



Round shaped medium bore size cylinder  
Double acting direct mounting foot

# SCM-LD Series

● Bore size:  $\phi 20$ ,  $\phi 25$ ,  $\phi 32$ ,  $\phi 40$ ,  $\phi 50$ ,  $\phi 63$

JIS symbol



## Specifications

Descriptions		SCM-LD					
Bore size	mm	φ 20	φ 25	φ 32	φ 40	φ 50	φ 63
Actuation		Double acting direct mounting foot					
Working fluid		Compressed air					
Max. working pressure	MPa	1.0					
Min. working pressure	MPa	0.1				0.05	
Withstanding pressure	MPa	1.6					
Ambient temperature	℃	-10 to 60 (no freezing)					
Port size		Rc1/8				Rc1/4	
Stroke tolerance	mm	+1.4 0				+2.3 0	
Working piston speed	mm/s	30 to 1000 (Use within the allowable energy absorption. )					
Cushion		Rubber cushion					
Lubrication		Not required (when lubricating, use turbine oil ISO VG32.)					
Allowable energy absorption	J	0.1	0.2	0.5	0.9	1.6	1.6

## Stroke length

Bore size (mm)	Standard stroke length (mm)	Max. stroke length (mm)	Min. stroke length (mm)
$\phi 20$	25, 50, 75, 100, 125, 150, 200, 250, 300	300	10
$\phi 25$			
$\phi 32$			
$\phi 40$			
$\phi 50$			
$\phi 63$			

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

## Switch quantity and min. stroke length (mm)

● Switch installation method: Rail method

Switch quantity	1		2		3		4		5	
Bore size (mm)	Proximity	Reed	Proximity	Reed	Proximity	Reed	Proximity	Reed	Proximity	Reed
$\phi 20$	10		25		40	50	55		75	85
$\phi 25$	10		25		40	50	55		75	85
$\phi 32$	10		25		40	50	55		75	85
$\phi 40$	10		25		40	50	55		75	85
$\phi 50$	10		25		40	50	55		75	85
$\phi 63$	10		25		40	50	55		75	85

● Switch installation method: Band method

Switch quantity	1			2			3			4			5		
Bore size (mm)	Proximity		Reed	Proximity		Reed	Proximity		Reed	Proximity		Reed	Proximity		Reed
	T2, T3	T*Y*		T2, T3	T*Y*		T2, T3	T*Y*		T2, T3	T*Y*		T2, T3	T*Y*	
$\phi 20$		10		25	35	25	50	55	50	75	80	70	95	100	95
$\phi 25$		10		25	35	25	50	55	50	75	80	70	95	100	95
$\phi 32$		10		25	35	25	50	55	50	75	80	70	95	100	95
$\phi 40$		10		25	35	25	50	55	50	75	80	70	95	100	95
$\phi 50$		10		25	35	25	50	55	50	75	80	70	95	100	95
$\phi 63$		10		25	35	25	50	55	50	75	80	70	95	100	95

Note 1: Trunion mounting is not available when installing one switch with a stroke of 10 mm or more, less than 25 mm, since the switch rail mounting position will change. Refer to page 333 for installation position.

### Switch specifications

● 1 color/2 color indicator

\* The TO/T5 switch can be used with 220 VAC.  
Contact CKD for working conditions.

Descriptions	Proximity 2-wire			Proximity 3-wire			Reed 2-wire						
	T1H/T1 V	T2H/T2V/ T2JH/T2JV	T2YH/T2YV	T3H/T3V	T3PH/T3PV (Custom order)	T3YH/T3YV	TOH/TOV	T5H/T5V		T8H/T8V			
Applications	Programmable controller, relay, small solenoid valve	Programmable controller dedicated		Programmable controller, relay			Programmable controller, relay	Programmable controller, relay, IC circuit (w/o light), serial connection		Programmable controller, relay			
Output method	-			NPN output	PNP output	NPN output	-						
Power voltage	-			10 to 28 VDC			-						
Load voltage	85 to 265 VAC	10 to 30 VDC		30 VDC or less			12/24 VDC	110 VAC	5/12/24 VDC	110 VAC	12/24 VDC	110 VAC	220 VAC
Load current	5 to 100 mA	5 to 20 mA (Note 1)		100 mA or less		50 mA or less	5 to 50 mA	7 to 20 mA	50 mA or less	20 mA or less	5 to 50 mA	7 to 20 mA	7 to 10 mA
Light	LED (ON lighting)	LED (ON lighting)	Red/Green LED (ON lighting)	LED (ON lighting)	Green LED (ON lighting)	Red/green LED (ON lighting)	LED (ON lighting)	without light		LED (ON lighting)			
Leakage current	1 mA or less with 100 VAC 2 mA or less with 200 VAC	1 mA or less		10 μA or less			0 mA						

