

Long service life cylinder

Environment-resistant cylinder

Linear Slide Hand

Low-profile long stroke hand

Wide-Parallel Hand

Chuck

Air Booster

Compatible with rechargeable batteries

Supports food mfg. processes

SCPD3

CMK2

SCM

SSD2

MDC2

MSD

MSDG-L

SMG

LCR

LCG

STM

STG

STR2

SCPD3

CMK2

SCM

SCG

SSD2

SMG

LCR

STG

STS

STL

LSH

LSHL

LSHM

LST

LSTM

HMC

CKW

ABP2

SCPD3

CMK2

SCM

SSD2

MSD

MSDG-L

SMG

STG

STM

LCR

LCG

STR2

LSH

LSHL

SCPD3

CMK2

SCM

SCG

SSD2

STG



Small compact cylinder Double acting/Single rod

Long service life cylinder

# MSD-P4/P40-HP1 Series

●Bore size:ø6/ø8

JIS symbol



RoHS



## Specifications

Item	MSD-P4/P40-HP1 MSD-L-P4/P40-HP1 (with switch)
Bore size mm	ø6, ø8
Actuation	Double acting
Working fluid	Compressed air
Max. working pressure MPa	1.0
Min. working pressure MPa	0.15
Proof pressure MPa	1.6
Ambient temperature °C	-10 to 60 (where,no freezing)
Port size	M3
Stroke tolerance mm	+0.5 0
Working piston speedmm/s	50 to 500
Cushion	No
Lubrication	Not available
Allowable absorbed energy J	This product cannot absorb the energy generated by an external load mounted on the cylinder. When using the product with no load, separately provide a shock absorber on the outside.

## Stroke

Bore size (mm)	Standard stroke (mm)	Max. stroke (mm)	Min. stroke with two switches(mm)		Min. stroke with one switch (mm)	
			Reed switch	Proximity switch	Reed switch	Proximity switch
ø6	5/10/15/20	30	10	5 (10)	5	5
ø8	25/30					

\*1: Products with stroke other than standard stroke are not available.  
\*2: For F2Y, F3Y or F3P, the min. stroke length is the dimensions in ( ).

Refer to the MSD Series in "Pneumatic Cylinders I (No. CB-029SA)" for dimentions.

### How to order

- Without switch (without magnet for switch)

**MSD** - **6** - **5** - **R** - **P4** - **HP1**

- With switch (built-in magnet for switch)

**MSD-L** - **6** - **5** - **SW81** - **R** - **R** - **P4** - **HP1**

**A** Model No.

**B** Bore size

**C** Stroke

**D** Switch model No.

\*1

**E** Switch quantity

**F** Piping port position  
\*2


Code		Description	
A Model No.			
MSD		Double acting/Single rod	Without switch
MSD-L			With switch
B Bore size (mm)			
6		ø6	
8		ø8	
C Stroke (mm)			
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
D Switch model No.			
Refer to the compatibility table on pages 210 to 213 for switch model No.			
E Switch quantity			
R		1 on rod side	
H		1 on head side	
D		2	
F Piping port position			
Blank		Front piping	
R		Rear piping	

### ⚠ Precautions for model No. selection

\*1: When using the type with switch, use a non-magnetic (stainless steel, etc.) mounting bolt for ø6, ø8.

\*2: For rear piping, body side installation is possible. Note that 2 bolts are used for rod side mounting and head side mounting.

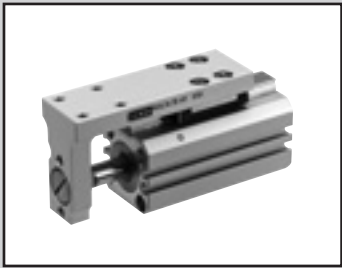
### Related products

Speed controller							
Model No.	Appearance	Port size (Rc or R)			Compatible tube O.D.		
		M3	M5	1/8	4 (ø4)	6 (ø6)	8 (ø8)
SC3W-M3- *-P4		●			●		

Specify the compatible tube O.D. code for \*. Refer to "rechargeable battery compatible Component P4" Series" (No.CC-1226A) for details.

SCPD3	Long service life cylinder
CMK2	
SCM	
SSD2	
MDC2	
MSD	
MSDG-L	Environment-resistant cylinder
SMG	
LCR	
LCG	
STM	
STG	
STR2	Linear Slide Hand
SCPD3	
CMK2	
SCM	
SCG	
SSD2	
SMG	Low-profile long stroke hand
LCR	
STG	
STS	
STL	
LSH	Wide Parallel Hand
LSHL	
LSHM	
LST	
LSTM	
HMC	Chuck
CKW	
ABP2	
SCPD3	Compatible with rechargeable batteries
CMK2	
SCM	
SSD2	
MSD	
MSDG-L	Supports food mfg. processes
SMG	
STG	
STM	
LCR	
LCG	
STR2	
LSH	
LSHL	
SCPD3	
CMK2	
SCM	
SCG	
SSD2	
STG	

