Compact Cylinders

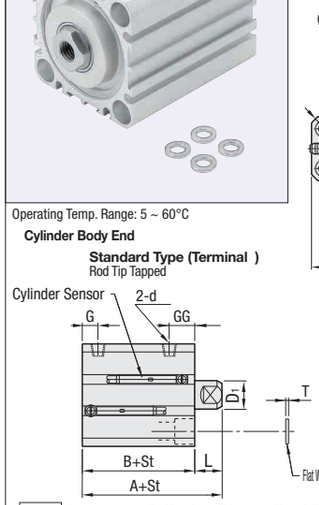
Operating Temp. Range: 5 ~ 60°C

Stroke	Rod Tip	Type	Features
Fixed	Tapped	MSCCN	Standard Stroke Type is available. In-stock items. Same day shipping is available. (Sensor for Cylinder, No Bracket)
	Threaded	MSCCA	
Configurable	Shape Selectable	MSCCS	Stroke and end shape are selectable in 1mm increments.

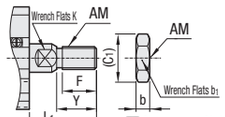
For Brackets for the Standard Stroke Cylinder, see **P.1487, 1488**

Cylinder Body End

Standard Type (Terminal)
Rod Tip Tapped

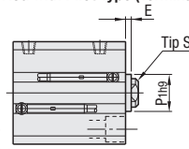


Rod Tip Threaded

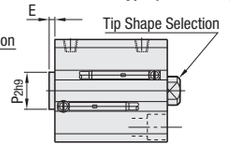


A Accessory : Nut 1 pc. (SS400 Nickel Plating)

Rod with Pilot Type (Terminal B)



Head with Pilot Type (Terminal C)



For material and surface treatment, refer to the "Compact Cylinder Overview" on **P.1483**.
A Accessory: Flat Washer 4 pcs. (Low Carbon Steel Nickel Plating)

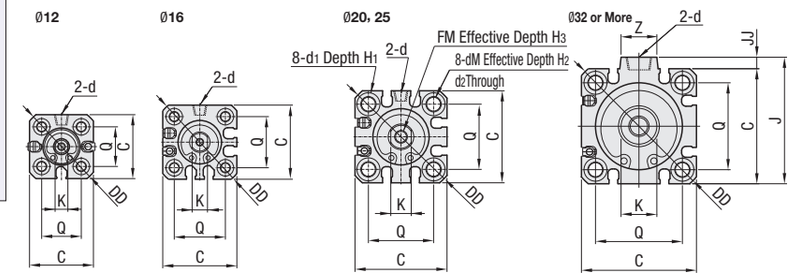
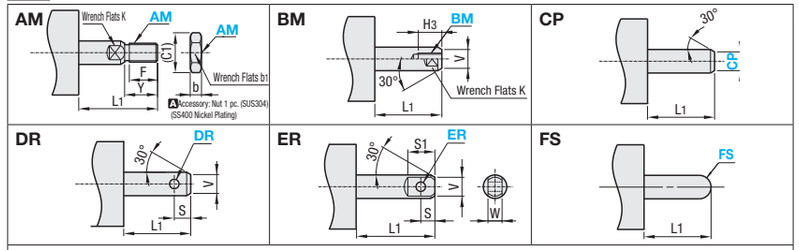


Table 1 Compact Cylinder Piston Rod Tip Shape



Tube I.D. (mm)	F	H3	K	* L1	S	S1	V	W	Y
12	9	6	5	14(24)	4	8	5	4	10.5
16	10	8	6	15.5(25.5)	6	12	7	5	12
20	12	7	8	18.5(28.5)	8	16	8	6	14
25	15	12	10	22.5(32.5)	10	20	10	8	17.5
32	20.5	13	14	28.5(38.5)	12	24	14	10	23.5
40	20.5	13	14	28.5(38.5)	12	24	14	10	23.5
50	26	15	17	33.5(43.5)	14	28	18	12	28.5

* When Foot Type cylinder bracket is selected, dimension will be indicated in ( ).

