

Enclosures

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	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.	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	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.

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

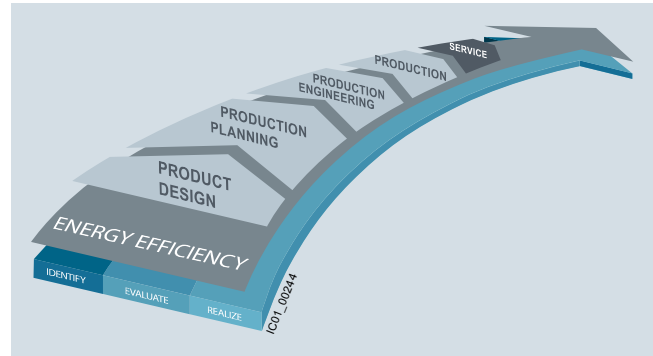
Ruggedness

- 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 3SU1.50-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 Enclosures

Two-hand operation consoles

Overview

Equipment

The two-hand operation consoles are pre-equipped with commanding devices. In the case of plastic enclosures the command points are equipped as standard with actuators and indicators made of plastic, in the case of metal enclosures they are equipped with actuators and indicators made of metal.

The standard equipment comprises:

- 2 black mushroom pushbuttons, Ø 40 mm, 1 NO + 1 NC
- 1 red EMERGENCY STOP mushroom pushbutton according to ISO 13850, Ø 40 mm, with positive latching, 2 NC

The plastic version can be retrofitted with up to 8 customized command points. The surface of the console has premachined breaking points for this purpose.

Application

The two-hand operation consoles are required for use with machines and systems that have hazardous areas, in order to direct both hands of the operator to one position.

The operation consoles are primarily used on presses, stamping machines, printing presses and paper converting machines, in the chemical industry and in the rubber and plastics industries.

The control command is given by pressing the two mushroom pushbuttons on the sides simultaneously (within 0.5 s of each other) and must be maintained for as long as a hazard exists.

For the further processing of control commands, suitable evaluation units are used, e.g. 3SK11 safety relays or the 3RK3 Modular Safety System.

Standards

The two-hand operation consoles comply with the requirements of EN 574.

Selection and ordering data

Version of actuating element Unlatching method	Color of actuating element	Number of NO contacts	Number of NC contacts	DT	Order No.	PU (UNIT, SET, M)	PS*
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Enclosures - Two-hand operation consoles

Plastic enclosures

None	--	0	0	B	3SU1803-3AA00-1AA1	1	1 unit
A = mushroom pushbutton / B = EMERGENCY STOP mushroom pushbutton / C = mushroom pushbutton	A = black / B = red / C = black	2	4	B	3SU1803-3NB00-1AE1	1	1 unit
A = pull-to-unlatch mechanism / B = rotate-to-unlatch mechanism / C = pull-to-unlatch mechanism							



3SU1803-3NB00-1AE1

Metal enclosures

None	--	0	0	B	3SU1853-3AA00-0AA1	1	1 unit
A = mushroom pushbutton / B = EMERGENCY STOP mushroom pushbutton / C = mushroom pushbutton	A = black / B = red / C = black	2	4	B	3SU1853-3NB00-1AA1	1	1 unit
A = pull-to-unlatch mechanism / B = rotate-to-unlatch mechanism / C = pull-to-unlatch mechanism		2	4	B	3SU1853-3NB00-1AD1	1	1 unit



3SU1853-3AA00-0AA1



3SU1853-3NB00-1AA1



3SU1853-3NB00-1AD1

Version	Material	Color	DT	Order No.	PU (UNIT, SET, M)	PS*
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Accessories

Stands for two-hand operation console	Metal	Silver	B	3SU1950-0HN10-0AA0	1	1 unit
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3SU1950-0HN10-0AA0