

ID key-operated switches

The ID key-operated switch is electronic and has 4 switch positions that are selected by keys with different codes. Using the 4 ID keys with different codes, it is possible to select 1 of 4 positions. The ID keys are color-coded (yellow, blue, red, green, white) so that they can be clearly differentiated at a glance.

Different versions of ID key-operated switches are available depending on the following features:

- Front ring material
- Conventional variant: 1 + 4 non-isolated outputs
- Variant with IO-Link: Option for individual coding

Operation:

Insert ID key, turn key to select the position. Standard keys can also be used in conjunction with the electronic module for ID key-operated switches with IO-Link function. The white ID key is supplied without coding



3SU1000-4WS10-0AA0
Plastic, black



3SU1030-4WS10-0AA0
Plastic with metal front ring, matte

ID key-operated switches		
Number of switching positions	4	4
Operating angle	45°	45°
Operating principle	Latching	Latching
Switch position for key removal	O+I+II+III	O+I+II+III
Color	Black	Black
Pages	33	52



3SU1400-1GC10-1AA0



3SU1400-1GD10-1AA0

Electronic modules for ID key-operated switches		
Type of power supply	--	Via IO-Link master
Protocol is supported IO-Link protocol	--	IO-Link protocol
Number of NO contacts	5	5
IO-Link transfer rate	--	COM2 (38.4 kBaud)
Pages	83	83



3SU1900-0FU60-0AA0

ID keys ID group individual



3SU1900-0FV40-0AA0
3SU1900-0FW30-0AA0
3SU1900-0FX20-0AA0
3SU1900-0FY50-0AA0

ID keys








ID keys		
Material	Plastic	Plastic
RFID coding version	Individually coded, programmable several times	ID group 1 ID group 2 ID group 3 ID group 4
Color	White	Green Yellow Red Blue
Pages	115	115

SIRIUS ACT Pushbuttons and Indicator Lights

General data

Article No. scheme

Device types

						
3SU10	3SU11	3SU12	3SU14	3SU15	3SU18	3SU19
Device types						
Actuating and signaling elements	Complete units	Compact units	Modules for actuators and indicators	Holders with module	Enclosures	Accessories

Actuating and signaling elements

Digit of the Article No.	1 st - 4 th	5 th	6 th	7 th	8 th	9 th	10 th	11 th	12 th	13 th	14 th	15 th	16 th		
	□□□□	□	□	□	-	□	□	□	□	-	□	□	□		
SIRIUS ACT pushbuttons and indicator lights	3SU1														
Device type	0 = actuating and signaling elements		0												
Material (front ring)	0 = plastic, black 3 = metal, matte (front ring)/plastic, black (collar) 5 = metal, shiny 6 = metal, matte		<input type="checkbox"/>												
Illumination	0 = non-illuminated 1 = illuminated/transparent 2 = illuminated/non-illuminated		<input type="checkbox"/>												
Type of actuator/indicator	0 = pushbutton 1 = mushroom pushbutton/ EMERGENCY STOP mushroom pushbutton/sensor switch 2 = selector switch 3 = twin pushbutton, toggle switch 4/5 = key-operated switch 6 = indicator light/acoustic signaling device 7 = coordinate switch		<input type="checkbox"/>												
Design of the actuator/lock	e.g. A = flat		<input type="checkbox"/>												
Function	e.g. B = momentary contact		<input type="checkbox"/>												
Color/key removal position	e.g. 10 = black, 20 = red		<input type="checkbox"/> <input type="checkbox"/>												
Connection method	0 = none		<input type="checkbox"/>												
Module/holder equipment	e.g. A = without module, without holder Y = without module, with holder		<input type="checkbox"/>												
Marking	e.g. A = none, C = "I", D = "O", R = "R"		<input type="checkbox"/>												
Ambient condition	0 = standard, 1 = ATEX		<input type="checkbox"/>												
Example	3SU1	0	0	0	-	0	A	B	1	0	-	0	A	A	0

Note:

The Article No. scheme is presented here merely for information purposes and for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the Catalog in the Selection and ordering data.

