SIEMENS
Ingenuity for life

SIRIUS Safety Integrated

Quick search catalogue 2018

Table of contents

Prices valid until 30/09/2018

Contact information

Sales office

- Prices / delivery times
- Technical questions
- Repairs / returns

UK: 08458 507600
IRE: 1890 507600
E-mail: Sales.gbi.industry@siemens.com
(Product Sales, Quotes, Order & Delivery)

Technical Support hotline

- Technical support
- FAQ
- Service

UK: 08458 507600
IRE: 1890 507600
Email: Service.gbi.industry@siemens.com
(Technical Support, Spares & Service Engineers)

Training

- Courses
- Training

UK & IRE: 0161 446 6111
Email: training.ad.uk@siemens.com

Free online tool

A safe machine concept without detours!

- Determines SIL
- Determines PL

www.siemens.com/safety-evaluation-tool

Product Guide

3SK1 Input Capability

Type	Part number	E-Stop	Gate	Light Curtain	Two Hand Control	N/O Contacts (Gate Interlock)	Expandable Inputs using Device Connectors
Standard with Relay Enabling Contacts	3SK1111-*A**0	✓	✓	✓	-	-	-
Standard with Solid State Enabling Contacts	3SK1112-*BB40	✓	✓	✓	-	-	-
Advanced with Relay Enabling Contacts	3SK1121-*AB40	✓	✓	✓	✓	✓	✓
Advanced with Relay Enabling Contacts	3SK1121-*CB4*	✓	✓	✓	✓	✓	✓
Advanced with Solid State Enabling Contacts	3SK1120-*AB40	✓	✓	✓	✓	✓	✓
Advanced with Solid State Enabling Contacts	3SK1122-*AB40	✓	✓	✓	✓	✓	✓
Advanced with Solid State Enabling Contacts	3SK1122-*CB4*	✓	✓	✓	✓	✓	✓
Input Sensor Expansion Unit	3SK1220-1AB40	✓	✓	✓	✓	✓	✓

3SK1 Output Capability

Type	Part number	Relay Enabling Contacts (n/o)	Solid State Enabling Contacts	Signal Contact (n/c)	Delayed Relay Enabling Contacts	Delayed Solid State Enabling Contacts	Expandable Outputs Using device Connectors
Standard with Relay Enabling Contacts	3SK1111-*A**0	3	0	1	0	0	-
Standard with Solid State Enabling Contacts	3SK1112-*BB40	0	2	1	0	0	-
Advanced with Relay Enabling Contacts	3SK1121-*AB40	3	0	1	0	0	✓
Advanced with Relay Enabling Contacts	3SK1121-*CB4*	2	0	0	2	0	✓
Advanced with Solid State Enabling Contacts	3SK1120-*AB40	0	1	0	0	0	✓
Advanced with Solid State Enabling Contacts	3SK1122-*AB40	0	3	1	0	0	✓
Advanced with Solid State Enabling Contacts	3SK1122-*CB4*	0	2	0	0	2	✓
Output Expansion Unit	3SK1211-*BB00	4	0	1	★	0	-
Output Expansion Unit	3SK1211-*BB40	4	0	1	★	0	✓
Output Expansion Unit	3SK1211-*BW20	4	0	1	★	0	-
Output Expansion Unit	3SK1213-*AB40	3	0	1	★	0	-
Output Expansion Unit	3SK1213-*AJ20	3	0	1	★	0	✓
Output Expansion Unit	3SK1213-*AL20	3	0	1	★	0	-

✓   Version compatible
-   Version not compatible
★   Enabling circuits can be set to time delayed if used in conjunction with a time delayed base unit

There are many facets to machine safety. And SIRIUS 3SK can always provide a solution.

SIRIUS 3SK is a highly streamlined product portfolio. The 3SK1 range has been developed to allow fast, simple implementation of the most common safety functions. More complex safety systems can be created using basic units from the new 3SK2 series.

SIRIUS 3SK1

The SIRIUS 3SK portfolio provides the ideal solution for any safety application.

Simple, modular, flexible

SIRIUS 3SK1 Standard

SIRIUS 3SK1 Advanced

SIRIUS 3SK2

SIRIUS 3SK2

Protective door with tumbler

Muting

Independent output functions

Two-hand operation

Time-delayed disconnection

Emergency stop

Light array

Laser scanner

Protective door

Mat

Easy to parameterize – using DIP switches or a PC

Parameterizing safety functions with SIRIUS 3SK Safety Relays is an exceptionally simple process: you can use four DIP switches on the front panel (3SK1 units), or software (3SK2 units).

Software benefits at a glance

- **Easy setup** of complex safety applications using the drag and drop method
- **Efficient commissioning** using test mode, forcing and extensive diagnostics
- **Faster preparation of documentation**

Safety Relays

SIRIUS 3SK1 Safety Relays

| Description:	Fig.	Adjustable off-delay time	Rated control supply voltage	Enable circuits	Signaling circuits	Artical No. Screw-type connection ⊕	Artical No. Spring-type connection (push-in) ⊞	L Price £	Prod. group
Standard basic units									
With relay outputs	1	-	24 V AC/DC	3	1	3SK1111-1AB30	3SK1111-2AB30	100.91	41L
	1	-	110 - 240 V AC/DC	3	1	3SK1111-1AW20	3SK1111-2AW20	100.91	41L
With semiconductor outputs	1	-	24 V DC	2	1	3SK1112-1BB40	3SK1112-2BB40	79.96	41L
Advanced basic units									
With relay outputs	2	-	24 V DC	3	1	3SK1121-1AB40	3SK1121-2AB40	128.28	41L
	2	0.05 to 3 s	24 V DC	2/2tv	-	3SK1121-1CB41	3SK1121-2CB41	160.35	41L
	2	0.5 to 30 s	24 V DC	2/2tv	-	3SK1121-1CB42	3SK1121-2CB42	160.35	41L
With semiconductor outputs	2	-	24 V DC	3	1	3SK1122-1AB40	3SK1122-2AB40	96.21	41L
	2	0.5 to 30 s	24 V DC	2/2tv	-	3SK1122-1CB42	3SK1122-2CB42	96.21	41L
Input expansion module 17.5 mm									
Sensor expansion module for safety-oriented expansion of the Advanced basic units by adding an additional 2-channel sensor or two 1-channel sensors	3	-	24 V DC	-	-	3SK1220-1AB40	3SK1220-2AB40	76.97	41L
Output expansion module 4RO 22.5 mm									
With relay outputs	4	-	24 V DC	4	1	3SK1211-1BB40	3SK1211-2BB40	92.79	41L
Device connectors for saving wiring for Advanced basic units, input or output expansion modules									
Device connector, 17.5 mm	5		-				3ZY1212-1BA00	9.36	41L
Device connector, 22.5 mm	5		-				3ZY1212-2BA00	9.36	41L
Device termination connector, 22.5 mm	5		-				3ZY1212-2DA00	10.09	41L
Power supply for 3SK1 advanced and 3SK2 series									
Power supply, Spring-type connection	6	-	110- 240 V AC/DC	-			3SK1230-1AW20	64.14	41L
Power supply, Screw connection	7	-	110- 240 V AC/DC	-			3SK1230-2AW20	64.14	41L

