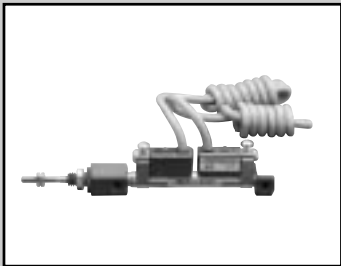SCP*2
CMK2
CMA2
SCM
SCG
SCA2
SCS
CKV2
CA/OV2
SSD
CAT
MDC2
MVC
SMD2
MSD*
FC*
STK
ULK*
JSK/M2
JSG
JSC3
USSD
USC
JSB3
LMB
STG
STS/L
LCS
LCG
LCM
LCT
LCY
STR2
UCA2
HCM
HCA
SRL2
SRG
SRM
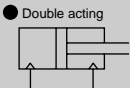SRT
MRL2
MRG2
SM-25
CAC3
UCAC
RCC2
MFC
SHC
GLC
Ending

Pencil shaped cylinder
Double acting rubber-air cushioned

SCPD2-*C Series

● Bore size: φ6, φ10, φ16
● Port size: M5

RoHS   JIS symbol   ● Double acting

Specifications

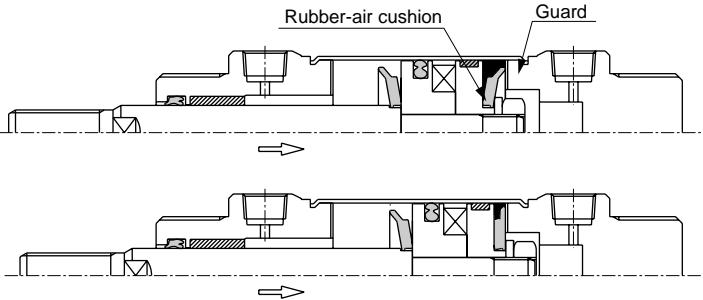| Descriptions		SCPD2-*C/SCPD2-L-*C		
Bore size	mm	φ6	φ10	φ16
Actuation		Double acting		
Working fluid		Compressed air		
Max. working pressure	MPa	1.0		
Min. working pressure	MPa	0.3		0.2
Withstanding pressure	MPa	1.6		
Ambient temperature	℃	-10 to 60 (no freezing)		
Port size		M5		
Stroke tolerance	mm	$^{+1.0}_{0}$		
Working piston speed	mm/s	50 to 500 (Use within the allowable energy absorption.)		
Cushion		Rubber-air cushion		
Lubrication		Not required (when lubricating, use turbine oil Class 1 ISO VG32.)		
Allowable energy absorption	J	0.011	0.041	0.162

Stroke length

Bore size (mm)	Standard stroke length (mm)	Max. stroke length (mm)	Min. stroke length (mm)
φ6	15, 30, 45, 60	100	5
φ10	15, 30, 45, 60	200	5
φ16	15, 30, 45, 60	260	5

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

Min. stroke length of type with switch

	With 1 switch		With 2 switches	
Rough sketch				
	Rod side installation	Head side installation	Different surface installation	Same surface installation
Min. stroke length	5mm	5mm	10mm	28mm

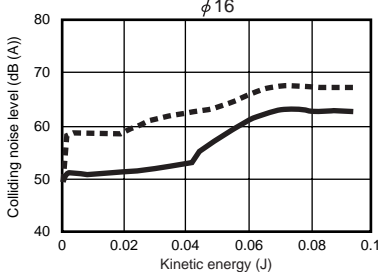## ■ Rubber-air cushion mechanism
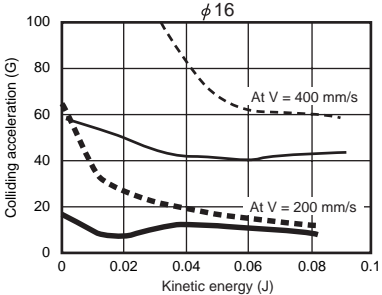

Rubber-air cushion   Guard

Explanation when pulled

When the piston moves and the rubber-air cushion and cover contact, a sealed air space is formed in the shaded section ▮. The air in the shaded section is compressed as the piston moves, and energy is absorbed. Energy absorbed by the rubber air cushion's compression strain is also calculated at the stroke end.

Data indicating drop in collision noise level (Example)
---- Standard rubber cushion
— Rubber-air cushion

φ16

Colliding noise level (dB (A))
Kinetic energy (J)

Data indicating drop in collision acceleration level (Example)
---- Standard rubber cushion
— Rubber-air cushion

φ16

Colliding acceleration (G)
At V = 400 mm/s
At V = 200 mm/s
Kinetic energy (J)

CKD

Switch specifications

Descriptions	Proximity 2-wire		Proximity 3-wire		
	M2V	M2WV (2 color indicator type)	M3V	M3PV (Custom order)	M3WV (2 color indicator type)
Applications	Programmable controller		Programmable controller, relay, IC circuit, small solenoid valve		
Output method	———		NPN output	PNP output	NPN output
Power voltage	———		4.5 to 28 VDC		10 to 28 VDC
Load voltage	10 to 30 VDC		30 VDC or less		
Load current	5 to 20 mA		200 mA or less	100 mA or less	150 mA or less
Light	LED (ON lighting)	Red/green LED (ON lighting)	LED (ON lighting)	Yellow LED (ON lighting)	Red/green LED (ON lighting)
Leakage current	1 mA or less		10 μA or less	0.05 mA or less	10 μA or less

