Introduction

SIRIUS ACT Supplement 2015SIRIUS ACT Supplement 2015Overview




	3SU1.0	3SU1.3	3SU1.5	3SU1.6
Pushbuttons and indicator lights				
Designs				
Nominal diameter	22 mm	22 mm	22 mm	30 mm
Version	Plastic	Plastic with metal front ring, matte	Metal, shiny	Metal, matte, flat
Actuators				
Pushbuttons	✓	✓	✓	✓
Illuminated pushbuttons	✓	✓	✓	✓
Mushroom pushbuttons	✓	✓	✓	--
EMERGENCY STOP mushroom pushbuttons	✓	✓	✓	--
Selector switches	✓	✓	✓	✓
Key-operated switches	✓	✓	✓	✓
Special actuators				
Twin pushbuttons	✓	✓	✓	--
Coordinate switches	✓	✓	✓	--
Toggle switches	✓	✓	✓	--
Sensor switches	✓	✓	--	--
ID key-operated switches	✓	✓	--	--
Pushbuttons with extended stroke	✓	✓	✓	--
Potentiometers	✓	✓	✓	--
Indicators				
Indicator lights	✓	✓	✓	✓
Acoustic signaling devices	✓	✓	✓	--
Contact modules				
Single-pole	✓	✓	✓	✓
Two-pole	✓	✓	✓	✓
LED modules				
With integrated LED	✓	✓	✓	✓
Connections				
Screw terminals	✓	✓	✓	✓
Spring-type terminals	✓	✓	✓	✓
Solder pins	✓	✓	✓	✓
AS-Interface	✓	✓	✓	✓
IO-Link	✓	✓	✓	✓

✓ Standard
-- Not available

Note:

Safety characteristics (see Appendix on page 119).

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.		1st - 4th	5th	6th	7th		8th	9th	10th	11th	12th		13th	14th	15th	16th
		□□□□	□	□	□	–	□	□	□	□	□	–	□	□	□	□
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			□												
Illumination	0 = non-illuminated 1 = illuminated/transparent 2 = illuminated/non-illuminated				□											
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						□									
Design of the actuator/lock	e.g. A = flat							□								
Function	e.g. B = momentary contact								□							
Color/key removal position	e.g. 10 = black, 20 = red									□	□					
Connection method	0 = none												□			
Module/holder equipment	e.g. A = without module, without holder Y = without module, with holder													□		
Marking	e.g. A = none, C = "I", D = "O", R = "R"														□	
Ambient condition	0 = standard, 1 = ATEX															□
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

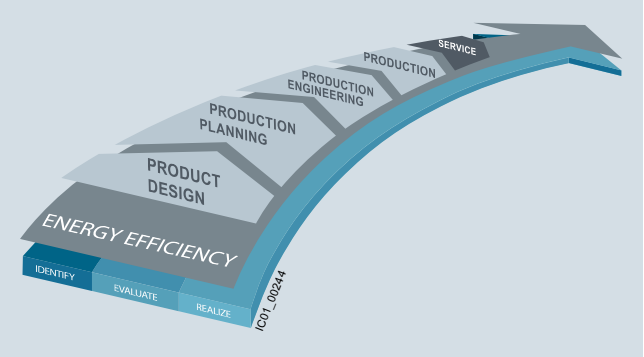
Ruggedness

- 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, 3M6l						
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

Mushroom pushbuttons / EMERGENCY STOP mushroom pushbuttons

Mushroom pushbuttons

Version of actuating element	Operating principle Unlatching method	Color	DT	Order No.	PU (UNIT, SET, M)	PS*
2 switch positions						
 3SU1050-1HB10-0AA0 **Mushroom pushbuttons** with raised mushroom, tamper-proof 40 mm diameter, 2 positions	Latching Rotate to unlatch	Black	B	**3SU1050-1HB10-0AA0**	1	1 unit
3 switch positions						
 3SU1050-1EA20-0AA0 **Mushroom pushbuttons** 40 mm diameter, 3 positions	Momentary contact 	Black Red	B B	**3SU1050-1ED10-0AA0** **3SU1050-1ED20-0AA0**	1 1	1 unit 1 unit
	Latching  Pull to unlatch	Black Red	B B	**3SU1050-1EA10-0AA0** **3SU1050-1EA20-0AA0**	1 1	1 unit 1 unit
 3SU1051-1EA40-0AA0 **Mushroom pushbuttons** 40 mm diameter, 3 positions, illuminated	Momentary contact 	Red White	B B	**3SU1051-1ED20-0AA0** **3SU1051-1ED60-0AA0**	1 1	1 unit 1 unit
	Latching  Pull to unlatch	Red Green	B B	**3SU1051-1EA20-0AA0** **3SU1051-1EA40-0AA0**	1 1	1 unit 1 unit

Selection and ordering data

EMERGENCY STOP mushroom pushbuttons

Version of actuating element	Outer diameter of mushroom	Make of lock	Color	DT	Order No.	PU (UNIT, SET, M)	PS*
With pull-to-unlatch mechanism							
 3SU1050-1HA20-0AA0 **EMERGENCY STOP mushroom pushbuttons** tamper-proof, 2 positions	40	--	Red	▶	**3SU1050-1HA20-0AA0**	1	1 unit
With rotate-to-unlatch mechanism							
 3SU1050-1GB20-0AA0 **EMERGENCY STOP mushroom pushbuttons** tamper-proof, 2 positions	33.8	--	Red	▶	**3SU1050-1GB20-0AA0**	1	1 unit