For application examples and circuit diagrams please refer to Page 24

SIRIUS 3TK28 Safety Relays*
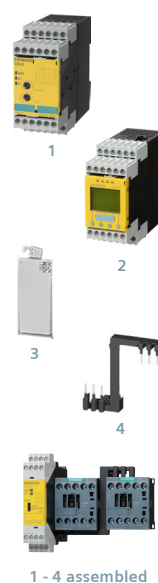
Description:	Fig.	Order number	L Price £	Prod. group
Standstill monitoring safety relay, Cat.4 / SIL 3 / PL e, IP20, screw terminal				
■ Suitable for three-phase motors, max. 690 V AC.				
■ Sensorless measuring principle (residual induction voltage principle).				
3NO+1NC release circuits,1CO+1DO mess. output, sens. 20-400mV, switch-off time adj. 0.2-6 sec, 24 VDC	1	3TK2810-0BA01	557.08	41L
RPM / standstill monitoring safety relay with integrated gate monitoring function, SIL 3 / PL e, IP20, screw terminal				
■ For PNP, NPN sensors and Cos/Sin, TTL / HTL encoders, inst. 1Hz-400kHz				
■ Integrated gate monitoring function for connecting to gate (locking) switches				
2NO release circuits, 2NO mess. output, 1 encoder + 2 sensor inputs, conn. to gate monitoring sw., 24 VDC	2	3TK2810-1BA41	909.02	41L
2NO release circuits, 2NO mess. output, 1 encoder + 2 sensor inputs, conn. to gate mon. sw., 110-240V AC/DC	2	3TK2810-1KA41	933.58	41L
Accessories for safety relays				
Sealable cover against unauthorized changing of settings, for 3TK2820 safety relays	3	3TK2820-0AA00	1.31	41L
Sealable cover against unauthorized changing of settings, for 3TK2826 safety relays	3	3TK2826-0DA00-0HA0	2.76	41L
Sealable cover against unauthorized changing of settings, for other 3TK28 models	3	3RP1902	2.82	41H
Connecting / copying cable for 3TK2810.1 rpm monitor to encoder (RJ 45-cross cable)		3TK2810-0A	21.80	41L
Adapter for connecting 15-pole encoder to 3TK2810.1 rpm monitor		3TK2810-1A	66.33	41L
Adapter for connecting 25-pole encoder to 3TK2810.1 rpm monitor		3TK2810-1B	73.09	41L
Safety connector				
For mounting 2 contactors side by side in series for redundant switching.				
For SIRIUS contactors, series 3RT2.1, screw terminals (size S00)	4	3RA2916-1A	8.78	41B
For SIRIUS contactors, series 3RT2.2, screw terminals (size S0)	4	3RA2926-1A	8.78	41B

For more models and comprehensive technical information, please see the Industrial Controls catalogue: IC 10 2017. For the latest information, visit the Industry Mall: www.siemens.com/industrymall/gb

Paramaterisable Safety Relays

SIRIUS 3SK2* Safety Relays
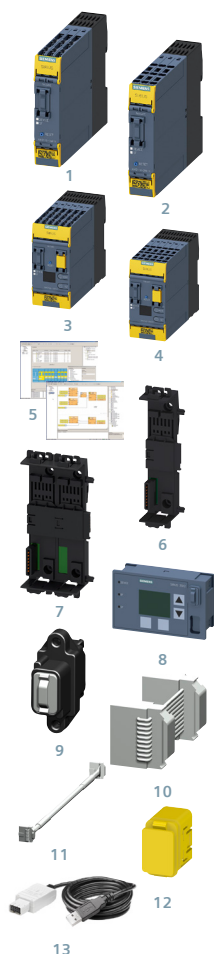
Description:	Fig.	Order number	L Price £	Prod. group
Basic Unit 3SK2 Series 10 F-DI, 2 F-DQ, 1 DQ, 24 V DC, 22.5mm Screw connection	1	3SK2112-1AA10	197.55	41L
Basic Unit 3SK2 Series 10 F-DI, 2 F-DQ, 1 DQ, 24 V DC, 22.5mm Spring-type connection	2	3SK2112-2AA10	197.55	41L
Basic Unit 3SK2 Series 10 F-DI, 2 F-DQ, 1 DQ, 24 V DC, 45mm Screw connection	3	3SK2122-1AA10	290.34	41L
Basic Unit 3SK2 Series 10 F-DI, 2 F-DQ, 1 DQ, 24 V DC, 45mm Spring-type connection	4	3SK2122-2AA10	290.34	41L
Device connector, 22.5mm	6	3ZY1212-2GA00	9.36	41L
Device connector, 45mm	7	3ZY1212-4GA01	11.50	41L
Safety ES Standard Parameterisation software for 3SK2 + MSS, incl 1. floating licence	5	3ZS1316-5CC10-0YA5	361.89	42B
Accessories for 3SK2 safety relays				
Diagnostic display for 3KS2 and MSS suitable for front mounting in panel or in switch box (dimensions 60x96mm)	8	3SK2611-3AA00	189.85	41L
Door adapter for mounting in cubicle door	9	3UF7920-0AA00-0	12.84	42J
Connection cable (flat) for connecting 3SK2 or MSS to diagnostic display, 0.1m	10	3UF7931-0AA00-0	6.41	42J
Connection cable (flat) for connecting 3SK2 or MSS to diagnostic display, 0.3m	10	3UF7935-0AA00-0	8.51	42J
Connection cable (flat) for connecting 3SK2 or MSS to diagnostic display, 0.5m	10	3UF7932-0AA00-0	9.90	42J
Conenction cable (round) for connecting 3SK2 or MSS to diagnostic display, 0.5m	11	3UF7932-0BA00-0	19.03	42J
Connection cable (round) for connecting 3SK2 or MSS to diagnostic display, 1m	11	3UF7937-0BA00-0	21.27	42J
Connection cable (round) for connecting 3SK2 or MSS to diagnostic display, 2.5m	11	3UF7933-0BA00-0	23.59	42J
3SK2 & MSS memory module spare part	12	3RK3931-0AA00	19.07	42C
USB Cable for connecting the 3SK2 to the PC/PG interface	13	3UF7941-0AA00-0	70.32	42J

3SK2 User-friendly safety relays

The Sirius 3SK2 safety relay from Siemens offers multiple safety functions in the smallest of spaces. Thanks to the user-friendly drag & drop parameterization interface, it is simple to create safety functions that can be optionally expanded to include test and diagnostics functions. Sirius 3SK2 safety relays come in two different variants – the 22.5-millimeter-wide device, which comes with up to four safety functions, is slimmer than any other software-parameterisable safety relay currently available on the market, while the 45-millimeter-wide device, which offers up to six safety functions, comes equipped with a diagnostics display. The functions of the 3SK2 fail-safe outputs can be assigned independently of each other.

Typical applications for Sirius 3SK2 devices include emergency stop pushbuttons, protective doors with tumblers, or material feeder systems with light barrier sensor technology. Additional safety applications are simple to implement for specific requirements. The fail-safe outputs can be supplemented in a modular fashion as required – even without additional wiring. Just like devices in the Sirius 3SK1 series, Sirius 3SK2 units are simple to combine with conventional industrial controls, for example, devices from the Sirius 3RM1 motor starter range can be simply integrated using device connectors.

