Enclosures

Digit of the Article No.		1st - 4th □□□□	5th □	6th □	7th □	–	8th □	9th □	10th □	11th □	12th □	–	13th □	14th □	15th □	16th □
SIRIUS ACT pushbuttons and indicator lights		**3SU1**														
Device type	8 = enclosure		**8**													
Material (enclosure/front ring)	0 = plastic, black plastic 5 = metal, shiny metal			□												
Number of command points	1 = 1 command point ... 6 = 6 command points				□											
Type of enclosure	0 = surface-mounted 1 = 4-position selector and coordinate switch 2 = palm switch 3 = two-hand operation console						□									
Equipment	e.g. command point, inscription, module							□	□							
Communication capability	0 = none 1 = AS-i									□						
Ambient condition	0 = standard 1 = ATEX										□					
Mounting/connection of modules	0 = none 1 = front plate mounting, screw terminals 2 = base mounting, screw terminals 3 = base mounting, spring-type terminals												□			
Cable exit from enclosure	A = none G = direct entry of AS-i flat cable at top/on right H = ASi insulation piercing method at top/on right													□		
Design of enclosure top	A = command point in center B = with recess for labeling plate C = with protective collar D = 4 additional holes (two-hand operation console) E = 8 additional premachined breaking points (two-hand operation console)														□	
Color of enclosure top	1 = gray 2 = yellow															□
Example		**3SU1**	**8**	**0**	**1**	**–**	**0**	**A**	**A**	**0**	**0**	**–**	**0**	**A**	**A**	**2**

Accessories

Digit of the Article No.		1st - 4th □□□□	5th □	6th □	7th □	–	8th □	9th □	10th □	11th □	12th □	–	13th □	14th □	15th □	16th □
SIRIUS ACT pushbuttons and indicator lights		**3SU1**														
Device type	9 = accessories		**9**													
Material	0 = plastic, black 3 = metal/plastic 5 = metal, shiny 6 = metal, matte			□												
Illumination	0 = non-illuminated 1 = illuminated				□											
Type of accessory (labels, protection, actuator, enclosure)	e.g. 0AB = insert label						□	□	□							
Color	e.g. 10 = black, 20 = red									□	□					
Marking	e.g. 0AA = none 0AB = ON 0AT = EMERGENCY STOP												□	□	□	
Ambient condition	0 = standard 1 = ATEX															□
Example		**3SU1**	**9**	**0**	**0**		**0**	**A**	**B**	**7**	**1**		**0**	**A**	**B**	**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.

SIRIUS ACT Pushbuttons and Indicator Lights

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
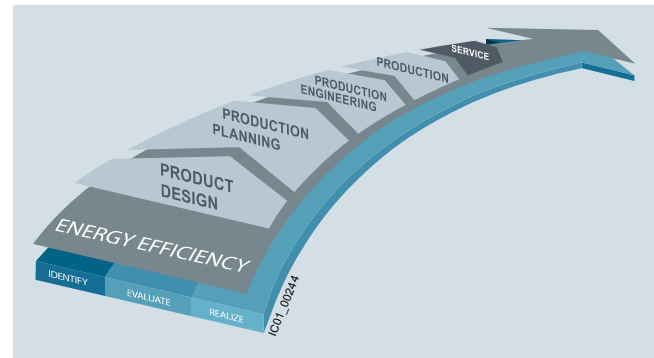- Simple geometry for mounting holes

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 • During storage °C	-25 … +70 -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, 3M6l					
Ambient temperature • During operation °C • During storage °C	-25 … +70 -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 • During storage °C	-25 ... 70 -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 mm²)	2 x (0.25 .. 1.5 mm²)	0.8 mm x 0.8 mm x 4 mm
- With end sleeves	2 x (0.5 .. 0.75 mm²)		--
- Finely stranded			
- Without end sleeves	2 x (0.5 .. 0.75 mm²)	2 x (0.25 .. 1.5 mm²)	--
- With end sleeves	2 x (0.5 .. 1.5 mm²)	2 x (0.25 .. 0.75 mm²)	--
• 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)

■ Selection and ordering data
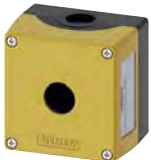
	Color of enclosure top	Number of command points	Enclosure version	DT	Order No.	PU (UNIT, SET, M)	PS*
Enclosures for surface mounting							
Plastic version							
	Yellow	1	Center command point	A	**3SU1801-0AA00-0AA2**	1	1 unit
			With protective collar	A	**3SU1801-0AA00-0AC2**	1	1 unit
			With recess for labeling plate	A	**3SU1801-0AA00-0AB2**	1	1 unit
3SU1801-0AA00-0AA2	Gray	1	With recess for labeling plate	A	**3SU1801-0AA00-0AB1**	1	1 unit
		2	With recess for labeling plate	A	**3SU1802-0AA00-0AB1**	1	1 unit
		3	With recess for labeling plate	A	**3SU1803-0AA00-0AB1**	1	1 unit
		4	With recess for labeling plate	A	**3SU1804-0AA00-0AB1**	1	1 unit
		6	With recess for labeling plate	A	**3SU1806-0AA00-0AB1**	1	1 unit
3SU1802-0AA00-0AB1							
Metal version							
	Yellow	1	Center command point	B	**3SU1851-0AA00-0AA2**	1	1 unit
			With protective collar	B	**3SU1851-0AA00-0AC2**	1	1 unit
			With recess for labeling plate	A	**3SU1851-0AA00-0AB2**	1	1 unit
3SU1851-0AA00-0AC2	Gray	1	With recess for labeling plate	►	**3SU1851-0AA00-0AB1**	1	1 unit
			With protective collar	B	**3SU1851-0AA00-0AC1**	1	1 unit
		2	With recess for labeling plate	►	**3SU1852-0AA00-0AB1**	1	1 unit
		3	With recess for labeling plate	►	**3SU1853-0AA00-0AB1**	1	1 unit
3SU1853-0AA00-0AB1		4	With recess for labeling plate	►	**3SU1854-0AA00-0AB1**	1	1 unit
		6	With recess for labeling plate	B	**3SU1856-0AA00-0AB1**	1	1 unit
3SU1854-0AA00-0AB1							
Enclosure for 4-position selector and coordinate switch							
Plastic version							
	Gray	1	Center command point	B	**3SU1801-1AA00-1AA1**	1	1 unit
Metal version							
	Gray	1	Center command point	B	**3SU1851-1AA00-1AA1**	1	1 unit
3SU1801-1AA00-1AA1							