

Compact cylinder, fine speed type

SMD2-F Series

● Bore size: $\phi 6$, $\phi 10$, $\phi 16$, $\phi 20$, $\phi 25$, $\phi 32$

JIS symbol SMD2



Double acting



Specifications

Descriptions	SMD2-F/SMD2-LF (with switch)					
Bore size mm	$\phi 6$	$\phi 10$	$\phi 16$	$\phi 20$	$\phi 25$	$\phi 32$
Actuation	Double acting					
Working fluid	Compressed air					
Max. working pressure MPa	0.70					
Min. working pressure MPa	0.15					0.10
Withstanding pressure MPa	1.05					
Ambient temperature °C	5 to 60					
Port size	M5					Rc 1/8
Stroke tolerance mm	+1.5 0					
Working piston speed mm/s	1 to 200					
Cushion	Rubber cushioned					
Lubrication	Must be oil free					
Allowable energy absorption J	0.005	0.036	0.1	0.1	0.19	0.5

Stroke length

Model no.	Bore size (mm)	Standard stroke length (mm)	Max. stroke length (mm)	Min. stroke length (mm)
SMD2-F	$\phi 6, \phi 10, \phi 16$	5, 10, 15, 20, 25, 30	60	1
SMD2-LF	$\phi 20, \phi 25, \phi 32$	5, 10, 15, 20, 25, 30, 40, 50	100	

Note 1: Custom stroke length is available per 1mm increment.

Min. stroke length with switch

Model	Bore size	1 color indicator type		2 color indicator type		With preventive maintenance output	
		K*H	K*V	K*YH	K*YV	K*Y*H	K*Y*V
SMD2-LF-DA	$\phi 6$	5		5		1	
	$\phi 10$						
	$\phi 16$						
	$\phi 20$						
	$\phi 25$						
	$\phi 32$						
SMD2-LF-DB/DC	$\phi 6$	15	5	15	10	10	
	$\phi 10$	10		15	10	10	
	$\phi 16$	10		10	10	10	
	$\phi 20$	10		10	5	5	
	$\phi 25$	5		5	5	5	
	$\phi 32$	5		5	5	5	

Clean room specifications

(Catalog No. CB-033SA)

● Dust generation preventing structure for use in clean room

SMD2 P7*

Switch specifications

- 1 color/2 color indicator

Descriptions	Proximity 2-wire		Proximity 3-wire			Reed 2-wire			
	K2H/K2V	K2YH/K2YV	K3H/K3V	K3PH/K3PV (Custom order)	K3YH/K3YV	K0H/K0V		K5H/K5V	
Applications	Programmable controller		Programmable controller, relay			Programmable controller, relay		Programmable controller, relay IC circuit (without indicator light), serial connection	
Output method	-		NPN output	PNP output	NPN output	-			
Power voltage	-		10 to 28 VDC			-			
Load voltage	10 to 30 VDC		30 VDC or less			12 VDC /24 VDC	110 VAC	5/12/24 VDC	110 VAC
Load current	5 to 20mA (Note 1)		50mA or less			5 to 50mA	7 to 20mA	50mA or less	20mA or less
Light	LED (ON lighting)	Red/green LED (ON lighting)	LED (ON lighting)	Yellow LED (ON lighting)	Red/green LED (ON lighting)	LED (ON lighting)		-	
Leakage current	1mA or less		10 μA or less			0mA			

Note 1: Max load current above: 20 mA at 25 °C . The current will be lower than 20 mA if ambient temperature around switch is higher than 25°C . (5 to 10mA at 60°C)

- With preventive maintenance output

Descriptions	Proximity 3-wire		Proximity 4-wire		Proximity 3-wire		Proximity 4-wire		
	K2YFH/V		K3YFH/V		K2YMH/V		K3YMH/V		
Applications	Programmable controller		Programmable controller, relay		Programmable controller		Programmable controller, relay		
Output method	NPN output								
Light	Installation position adjustment section	Red/green LED (ON lighting)							
	Preventive maintenance output	-				Yellow LED (ON lighting)			
Output	Power voltage	-	10 to 28 VDC		-	10 to 28 VDC			
	Load voltage	10 to 30 VDC	30 VDC or less		10 to 30 VDC	30 VDC or less			
	Load current	5 to 20mA	50mA or less		5 to 20mA	50mA or less			
	Leakage current	1mA or less	10 μA or less		1.2mA or less	10 μA or less			
Preventive maintenance output	Load voltage	30 VDC or less							
	Load current	20mA or less	50mA or less		5 to 20mA or less		50mA or less		
	Leakage current	10 μA or less							

Weight

It is the same as the double acting/single rod type SMD2 series. Refer to page 1007.