- Sirius 3SK2 with up to six safety functions that can be parameterized using software
- User-friendly software interface - create complex safety applications simply thanks to drag & drop functionality
- Most compact software-parameterisable safety relay on the market

---

For more models and comprehensive technical information, please see the Industrial Controls catalogue: IC 10 2017. For the latest information, visit the Industry Mall: www.siemens.com/industrymall/gb

Motor Starters

Software Safety ES: Hardware and software structure in one program.
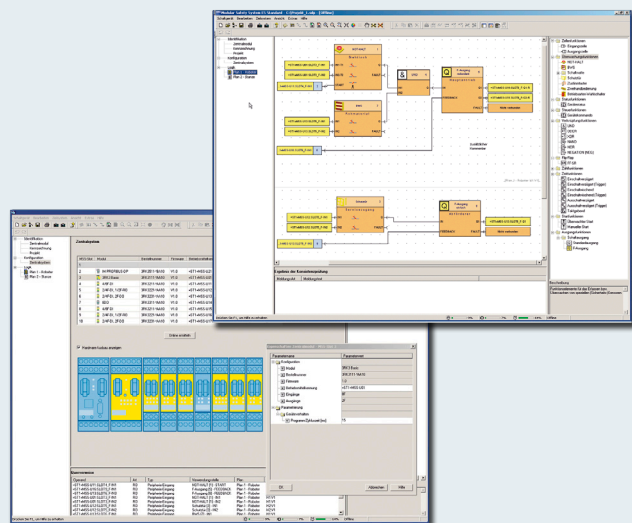
The complete project documentation is generated automatically.
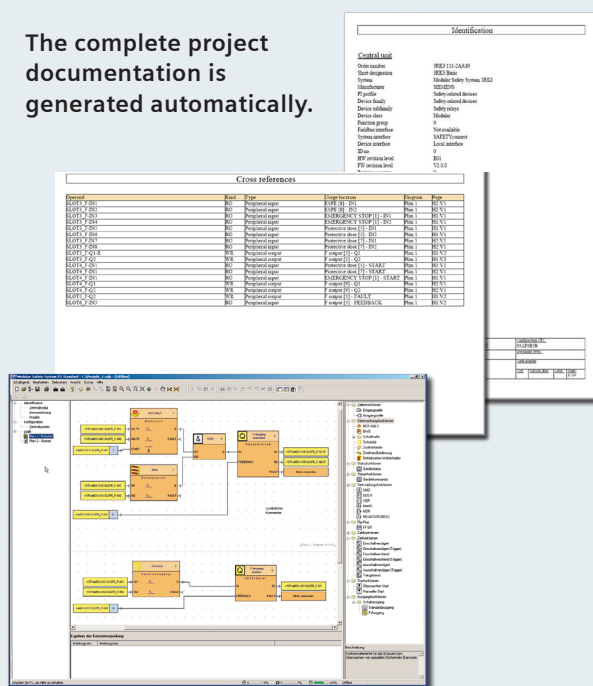
Getting started – even when things get tight SIRIUS 3RM1 Motor Starters

Space-saving systems require maximum efficiency and can pose significant challenges for system engineers. Systems and machinery are becoming increasingly compact and are expected to have smaller footprints, but at the same time they typically require more auxiliary drives. Because every inch counts in a control cabinet, SIRIUS 3RM1 Motor Starters are precisely tailored to meet these requirements and represent the solution for the development of cutting-edge and future-oriented systems.

Their innovative housing concept even received the internationally renowned iF product design award 2013. It's easy to get started: The new motor starters are so narrow that they fit into the smallest space.

In brief: SIRIUS 3RM1 Motor Starters – multifunctional with a width of just 22.5 mm.

Direct or reversing starting – with SIRIUS 3RM1 Motor Starters, you can implement compact control cabinet solutions for small motors up to 3 kW.

In a width of just 22.5 mm there is now room for so many functions

Scan and learn more about space savings in control cabinets!

Narrow width

The motor starters are distinguished by their narrow width of just 22.5 mm. That saves room in the control cabinet and provides the ideal conditions for systems and machines with many small motors up to 3 kW.

Even subsequent expansions are easier to plan and implement: If more motors are needed in the system, thanks to their narrow width it's easy to add additional SIRIUS 3RM1 Motor Starters to the ones already installed in the control cabinet.

Multifunctional

Direct and reversing starters
Motor starters are available as direct starters or with a reversing starter function, all in a uniform housing design. The operation, configuration, and the width for both device types are identical.

Overload protection
Every motor starter is equipped with integrated electronic overload protection. In other words, you no longer need a separate overload relay when you use these motor starters. The result is lower wiring costs, shorter installation time and more room on the DIN rail.

Safe shutdown

To meet the requirements for safe shutdowns, SIRIUS 3RM1 Motor Starters are also available in a safety version. They can be used in combination with the modular safety relays to easily implement locally limited safety applications.

The motor starters for safe shutdowns are available as direct and reversing starters. They are certified in accordance with SIL 3/PL e Cat. 4.

SIRIUS 3RM1 Motor Starter - Order number overview

Order no.					Three-phase standard motor[1]	Adjustment range	L Price £	Prod. group
					Standard power rating P	Electronic overload releas		
3RM1	▪	01	▪	AA	▪ 4	0 ... 0.12 kW	0.1 ... 0.5 A		
3RM1	▪	02	▪	AA	▪ 4	0.09 ... 0.75 kW	0.4 ... 2.0 A		
3RM1	▪	07	▪	AA	▪ 4	0.55 ... 3 kW	1.6 ... 7.0 A, (10 A)[2]		
				0		DC 24 V	Rated control supply voltage Vs		
				1		AC 110 ... 230 V; DC 110 V			
			1			Screw-type connection	Connection technology		
			2			Spring-loaded connection			
			3			Mixed connection technology			
	0					Direct starter	Function	121.96	41D
	1					Failsafe direct starter		141.84	41D
	2					Reversing starter		133.22	41D
	3					Failsafe reversing starter		152.44	41D

1) Base 4-pin with AC 400 V; the concrete start-up and rated data of the motor should be taken into consideration for the selection
2) Operation of ohmic loads with a maximum of 10 A
3) Mixed connection technology: control circuit implemented as a push-in spring-loaded connection and main circuit as a screw-type connection

Position switches and safety position switches

Safety relays - SIRIUS 3SE5*

All Siemens position and safety position switches are suitable for both standard applications and machine safety applications (all contact elements have mechanically driven break contacts to IEC 60947-51)