Descriptions	Reed 2 wire	
	M0V	M5V
Applications	Programmable controller, relay	Programmable controller, relay, IC circuit (w/o light), serial connection
Load voltage / current	5 to 50 mA with 12/14 VDC 7 to 20 mA at 110 VAC	50 mA or less at 5/12/24 VDC, 20 mA or less at 110 VAC
Light	LED (ON lighting)	Without indicator light
Leakage current	0mA	

Cylinder weight

(Unit: g)

Type	Stroke length Bore size (mm)	Without switch				With switch (2 switches)				Switch weight (per switch)
		15st	30st	45st	60st	15st	30st	45st	60st	
SCPD2-*C	φ 6	15	17	19	21	61	63	65	67	
	φ 10	24	27	31	34	70	73	77	80	24
	φ 16	47	52	57	62	95	100	105	110	

Mounting bracket weight

(Unit: g)

Applicable bore size	Mounting style		
	Foot type LS	Flange type FA	Clevis type CB
φ 6	6	4	-
φ 10	6	4	4
φ 16	15	12	10

Pencil shaped cylinder Standard type

SCPD2-*C Series

How to order

● Without switch

SCPD2 — 00 - 10 C - 15 - O — I

● With switch

SCPD2-L — 00 - 10 C - 15 - O - M2V - R - I

- Ⓐ Mounting style Note 1
- Ⓑ Bore size
- Rubber air Cushioned
- Ⓒ Stroke length
- Ⓓ Head end Port direction Note 1
- Ⓔ Switch model no.
- Ⓕ Switch quantity
- Ⓖ Option and accessory

Symbol	Descriptions			
Ⓐ Mounting style				
	Bore size (φ)	6	10	16
00	Basic type	●	●	●
LS	Single axial foot type (rod side)	●	●	●
FA	Rod side flange type	●	●	●
CB	Clevis bracket type		●	●

	Ⓑ Bore size (mm)
CB	φ 6
6	φ 10
10	φ 16

Ⓒ Stroke length (mm)		
Bore size	**Stroke length Note 2**	**Custom stroke length**
φ 6	**5 to 100**	
φ 10	**5 to 200**	**1 mm increment**
φ 16	**5 to 260**	

Ⓓ Head end port direction	
Blank	Vertical
O	Axial

Ⓔ Switch model no.			
Lead wire L type	Contact	Indicator	Lead wire
M2V*	Proximity	1 color indicator	2-wire
M2WV*	Proximity	2 color indicator	2-wire
M3V*	Proximity	1 color indicator	3-wire
M3PV*	Proximity	1 color (custom order)	3-wire
M3WV*	Proximity	2 color indicator	3-wire
M0V*	Reed	1 color indicator	2-wire
M5V*	Reed	w/o indicator light	2-wire
***Lead wire length**			
Blank	1 m (standard)		
3	3 m (option)		
5	5 m (option)		

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

Ⓖ Option and accessory			
	Bore size (φ)	6	10	16
P6	Copper and PTFE free (custom order)	●	●	●
I	Rod eye		●	●
Y	Rod clevis (pin and snap ring attached)		●	●
B1	Eye bracket		●	●
B2	Clevis bracket		●	●

⚠ Caution for model No. selection.

Note 1: "CB" is not available for a port direction "0".
Note 2: Refer to page 30 for min. stroke length with switch.
Note 3: Refer to Ending 89 for custom specifications of rod end form.
Note 4: Refer to page 6 for variation/option combination.

<Example of model number>
SCPD2-L-00-10C-15-0-M2V-R-I

Model: Pencil shaped cylinder Double acting rubber-air cushioned

- Ⓐ Mounting style : Basic type
- Ⓑ Bore size : φ 10 mm
- Ⓒ Stroke length : 15 mm
- Ⓓ Head end port direction : Axial
- Ⓔ Switch model no. : Proximity switch M2V
- Ⓕ Switch quantity : 1 on rod end
- Ⓖ Accessory : Rod eye

How to order switch

● Switch body + mounting bracket

SCPD2 - M2V - 6

- Switch model no. (Item Ⓔ above)
- Bore size (Item Ⓑ above)

● Only switch body

SW - M2V

- Switch model no. (Item Ⓔ above)

● Mounting bracket

SCPD2 - M - 6

- Bracket
- Bore size (Item Ⓑ above)

How to order mounting bracket

Bore size / Mounting bracket	φ 6	φ 10	φ 16
Foot (LS)	P2-LS-6	P2-LS-10	P2-LS-16
Flange (FA)	P2-FA-6	P2-FA-10	P2-FA-16

Note : 1 pc./set is applied for a foot (LS) type mounting bracket.

CKD