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 Double acting low friction type

SSD-KU Series

● Bore size: ϕ20, ϕ25, ϕ32, ϕ40, ϕ50, ϕ63, ϕ80, ϕ100

JIS symbol

RoHS CAD

Specifications

Item		SSD-KU SSD-KUL (with switch)							
Bore size	mm	ϕ20	ϕ25	ϕ32	ϕ40	ϕ50	ϕ63	ϕ80	ϕ100
Actuation		Double acting							
Working fluid		Compressed air							
Max. working pressure	MPa	0.7							
Min. working pressure	MPa	0.03							
Withstanding pressure	MPa	1.0							
Ambient temperature	℃	5 to 60							
Port size		M5		Rc1/8		Rc1/4		Rc3/8	
Stroke tolerance	mm	+2.0 0							
Working piston speed	m/s	10 to 500					10 to 300		
Cushion		Rubber cushion							
Lubrication		Not available							
Allowable energy absorption	J	0.16	0.16	0.40	0.62	0.98	1.56	2.51	3.92
Internal leakage volume	ℓ/min.	5					8		

Stroke length

Bore size (mm)	Standard stroke length (mm)	Max. stroke length (mm)	Min. stroke length (mm)
ϕ20	5, 10, 15, 20, 25, 30, 40, 50	200 Note 1)	
ϕ25	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90,100	300 Note 1)	1 (5)
ϕ32			
ϕ40			
ϕ50			
ϕ63	10, 20, 30, 40, 50, 60, 70, 80, 90,100		
ϕ80			
ϕ100			

Note 1: Custom stroke length is available per 1 mm
increment. The total length is the same as the next
longer standard stroke length.
Note 2: Lengths exceeding the standard stroke are available
in increments of 10 to the maximum stroke.
(Example) ϕ20: 60, 70, 80, 90,100
Note 3: Dimensions for the custom stroke (e.g.: 64) are the
same as the next longer stroke (e.g.: 70).
Note 4: If 100 to 200 mm stroke for ϕ20, 150 to 300 mm
stroke for ϕ25 to ϕ50, or 200 to 300 mm stroke for
ϕ63 to ϕ100, some internal structure and overall
length dimensions are different from a standard type.
Note 5: Refer to the following table when a switch is used.

Switch quantity and min. stroke length (mm)

Switch quantity	1	2	3	4	5
Switch model no. Bore size (mm)	T*	T*	T*	T*	T*
ϕ20	5	5	35	50	65
ϕ25	5	5	35	50	65
ϕ32	5	5	35	50	65
ϕ40	5	5	35	50	65
ϕ50	5	5	35	50	65
ϕ63	5	5	35	50	65
ϕ80	5	5	35	50	65
ϕ100	5	5	35	50	65

Note: Stroke less than 10 mm is not available for 2 color indicator, off-delay, strong magnetic field proof, or types with T1* or T8* switch.

Switch specifications

● 1 color/2 color indicator/strong magnetic field proof

* The T0/T5 switch can be used with 220 VAC. Consult with CKD for conditions.

Item	Proximity 2-wire			Proximity 3-wire			Reed 2-wire			Proximity 2-wire
	T1H/T1V	T2H/T2V T2JH/T2JV	T2YH/T2YV	T3H/T3V	T3PH/T3PV (Custom order)	T3YH/T3YV	T0H/T0V	T5H/T5V	T8H/T8V	T2YD
Applications	Programmable controller relay, small solenoid valve	Programmable controller		Programmable controller, relay			Programmable controller, relay	Programmable controller, relay, IC circuit (without light), serial connection	Programmable controller, relay	Programmable controller
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	24 VDC ±10%
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	5 to 20 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 indicator light	LED (ON lighting)	Red/green 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			1 mA or less

● With preventive maintenance output

Item		Proximity 3-wire	Proximity 4-wire	Proximity 3-wire	Proximity 4-wire
		T2YFH/V	T3YFH/V	T2YMH/V	T3YMH/V
Applications		Programmable controller	Programmable controller, relay	Programmable controller	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 μA or less	1.2 mA or less	10 μA 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 μA or less			

Note 1: Refer to Ending 1 for other switches.
Note 2: Max. load current above: 20 mA at 25 ℃. The current will be lower than 20 mA if ambient temperature around switch is higher than 25 ℃.
(5 to 10 mA at 60 ℃)