Description:	Fig.	Order number	L Price £	Prod. group
Plastic position switch (EN 50047), IP65, enclosure 31mm wide, 1xM20 cable entry, 1NO+1NC snap-action contact, 10A (AC15):				
Teflon plunger (basic switch), type B to EN 50047	1	3SE5232-0CC05	13.14	41K
Plastic plunger, with plastic roller 10mm, type C to EN 50047[1]	2	3SE5232-0HD03	16.77	41K
Plastic roller lever, with 13mm plastic roller, type E to EN 50047[1]	3	3SE5232-0HE10	19.22	41K
90° plastic roller lever, with 13mm plastic roller, sideways operation[1]	4	3SE5232-0HF10	19.22	41K
Plastic twist lever, with 19mm plastic roller, type A to EN 50047[1]	5	3SE5232-0HK21	19.78	41K
Plastic twist lever, with 19mm plastic roller, adjustable length[1]	6	3SE5232-0HK60	24.32	41K
Plastic actuator rod, adjustable length[1]	7	3SE5232-0HK82	24.88	41K
Aluminium actuator rod, adjustable length[1]	7	3SE5232-0HK80	23.95	41K
Spring lever with plastic top[1]	8	3SE5232-0HR01	24.63	41K
Plastic position switch (EN 50047), IP65, enclosure 31mm wide, 1xM20 cable entry, 1NO+2NC snap-action contact, 6A (AC15):				
Teflon plunger (basic switch), type B to EN 50047	1	3SE5232-0LC05	14.31	41K
Plastic plunger, with 10mm plastic roller, type C to EN 50047	2	3SE5232-0LD03	18.06	41K
Plastic roller lever, with 13mm plastic roller, type E to EN 50047	3	3SE5232-0LE10	20.39	41K
90° plastic roller lever, with 13mm plastic roller, sideways operation	4	3SE5232-0LF10	20.39	41K
Plastic twist lever, with 19mm plastic roller, type A to EN 50047	5	3SE5232-0LK21	20.94	41K
Plastic position switch (EN 50047), IP65, enclosure 50mm wide, 2xM20 cable entry, 1NO+2NC snap-action contact, 6A (AC15):				
Teflon plunger (basic switch)	9	3SE5242-0LC05	18.00	41K
Plastic plunger, with 10mm plastic roller	10	3SE5242-0LD03	21.62	41K
Plastic roller lever, with 13mm plastic roller	11	3SE5242-0LE10	24.02	41K
Plastic twist lever, with 19mm plastic roller	12	3SE5242-0LK21	24.63	41K
Metal position switch (EN 50047), IP67, enclosure 31mm wide, 1xM20 cable entry, 1NO+1NC snap-action contact, 10A (AC15):				
Teflon plunger (basic switch), type B to EN 50047	13	3SE5212-0CC05	18.06	41K
Stainless steel plunger	13	3SE5212-0CB01	22.85	41K
Plastic plunger, with 10mm plastic roller, type C to EN 50047	14	3SE5212-0CD03	21.68	41K
Plastic roller lever, with 13mm plastic roller, type E to EN 50047	15	3SE5212-0CE10	23.28	41K
90° plastic roller lever, with 13mm plastic roller, sideways operation	16	3SE5212-0CF10	23.28	41K
Plastic twist lever, with 19mm plastic roller, type A to EN 50047	17	3SE5212-0CK21	24.69	41K
Plastic twist lever, with 19mm plastic roller, adjustable length	18	3SE5212-0CK60	29.17	41K
Metal position switch (EN 50047), IP67, enclosure 31mm wide, 1xM20 cable entry, 1NO+2NC snap-action contact, 6A (AC15):				
Teflon plunger (basic switch), type B to EN 50047	13	3SE5212-0LC05	20.02	41K
Stainless steel plunger	13	3SE5212-0LB01	24.02	41K
Plastic plunger, with 10mm plastic roller, type C to EN 50047	14	3SE5212-0LD03	23.65	41K
Plastic roller lever, with 13mm plastic roller, type E to EN 50047	15	3SE5212-0LE10	25.31	41K
90° plastic roller lever, with 13mm plastic roller, sideways operation	16	3SE5212-0LF10	25.31	41K
Plastic twist lever, with 19mm plastic roller, type A to EN 50047	17	3SE5212-0LK21	26.78	41K
Plastic twist lever, with 19mm plastic roller, adjustable length	18	3SE5212-0LK60	31.02	41K

1) contact block not replaceable
Special designs of position switches to EN 50047 model:
- *Extra corrosion-resistant designs: see IC 10 2017 catalogue*
- *Plastic enclosure: see IC 10 2017 catalogue*
- *Models for extremely low ambient temperatures (- 40 °C): see IC 10 2017 catalogue*
- *ATEX models for use in explosive environments: see IC 10 2017 catalogue*
- *Position switches with integrated AS interface coupling: see IC 10 2017 catalogue*

For more models and comprehensive technical information, please see the Industrial Controls catalogue: IC 10 2017. For the latest information, visit the Industry Mall: www.siemens.com/industrymall/gb

10 SIRIUS Safety Integrated quick-search catalogue 2018

Position switches and safety position switches

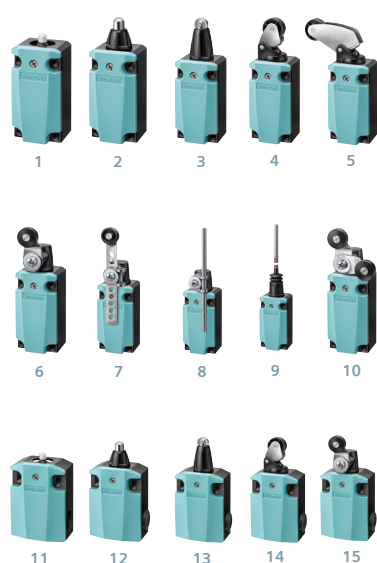| Description:	Fig.	Order number	L Price £	Prod. group
Metal position switch (EN 50041), IP67, enclosure 40mm wide, 1xM20 cable entry, 1NO+1NC snap-action contact, 10A (AC15):				
Teflon plunger (basic switch)	1	3SE5112-0CA00	20.39	41K
Metal plunger, type B to EN 50041	2	3SE5112-0CC02	33.47	41K
Metal plunger, with 13mm plastic roller, type C to EN 50041	3	3SE5112-0CD02	37.34	41K
Metal roller lever, with 22mm plastic roller	4	3SE5112-0CE01	32.00	41K
90° metal roller lever, with 22mm plastic roller, sideways operation	5	3SE5112-0CF01	32.00	41K
Metal twist lever, with 19mm plastic roller, type A to EN 50041	6	3SE5112-0CH01	35.93	41K
Metal twist lever, with 19mm plastic roller, adjustable length	7	3SE5112-0CH60	39.62	41K
Plastic actuator rod, adjustable length, type D to EN 50041	8	3SE5112-0CH82	41.46	41K
Aluminium actuator rod, adjustable length, type D to EN 50041	8	3SE5112-0CH80	40.41	41K
Spring lever with plastic top	9	3SE5112-0CR01	31.75	41K
Fork lever actuator with 2 rollers	10	3SE5112-0CT11	59.33	41K
Metal position switch (EN 50041), IP67, enclosure 40mm wide, 1xM20 cable entry, 1NO+2NC snap-action contact, 6A (AC15):				
Teflon plunger (basic switch)	1	3SE5112-0LA00	21.62	41K
Metal plunger, type B to EN 50041	2	3SE5112-0LC02	34.83	41K
Metal plunger, with 13mm plastic roller, type C to EN 50041	3	3SE5112-0LD02	38.45	41K
Metal roller lever, with 22mm plastic roller	4	3SE5112-0LE01	33.17	41K
90° metal roller lever, with 22mm plastic roller, sideways operation	5	3SE5112-0LF01	33.17	41K
Metal twist lever, with 19mm plastic roller, type A to EN 50041	6	3SE5112-0LH01	37.10	41K
Metal position switch (EN 50041), IP67, enclosure 56mm wide, 3xM20 cable entry, 1NO+2NC snap-action contact, 6A (AC15):				
Teflon plunger (basic switch)	11	3SE5122-0LA00	21.62	41K
Metal plunger	12	3SE5122-0LC02	34.83	41K
Metal plunger, with 13mm metal roller	13	3SE5122-0LD02	38.45	41K
Metal roller lever, with 22mm plastic roller	14	3SE5122-0LE01	33.17	41K
Metal twist lever, with 19mm plastic roller	15	3SE5122-0LH01	37.10	41K

Special designs of position switches to EN 50041 model:
- Extra corrosion-resistant designs: see IC 10 2017 catalogue
- Plastic enclosure: see IC 10 2017 catalogue
- Models for extremely low ambient temperatures (- 40 °C): see IC 10 2017 catalogue
- XL enclosure with max. 6 switching contacts: see IC 10 2017 catalogue
- ATEX models for use in explosive environments: see IC 10 2017 catalogue
- Position switches with integrated AS interface coupling: see IC 10 2017 catalogue

