

How to order

- No switch (without magnet for switch)

MSD-F - 6 - 5 ————— ●

- With switch (built-in magnet for switch)

MSD-LF - 6 - 5 - F2V - R ————— ●

A Model No.

B Bore size

C Stroke

D Switch model No.

*1

*2

⚠ Note on model No. selection

*1 : For ø6 or ø8 with switch, use a non-magnetic (stainless steel, etc.) mounting bolt. *2 : For ø12 or ø16 with proximity switch, use a non-magnetic (stainless steel, etc.) through bolt. *3 : For rear piping, body side installation is possible. Note that 2 bolts are used for rod side installation and head side installation.

[Example of model No.]

MSD-KLF-12-10-F0H-R-R

A Model No. : Double acting/fine speed/high load with switch

B Bore size : ø12 mm

C Stroke : 10 mm

D Switch model No. : Reed switch F0H, lead wire 1 m

E Switch quantity : 1 on rod side

F Piping port position: Rear piping

E Switch quantity

F Option
*3

How to order switch

SW - F0H

Switch model No.
(Item D at right)

A Model No.	
Double acting/ single rod	Double acting/ high load
MSD-F	MSD-KF
MSD-LF	
MSD-KLF	

Code	Description		
B Bore size (mm)			
6	ø6	●	●
8	ø8	●	●
12	ø12		●
16	ø16		●

C Stroke (mm)			
5	5	●	●
10	10	●	●
15	15	●	●
20	20	●	●
25	25	●	●
30	30	●	●

D Switch model No.							
Axial lead wire	Radial lead wire	Contact	Voltage		Indicator	Lead wire	
			AC	DC			
F0H*	F0V*	Reed		●	1-color LED	2-wire	●
-	F2S*			●			●
F2H*	F2V*			●			●
-	F3S*			●			●
F3H*	F3V*	Prox.		●	1-color LED (PNP output) (custom)	3-wire	●
F3PH*	F3PV*			●			●
F2YH*	F2YV*			●			●
F3YH*	F3YV*			●			●

* Lead wire length			
Blank	1 m (standard)	●	●
3	3 m (option)	●	●

E Switch quantity			
R	1 on rod side	●	●
H	1 on head side	●	●
D	2	●	●

F Option							
Bore size (ø)						All bore sizes	
Blank	Front piping port	●	●	●	●		
R	Rear piping port						

Theoretical thrust table

(Unit: N)

Bore size (mm)	Operating direction	Working pressure MPa										
		0.1	0.15	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
ø6	Push	-	4.24	5.65	8.48	11.3	14.1	17.0	19.8	22.6	25.4	28.3
	Pull	-	2.36	3.14	4.71	6.28	7.85	9.42	11.0	12.6	14.1	15.7
ø8	Push	-	7.54	10.1	15.1	20.1	25.1	30.2	35.2	40.2	45.2	50.3
	Pull	-	4.59	6.13	9.19	12.3	15.3	18.4	21.4	24.5	27.6	30.6
ø12	Push	11.3	17.0	22.6	33.9	45.2	56.5	67.9	79.2	90.5	1.02x10 ²	1.13x10 ²
	Pull	8.48	12.7	17.0	25.4	33.9	42.4	50.9	59.4	67.9	76.3	84.8
ø16	Push	20.1	30.2	40.2	60.3	80.4	1.01x10 ²	1.21x10 ²	1.41x10 ²	1.61x10 ²	1.81x10 ²	2.01x10 ²
	Pull	15.1	22.6	30.2	45.2	60.3	75.4	90.5	1.06x10 ²	1.21x10 ²	1.36x10 ²	1.51x10 ²

Dimensions

Same as MSD Series (double acting/single rod) and MSD-K Series (double acting/high load).
Refer to pages 1427, 1446 and 1447.

SCP*3
CMK2
CMA2
SCM
SCG
SCA2
SCS2
CKV2
CAV2/
COVP/IN2
SSD2
SSG
SSD
CAT
MDC2
MVC
SMG
MSD/
MSDG
FC*
STK
SRL3
SRG3
SRM3
SRT3
MRL2
MRG2
SM-25
ShkAbs
FJ
FK
Spd
Contr
Ending