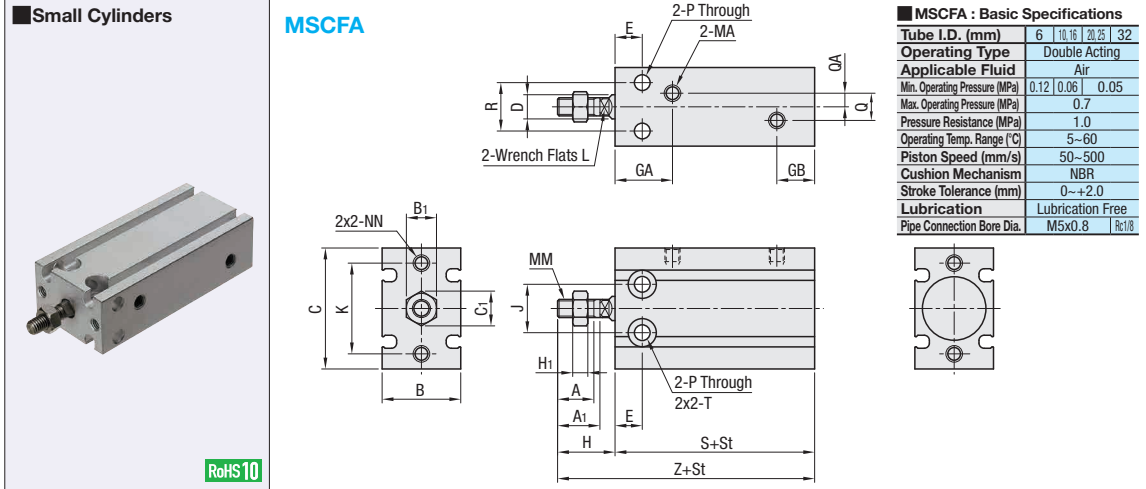


# Small Cylinders

# Small Cylinders / Panel Mount Single Acting Tip Shape Selectable

### Small Cylinders

**MSCFA**



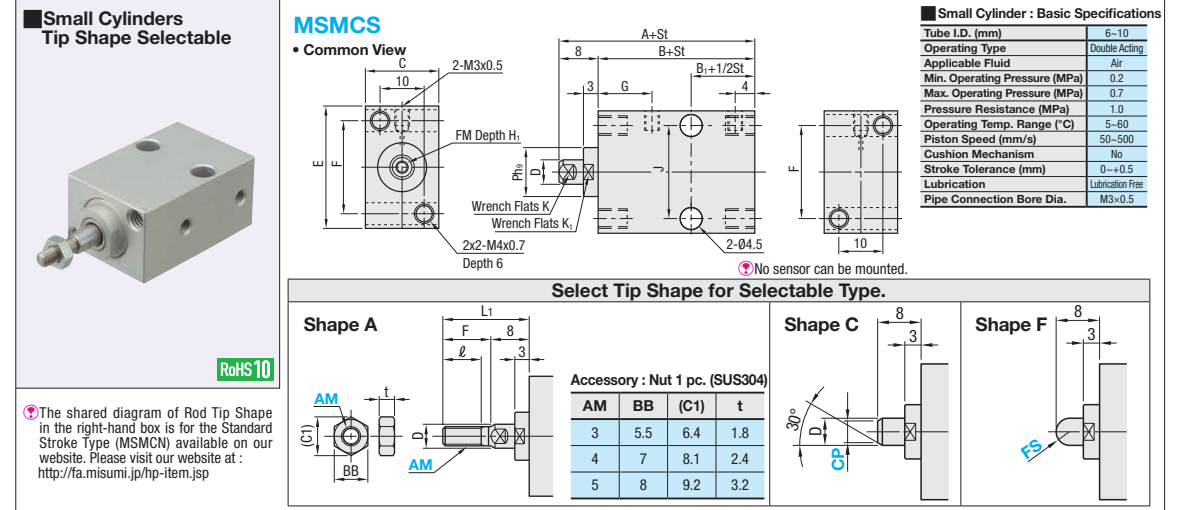
**MSCFA : Basic Specifications**

Tube I.D. (mm)	6, 10, 16, 20, 25, 32
Operating Type	Double Acting
Applicable Fluid	Air
Min. Operating Pressure (MPa)	0.12   0.06   0.05
Max. Operating Pressure (MPa)	0.7
Pressure Resistance (MPa)	1.0
Operating Temp. Range (°C)	5-60
Piston Speed (mm/s)	50-500
Cushion Mechanism	NBR
Stroke Tolerance (mm)	0-+2.0
Lubrication	Lubrication Free
Pipe Connection Bore Dia.	M5x0.8   Rc1/8