Dimensions

It is the same as the double acting high load type SSD-K Series. Refer to pages 754 to 757.
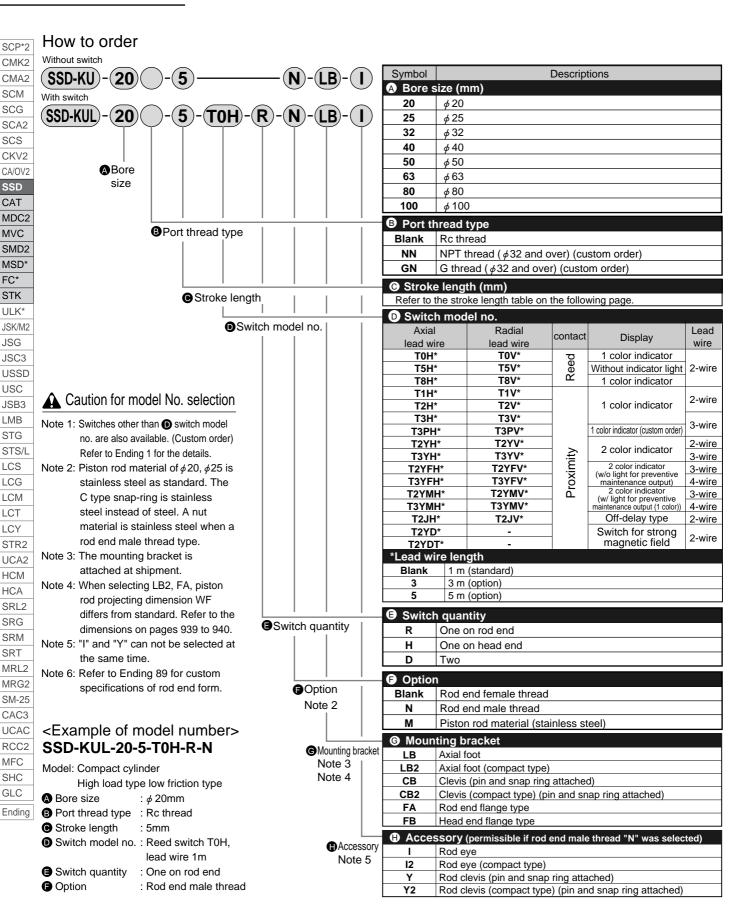
Technical data

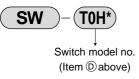Refer to page 294 for technical data of a sliding resistance value.
Data on page 294 is for the "SCM-U Series", but similar trends apply to the SSD-KU Series.

Compact cylinder
Space saving structure

SSD-KU Series

How to order

Without switch

SSD-KU - 20 ◯ - 5 ─────── N - LB - I

With switch

SSD-KUL - 20 ◯ - 5 - T0H - R - N - LB - I

Ⓐ Bore size

Ⓑ Port thread type

Ⓒ Stroke length

Ⓓ Switch model no.

Ⓔ Switch quantity

Ⓕ Option Note 2

Ⓖ Mounting bracket Note 3 Note 4

Ⓗ Accessory Note 5

Symbol	Descriptions
Ⓐ Bore size (mm)	
20	φ20
25	φ25
32	φ32
40	φ40
50	φ50
63	φ63
80	φ80
100	φ100
Ⓑ Port thread type	
Blank	Rc thread
NN	NPT thread (φ32 and over) (custom order)
GN	G thread (φ32 and over) (custom order)
Ⓒ Stroke length (mm)	
Refer to the stroke length table on the following page.	

Ⓓ Switch model no.

Axial lead wire	Radial lead wire	contact	Display	Lead wire
T0H*	**T0V***	Reed	1 color indicator	2-wire
T5H*	**T5V***		Without indicator light	
T8H*	**T8V***		1 color indicator	
T1H*	**T1V***	Proximity	1 color indicator	2-wire
T2H*	**T2V***			
T3H*	**T3V***			3-wire
T3PH*	**T3PV***		1 color indicator (custom order)	3-wire
T2YH*	**T2YV***		2 color indicator	2-wire
T3YH*	**T3YV***			3-wire
T2YFH*	**T2YFV***		2 color indicator (w/o light for preventive maintenance output)	3-wire
T3YFH*	**T3YFV***			4-wire
T2YMH*	**T2YMV***		2 color indicator (w/ light for preventive maintenance output (1 color))	3-wire
T3YMH*	**T3YMV***			4-wire
T2JH*	**T2JV***		Off-delay type	2-wire
T2YD*	**-**		Switch for strong magnetic field	2-wire
T2YDT*	**-**			