General data

Benefits

Highlights of SIRIUS ACT

Design

- Improved look of the system
- Combination of design and functionality

Easy handling

- Self-explanatory and fast installation
- One-handed installation
- Components can be mounted with holder removed
- No special tools required, simple size 2 screwdriver (cross-tip DIN ISO 87641PZD1, flat-head DIN ISO 2380-1 A/B 1x4.5) is sufficient
- Simple geometry for mounting holes

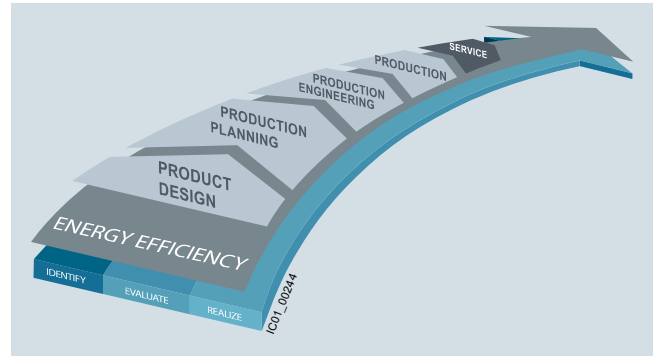
Ruggedness

- Media resistance
- Suitable for use in extreme environments
- Design stability according to use

Communication

- Connection to the most commonly used communication systems (PROFINET, AS-Interface, IO-Link)
- Can be integrated easily via the TIA Portal

Advantages through energy efficiency



Energy management in industry

Overview of the energy management process

We offer you a unique portfolio for industrial energy management, using an energy management system that helps to optimally define your energy needs. We split up our industrial energy management into three phases – identify, evaluate, and realize – and we support you with the appropriate hardware and software solutions in every process phase.

The innovative products of the SIRIUS industrial controls portfolio can also make a substantial contribution to a plant's energy efficiency (see www.siemens.com/sirius/energysaving).

SIRIUS ACT pushbuttons and indicator lights contribute to energy efficiency throughout the plant as follows:

- Lower power consumption by means of LED technology
- Long service life

Application

Environmental conditions

The pushbuttons and indicator lights are climate-proof (KTW 24) and suitable for standard industrial applications and operation in marine applications.

"Intrinsic safety" type of protection EEx i according to ATEX directive 94/9/EC

The pushbuttons and indicator lights can also be used in hazardous areas. Special versions of the 3SU1400 contact modules and 3SU1401 LED modules (only with screw terminals).

Explosion protection category for dust:
II 2D Ex tb IIIC T120°C Db

Safety EMERGENCY STOP pushbuttons according to ISO 13850

For controls according to IEC 60204-1 or EN 60204-1, the SIRIUS ACT mushroom pushbuttons are suitable for use as safety EMERGENCY STOP pushbuttons.

Safety circuits

The IEC 60947-5-1 and EN 60947-5-1 standards require positive opening. This means that for the purposes of personal safety, the assured opening of NC contacts is expressly stipulated for the electrical equipment of machines in all safety circuits and marked according to IEC 60947-5-1 with the symbol (☞).

Category 4 according to EN ISO 13849-1 can be attained with the EMERGENCY STOP mushroom pushbuttons if the corresponding fail-safe evaluation units are selected and correctly installed, e.g. the 3SK11 safety relays, the 3RK3 Modular Safety System (see [Catalog IC 14, Chapter 13, "Safety Systems"](#)) or matching units from the ASIsafe, SIMATIC or SINUMERIK product ranges.

The SIRIUS ACT pushbuttons and indicator lights can be connected to the AS-Interface communication system quickly and safely.

The following solutions are available:

- AS-Interface module
- AS-Interface module in safety-related version for EMERGENCY STOP mushroom pushbutton
- Ready-fitted AS-Interface enclosures with 1 to 6 command points

IO-Link

The SIRIUS ACT pushbuttons and indicator lights can be connected to IO-Link quickly and safely. The connection is made via a special IO-Link-module.