### Small Cylinders Tip Shape Selectable

**MSMCS**

Common View



**Small Cylinder : Basic Specifications**

Tube I.D. (mm)	6-10
Operating Type	Double Acting
Applicable Fluid	Air
Min. Operating Pressure (MPa)	0.2
Max. Operating Pressure (MPa)	0.7
Pressure Resistance (MPa)	1.0
Operating Temp. Range (°C)	5-60
Piston Speed (mm/s)	50-500
Cushion Mechanism	No
Stroke Tolerance (mm)	0-+0.5
Lubrication	Lubrication Free
Pipe Connection Bore Dia.	M3x0.5

**Select Tip Shape for Selectable Type.**

Shape	AM	BB	(C1)	t
Shape A	3	5.5	6.4	1.8
Shape C	4	7	8.1	2.4
Shape F	5	8	9.2	3.2

Accessory : Nut 1 pc. (SUS304)

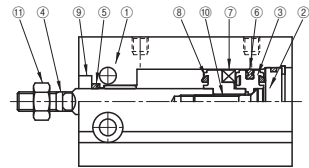
RoHS10

The shared diagram of Rod Tip Shape in the right-hand box is for the Standard Stroke Type (MSMCN) available on our website. Please visit our website at : <http://fa.mitsumi.jp/hp-item.jsp>

Tube I.D. (mm)	A	A1	B	B1	C	C1	D	E	GA	GB	H	H1	J	K	L	MA	MM	NN	P	Q	QA	R	S	T	Z
6	7	-	13	5.5	22	6.4	3	7	15	10	13	1.8	10	17	-	M5x0.8	M3x0.5	M3x0.5 Depth 5	3.2	-	-	7	33	Ø6 Counterbore Depth 4.8	46
10	10	-	15	7	24	8.1	4	7	16.5	10	16	2.4	11	18	-	M5x0.8	M4x0.7	M3x0.5 Depth 5	3.2	-	-	9	36	Ø6 Counterbore Depth 5	52
16	11	12.5	20	8	32	9.2	6	7	16.5	11.5	16	4	14	25	5	M5x0.8	M5x0.8	M4x0.7 Depth 6	4.5	4	2	12	40	Ø7.6 Counterbore Depth 6.5	56
20	12	14	26	10	40	11.5	8	9	19	12.5	19	5	16	30	6	M5x0.8	M6x1.0	M5x0.8 Depth 8	5.2	9	4.5	16	46	Ø9.3 Counterbore Depth 8	65
25	15.5	18	32	13	50	15	10	10	21.5	13	23	5	20	38	8	M5x0.8	M8x1.25	M5x0.8 Depth 8	5.5	9	4.5	20	50	Ø9.3 Counterbore Depth 9	73
32	19.5	22	40	17	62	19.6	12	11	23	12.5	27	6	24	48	10	Rc1/8	M10x1.25	M6x1.0 Depth 9	6.6	13.5	4.5	24	52	Ø11 Counterbore Depth 11.5	79

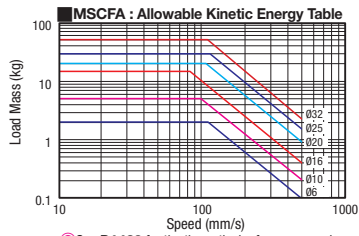
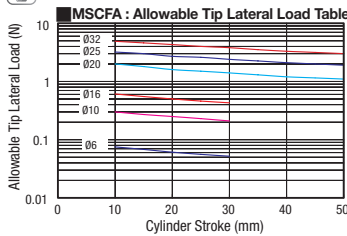
Type	Part Number	Tube I.D. (mm)	St Stroke (mm) Selection	Body Price (mm)			
				10	20	30	50
MSCFA	6	10	20	30	-	-	-
	16	10	20	30	-	-	-
	20	10	20	30	50	-	-
	25	10	20	30	50	-	-
	32	10	20	30	50	-	-