Accessories for 3SE5 position switches*

Description:	Fig.	Order number	L Price £	Prod. group
Levers for small standard switches to EN 50047:				
Plunger lever with stainless plunger	1	3SE5000-0AB01	4.80	41K
Plastic plunger lever, with 10mm plastic roller, type C to EN 50047	2	3SE5000-0AD03	3.86	41K
Plastic plunger lever, with 10mm stainless steel roller, type C to EN 50047	2	3SE5000-0AD04	9.77	41K
Metal roller lever, with 13mm plastic roller, type E to EN 50047	3	3SE5000-0AE10	6.18	41K
Stainless steel roller lever, with 13mm stainless steel roller, type E to EN 50047	3	3SE5000-0AE13	15.11	41K
Plastic actuator head, with round spindle, for twist lever type A to EN 50047 (excl. twist lever)	4	3SE5000-0AK00	4.36	41K
Metal twist lever, with 19mm plastic roller, type A to EN 50047	5	3SE5000-0AA21	2.55	41K
Stainless steel twist lever, with stainless steel 19mm roller, type A to EN 50047	5	3SE5000-0AA32	10.20	41K
Levers for large standard switches to EN 50041:				
Metal plunger lever, stainless steel plunger, type B to EN 50041	6	3SE5000-0AC02	13.21	41K
Metal plunger lever, with 13mm stainless steel roller, type C to EN 50041	7	3SE5000-0AD02	16.83	41K
Metal roller lever, with 22mm plastic roller, type E to EN 50041	8	3SE5000-0AE01	11.61	41K
Stainless steel roller lever, with 22mm stainless steel roller, type E to EN 50041	8	3SE5000-0AE04	20.58	41K
Metal actuator head with round spindle, for twist lever type A to EN 50041 (excl. twist lever)	9	3SE5000-0AH00	12.22	41K
Metal twist lever, with 22mm plastic roller, type A to EN 50041	10	3SE5000-0AA01	3.26	41K
Stainless steel twist lever, with stainless steel 22mm roller, type A to EN 50041	10	3SE5000-0AA12	10.93	41K
Other levers/accessories:				
Metal twist lever, with 22mm plastic roller, adjustable length	11	3SE5000-0AA50	5.38	41K
Stainless steel twist lever, with 22mm stainless steel roller, adjustable length	11	3SE5000-0AA53	13.02	41K
Spring lever with plastic top	12	3SE5000-0AR01	11.42	41K
Spring lever with stainless steel top	12	3SE5000-0AR02	17.75	41K
Aluminium actuator rod, adjustable length	13	3SE5000-0AA80	6.69	41K
Plastic actuator rod, adjustable length	13	3SE5000-0AA82	7.55	41K
Contact block 1NO +1NC, slide contacts	14	3SE5000-0BA00	11.12	41K
Contact block 1 1NO +1NC, snap-action contacts	14	3SE5000-0CA00	10.38	41K
Contact block 1 1NO +2NC, slide contacts	15	3SE5000- 0KA00	12.41	41K
Contact block 1 1NO +2NC, snap-action contacts	15	3SE5000-0LA00	11.61	41K
LED cover, electric blue colour, plastic, for position switch 31mm wide (EN 50047), 24 VDC	16	3SE5230-1AA00	14.07	41K
LED cover, yellow colour, plastic, for safety position switch 31mm wide (EN 50047), 24 VDC		3SE5230-0AA00-1AG0	2.05	41K
LED cover, yellow colour, plastic, for safety position switch 31mm wide (EN 50047), 24 VDC		3SE5230-1AA00-1AG0	14.07	41K
LED cover, electric blue colour, metal, for position switch 40mm wide (EN 50041), 24 VDC		3SE5110-1AA00	14.74	41K
LED cover, yellow colour, metal, for safety position switch 40mm wide (EN 50041), 24 VDC		3SE5110-0AA00-1AG0	2.76	41K
LED cover, yellow colour, metal, for safety position switch 40mm wide (EN 50041), 24 VDC	17	3SE5110-1AA00-1AG0	14.74	41K

*For more models and comprehensive technical information, please see the Industrial Controls catalogue: IC 10 2017. For the latest information, visit the Industry Mall: www.siemens.com/industrymall/gb

Position switches and safety position switches

Position switches with moulded cables - SIRIUS 3SE5*

Description:	Fig.	Order number	L Price £	Prod. group
Metal position switch IP67, enclosure 30mm wide, 1NO+1NC snap-action contact, 10A (AC15):				
Metal plunger, 2m moulded cable (5x0.75mm2), with side cable exit	1	3SE5413-0CC20-1EA2	31.75	41K
Metal plunger, 5m moulded cable (5x0.75mm2), with side cable exit	1	3SE5413-0CC20-1EA5	40.17	41K
Metal plunger, M12 plug connector on side of enclosure	2	3SE5413-0CC20-1EB1	34.09	41K
Metal plunger with central fixing (M12), 2m moulded cable (5x0.75mm2), with side cable exit	3	3SE5413-0CC21-1EA2	35.69	41K
Metal plunger with rubber seal, 2m moulded cable (5x0.75mm2), with side cable exit	4	3SE5413-0CC22-1EA2	35.69	41K
Plunger with roller, 2m moulded cable with side cable exit	5	3SE5413-0CD20-1EA2	33.29	41K
Plunger with roller, 5m moulded cable with side cable exit	5	3SE5413-0CD20-1EA5	41.83	41K
Plunger with roller, M12 plug connector on side of enclosure	6	3SE5413-0CD20-1EB1	35.69	41K
Plunger with roller and central fixing (M12), 2m moulded cable (5x0.75mm2), with side cable exit	7	3SE5413-0CD21-1EA2	42.50	41K
Plunger with roller twisted 90°, 2m moulded cable with side cable exit	8	3SE5413-0CD23-1EA2	33.29	41K
Twist lever with roller, 2m moulded cable with side cable exit	9	3SE5413-0CN20-1EA2	34.89	41K
Twist lever with roller, 5m moulded cable with side cable exit	9	3SE5413-0CN20-1EA5	43.36	41K
Twist lever with roller, M12 plug connector on side of enclosure	10	3SE5413-0CN20-1EB1	37.16	41K
Metal position switch, IP67, enclosure 40mm wide, 1NO+1NC snap-action contact, 10A (AC15):				
Metal plunger, 2m moulded cable (5x0.75mm2), with bottom cable exit	11	3SE5423-0CC20-1EA2	38.82	41K
Metal plunger, M12 plug connector on bottom of enclosure	12	3SE5423-0CC20-1EB1	41.15	41K
Metal plunger with central fixing (M12), 2m moulded cable (5x0.75mm2), with bottom cable exit	13	3SE5423-0CC21-1EA2	44.16	41K
Metal plunger with rubber seal, 2m moulded cable (5x0.75mm2), with bottom cable exit	14	3SE5423-0CC22-1EA2	42.50	41K
Plunger with roller, 2m moulded cable with bottom cable exit	15	3SE5423-0CD20-1EA2	40.23	41K
Plunger with roller, M12 plug connector on bottom of enclosure	16	3SE5423-0CD20-1EB1	41.15	41K
Plunger with roller and central fixing (M12), 2m moulded cable (5x0.75mm2), with bottom cable exit		3SE5423-0CD21-1EA2	49.63	41K
Twist lever with roller, 2m moulded cable with bottom cable exit	17	3SE5423-0CN20-1EA2	41.89	41K
Twist lever with roller, M12 plug connector on bottom of enclosure	18	3SE5423-0CN20-1EB1	44.22	41K

Position switches without enclosure - SIRIUS 3SE5*

Description:	Fig.	Order number	L Price £	Prod. group
Position switches without enclosure, plastic, IP20 / IP10, 30mm wide, with Teflon operating plunger, 6A (AC15):				
1NO+1NC, slide contacts, IP20	1	3SE5250-0BC05	14.62	41K
1NO+1NC, snap-action contacts, IP20	1	3SE5250-0CC05	13.76	41K
1NO+2NC, slide contacts, IP20	2	3SE5250-0KC05	14.62	41K
1NO+2NC, snap-action contacts, IP20	2	3SE5250-0LC05	13.76	41K