Technical specifications

Type	3SU1..0-AA 3SU1..0-JA		3SU1..1-AA 3SU1..1-JA		3SU1..0-AB 3SU1..0-BB 3SU1..0-CB 3SU1..0-DB 3SU1..0-JB		3SU1..1-AB 3SU1..1-BB 3SU1..1-JB		3SU1..0-HC	
Product version	Pushbutton									
Operating principle of actuating element	Latching				Momentary contact				Momentary contact, latching	
Optional expansion of product by light source	No		Yes		No		Yes		No	
Mechanical endurance (operating cycles) typical	1 000 000				10 000 000		3 000 000		1 000 000	
Switching frequency maximum	1/h 1 800				3 600				1 800	
Shock resistance for devices without incandescent lamp acc. to IEC 60068-2-27	11 ms, 50 g, half-sine									
Vibration resistance acc. to IEC 60068-2-6	20 ... 500 Hz: 5 g									
IP degree of protection	IP66, IP67, IP69K; NEMA Type 1, 3, 3R, 4, 4X, 12 ¹⁾									
Climate class in operation acc. to EN 60721	3K6, 3C3, 3S2, 3M6									
Ambient temperature										
• During operation	°C -25 ... +70									
• During storage	°C -40 ... +80									

Type	3SU1.00-AA		3SU1.00-BA 3SU1.00-CA 3SU1.30-AA 3SU1.30-BA 3SU1.50-AA 3SU1.50-BA 3SU1.50-CA		3SU1.50-EA		3SU1.01-AA 3SU1.01-BA 3SU1.51-AA 3SU1.51-BA 3SU1.51-CA		3SU1.00-AD 3SU1.00-BD 3SU1.00-CD 3SU1.30-AD 3SU1.30-BD 3SU1.50-AD 3SU1.50-BD 3SU1.50-CD		3SU1.50-ED		3SU1.01-AD 3SU1.01-BD 3SU1.31-AD 3SU1.31-BD	
Product version	Mushroom pushbutton													
Operating principle of actuating element	Latching						Momentary contact							
Optional expansion of product by light source	No						Yes		No				Yes	
Mechanical endurance (operating cycles) typical	500 000		300 000		500 000		10 000 000		300 000		3 000 000			
Switching frequency maximum	1/h 3 600		1 800				3 600		1 800		3 600			
Shock resistance for devices without incandescent lamp acc. to IEC 60068-2-27	11 ms, 50 g, half-sine													
Vibration resistance acc. to IEC 60068-2-6	20 ... 500 Hz: 5 g													
IP degree of protection	IP66, IP67, IP69K; NEMA Type 1, 3, 3R, 4, 4X, 12													
Climate class in operation acc. to EN 60721	3K6, 3C3, 3S2, 3M6													
Ambient temperature														
• During operation	°C -25 ... +70													
• During storage	°C -40 ... +80													

Type	3SU1...-N		3SU1...-L		3SU1...-J		3SU1...-H		3SU1...-G	
Product version	EMERGENCY STOP mushroom pushbutton									
Mechanical endurance (operating cycles) typical	300 000									
Switching frequency maximum	1/h 600									
Shock resistance for devices without incandescent lamp acc. to IEC 60068-2-27	11 ms, 50 g, half-sine									
Vibration resistance acc. to IEC 60068-2-6	2 ... 500 Hz: 5 g									
IP degree of protection	IP66, IP67, IP69K; NEMA Type 1, 3, 3R, 4, 4X, 12									
Climate class in operation acc. to EN 60721	3K6, 3C3, 3S2, 3M6									
Ambient temperature										
• During operation	°C -25 ... 70									
• During storage	°C -40 ... 80									

¹⁾ UL pending for illuminated and non-illuminated Twin Pushbutton and illuminated Pushbutton NEMA Type 1, 3, 3R, 4 and 4X




