

# Air Cylinders

## Pen-Style Type (Double Acting)

# Coupling Rods for Air Cylinders / Thread Conversion Adapters

## L Selectable / L Configurable / L and F Configurable

### Pen-Style Type



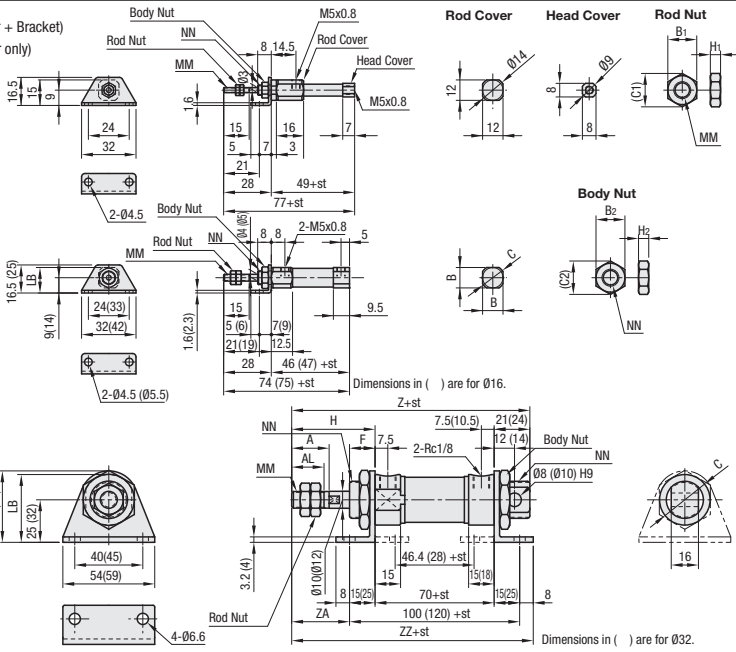
RoHS10

**MSPCB** (Cylinder + Bracket)  
**MSPCN** (Cylinder only)

Tube I.D.  
06

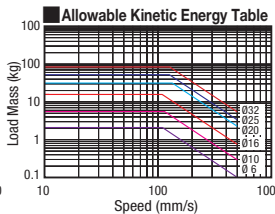
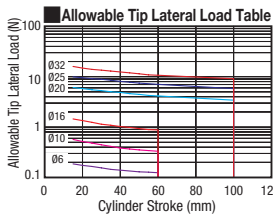
010-16

020-32



Tube I.D. (mm)	A	AL	B	B1	B2	C	C1	C2	F	H	H1	H2	LB	MM	NN	Z	ZA	ZZ
6	-	-	5.5	8	-	6.4	9.2	-	-	2.4	4	-	M3x0.5	M6x1.0	-	-	-	-
10	-	-	12	7	11	14	8.1	12.7	-	3.2	4	15	M4x0.7	M8x1.0	-	-	-	
16	-	-	18	8	14	20	9.2	16.2	-	4	4	23	M5x0.8	M10x1.0	-	-	-	
20	20	18	-	13	30	28	15	34.6	12	38	5	6	38.4	M8x1.25	M22x1.5	129	23	131
25	22	20	-	17	30	33.5	19.6	34.6	15	49	6	6	39.9	M10x1.25	M22x1.5	140	34	142
32	22	20	-	17	32	37.5	19.6	37	18	52	6	8	50	M10x1.25	M24x2.0	146	27	155

Part Number	Tube I.D. (mm)	St. Stroke (mm)	MSPCB Unit Price							MSPCN Unit Price								
			15	25	30	45	50	60	100	15	25	30	45	50	60	100		
(Cylinder + Bracket)	6	15 30 45 60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MSPCB	10	15 30 45 60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(Cylinder only)	16	15 30 45 60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MSPCN	20	15 25 50 100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	25	15 25 50 100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	32	15 25 50 100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Theoretical Output** (Unit: N)