*For more models and comprehensive technical information, please see the Industrial Controls catalogue: IC 10 2017 For the latest information, visit the Industry Mall: www.siemens.com/industrymall/gb

Gate locking switches - SIRIUS 3SE5*

Description:	Fig.	Order number	L Price £	Prod. group
Plastic gate monitoring switch with locking function, IP66/IP67, enclosure 54mm wide, 3xM20 cable entry, 24 V DC, 1NO+2NC / 1NO+2NC 6A (AC15):				
Spring locked, 1300N, with auxiliary release	1	3SE5322-0SD21	146.79	41K
Spring locked, 1300N, auxiliary release with lock	2	3SE5322-0SE21	170.75	41K
Spring locked, 1300N, escape release from front	3	3SE5322-0SF21	181.80	41K
Spring locked, 1300N, escape release from back and auxiliary release from front	4	3SE5322-0SG21	204.53	41K
Magnetically locked, 1300N, with auxiliary release	1	3SE5322-0SB21	149.25	41K
Metal gate monitoring switch with locking function, IP66/IP67, enclosure 54mm wide, 3xM20 cable entry, 24 V DC, 1NO+2NC / 1NO+2NC 6A (AC15):				
Spring locked, 2600N, with auxiliary release	1	3SE5312-0SD11	192.24	41K
Spring locked, 2600N, auxiliary release with lock	2	3SE5312-0SE11	215.58	41K
Spring locked, 2600N, escape release from front	3	3SE5312-0SF11	226.64	41K
Spring locked, 2600N, escape release from back and auxiliary release from front	4	3SE5312-0SG11	249.37	41K
Magnetically locked, 2600N, with auxiliary release	1	3SE5312-0SB11	197.77	41K
Accessories for 3SE5 position switches:				
Actuator straight (for gate monitoring switch)	5	3SE5000-0AV01	4.00	41K
Actuator 90°, vertical (for gate monitoring switch)	6	3SE5000-0AV02	4.59	41K
Actuator 90°, horizontal (for gate monitoring switch)	7	3SE5000-0AV03	4.59	41K
Universal radius actuator (for gate monitoring switch)	8	3SE5000-0AV05	20.98	41K
Universal radius actuator (for gate monitoring switch)	9	3SE5000-0AV07	45.50	41K

Description:	Fig.	Order number	L Price £	Prod. group
Mechanical gate locks: (accompanying SIRIUS 3SE5312/-322 gate locking switch to be ordered separately)				
AXELENT X-lock, for doors with lock on the left, suitable for revolving and sliding doors		L66-20L	*	
AXELENT X-lock, for doors with lock on the right, suitable for revolving and sliding doors	1	L66-20R	*	

* AXELENT door locks can be ordered direct from:
AXELENT GmbH, Sigmaringer Strasse 122, 70567 Stuttgart-Möhringer, Germany
*Tel.: **0049 711 2525090**, Fax: **0049 711 25250949**, E-mail: **sales@axelent.de**, internet: **www.axelent.de***

Inga Tools, suitable for doors with lock on the left or right, for revolving and sliding doors	2	I-SIE-0004-07-R	**	

** Inga Tools door locks can be ordered direct from:
Inga Tools GmbH, Neckarstrasse 10, 38120 Braunschweig, Germany
*Tel.: **0049 531 390440**, Fax: **0049 531 3904429**, internet: **www.ingatools.de***

*For more models and comprehensive technical information, please see the Industrial Controls catalogue: IC 10 2017. For the latest information, visit the Industry Mall: www.siemens.com/industrymall/gb

Gate monitoring & Cable-operated switches

Gate monitoring switches - SIRIUS 3SE5*

Description:	Fig.	Order number	L Price £	Prod. group
Gate monitoring switch (EN 50047), IP65, enclosure 31mm wide, 1xM20 cable entry, 1NO+2NC slide contact, 6A (AC15):				
Plastic enclosure, gate monitoring switch with separate actuator	1	3SE5232-0QV40	29.42	41K
Plastic enclosure, gate monitoring switch with separate actuator, increased extraction force 30N	1	3SE5232-0QV40-1AA1	30.96	41K
Metal enclosure, gate monitoring switch with separate actuator	1	3SE5212-0QV40	35.19	41K
Gate monitoring switch (EN 50041), IP67 enclosure 40mm wide, 1xM20 cable entry, 1NO+2NC slide contact, 6A (AC15):				
Plastic enclosure, gate monitoring switch with separate actuator	2	3SE5132-0QV20	31.94	41K
Metal enclosure, gate monitoring switch with separate actuator	2	3SE5112-0QV10	51.41	41K
Metal enclosure, gate monitoring switch with separate actuator, increased extraction force 30N	2	3SE5112-0QV10-1AA7	54.48	41K
Accessories for 3SE5 position switches:				
Actuator straight (for gate monitoring switch)	3	3SE5000-0AV01	4.00	41K
Actuator 90°, vertical (for gate monitoring switch)	4	3SE5000-0AV02	4.59	41K
Actuator 90°, horizontal (for gate monitoring switch)	5	3SE5000-0AV03	4.59	41K
Universal radius actuator (for gate monitoring switch)	6	3SE5000-0AV05	20.98	41K
Universal radius actuator (for gate monitoring switch)	7	3SE5000-0AV07	45.50	41K
Plastic gate monitoring switch 3SE2243, IP67 enclosure 52mm wide, 3xM20 cable entry, 1NO+2NC slide contact, 6A (AC15):				
Gate monitoring switch with separate actuator, extraction force 5N	8	3SE2243-0XX40	27.64	41K
Gate monitoring switch with separate actuator, extraction force 30N	8	3SE2243-0XX	28.87	41K
Gate monitoring switch with separate actuator, with automatic actuator ejection	8	3SE2243-0XX30	28.87	41K
Accessories for 3SE2243 gate monitoring switches:				
Actuator straight (for gate monitoring switch)	9	3SX3218	3.18	41K
Universal radius actuator (for gate monitoring switch)	10	3SX3228	7.49	41K

Cable-operated switches - SIRIUS 3SE7*

Description:	Fig.	Order number	L Price £	Prod. group
Metal cable-operated switch IP65/IP67, 1xM20 cable entry, snap-action contact, 6A (AC15):				
Cable length max. 10m, with release function, 1NO+2NC, enclosure with yellow cover	1	3SE7120-1BH00	133.28	41K
Cable length max. 25m, with release function, 1NO+1NC	2	3SE7150-1BD00	121.61	41K
Cable length max. 25m, with release function, 1NO+2NC, enclosure with yellow covert	1	3SE7150-1BH00	133.28	41K
Cable length max. 50m, with release function, 1NO+1NC	3	3SE7140-1BD00	283.76	41K
Cable length max. 50m, with release function, 2NC	3	3SE7140-1BF00	283.76	41K
Cable length max. 75m, with release function and emergency-stop button, 1NO+3NC	4	3SE7141-1EG10	243.84	41K
Cable length max. 2x75m, with release function, 2NO+2NC	5	3SE7160-1AE00	302.80	41K
Accessories for cable-operated switches:				
Steel cable with red plastic sleeve, 4mm diameter, length 10m.	6	3SE7910-3AA	41.89	41K
Steel cable with red plastic sleeve, 4mm diameter, length 20m.	6	3SE7910-3AC	82.92	41K
Steel cable with red plastic sleeve, 4mm diameter, length 50m.	6	3SE7910-3AH	207.60	41K
Cable clamp (duplex), suitable for 4mm cable (min. order 4 pcs)	7	3SE7941-1AC	7.55	41K
Pretensioning spring 35N (max.cable length 2x50m)	8	3SE7931-1AD	18.06	41K
Pretensioning spring 35N (max. cable length 2x75m)	8	3SE7931-1AE	20.45	41K
Turnbuckle, M6x60	9	3SE7950-1AB	8.91	41K
Cable pulley, suitable for 4mm cable	10	3SE7921-1AC	9.77	41K
Cable mount (U shape), incl. nuts	11	3SE7921-1AA	2.33	41K
Cable mount (eye bolt), M8, incl. nut	12	3SE7920-1AB	5.95	41K
Thimble, suitable for 4mm cable (min. order 4 pcs)	13	3SE7930-1AD	1.41	41K