AM	b	b1	(C1)
M3x0.5	2.4	5.5	6.4
M4x0.7	3.2	7	8.1
M5x0.8	4	8	9.2
M6x1.0	5	10	11.5
M8x1.25	5	13	15
M10x1.25	6	17	19.6
M12x1.5	7	19	21.9
M14x1.5	8	22	25.4
M16x1.5	10	24	27.7
M18x1.5	11	27	31.2

Nominal Thread Dia.	Threaded	Tapped
M3	M3x0.5	M3x0.5
M4	M4x0.7	M4x0.7
M5	M5x0.8	M5x0.8
M6	M6x1.0	M6x1.0
M8	M8x1.25	M8x1.25
M10	M10x1.25	M10x1.5
M12	M12x1.5	-
M14	M14x1.5	-
M16	M16x1.5	-
M18	M18x1.5	-

Table 2 Bracket Selection List

(Refer to the part numbers on **P.1487**)

Foot Brackets	
Type	Applicable Part Number
KFB	CFKPB
KFM	CFKPM

U-Shaped Clevis Mount Brackets	
Type	Applicable Part Number
TKB	CTKB
TKM	CTKM

For material, surface treatment and dimensions, refer to **P.1487**.

External Dimensions for Compact Cylinders

Tube I.D. (mm)	A	B	C	D1	DD	d	d1	d2	H1	H2	dM	E	H3	G	GG	J	JJ	K	L	P1	P2	Q	T	Z	b	b1	C1	F	L1	Y
12	25.5	22	25	6	32	M5x0.8	6.5	3.5	4	7	M4x0.7	1.5	6	5	7.5	-	-	5	3.5	15	6	15.5	0.5	-	4	8	9.2	9	14	10.5
16			29	8	38								8					6		20	10	20			5	10	11.5	10	15.5	12
20	34	29.5	36	10	47		9	5.5	7	10	M6x1.0	2	7	5.5	9			8	4.5	13	13	25.5			5	13	15	12	18.5	14
25	37.5	32.5	40	12	52								12		11			10	5	15	15	28			6	17	19.6	15	22.5	17.5
32	40	33	45	16	60	Rc1/8							13	7.5	10.5	49.5	4.5	14	7	21	21	34	1	14	8	22	25.4	20.5	28.5	23.5
40	46.5	39.5	52		70									8	11	57	5			28	28	40								
50	48.5	40.5	64	20	86	Rc1/4	11	6.6	8	14	M8x1.25		15	10.5	10.5	71	7	17	8	35	35	50		19	11	27	31.2	26	33.5	28.5
63	54	46	77		103		14	9	10.5	18	M10x1.5	-		15	84					-	-	60								

Standard Stroke Type

Part Number Type	Tube I.D. (mm)	St Stroke (mm) Selection (Refer to the Price List)	L	Cylinder Body End Shape	Rod Tip MSCCN (Tapped) FM	Rod Tip MSCCA (Threaded) AM	Gasket	Unit Price MSCCN St Stroke (mm) 5	10	15	20	25	30	35	40	45	50	75	100	Unit Price MSCCA St Stroke (mm) 10	20	30	50	75	100
Rod Tip Tapped MSCCN	12	5~30	3.5	A (Standard)	M3x0.5	M5x0.8	NB (Nitrile Rubber)							-	-	-	-	-	-					-	-	-	-	-
	16				M4x0.7	M6x1.0								-	-	-	-	-	-					-	-	-	-	-
	20		4.5		M5x0.8	M8x1.25												-	-						-		-	-
	25	5~50	5		M6x1.0	M10x1.25												-	-						-		-	-
Rod Tip Threaded	32		7		M8x1.25	M14x1.5												-	-						-		-	-
	40	5~100																									-	
MSCCA	50	10~100	8		M10x1.5	M18x1.5		-												-	-							
	63	30~100						-	-	-	-	-		-	-	-				-	-							

Configurable Stroke Type

Part Number Type	Tube I.D. (mm)	St Stroke (mm) 1mm Increment	Cylinder Body End Shape Selection	Piston Rod Tip Shape Table 1: Shape AM (Thread Dia.) AM Selection	Shape BM (Thread Dia.) BM Selection	Shape CP CP 1mm Increment	Shape DR DR Selection	Shape ER ER Selection	Shape FS FS (Arc Tip) Selection	Gasket Selection	Bracket for Cylinder Table 2: Type	Qty.
MSCCS	12	5~30	A (Standard Type)	3 4 5	3	3~5	2 3	2 3	3	NB (Nitrile Rubber)	(No Bracket)	0
	16			4 5 6	3 4	3~7	2 3 4	2 3 4	4		TK (Foot)	(Without TK bracket, specify 0.)
	20		B (Rod Side Piloted)	5 6 8	3 4 5	4~8	3 4 5	3 4 5	5		KFB	
	25	5~50		5 6 8 10	4 5 6	4~10	4 5 6	4 5 6	6		KFM	1
	32			6 8 10 12 14	5 6 8	5~14	5 6 8	5 6 8	8		VT (Fluorine Rubber)	
	40	5~100	C (Head Side Piloted)	6 8 10 12 14	5 6 8	5~14	5 6 8	5 6 8	8		(Clevis Mount) TKB	2
	50	10~100		8 10 12 14 16 18	6 8 10	8~18	6 8 10	6 8 10	10		TKM	