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

Ⓔ Switch quantity	
R	One on rod end
H	One on head end
D	Two

Ⓕ Option	
Blank	Rod end female thread
N	Rod end male thread
M	Piston rod material (stainless steel)

Ⓖ Mounting bracket	
LB	Axial foot
LB2	Axial foot (compact type)
CB	Clevis (pin and snap ring attached)
CB2	Clevis (compact type) (pin and snap ring attached)
FA	Rod end flange type
FB	Head end flange type

Ⓗ Accessory (permissible if rod end male thread "N" was selected)	
I	Rod eye
I2	Rod eye (compact type)
Y	Rod clevis (pin and snap ring attached)
Y2	Rod clevis (compact type) (pin and snap ring attached)

⚠ Caution for model No. selection

Note 1: Switches other than Ⓓ switch model no. are also available. (Custom order) Refer to Ending 1 for the details.

Note 2: Piston rod material of φ20, φ25 is stainless steel as standard. The C type snap-ring is stainless steel instead of steel. A nut material is stainless steel when a rod end male thread type.

Note 3: The mounting bracket is attached at shipment.

Note 4: When selecting LB2, FA, piston rod projecting dimension WF differs from standard. Refer to the dimensions on pages 939 to 940.

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

Note 6: Refer to Ending 89 for custom specifications of rod end form.

<Example of model number>
SSD-KUL-20-5-T0H-R-N

Model: Compact cylinder
High load type low friction type

Ⓐ Bore size : φ20mm
Ⓑ Port thread type : Rc thread
Ⓒ Stroke length : 5mm
Ⓓ Switch model no. : Reed switch T0H, lead wire 1m
Ⓔ Switch quantity : One on rod end
Ⓕ Option : Rod end male thread

How to order switch

SW - T0H*

Switch model no.
(Item Ⓓ above)

CKD

(Stroke length table)

Stroke length (mm)		φ20	φ25	φ32	φ40	φ50	φ63	φ80	φ100
					Applicable bore size				
Standard stroke length	5	●							
	10	●	●	●	●	●	●	●	●
	15	●	●	●	●	●			
	20	●	●	●	●	●	●	●	●
	25	●	●	●	●	●			
	30	●	●	●	●	●	●	●	●
	40	●	●	●	●	●	●	●	●
	50	●	●	●	●	●	●	●	●
	60		●	●	●	●	●	●	●
	70		●	●	●	●	●	●	●
	80		●	●	●	●	●	●	●
	90		●	●	●	●	●	●	●
	100		●	●	●	●	●	●	●
Min. stroke length (mm) Note 1		1							
Max. stroke length (mm)		200	300						
Custom stroke length Note 2		Per 1 mm increment							

Note 1: The 1 color indicator is not available with a stroke less than 5mm, 2 color indicator type, off delay,
strong magnetic field proof, or 10mm or shorter type with T1* or T8* switch is not available.
Refer to page 814 for switch quantity and min. stroke length.
Note 2: The total length is the same as the next longer standard stroke length.

How to order mounting bracket

Bore size (mm) / Mounting bracket	φ20	φ25	φ32	φ40	φ50	φ63	φ80	φ100
Foot (LB)	SSD-LB-20	SSD-LB-25	SSD-LB-32	SSD-LB-40	SSD-LB-50	SSD-LB-63	SSD-LB-80	SSD-LB-100
Foot (LB2)	SSD-LB2-20	SSD-LB2-25	SSD-LB2-32	SSD-LB2-40	SSD-LB2-50	SSD-LB2-63	SSD-LB2-80	SSD-LB2-100
Flange (FA/FB)	SSD-FA-20	SSD-FA-25	SSD-FA-32	SSD-FA-40	SSD-FA-50	SSD-FA-63	SSD-FA-80	SSD-FA-100
Clevis (CB)	SSD-CB-20	SSD-CB-25	SSD-CB-32	SSD-CB-40	SSD-CB-50	SSD-CB-63	SSD-CB-80	SSD-CB-100
Clevis (CB2)	SSD-CB2-20	SSD-CB2-25	SSD-CB2-32	SSD-CB2-40	SSD-CB2-50	SSD-CB2-63	SSD-CB2-80	SSD-CB2-100

Note 1: Foot type mounting bracket is a two-piece/set.

Compact cylinder
Space saving structure