For more models and comprehensive technical information, please see the Industrial Controls catalogue: IC 10 2017. For the latest information, visit the Industry Mall: www.siemens.com/industrymall/gb

Cable-operated assembly instructions

Cable pretensions and operating forces

Cable tension Emergency SWITCHING-OFF switch	Pre-tension force in N	Actuation distance S in cm	Actuation force F in N	Max. cable length in m
3SE7 120-1BF00	55	11	6	10
3SE7 150	200	11	25	25
3SE7 140	295-390	13	38.60	50
3SE7 141	100	20-22	28.34	75
3SE7 160	-	32-40	45.85	2x75

5.00 m (4.00 m for 3SE7 160)
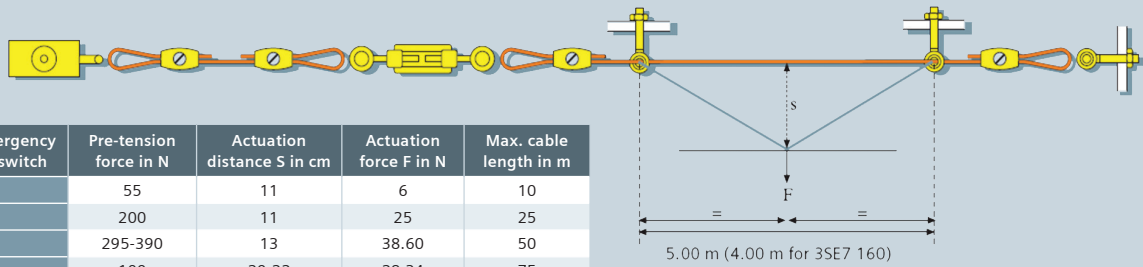
Cable lengths up to 25m

Cable ø 4 mm 3SE7 910

Cable-operated switch 3SE7 120 3SE7 150

Cable clamp simplex ø 4 mm, oval 3SE7 941-1AC

Cable clamp simplex ø 4 mm, oval 3SE7 941-1AC

Turnbuckle M 6 x 60 3SE7 950-1AB

Cable clamp simplex ø 4 mm, oval 3SE7 941-1AC

Eye bolt M 8 3SE7 920-1AB

Cable clamp simplex ø 4 mm, oval 3SE7 941-1AC

Eye bolt M 8 3SE7 920-1AB

Cable thimble ø 4 3SE7 930-1AD

Cable thimble ø 4 3SE7 930-1AD

Cable thimble ø 4 3SE7 930-1AD

Cable thimble ø 4 3SE7 930-1AD

Cable lengths up to 50m

Cable ø 4 mm 3SE7 910

Cable-operated switch 3SE7 140

Cable clamp simplex ø 4 mm, oval 3SE7 941-1AC

Cable clamp simplex ø 4 mm, oval 3SE7 941-1AC

Turnbuckle M 6 x 110 3SE7 950-1AD

Cable clamp simplex ø 4 mm, oval 3SE7 941-1AC

Cable clamp simplex ø 4 mm, oval 3SE7 941-1AC

Spring 35 N 3SE7 931-1AD

Eye bolt M 10 3SE7 920-1AC

Cable thimble ø 4 3SE7 930-1AD

Cable thimble ø 4 3SE7 930-1AD

Cable thimble ø 4 3SE7 930-1AD

Cable pulley rotatable 3SE7 921-1AC

Cable thimble ø 4 3SE7 930-1AD

Cable lengths up to 2x75m

Cable ø 4 mm 3SE7 910

Cable ø 4 mm 3SE7 910

Eye bolt M 10 3SE7 920-1AC

Tension spring (up to 2 x 50 m) 3SE7 931-1AD

Tension spring (up to 2 x 75 m) 3SE7 931-1AE

Cable clamp simplex ø 4 mm, oval 3SE7 941-1AC

Cable clamp simplex ø 4 mm, oval 3SE7 941-1AC

Turnbuckle M 6 x 110 3SE7 950-1AD

Cable clamp simplex ø 4 mm, oval 3SE7 941-1AC

Cable clamp simplex ø 4 mm, oval 3SE7 941-1AC

SIRIUS Cable-operated switch 3SE7 160

Cable clamp simplex ø 4 mm, oval 3SE7 941-1AC

Cable clamp simplex ø 4 mm, oval 3SE7 941-1AC

Tension spring (up to 2 x 50 m) 3SE7 931-1AD

Tension spring (up to 2 x 75 m) 3SE7 931-1AE

Eye bolt M 10 3SE7 920-1AC

Cable thimble ø 4 3SE7 930-1AD

Cable pulleys rotatable 3SE7 921-1AC

Cable pulleys rotatable 3SE7 921-1AC

Cable thimble ø 4 3SE7 930-1AD

Cable pulleys rotatable 3SE7 921-1AC

Cable thimble ø 4 3SE7 930-1AD

Hinge Switches

Hinge switches - SIRIUS 3SE5*

Description:	Fig.	Order number	L Price £	Prod. group
Plastic hinge switch, IP65, enclosure 31mm wide (EN 50047) 1xM20 cable entry, 1NO+2NC snap-action contact, 6A (AC15):				
Hinge switch, hollow pin, opening angle 10°		3SE5232-0LU21	27.58	41K
Hinge switch, solid pin, opening angle 10°	1	3SE5232-0LU22	27.58	41K
Metal hinge switch, IP67, enclosure 40mm wide (EN 50041), 1xM20 cable entry, 1NO+2NC snap-action contact, 6A (AC15):				
Hinge switch, hollow pin, opening angle 10°	2	3SE5112-0LU21	34.83	41K
Hinge switch, solid pin, opening angle 10°		3SE5112-0LU22	40.29	41K
Plastic hinge switch integrated into aluminium hinge, IP65 2xM20 cable entry, 1NO+2NC slide contact, 2A (AC15):				
Hinge switch, hollow pin, opening angle 4°. Supply includes 2nd hinge and fasteners	3	3SE2283-0GA43	124.68	41K

Foot switches - SIRIUS 3SE29*
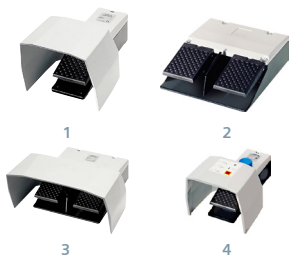
Description:	Fig.	Order number	L Price £	Prod. group
Metal foot switch IP65, 1xM20 cable entry, 2NO+2NO slide contacts, 6A (AC15):				
1 pedal, switching, without protective cover		3SE2903-1AB20	78.00	41K
1 pedal, switching, with protective cover	1	3SE2903-1AA20	114.86	41K
2 pedals, switching, without protective cover	2	3SE2932-1AB20	132.05	41K
2 pedals, switching, with protective cover	3	3SE2932-1AA20	187.33	41K
Safety foot switch to ISO 13850,1 pedal, switching (NO) and latching (NC), with protective cover	4	3SE2924-3AA20	190.40	41K

