

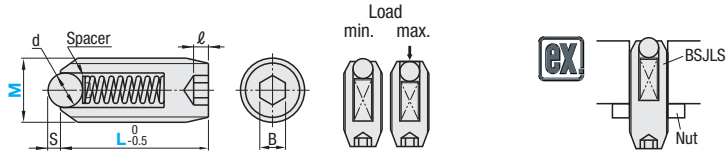
Ball Plungers / Wrenches for Ball Plungers

L Selectable Long / L Selectable Stainless Steel Long

L Selectable Long



Type	Body			Ball		Spring	Spacer	Operating		
	M Material	H Hardness	S Surface Treatment	M Material	H Hardness	M Material	M Material	Temperature		
Metal Ball	Ultra Light Load	BSPLS	S45C	29~35HRC	Black Oxide	SUJ2	55HRC~	SWP-B	SUS304	-30~80°C
	Light Load	BPJLS								
	Heavy Load	BSJLS			Electroless Nickel Plating					
	Extra Heavy Load	BPWLS								
Plastic Ball	Light Load	NPJRS	Black Oxide	Polyacetal	-					



Part Number	M (Coarse)	L Selection	Metal Ball		Plastic Ball		l	B	Ultra Light Load (BPJLS)		Light Load (BPJLS, NPJRS)		Heavy Load (BSJLS)		Extra Heavy Load (BPWLS)		Unit Price
			d	S	d	S			Load (N)		Load (N)		Load (N)		Load (N)		
			min.	max.	min.	max.			min.	max.	min.	max.	min.	max.	min.	max.	
(Metal Ball)	3	20 30	1.5	0.5	-	-	1	1.5	0.3	0.64	1	2	1.5	2.9	2.2	5	-
BPJLS	*4	20 30	2.5	2.4	0.7	1.5	2	0.6	1.6	2	4.9	3.9	9.8	2.5	12.6	-	-
BSJLS	*5	30 40	3	0.8	3	0.8	2	2.5	1	3.12	2.9	9.8	4.9	19.6	11.7	25.1	-
BPWLS	*6	30 40	3	3	0.8	2.5	3	1.6	4.85	4.9	14.7	9.8	29.4	18.7	35.3	-	-
(Metal Ball)	*8	40 50	4	1	4	1	2.5	4	2.4	6.36	6.9	19.6	12.7	39.2	24.5	46.8	-
BPJLS	*10	40 50	5	1.2	5	1.2	3	5	3	8.1	8.8	24.5	18.6	49	26.7	58.7	-
(Plastic Ball)	*12	50 60	7.1	1.8	7	1.8	3	6	3.5	9.68	9.8	29.4	19.6	58.8	26.1	62.3	-
NPJRS (* only)	*16	50 60	9.5	2.5	9.5	2.5	3	8	5.7	15.8	15.7	49	29.4	98	55.4	116	-

M3 and M4 have no slits for a wrench on the tip. It can be installed only by using a hex socket. Min. load is the initial load, and max. load is the one when the tip is fully compressed. kgf=Nx0.101972

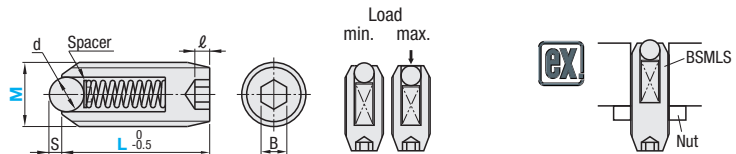
Ordering Example: Part Number - L
BPJLS6 - 40

L Selectable Stainless Steel Long



RoHS10

Type	Body		Ball		Spring	Spacer	Operating	
	M Material	H Hardness	M Material	H Hardness	M Material	M Material	Temperature	
Metal Ball	Ultra Light Load	BSSLS	SUS304 Equivalent	SUS440C	55HRC	SUS631J1	SUS304	-30~260°C
	Light Load	BSMLS						
	Heavy Load	BSZLS						
	Extra Heavy Load	BSXLS						



Part Number	M (Coarse)	L Selection	d	S	l	B	Ultra Light Load (BSSLS)		Light Load (BSMLS)		Heavy Load (BSZLS)		Extra Heavy Load (BSXLS)		Unit Price
							Load (N)		Load (N)		Load (N)		Load (N)		
							min.	max.	min.	max.	min.	max.	min.	max.	
(Metal Ball)	3	20 30	1.5	0.5	1	1.5	0.3	0.65	1	2	1.5	2.9	2.2	5	-
BSSLS	4	20 30	2.5	1.5	2	0.6	1.62	1.9	4.9	3.9	9.8	2.5	12.5	-	
BSMLS	5	30 40	3	2	2.5	1.1	3.21	3.3	9.8	4.9	19.6	11.2	24.1	-	
BSZLS	6	30 40	3	2.5	3	1.7	4.96	5.1	15.3	9.8	29.4	17.7	33.4	-	
BSXLS	8	40 50	4	1	2.5	4	2.5	6.56	5.5	19.1	12.7	39.2	21.4	45.3	-
(Metal Ball)	10	40 50	5	1.2	3	5	3.2	8	8.9	24.1	18.6	49	23.5	60	-
BSSLS	12	50 60	7.1	1.8	3	6	3.5	9.8	10.5	29.3	19.6	58.8	24.1	63.7	-
BSMLS	16	50 60	9.5	2.5	3	8	6.1	15.6	14.9	48.9	29.4	98	43.6	116.3	-

M3 and M4 have no slits for a wrench on the tip. It can be installed only by using a hex socket. Min. load is the initial load, and max. load is the one when the tip is fully compressed. kgf=Nx0.101972

Ordering Example: Part Number - L
BSZLS8 - 40

Wrenches for Ball Plungers

BPJG



M Material: S45C
H Hardness: 34~43HRC
S Surface Treatment: Black Oxide (Fe3O4)

RoHS10

Part Number	Applicable M Size	Applicable Plunger	Unit Price	Volume Discount Rate
			1 - 3 pc(s).	4 - 19 pcs.
BPJG1	5, 6	P:1763 Standard (only Metal Ball) P:1764 Stainless Steel P:1766 Long / Stainless Steel Long P:1767 L Selectable Long / Stainless Steel Long		
BPJG2	8			
BPJG3	10			
BPJG4	12			
BPJG5	16			

For orders larger than indicated quantity, please request a quotation.

Ordering Example: Part Number
BPJG2