Cylinder brackets cannot be installed on the pilot side for the types with cylinder end Shapes B and C. Please purchase sensors separately (**See below**).

Ordering Example

Part Number Type	Tube Dia.	-	St Stroke	-	Cylinder Body End Shape	-	Piston Rod Tip Shape	-	Gasket	-	Bracket for Cylinder Type	Qty.	
MSCCN	20	-	35										
MSCCS	20	-	38	-	B	-	BM4	-	VT	-	KFB	1	

Alterations

Part Number Type	Tube Dia.	-	St Stroke	-	Cylinder Body End Shape	-	Piston Rod Tip Shape	-	Gasket	-	Bracket for Cylinder Type	Qty.	-	(TC, TH)
MSCCS	20	-	50	-	B	-	DR5	-	NB	-	TK	0	-	TH

Alterations	Cold Weather Resistance Specification	Heat Resistance Specification
Code	TC	TH
Spec.	Usable in the ambient temperature range from -40°C to 60°C. Changes to low temp. resistant grease and low nitrile rubber gaskets. Low temp. resistant sensors for cylinders are not available.	Usable in the ambient temperature range from 5°C to 120°C. Changes to heat resistant grease, fluororubber gaskets and cylinder sensors are not available.

Applicable to Configurable Stroke Type only.
When specifying TC or TH alterations, select NB (Nitrile Rubber) for gaskets.

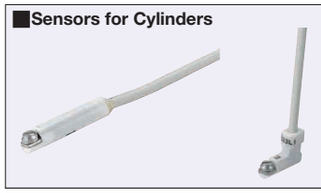
<Price Calculation Example> MSCCS20-38-A-AM5-VT-KFB1
Cylinder Body Price + Surcharge for Cylinder Body End Shape + Surcharge for Piston Rod Tip Shape

+ Surcharge for Gasket + (Bracket Unit Price x Quantity)

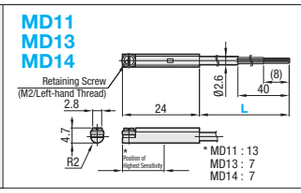
Tube I.D. (mm)	MSCCS Body Price St Stroke (mm) 5~10	11~20	21~30	31~40	41~50	51~75	76~100	Surcharge for Piston Rod Tip Shape (Body Price +) AM	BM	CP	DR	ER	FS
12				-	-	-	-						
16				-	-	-	-						
20						-	-						
25						-	-						
32						-	-						
40													
50													

Tube I.D. (mm)	Surcharge for Cylinder Body End Shape (Body Price +) A	B	C	Surcharge for Gasket (Body Price+) NB	VT	Bracket Unit Price (Body Price +) *The bracket unit price is the price per piece. TK	KFB	KFM	TKB	TKM
12										
16										
20										
25										
32										
40										
50										

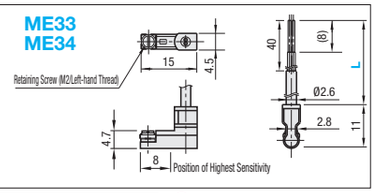
Sensors for Cylinders



MD11
MD13
MD14



ME33
ME34



Part Number Type	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 5~40mA 110VAC 5~20mA	LED (Lights when ON)	Contact	2-Line	Rear		
MD13		28VDC or Less	0.1~40mA		No Contact	3-Line			
MD14		10~28VDC	5~20mA		No Contact	2-Line			
ME33		28VDC or Less	0.1~40mA		No Contact	3-Line	Top		
ME34		10~28VDC	5~20mA		No Contact	2-Line			

Operating Temp. Range : 0 ~ 60°C
For detailed specifications of the Sensors, see **P.1484**.

Ordering Example: Part Number MD14L1