● With preventive maintenance output

Descriptions		Proximity 3-wire	Proximity 4-wire	Proximity 3-wire	Proximity 4-wire
		T2YFH/V	T3YFH/V	T2YMH/V	T3YMH/V
Applications		Programmable controller dedicated	Programmable controller, relay	Programmable controller dedicated	Programmable controller, relay
Output method		NPN output			
Light	Installation position adjustment	Red/Green LED (ON lighting)			
	Preventive maintenance output	-		Yellow LED (ON lighting)	
Regular 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 20 mA	50 mA or less	5 to 20 mA	50 mA or less
	Leakage current	1 mA or less	10 $\mu$ A or less	1.2 mA or less	10 $\mu$ A or less
Preventive maintenance output	Load voltage	30 VDC or less			
	Load current	20 mA or less	50 mA or less	5 to 20 mA or less	50 mA or less
	Leakage current	10 $\mu$ A or less			

Note 1: Refer to Ending 1 for other switch specifications.

Note 2: 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)

### Cylinder weight

(Unit: kg)

Descriptions/mounting style	Product weight when stroke length (S) = 0 mm	Switch weight	Additional weight	Additional weight	Band weight per
Bore size (mm)	Basic type	Grommet	per S = 10 mm	per S = 10 mm (with rail)	1 switch
$\phi 20$	0.14	0.018	0.010	0.012	0.007
$\phi 25$	0.22	0.018	0.014	0.016	0.007
$\phi 32$	0.34	0.018	0.018	0.020	0.007
$\phi 40$	0.56	0.018	0.030	0.032	0.007
$\phi 50$	1.04	0.018	0.044	0.046	0.008
$\phi 63$	1.46	0.018	0.052	0.054	0.009

(Eg.) Product weight of SCM-LD-40D-100-T2H-D

Product weight when S = 0 mm ..... 0.56 kg  
 Additional weight when S = 100 mm .....  $0.032 \times \frac{100}{10} = 0.32$  kg  
 Weight of 2 switches ..... 0.036 kg  
 Product weight .....  $0.56 \text{ kg} + 0.32 \text{ kg} + 0.036 \text{ kg} = 0.916 \text{ kg}$

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

Round shaped cylinder  
Standard type

## How to order

Without switch

**SCM-LD** - **40** - **D** - **100** - **M** **I**

With switch

**SCM-LD** - **40** - **D** - **100** - **T0H** - **D** - **M** **I**

**A** Mounting style

**B** Bore size

**C** Port thread type

**D** Cushion

**E** Stroke length

**F** Switch model no.  
Note 2

**G** Switch quantity

**H** Switch installation method

**I** Option  
Note 4

**J** Accessory  
Note 5

## Note on model no. selection

Note 1: Refer to page 328 for min. stroke length with switch.

Note 2: Switches other than switch model no. "F" are available.  
(Custom order)

Refer to Ending 1 for details.

Note 3: Refer to Ending 89 about custom specifications of rod end form.

Note 4: When the switch mounting type "Z" is selected, the switch rail enclosed shipment "Q" cannot be selected.

Note 5: "I" and "Y" can not be selected at the same time.

## <Example of model number>

**SCM-LD-40D-100-T0H-D-MI**

Model: Round shaped cylinder double acting direct mounting foot

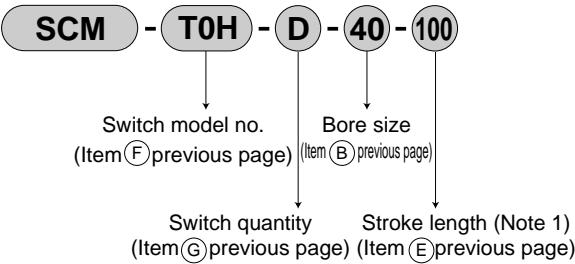
- A** Mounting style : Direct mounting foot
- B** Bore size :  $\phi$  40 mm
- C** Port thread type : Rc thread
- D** Cushion : Both sides rubber cushioned
- E** Stroke length : 100 mm
- F** Switch model no. : Reed T0H switch, lead wire 1 m
- G** Switch quantity : 2
- H** Switch installation method: Rail method
- I** Option : Piston rod material (stainless steel)
- J** Accessory : Rod eye