Tube I.D. (mm)	Operating Direction	0.2	0.3	0.4	0.5	0.6	0.7
6	Push	5.7	8.5	11.3	14.1	17	19.8
	Pull	4.2	6.4	8.5	10.6	12.7	14.8
10	Push	15.7	23.8	31.4	39.3	47.1	55
	Pull	13.2	19.8	26.4	33	39.6	46.2
16	Push	40	60	80	101	121	141
	Pull	36	54	73	91	109	127
20	Push	63	94	126	157	189	220
	Pull	47	71	94	118	141	165
25	Push	98	147	196	245	295	344
	Pull	83	124	165	206	247	289
32	Push	161	241	322	402	483	563
	Pull	138	207	277	346	415	484

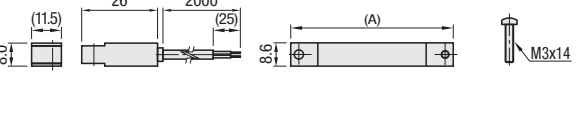
### Pen-Style Sensors for Cylinders



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**MSRCS** (Contact Type) Accessory: 1 pc.  
**MSRNS** (No Contact Type) (Mounting Brackets)

(No.6-32)



Part Number	Applicable Cylinder	Unit Price	
		MSRCS	MSRNS
6	MSPC10-6	-	-
10	MSPC10-10	-	-
16	MSPC10-16	-	-
20	MSPC10-20	-	-
25	MSPC10-25	-	-
32	MSPC10-32	-	-

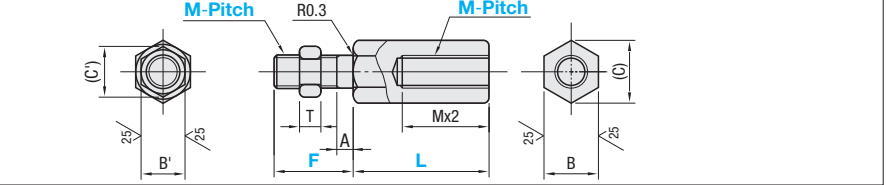
Ordering Example: Part Number - Stroke  
MSPCB6 - 30

### Extension Rod for Air Cylinders



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Type	Material	Surface Treatment	Accessory
L Selectable	FJEBFC	Black Oxide	SS400
L Configurable	FJEB	Electroless Nickel Plating	Trivalent Bright Chromate
L and F Configurable	FJEBF	-	-
	FJERC	-	-
	FJER	-	-
	FJESC	-	-
	FJES	-	-



Part Number	Type	M-Pitch	L		F		A	B	(C)	B' (C')	T	Qty.	Included Nut								Unit Price						
			Selectable	Configurable (1mm Increment)	Standard	Configurable (1mm Increment)							FJEBFC	FJERC	FJEBF	FJER	FJESC	FJES	FJEBF	FJERF							
L Selectable	FJEBFC FJERC FJESC	3-0.5	20 25 30 35 40 50 75 100	20-100	17.5	10-15	2.5	6	6.9	5.5	6.4	2.4	2 pcs.														
		4-0.7																		12-20	8	9.2	8	9.2	4		
		5-0.8																		14-30	10	11.5	10	11.5	5		
		6-1.0																		14-30	10	11.5	10	11.5	5		
L Configurable	FJEB FJER FJES	8-1.0	30 35 40 50 75 100 150 200	32-200	18	14-40	3	14(13)	16(21.5)	13	15	5	1 pc.														
		8-1.25																		40-200	22	14-50	17	19.6	17	19.6	6
		10-1.25																		48-200	24	16-60	21(19)	24(21.9)	19	21.9	7
		10-1.5																		56-200	30	25-80	23(22)	26(25.4)	22	25.4	8
L and F Configurable	FJEBF FJERF	12-1.5	40 50 75 100 150 200	72-200	30	25-80	5	26(27)	30(31.2)	27	31.2	15															
		14-1.5																		80-200	35	30-80	30	34.6	30	34.6	16
		18-1.5																		75 100 150 200	40	30-80	32	37	32	37	18
		20-1.5																		80-200	35	30-80	30	34.6	30	34.6	16
22-1.5	75 100 150 200	40	30-80	32	37	32	37	18																			