SCP3D3  
CMK2  
SCM  
SSD2  
MDC2  
MSD  
MSDG-L  
SMG  
LCR  
LCG  
STM  
STG  
STR2  
SCP3D3  
CMK2  
SCM  
SCG  
SSD2  
SMG  
LCR  
STG  
STS  
STL  
LSH  
LSHL  
LSHM  
LST  
LSTM  
HMC  
CKW  
ABP2  
SCP3D3  
CMK2  
SCM  
SSD2  
MSD  
MSDG-L  
SMG  
STG  
STM  
LCR  
LCG  
STR2  
LSH  
LSHL  
SCP3D3  
CMK2  
SCM  
SCG  
SSD2  
STG



Small guided compact cylinder  
Double acting/guided with switch

Long service life cylinder

# MSDG-L-P4/P40-HP1 Series

● Bore size:  $\varnothing 6/\varnothing 8/\varnothing 12/\varnothing 16$



## Specifications

Item		MSDG-L-P4/P40-HP1(With switch)			
Bore size mm		ø6	ø8	ø12	ø16
Actuation		Double acting			
Working fluid		Compressed air			
Max. working pressure MPa		1.0			
Min. working pressure MPa		0.2	0.15	0.1	
Proof pressure MPa		1.6			
Ambient temperature °C		5 to 60			
Port size	Front piping	M3		M5	
	Rear piping	M3		M3	
Stroke tolerance mm		+2.0 0			
Working piston speed mm/s		50 to 500			
Cushion		With rubber cushion			
Lubrication		Not available			
Allowable absorbed energy J		0.004	0.014	0.044	0.110

## Stroke

Bore size (mm)	Standard stroke (mm)	Max. stroke (mm)	Min. stroke with two switches (mm)		Min. stroke with one switch (mm)	
			Reed switch	Proximity switch	Reed switch	Proximity switch
$\varnothing 6$	5/10/15/20 25/30	30	10	5	5	5
$\varnothing 8$						
$\varnothing 12$						
$\varnothing 16$						

Note: Products with stroke other than standard stroke are not available.

Refer to the MSDG Series in "Pneumatic Cylinders I (No. CB-029SA)" for dimentions.

### How to order

- With switch (built-in magnet for switch)

**MSDG-L - 6 - 30 - SW81 - D - R P4 P40 - HP1**

Double acting  
Guided

**A** Bore size

**B** Stroke

**C** Switch model No.

\*1

\*2

**D** Switch quantity

**E** Piping port position  
\*3

Code	Description
<b>A Bore size(mm)</b>	
<b>6</b>	ø6
<b>8</b>	ø8
<b>12</b>	ø12
<b>16</b>	ø16

<b>B Stroke(mm)</b>	
<b>5</b>	5
<b>10</b>	10
<b>15</b>	15
<b>20</b>	20
<b>25</b>	25
<b>30</b>	30

<b>C Switch model No.</b>	
Refer to the compatibility table on pages 210 to 213 for switch model No.	


<b>D Switch quantity</b>	
<b>R</b>	1 on rod side
<b>H</b>	1 on head side
<b>D</b>	2

<b>E Piping port position</b>	
<b>Blank</b>	Front piping
<b>R</b>	Rear piping

### ⚠ Precautions for model No. selection

- \*1: When using the ø6/ø8 with switch, use a non-magnetic (stainless steel, etc.) mounting bolt.
- \*2: When using a proximity switch with ø12/ø16, use a non-magnetic (stainless steel, etc.) through bolt.
- \*3: For rear piping, body side installation is possible.

### Related products

Speed controller							
Model No.	Appearance	Port size (Rc or R)			Compatible tube O.D.		
		M3	M5	1/8	4 (ø4)	6 (ø6)	8 (ø8)
SC3W-M3- *-P4		●			●		
SC3W-M5- *-P4			●		●	●	

Specify the compatible tube O.D. code for \*. Refer to "rechargeable battery compatible Component P4\* Series" (No.CC-1226A) for details.

SCPD3	Long service life cylinder
CMK2	
SCM	
SSD2	
MDC2	
MSD	
MSDG-L	Environment-resistant cylinder
SMG	
LCR	
LCG	
STM	
STG	
STR2	Linear Slide Hand
SCPD3	
CMK2	
SCM	
SCG	
SSD2	
SMG	Low-profile long stroke hand
LCR	
STG	
STS	
STL	
LSH	Chuck
LSHL	
LSHM	
LST	
LSTM	
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SCPD3	Compatible with rechargeable batteries
CMK2	
SCM	
SSD2	
MSD	
MSDG-L	
SMG	Supports food mfg. processes
STG	
STM	
LCR	
LCG	
STR2	
LSH	
LSHL	
SCPD3	
CMK2	
SCM	
SCG	
SSD2	
STG	