#### Small Cylinder Structure Diagram



#### MSCFA : Part List

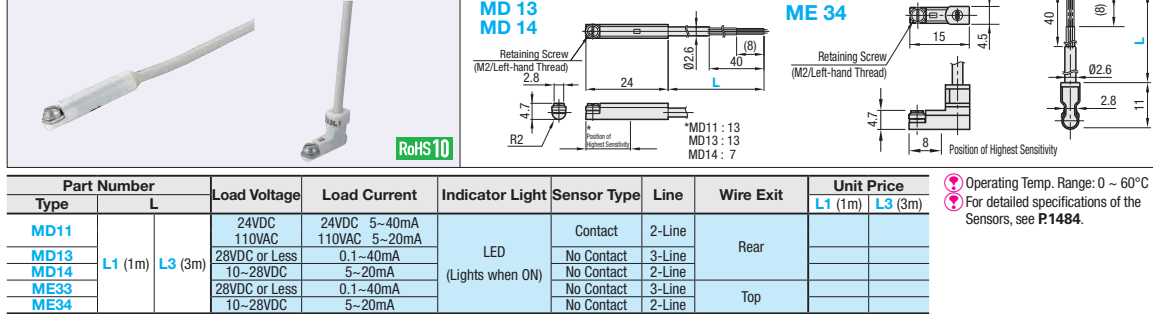
Number	Part Name	Ø6	Ø10	Ø16	Ø20	Ø25	Ø32
1	Main Body	A6061	A6061	A6061	A6061	A6061	A6061
2	End Cover	A6061	A6061	A6061	A6061	A6061	A6061
3	Piston (*)	A6061x2 pcs.	A6061x2 pcs.	A6061x2 pcs.	A6061x2 pcs.	A6061x2 pcs.	A6061x2 pcs.
4	Piston Rod	SUS303	SUS303	SUS303	SUS303	SUS303	SUS303
5	Rod Gasket	NBR	NBR	NBR	NBR	NBR	NBR
6	Piston Gasket	NBR	NBR	NBR	NBR	NBR	NBR
7	Magnet	Plastic Magnet	Plastic Magnet	Plastic Magnet	Plastic Magnet	Plastic Magnet	Plastic Magnet
8	Cushion	NBR	NBR	NBR	NBR	NBR	NBR
9	Rod Cover	A6061	A6061	A6061	A6061	A6061	A6061
10	Piston Bolt	SUS303	SUS303	SUS303	SUS303	SUS303	SUS303
11	Rod Nut	SS400	SS400	SS400	SS400	SS400	SS400



**MSCFA : Theoretical Output** Unit : (N)

Tube I.D. (mm)	Operating Direction	Operating Pressure (MPa)					
		0.2	0.3	0.4	0.5	0.6	0.7
6	Push	5.7	8.5	11.3	14.1	17.0	19.8
	Pull	4.2	6.4	8.5	10.6	12.7	14.8
10	Push	15.7	23.6	31.4	39.3	47.1	55.0
	Pull	13.2	19.8	26.4	33.0	39.6	46.2
16	Push	40	60	80	101	121	141
	Pull	35	52	69	86	104	121
20	Push	63	94	126	157	188	220
	Pull	53	79	106	132	158	185
25	Push	98	147	196	245	295	344
	Pull	82	124	165	206	247	289
32	Push	161	241	322	402	483	563
	Pull	138	207	276	346	415	484

#### Sensors for Cylinders



**MD 11 MD 13 MD 14**

**ME 33 ME 34**

Type	Part Number	L	Load Voltage	Load Current	Indicator Light	Sensor Type	Line	Wire Exit	Unit Price			
									L1 (1m)	L3 (3m)		
MD11	L1 (1m) L3 (3m)	24VDC 110VAC	24VDC 110VAC	5-40mA 5-20mA	LED (Lights when ON)	Contact	2-Line	Rear				
											28VDC or Less	0.1-40mA
											10-28VDC	5-20mA
MD13	L1 (1m) L3 (3m)	28VDC or Less	10-28VDC	0.1-40mA	LED (Lights when ON)	No Contact	3-Line	Rear				
											28VDC or Less	0.1-40mA
											10-28VDC	5-20mA
ME33	L1 (1m) L3 (3m)	28VDC or Less	10-28VDC	0.1-40mA	LED (Lights when ON)	No Contact	3-Line	Top				
											28VDC or Less	0.1-40mA
											10-28VDC	5-20mA

Operating Temp. Range: 0 ~ 60°C  
For detailed specifications of the Sensors, see P1484.