SIRIUS ACT Pushbuttons and Indicator Lights




General data

Type	3SU1...-2A	3SU1...-2B 3SU1...-2C 3SU1...-2D 3SU1...-2E	3SU1...-3E	3SU1...-4B 3SU1...-4C 3SU1...-4D 3SU1...-4F 3SU1...-4G 3SU1...-4H 3SU1...-4J 3SU1...-4L	3SU1...-5B 3SU1...-5H 3SU1...-5J 3SU1...-5K 3SU1...-5L 3SU1...-5P 3SU1...-5Q 3SU1...-5R 3SU1...-5S 3SU1...-5T 3SU1...-5X	3SU1...-7A 3SU1...-7B
Product version	Rotary knob	Selector switch	Toggle switch	Key-operated switch		Coordinate switch
Mechanical endurance (operating cycles) typical	1 000 000					250 000
Switching frequency maximum	1/h	1 800				3 600
Shock resistance for devices without incandescent lamp acc. to IEC 60068-2-27	11 ms, 50 g, half-sine					
Vibration resistance acc. to IEC 60068-2-6	10 ... 500 Hz: 5 g					
IP degree of protection	IP66, IP67, IP69K; NEMA Type 1, 3, 3R, 4, 4X, 12 ¹⁾					
Ambient temperature						
• During operation	°C	-25 ... +70				
• During storage	°C	-40 ... +80				

Type	3SU1400-.....-1	3SU1400-.....-3	3SU1400-.....-5
Product version	Contact module		
Insulation voltage rated value	V	500	
Pollution degree	3		
Impulse withstand voltage rated value	kV	6	
Operational voltage type	AC/DC		
Operational voltage			
• At AC			
- Rated value	V	5 ... 500	
• At DC			
- Rated value	V	5 ... 500	
Thermal current	A	10	
Operational current, rated value			
• At AC-12			
- At 24 V	A	10	
- At 230 V	A	10	
- At 500 V	A	10	
• At AC-15			
- At 24 V	A	6	
- At 230 V	A	6	
- At 400 V	A	3	
- At 500 V	A	1.4	
• At DC-12			
- At 24 V	A	10	
- At 48 V	A	5	
- At 110 V	A	2.5	
- At 230 V	A	1	
- At 400 V	A	0.3	
- At 500 V	A	0.2	
• At DC-13			
- At 24 V	A	3	
- At 48 V	A	1.5	
- At 110 V	A	0.7	
- At 230 V	A	0.3	
- At 400 V	A	0.1	
- At 500 V	A	0.07	
Contact reliability	One contact failure per 100 million switching operations (17 V, 5 mA), One contact failure per 10 million switching operations (5 V, 1 mA)		
Mechanical endurance (operating cycles) typical	10 000 000		
Switching frequency maximum	1/s	1	

¹⁾ UL pending for plastic with metal matte front ring and 30 mm flat metal matte Key-operated switch NEMA Type 1, 3, 3R, 4, 4X, 12 and 22 mm shiny metal Key-operated switch NEMA Type 1, 4X (indoor use only) and 12.

Type		3SU1400-.....-1	3SU1400-.....-3	3SU1400-.....-5
Product version		Contact module		
Fuse link version required for short-circuit protection of the auxiliary switch with type of coordination 1		gG / Dz 10 A, quick-response / Dz 16 A		
Continuous current of miniature circuit breaker C characteristic	A	10		
Vibration resistance acc. to IEC 60068-2-6		2 ... 500 Hz: 5 g		
Shock resistance for devices without incandescent lamp acc. to IEC 60068-2-27		11 ms, 50 g, half-sine		
Climate class in operation acc. to EN 60721		3K6, 3C3, 3S2, 3M6		
Ambient temperature				
• During operation	°C	-25 ... +70		
• During storage	°C	-40 ... +80		
IP degree of protection				
• of the enclosure		IP40		
• of the terminal		IP20		
Type of electrical connection		Screw terminals 	Spring-type terminals 	Socket terminals (THT) 
Type of connectable conductor cross-sections				
• For auxiliary contacts				
- Solid		2 x (1.0 .. 1.5 mm ²)	2 x (0.25 .. 1.5 mm ²)	0.8 mm x 0.8 mm x 4 mm
- With end sleeves		2 x (0.5 .. 0.75 mm ²)		--
- Finely stranded				
- Without end sleeves		2 x (0.5 .. 0.75 mm ²)	2 x (0.25 .. 1.5 mm ²)	--
- With end sleeves		2 x (0.5 .. 1.5 mm ²)	2 x (0.25 .. 0.75 mm ²)	--
• For AWG cables for auxiliary contacts		2 x (18 ... 14)	2 x (24 ... 16)	--
Tightening torque				
• For screw terminals	Nm	0.8 ... 0.9	--	--

