41
PHSOL	PHSOLN	PHSOLM	PHSOLMN	PHSOLN	PHSOLN	PHSOLN	PHSOLN	M10x1.5	21	19	23	10.3	11	14	6.5	17	13.2	61	41
PHSOL	PHSOLN	PHSOLM	PHSOLMN	PHSOLN	PHSOLN	PHSOLN	PHSOLN	M10x1.5	21	19	23	10.3	11	14	6.5	17	13.2	61	41
For L Dimension Short Type, available dimensions are d5 to d22 are applicable.																			

•(1) Steel, (2) Oil Free, (3) Stainless Steel Oil Free kgf=Nx0.101972

Order Example PHSC5

Days to Ship **6 Days** P.92

Oil Free, Stainless Steel Oil Free, Aluminum Oil Free Type **8 Days** P.92

L Dimension Short Type **10 Days** P.92

•An Express Charge of 8,10 EUR for 3 or more identical pieces.

1. Shaft Fitting

Condition of Use	Tolerance of Shaft Dimension		
	Steel Oil Free	Stainless Steel Oil Free	Aluminum Oil Free
Normal Load	h7	p6	h7
Indeterminate Direction Load	p6	p6	n6, p6

2. Clearance Unit: mm

	Steel	Oil Free - Stainless Steel Oil Free/Aluminum Oil Free
Radial Direction Clearance	0.035 or Less	0.045 or Less 0.03 or Less
Axial Direction Clearance	0.1 or Less	0.1 or Less 0.1 or Less

3. Allowable Slant Face

•(1) Steel, (2) Oil Free, (3) Stainless Steel Oil Free, (4) Aluminum Oil Free

•The unit price of L Dimension Short Type is Standard Type shown below + 6.00 EUR. •L Dimension Short Type is available for the types whose prices are shown in the below Standard Type price table. (d3 and d4 are not available)

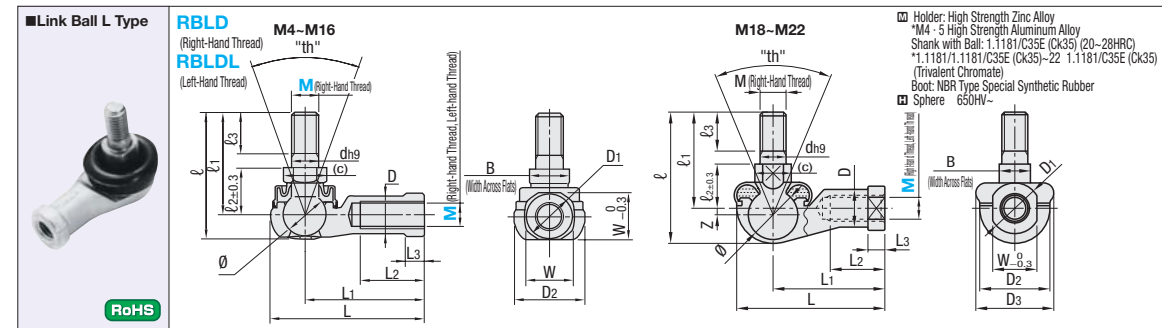
d	PHSC - PHSCL		PHSO - PHSOL		PHSCM - PHSCLM		PHSOM - PHSOLM		PHSS - PHSSL		PHSOS - PHSOSL		PHSA - PHSAL	
	Qty.1-9	10-	Qty.1-9	10-	Qty.1-9	Qty.10-49	Qty.1-9	Qty.10-49	Qty.1-9	Qty.10-49	Qty.1-9	Qty.10-49	Qty.1-9	Qty.10-19
3	-	-	-	-	9.30	9.50	9.20	8.70	-	-	-	-	-	-
4	-	-	-	-	9.30	8.80	8.70	8.30	-	-	-	-	-	-
5	7.50	7.30	6.90	6.70	10.90	10.50	10.40	10.10	24.70	23.90	24.70	23.90	10.80	10.20
6	7.50	7.30	6.90	6.70	11.70	11.30	10.70	10.40	25.50	24.70	25.50	24.70	11.20	10.60
8	8.70	8.40	8.10	7.85	13.10	12.70	12.30	11.90	29.40	28.50	29.40	28.50	12.80	12.10
10	9.40	9.10	8.50	8.20	14.90	14.50	14.10	13.70	34.40	33.30	34.40	33.30	14.50	13.70
10A	11.00	10.70	10.30	10.00	-	-	-	-	-	-	-	-	-	-
12	10.60	10.30	10.20	9.90	18.50	17.80	16.30	15.80	38.90	37.70	38.90	37.70	16.30	15.40
14	15.80	15.40	15.40	15.00	20.80	19.70	20.20	19.20	50.70	48.20	50.70	48.20	-	-
14A	17.20	16.70	16.80	16.30	-	-	-	-	-	-	-	-	-	-
16	16.40	15.90	15.40	14.90	29.00	27.50	27.30	25.90	82.70	82.70	82.70	78.60	-	-
18	23.40	23.00	22.80	22.30	-	-	-	-	-	-	-	-	-	-
18A	24.00	23.50	23.60	23.10	34.20	32.50	31.30	29.70	96.10	91.30	-	-	-	-
20	27.80	26.40	26.70	25.40	-	-	-	-	-	-	-	-	-	-
22	33.30	31.60	32.30	30.70	-	-	-	-	-	-	-	-	-	-