Dimensions

It is the same as the double acting/single rod type SMD2 series. Refer to pages 1010 to 1012.

SCP*2
CMK2
CMA2
SCM
SCG
SCA2
SCS
CKV2
CA/OV2
SSD
CAT
MDC2
MVC
SMD2
MSD*
FC*
STK
ULK*
JSK/M2
JSG
JSC3
USSD
USC
JSB3
LMB
STG
STS/L
LCS
LCG
LCM
LCT
LCY
STR2
UCA2
HCM
HCA
SRL2
SRG
SRM
SRT
MRL2
MRG2
SM-25
CAC3
UCAC
RCC2
MFC
SHC
GLC
Ending

Compact cylinder
Space saving structure

SMD2-F Series

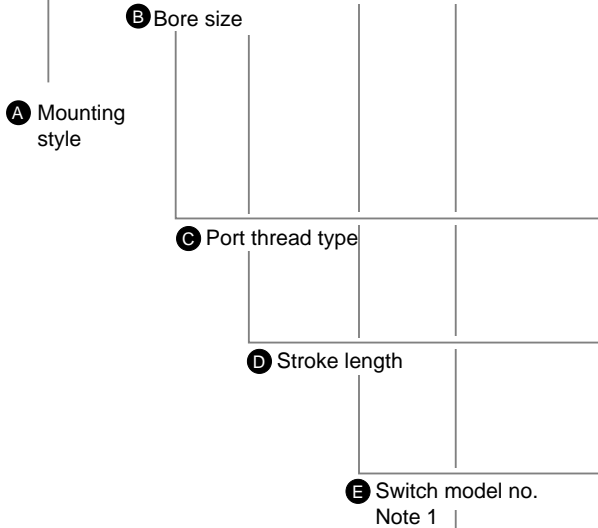
How to order

Without switch

SMD2-F - **DA** - **6** - **15**

With switch

SMD2-LF - **DA** - **6** - **15** - **K2H** - **R**



⚠ Note on model no. selection

Note 1: For mounting style "DB" or "DC", if "X" indicated on "Switch selection table", K* H type (axial lead wire) cannot be installed. Please use K*V type (radial lead wire).

Switch selection table

Bore size	DB (head end mounting type)		DC (high rigid mounting type)	
	5 mm stroke	10 mm stroke	5 mm stroke	10 mm stroke
φ6	X	X	X	X
φ10	X		X	
φ16	X		X	
φ20	X		X	
φ25				
φ32				

Note 2: Refer to page 1026 for min. stroke length with switch.

Symbol	Descriptions
A Mounting style	
DA	Rod end mounting type
DB	Head end mounting type
DC	High rigid mounting type

B Bore size (mm)	
6	φ 6
10	φ 10
16	φ 16
20	φ 20
25	φ 25
32	φ 32

C Port thread type	
Blank	Rc thread
NN	NPT thread (only φ 32) (custom order)
GN	G thread (only φ 32) (custom order)

D Stroke length (mm)		
Bore size	Stroke length Note 2	Custom stroke length
φ6 to φ16	1 to 60	1 mm increment
φ20 to φ32	1 to 100	

E Switch model no.				
Axial lead wire	Radial lead wire	Contact	Indicator	Lead wire
K0H*	K0V*	Reed	1 color indicator type	2-wire
K5H*	K5V*		Without indicator light	
K2H*	K2V*	Proximity	1 color indicator type	2-wire
K3H*	K3V*		1 color indicator type (custom order)	3-wire
K3PH*	K3PV*			
K2YH*	K2YV*	Proximity	2 color indicator type	2-wire
K3YH*	K3YV*		2 color indicator type (W/o indicator light for preventive maintenance output)	3-wire
K2YFH*	K2YFV*		2 color indicator type (W/ indicator light for preventive maintenance output (1 color))	3-wire
K3YFH*	K3YFV*		2 color indicator type (W/ indicator light for preventive maintenance output (1 color))	4-wire
K2YMH*	K2YMV*			3-wire
K3YMH*	K3YMV*			4-wire

*Lead wire length	
Blank	1m (standard)
3	3m (option)
5	5m (option)

F Switch quantity	
R	1 on rod end
H	1 on head end
D	Two

<Example of model number>

SMD2-LF-DA-6-15-K0H-R

Model: Compact cylinder fine speed type

- A** Mounting style : Rod end mounting type
- B** Bore size : φ 6mm
- C** Port thread type : Rc thread
- D** Stroke length : 15mm
- E** Switch model no. : Reed switch K0H, lead wire length 1m
- F** Switch quantity : 1 on rod end

How to order switch

SW - **K2H**

Switch model no.
(Item **E** above)