Type		3SU1401-.....-1	3SU1401-.....-3	3SU1401-.....-5
Product version		LED module		
Light source integrated in product		Yes		
Type of light source		LED		
Insulation voltage rated value	V	320		
Pollution degree		3		
Impulse withstand voltage rated value	kV	4		
Operating time typical	h	100 000		
Vibration resistance acc. to IEC 60068-2-6		2 ... 500 Hz: 5 g		
Shock resistance for devices without incandescent lamp acc. to IEC 60068-2-27		11 ms, 50 g, half-sine		
Climate class in operation acc. to EN 60721		3K6, 3C3, 3S2, 3M6		
Ambient temperature				
• During operation	°C	-25 ... +70		
• During storage	°C	-40 ... +80		
IP degree of protection of the terminal		IP20		
Type of electrical connection		Screw terminals 	Spring-type terminals 	Socket terminals (THT) 

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black

Actuating and Signaling Elements

Key-operated switches / ID key-operated switches

Operating principle	Make of lock	Switch position for key removal	DT	Order No.	PU (UNIT, SET, M)	PS*
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Key-operated switches

3 switch positions (I+O+II)



3SU1000-4BP01-0AA0

Momentary contact/
latching, 2x45°
(10:30/12/
1:30 o'clock),
reset from left,
latching to the right



RONIS, SB30

O
II (right)
O+II (center, right)

B **3SU1000-4BN01-0AA0**
B **3SU1000-4BP31-0AA0**
B **3SU1000-4BP61-0AA0**

1 1 unit
1 1 unit
1 1 unit



3SU1000-5BP01-0AA0

CES, SSG10

O
II (right)
O+II (center, right)

B **3SU1000-5BN01-0AA0**
B **3SU1000-5BP31-0AA0**
B **3SU1000-5BP61-0AA0**

1 1 unit
1 1 unit
1 1 unit

BKS, S1

O

B **3SU1000-5PP01-0AA0**

1 1 unit

Latching/momentary
contact, 2x45°
(10:30/12/
1:30 o'clock),
reset from right, latch-
ing to the left



O.M.R. 73038,
light blue
O.M.R. 73034,
black

O

B **3SU1000-4GN01-0AA0**

1 1 unit

I

B **3SU1000-4HN21-0AA0**

1 1 unit



3SU1000-4GN01-0AA0

CES, SSG10

O
I
O+I (center, left)

B **3SU1000-5BN01-0AA0**
B **3SU1000-5BN21-0AA0**
B **3SU1000-5BN51-0AA0**

1 1 unit
1 1 unit
1 1 unit

BKS, S1

I

B **3SU1000-5PN21-0AA0**

1 1 unit

O+I (center, left)

B **3SU1000-5PN51-0AA0**

1 1 unit

IKON, 360012K1

O+I (center, left)

B **3SU1000-5XN51-0AA0**

1 1 unit

Selection and ordering data

Operating angle	Operating principle	Switch position for key removal	Color	DT	Order No.	PU (UNIT, SET, M)	PS*
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ID key-operated switches

4 switch positions (O+I+II+III)



3SU1000-4WS10-0AA0

45°

Latching

O+I+II+III

Black

A

3SU1000-4WS10-0AA0

1 1 unit

For available keys, [see page 115](#)
For electronic modules for ID key-operated switches,
[see page 83](#)