

Press Fit Plungers / Ball Buttons

Standard / Roller

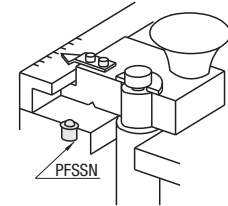
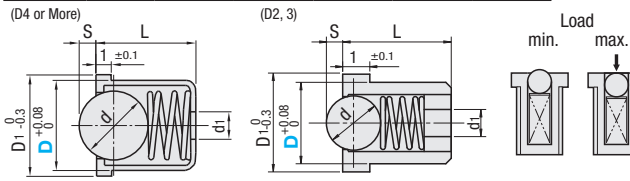
Tapped

Press Fit Plungers Standard



RoHS 10

Type	Body	Ball	Spring	Operating Temperature
Light Load	PFSSN	EN 1.4305 Equiv.	EN 1.4125 Equiv.	-20~120°C
Heavy Load	PFSSR	EN 1.4125 Equiv.	EN 1.4568 Equiv.	-20~120°C
Light Load	PFPSN	Polyacetal	-	-30~80°C
	PFPFN	Polyacetal	-	-30~80°C



Part Number	Type	D	D1	L	S	d1	Light Load (N)				Heavy Load (N)		Unit Price			
							PFSSN	PFSSR	PFPFN	PFPFN	PFSSR		PFSSN	PFSSR	PFPFN	PFPFN
PFSSN PFSSR PFPFN PFPFN		2	2.5	3	-	0.3	1	0.5	0.54	0.78	0.54	0.78	-	-	-	-
		3	3.6	4	-	0.6	2	1	0.74	0.98	0.74	0.94	-	-	-	-
		4	4.6	5	6.5	0.8	3	1.5	0.65	5.6	1.3	6.4	3.1	8.7	-	-
		5	5.6	6	8	1	4	2	2.8	6.3	2.7	8	5.1	13.5	-	-
		6	6.6	7	9	1.6	5	2.5	2.95	9.6	1.15	10.2	5.3	16.5	-	-
		8	8.6	9	12	1.9	6.35	3	6.5	11.7	6.15	17.2	8	28	-	-
		10	10.6	11.5	14.5	2.4	8	9	15	2.1	18.8	13.5	30.5	-	-	-

Recommended Diameter of Mounting Hole D_{H8}

Use adhesive to prevent loosening.

kgf=Nx0.101972

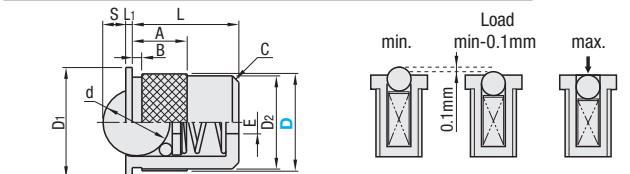


Press Fit Plungers Roller

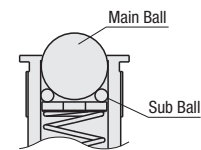


RoHS 10

Type	Body	Main Ball	Sub Balls	Spring	Operating Temperature
PFPR	Polyacetal	Polyacetal	EN 1.4125 Equiv.	EN 1.4568 Equiv.	-30~80°C



Features



The combination structure of the main ball and the sub balls helps smooth rotation of the ball.

Part Number	Type	D	D1	D2	L	S	L1	d	A	B	E	C	Allowable Load (N)			Unit Price
													min.	min-0.1mm	max.	
PFPR		7	9	-	7.5	1.5	1	4.76	7.5	1	1.5	0.8	0	0.1	2	
		9	11	8.4	10	1.7	1	5.56	7	1.2	2.5	1	0	0.2	4	
		13	15	12.4	15	2.8	1	8.73	7	1.5	3	1	0	0.3	7	
		15	17	14.7	16.5	3.5	1	10.32	8.5	1.5	3.5	1	0	0.3	11	
		20	22	19.4	22.5	5.2	1	15.88	10.5	1.5	5.3	1	0	0.3	14	
		24	26	23.4	29	6.6	1	19.05	13.5	1.5	6.4	1	0	0.3	21	

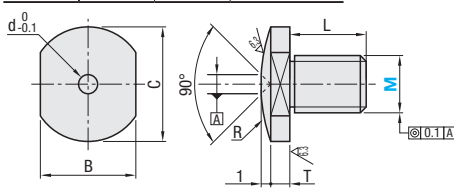
Recommended Diameter of Mounting Hole D_{H8}



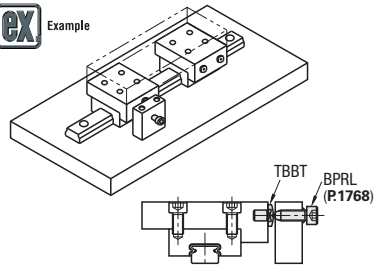
Ball Buttons - Tapped



Type	Material	Hardness	Surface Treatment
TBBT	ISO-TC90 Equiv.	55~60HRC	Electroless Nickel Plating



When using it with a ball plunger, select the same M.