Symbol	Descriptions			
A Mounting style				
LD	Direct mounting foot			
B Bore size (mm)				
20	φ20			
25	φ25			
32	φ32			
40	φ40			
50	φ50			
63	φ63			
C Port thread type				
Blank	Rc thread			
N	NPT thread (custom order)			
G	G thread (custom order)			
D Cushion				
D	Both sides rubber cushioned			
E Stroke length (mm)				
Bore size	Stroke length Note 1	Custom stroke length		
φ 20 to φ63	10 to 300	Per 1 mm		
F Switch model no.				
Axial lead wire	Radial lead wire	Contact	Indicator	Lead wire
T0H*	T0V*	Reed	1 color indicator type	2-wire
T5H*	T5V*		without light	
T8H*	T8V*		1 color indicator type	
T1H*	T1V*	Proximity	1 color indicator type	2-wire
T2H*	T2V*		1 color indicator type (custom)	3-wire
T3H*	T3V*			
T3PH*	T3PV*		2 color indicator type	2-wire
T2YH*	T2YV*		2 color indicator type (W/o light for preventive maintenance output)	3-wire
T3YH*	T3YV*		2 color indicator type (W/ light for preventive maintenance output (1 color))	4-wire
T2YFH*	T2YFV*		Strong magnetic field proof switch	3-wire
T3YFH*	T3YFV*			4-wire
T2YMH*	T2YMV*		Off-delay type	2-wire
T3YMH*	T3YMV*			
T2YD*	-			
T2YDT*	-			
T2JH*	T2JV*			
*Lead wire length				
Blank	1 m (standard)			
3	3 m (option)			
5	5 m (option)			
G Switch quantity				
R	One on rod end			
H	One on head end			
D	Two			
T	Three			
4	4 switches (When more than 4 switches, indicate switch quantity.)			
H Switch installation method				
Blank	Rail method			
Z	Band method			
I Option				
Q	Switch rail attached at shipment			
M	Piston rod material (stainless steel)			
P6	Copper and PTFE free (custom order)			
J Accessory				
I	Rod eye			
Y	Rod clevis (pin and snap ring attached)			

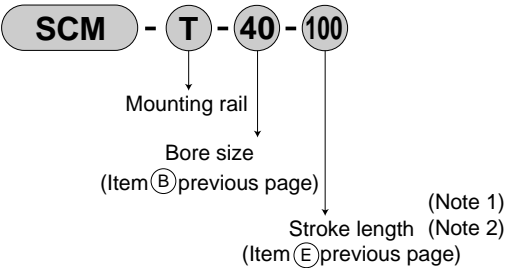
How to order switch

(switch installation method: rail method)

● Switch body + mounting rail set



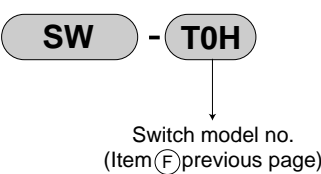
● Only mounting rail



Note 1: When more than 300 mm stroke, indicate "X".  
When more than 300 mm stroke, a short rail  
(100 mm switch adjustment distance) is provided per switch.

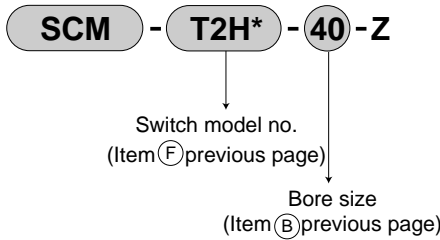
Note 2: When X is indicated only with the mounting rail,  
order the same number of rails as the number of switches being used.

(only switch body)

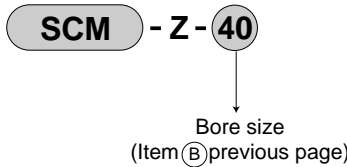


(switch installation method: band method)

● Switch body + mounting rail + band



● Mounting rail + band



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

Round shaped cylinder  
Standard type