Ordering Example

Small Cylinders

Part Number - St Stroke

MSCFA6 - 10

Sensors for Cylinders

Part Number

MD14L1

Tube I.D. (mm)	A	B	B1	E	C	D	F	FM	G	H1	J	K	K1	P	Phe
6	28	20	6.5	20	15	4	15	M2.5x0.45	11	5	14	3.5	9	-	10
8	30	22	8	25	15	5	19	M3x0.5	10	6	19	4	9.5	-	10
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

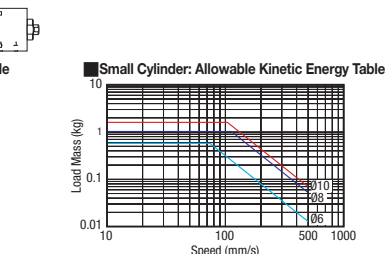
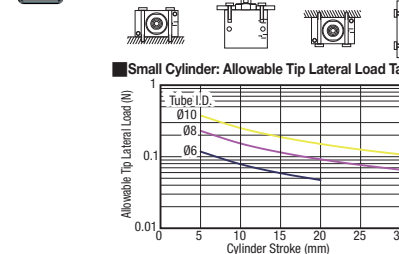
Part Number	St Stroke (mm) Selection	Piston Rod Tip Shape			Body Price (mm)				Surface Treatment																	
		Shape A AM	Shape C CP	Shape F FS	5	10	15	20	25	30	AM	CP	FS													
MSMCS	6	5	10	15	20	3	4	4	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10	5	10	15	20	25	30	4	5	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Features: Tip shape of cylinder rod is selectable.

Ordering Example: MSMCS8 - 10 - AM4

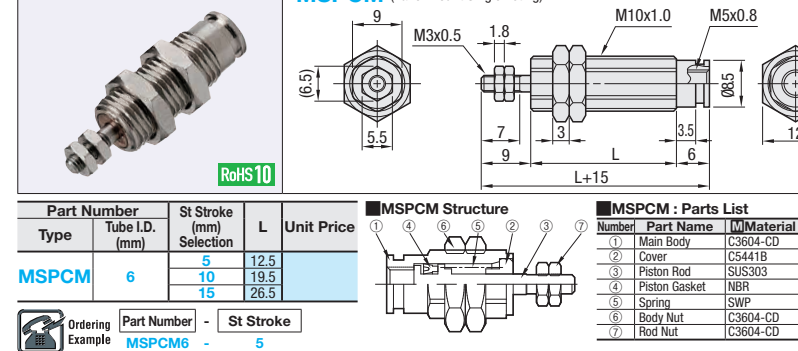
It can be installed in four directions.

1 Top Mount 2 Front Mount 3 Bottom Mount 4 Back Mount



#### Panel Mount Single Acting

**MSPCM (Panel Mount Single Acting)**



**MSPCM Basic Specifications**

Tube I.D. (mm)	6
Operating Type	Single Acting Outstroke Type
Applicable Fluid	Air
Min. Operating Pressure (MPa)	0.2
Max. Operating Pressure (MPa)	0.7
Pressure Resistance (MPa)	1.0
Operating Temp. Range (°C)	5-60
Piston Speed (mm/s)	50-500
Cushion Mechanism	No
Stroke Tolerance (mm)	0-+1.0
Lubrication	Lubrication Free
Pipe Connection Bore Dia.	M5x0.8

**MSPCM Structure**

**MSPCM : Parts List**

Number	Part Name	Material	Surface Treatment
1	Main Body	C3604-CD	Electroless Nickel Plating
2	Cover	C5441B	Electroless Nickel Plating
3	Piston Rod	SUS303	Electroless Nickel Plating
4	Piston Gasket	NBR	-
5	Spring	SWP	-
6	Body Nut	C3604-CD	Electroless Nickel Plating
7	Rod Nut	C3604-CD	Electroless Nickel Plating

Ordering Example: MSPCM6 - 5

**MSPCM Basic Specifications**

Tube I.D. (mm)	6
Operating Type	Single Acting Outstroke Type
Applicable Fluid	Air
Min. Operating Pressure (MPa)	0.2
Max. Operating Pressure (MPa)	0.7
Pressure Resistance (MPa)	1.0
Operating Temp. Range (°C)	5-60
Piston Speed (mm/s)	50-500
Cushion Mechanism	No
Stroke Tolerance (mm)	0-+1.0
Lubrication	Lubrication Free
Pipe Connection Bore Dia.	M5x0.8

Ordering Example: MSPCM