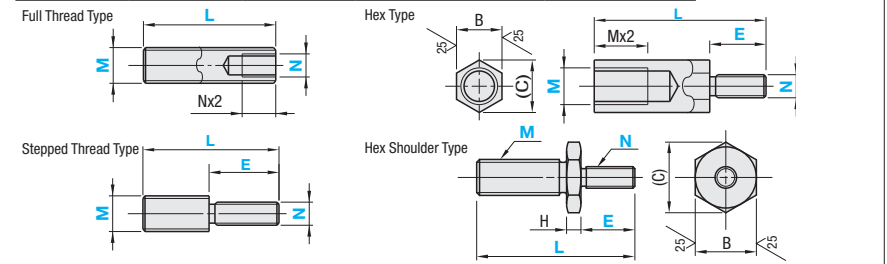
\*For M Pitch 10-1.25(M10-1.5)L=30, M Pitch 14-1.5 L=40 and M Pitch 18-1.5 L=40, the effective thread length of Tap is Mx1.5.

### Thread Conversion Adapters



RoHS10

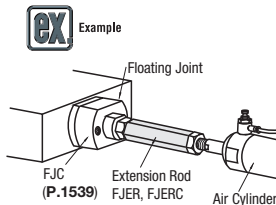
Type	Material	Surface Treatment
Full Thread	SAA	Black Oxide
Stepped Thread	SAB	Electroless Nickel Plating
Hex	SAC	-
Hex Shoulder	SAD	-
	SAAM	-
	SABM	-
	SACM	-
	SADM	-
	SAAS	-
	SABS	-
	SACS	-
	SADS	-



Type	Part Number			L	M (Coarse)	NS (Fine)	E	H	B	(C)
	Coarse	Fine	Fine (Nominal)							
SAA	5	-	-	20-100	3 4*	-	5-16	8	8	9.2
SAB	6	-	-	20-100	3 4 5*	-	6-20	3	10	11.5
SAC	8	8S	M8x1.0	30-150	4 5 6*	-	8-24	13	13	15
SAD	10	10S	M10x1.25	30-150	5 6* 8*	8*	10-32	4	17	19.6
SAAM	12	12S	M12x1.25	40-200	6 8 10*	8 10*	12-40	5	19	21.9
SABM	14	14S	M14x1.5	40-200	6 8 10* 12*	8 10* 12*	14-48	6	22	25.4
SACM	16	16S	M16x1.5	40-200	8 10 12* 14*	8 10 12* 14*	16-56	7	24	27.7
SADM	18	18S	M18x1.5	50-200	10 12 14* 16*	10 12 14* 16*	18-64	8	27	31.2
SAAS	20	20S	M20x1.5	50-200	10 12 14 16* 18*	10 12 14 16* 18*	20-72	10	30	34.6
SABS										
SACS										
SADS										

\* marked dimensions are not available for SAA, SAAM and SAAS.  
 \* SAA, SAAM, SAAS are L≥Nx4 SAB, SABM, SABS are L≥Mx2+E SAC, SACM, SACS are L≥Mx4+E SAD, SADM, SADS are M+H+E≤L:Mx4+H+N(NS)X4  
 \* NS (Fine Thread) pitch is same as M Fine Thread (Nominal Thread Dia.)  
 \* Applicable to SAA, SAAM, SAAS, SAB, SABM and SABS.

M	Unit Price							
	SAA	SAB	SAC	SAD	SAAM	SABM	SACM	SADM
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
8	8S	-	-	-	-	-	-	-
10	10S	-	-	-	-	-	-	-
12	12S	-	-	-	-	-	-	-
14	14S	-	-	-	-	-	-	-
16	16S	-	-	-	-	-	-	-
18	18S	-	-	-	-	-	-	-
20	20S	-	-	-	-	-	-	-



Code	MWC, NWC		
	M	N	W
Spec.	4	5	1
	6	8	1.5
	10	10	2
	12, 14, 16	12, 14, 16	2.5