Part Number	Type	M (Coarse)	B	L	C	T	R	d	Unit Price
TBBT		4	7	5	8	2	8.4	1.5	
		5	8	6	9	2	10.2	2	
		6	10	8	12	2	18	2	
		8	13	10	15	3	27.6	3	
		10	17	12	20	3	48.5	4	
		12	19	15	22	3	57.8	5	



Roller Plungers

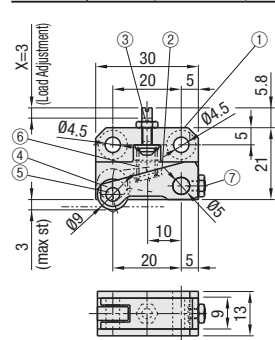
Compact / Surface Mount / Hex Screw

Features: Has a ball bearing on the tip.

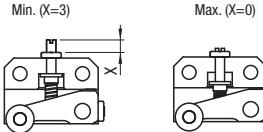
Compact Load Adjusting Function



Type	①②③ Main Body, Arm, Adjustment Screw	④ Bearing	⑤ Bearing Shaft	⑥ Spring	⑦ Set Screw	⑧ Nut
CBPJ	EN 1.1191 Equiv. Electroless Nickel Plating	EN 1.4112 Equiv.	EN 1.3505 Equiv.	58HRC~	EN 1.4301 (WPB) Equiv.	EN 1.7220 Equiv. JIS-SWCH Equiv. Electroless Nickel Plating



Load
By tightening adjustment screw ③, the load can be adjusted freely.
Tightening Amount X

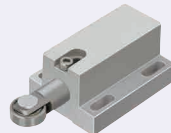


Features
Compact Roller Plungers.
(The length along the direction of the stroke is approx. 1/3 of that of Surface Mount Type.)
With rolling mechanics at the tip, this product is suitable for the position setting of sliding plate or indexing for rotating table.

Part Number		Min. Tightening (X=3)		Max. Tightening (X=0)		Unit Price
Type	No.	Load (N)		Load (N)		
		min	max	min	max	
CBPJ	9	0.4	4.2	6.6	10.2	

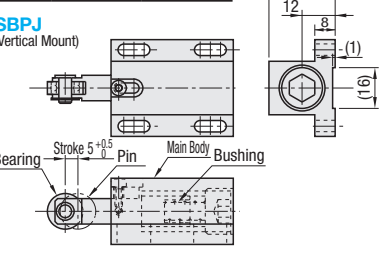
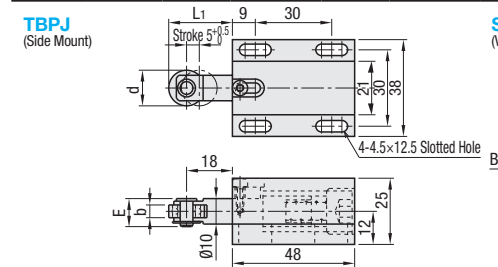


Surface Mount



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Type	Main Body	Pin	Bearing	Bushing	Spring
Side Mount	TBPJ	EN 1.1191 Equiv.	EN 1.1191 Equiv.	EN 1.3505 Equiv.	EN 1.4301 (WPB) Equiv.
Vertical Mount	SBPJ	Electroless Nickel Plating	Electroless Nickel Plating	High-Tensile Brass Alloy	



Part Number	Type	No.	d	b	E	L1	Load (N)		Unit Price
							min.	max.	
Light Load	TBPJ (Side Mount)	1	14	5	11	25	3	5.1	
		1A	19	6	12.8	27.5	6.1	10.4	
		2	14	5	11	25	3	5.1	
		2A	19	6	12.8	27.5	6.1	10.4	
Heavy Load	SBPJ (Vertical Mount)	1	14	5	11	25	3	5.1	
		1A	19	6	12.8	27.5	6.1	10.4	
		2	14	5	11	25	3	5.1	
		2A	19	6	12.8	27.5	6.1	10.4	

No. 1A and 2A have larger bearing dia. than that of conventional products.

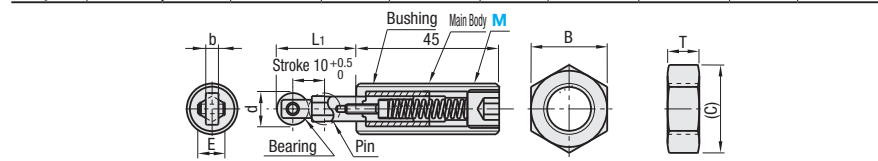


Hex Screw



RoHS 10

Type	Main Body	Pin	Bearing	Bushing	Spring	Accessory (Nut x2 pcs.)
Light Load	RBPJ	EN 1.1191 Equiv.	EN 1.1191 Equiv.	EN 1.3505 Equiv.	EN 1.4301 (WPB) Equiv.	EN 1.0038 Equiv. Electroless Nickel Plating
Heavy Load	RBSJ	Electroless Nickel Plating	Electroless Nickel Plating	High-Tensile Brass Alloy		



Part Number	Type	M (Coarse)	d	b	E	L1	M (Coarse)	B	Nut (C)	T	Load (N)	Unit Price
Light Load	RBPJ	16	10	4	9	25	16x2.0	24	27.7	10	1.6	4.8
			19	6	11.5	30	20x2.5	30	34.6	12		
			16	10	4	9	16x2.0	24	27.7	10		
			19	6	11.5	30	20x2.5	30	34.6	12		
Heavy Load	RBSJ	20	10	4	9	25	16x2.0	24	27.7	10	2.9	8.4
			19	6	11.5	30	20x2.5	30	34.6	12		
			16	10	4	9	16x2.0	24	27.7	10		
			19	6	11.5	30	20x2.5	30	34.6	12		