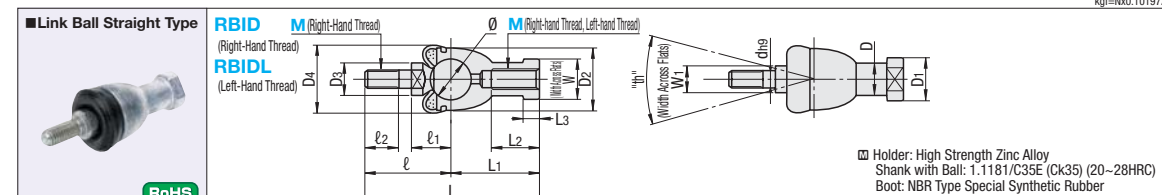
Rod End Bearings

-Link Ball Type with Thread, Compact Embedded Type-

CAD Data



Part Number	Type	M	D	D1	D2	D3	L		MxP	L3	W	dh9	(c)	ℓ	ℓ1	ℓ2	ℓ3	B	Eccentricity Z	Ball Dia. Omm	Allowable Slant Angle "th"	Strength of Yielding Point Pk (N)	Static Load Capacity		Mass (g)	Unit Price	
							Standard	Short															Tensile Cs (N)	Compression Cs (N)		Qty. 1-9	10-
RBLD (Right-Hand Thread)																											
RBLDL (Left-Hand Thread)																											
RBLD (Right-Hand Thread)																											
RBLDL (Left-Hand Thread)																											
For orders larger than indicated values, please request for quotation. kgf=Nx0.101972																											



Part Number	Type	M	D	D1	D2	L	L1	L2	MxP	L3	W	dh9	ℓ	ℓ1	ℓ2	W1	D3	D4	Ball Dia. Omm	Allowable Slant Angle "th"	Strength of Yielding Point Pk (N)	Static Load Capacity		Mass (g)	Unit Price	
																						Perpendicular Direction to Axis	Axial Direction (Tension)		Qty. 1-9	10-49
RBID (Right-Hand Thread)																										
RBIDL (Left-Hand Thread)																										
For orders larger than indicated values, please request for quotation. kgf=Nx0.101972																										

Order Example RBLD8
RBLDL12A
RBTS10

Days to Ship **6 Days** P.92

1. Clearance of Sphere Unit: mm

	RBLD - RBLDL	RBID - RBIDL	RBTS
Radial Direction Clearance	0.02 - 0.06	0.03 or Less	0.03 or Less
Axial Direction Clearance	0.3 or Less	0.1 or Less	0.1 or Less

2. H10 tolerance is recommended for applicable hole to shank with ball.

3. Strength of yielding point (Pk) shows the strength of the direction shown in the figure below.

Part Number	Type	M	L	L1	L2	L3	L4	M1xP	W	dh9	MxP	ℓ	ℓ1	ℓ2	D	W1	Ball Dia. Omm	Allowable Slant Angle "th"	Strength of Yielding Point Pk (N)	Static Load Capacity			Mass (g)	Unit Price	
																				Perpendicular Direction to Axis	Axial Direction (Tension)	Axial Direction (Compression)		Qty. 1-9	10-29
RBID - RBIDL - RBTS																									
For orders larger than indicated values, please request for quotation. kgf=Nx0.101972																									