Two-hand operation consoles - SIRIUS 3SU1*

Description:	Fig.	Order number	L Price £	Prod. group
Two-hand operation consoles, 3 x pushbutton black with 1NO+1NC, emergency-stop button 40mm turn-to-release with 2NC IP65:				
Metal enclosure	1	3SU1853-3NB00-1AA1	328.64	41J
Plastic enclosure	1	3SU1803-3NB00-1AE1	190.23	41J
Accessories for two-hand operation consoles:				
Stand for two-hand operation console	2	3SU1950-0HN10-0AA0	350.76	41J

Signalling columns - SIRIUS 8WD
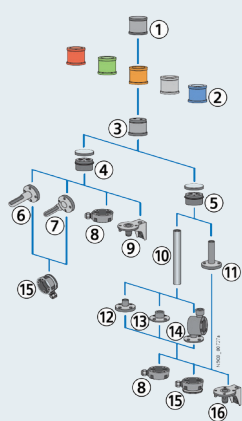
1 Acoustic element **8WD44**
2 Light element **8WD44**
3 AS-Interface adapter element **8WD4428-0BD/8WD4428-0BE**
4 Connection element for bracket, base and floor mounting **8WD4408-0AB/8WD4408-0AE**
5 Connection element for pipe mounting **8WD4408-0AA/8WD4408-0AD**
6 Bracket for wall mounting **8WD4308-0CA**
7 Bracket for wall mounting (two-side) **8WD4308-0CB**
8 Connection for socket **8WD4308-0DD**
9 Bracket for base mounting **8WD4408-0CD**
10 Pipe **8WD42/8WD43**
11 Foot with pipe **8WD4308-0DA**
12 Foot with pipe mounting **8WD4308-0DB**
13 Foot for pipe mounting (>400 mm) **8WD4308-0DC**
14 Foldaway foot for pipe mounting **8WD4408-0DF**
15 Connection socket (magnetic mounting) **8WD4308-0DE**
16 Bracket for foot mounting **8WD4408-0CC**

For more models and comprehensive technical information, please see the Industrial Controls catalogue: IC 10 2017. For the latest information, visit the Industry Mall: www.siemens.com/industrymall/gb

Signalling columns - SIRIUS 8WD*

Signalling columns, small design (50mm diameter): see catalogue: IC 10 2016 catalogue

Description:	Fig.	Order number	L Price £	Prod. group
Signalling unit, optical, plastic, diameter 70mm, IP 65, max. 5 elements, screw terminal, integrated LED, steady, 24 V AC / DC:				
Signalling element, steady, red	1	8WD4420-5AB	51.84	41J
Signalling element, steady, green	2	8WD4420-5AC	51.84	41J
Signalling element, steady, orange	3	8WD4420-5AD	51.84	41J
Signalling element, steady, clear	4	8WD4420-5AE	55.46	41J
Signalling element, steady, blue	5	8WD4420-5AF	55.46	41J
Signalling element, optical, plastic, diameter 70mm, IP 65, max. 5 units, screw terminal, BA15d lamp socket, 12-230 VAC / DC:				
Signalling element, red (excl. lamp)	1	8WD4400-1AB	27.02	41J
Signalling element, green (excl. lamp)	2	8WD4400-1AC	27.02	41J
Signalling element, orange (excl. lamp)	3	8WD4400-1AD	27.02	41J
Signalling element, clear (excl. lamp)	4	8WD4400-1AE	27.02	41J
Signalling element, blue (excl. lamp)	5	8WD4400-1AF	27.02	41J
Signalling element, optical, plastic, diameter 70mm, IP 65, max. 5 units, screw terminal, integrated LED, flashing, 24 V AC / DC:				
Signalling element, flashing, red	1	8WD4420-5BB	68.79	41J
Signalling element, flashing, green	2	8WD4420-5BC	68.79	41J
Signalling element, flashing, orange	3	8WD4420-5BD	68.79	41J
Signalling element, acoustic, plastic, diameter 70mm, IP 65, screw terminal, 24 V AC / DC:				
Buzzer element, 85dB	6	8WD4420-0FA	51.47	41J
Multitone siren element, 100dB	6	8WD4420-0EA2	74.93	41J
Siren element, 108dB (IP40)	6	8WD4420-0EA	52.33	41J
AS interface adapter element, diameter 70mm, IP 65, 24 V AC / DC:				
AS interface adapter element for 8WD44 series, A/B technology, max. 3 signalling elements, 24 V DC	7	8WD4428-0BD	145.57	41J
Flush mount signalling lamps, optical, diameter 70mm, IP 65, screw terminal, integrated LED, steady, 24 V AC / DC:				
Signalling element, steady, red	8	8WD5320-5AB	94.59	41J
Signalling element, steady, green	9	8WD5320-5AC	94.59	41J
Signalling element, steady, orange	10	8WD5320-5AD	94.59	41J
Flush mount signalling lamps, optical, plastic, diameter 70mm, IP 65, screw terminal, BA15d lamp socket, 12-230 V AC / DC:				
Signalling element, red (excl. lamp)	8	8WD5300-1AB	35.81	41J
Signalling element, green (excl. lamp)	9	8WD5300-1AC	35.81	41J
Signalling element, orange (excl. lamp)	10	8WD5300-1AD	35.81	41J
Signalling element, clear (excl. lamp)	11	8WD5300-1AE	35.81	41J
Signalling element, blue (excl. lamp)	12	8WD5300-1AF	35.81	41J
Accessories for signalling columns:				
Connection element + cover, for pipe mounting, screw terminals	13	8WD4408-0AA	30.65	41J
Connection element + cover, for mounting on foot/wall bracket, screw terminals	13	8WD4408-0AB	30.65	41J
Foot with 100 mm pipe (for use with 8WD4408-0AA)	14	8WD4308-0DA	27.15	41J
Plastic foot, for mounting on ≤ 400mm pipe (for use with 8WD4408-0AA)	15	8WD4308-0DB	15.29	41J
Metal foot, for mounting on ≤ 400mm pipe (for use with 8WD4408-0AA)	15	8WD4308-0DC	32.74	41J
Plastic foot, adjustable 7.5° for mounting on pipe (for use with 8WD4408-0AA)	16	8WD4408-0DF	56.87	41J
Pipe, aluminium, 150mm	17	8WD4308-0EE	25.24	41J
Pipe, aluminium, 250mm	17	8WD4308-0EA	17.07	41J
Pipe, aluminium, 400mm	17	8WD4308-0EB	23.28	41J
Pipe, aluminium, 1000mm	17	8WD4308-0ED	54.85	41J
Wall bracket (for use with 8WD4408-0AB)	18	8WD4308-0CA	17.32	41J
Wall bracket with cable gland (for use with 8WD4408-0AB)	19	8WD4408-0CD	13.14	41J
Lamp BA15d, 24 V AC / DC (min. order 10 pcs)	20	8WD4328-1XX	3.81	41J
Lamp BA15d, 115 V AC (min. order 10 pcs)	20	8WD4348-1XX	4.27	41J
Lamp BA15d, 230 V AC (min. order 10 pcs)	20	8WD4358-1XX	4.27	41J
LED BA15d, red, 24 V AC / DC	21	8WD4428-6XB	33.17	41J
LED BA15d, green, 24 V AC / DC	21	8WD4428-6XC	33.17	41J
LED BA15d, orange, 24 V AC / DC	21	8WD4428-6XC	33.17	41J
LED BA15d, clear, 24 V AC / DC	21	8WD4428-6XE	37.04	41J
LED BA15d, blue, 24 V AC / DC	21	8WD4428-6XF	37.04	41J

For more models and comprehensive technical information, please see the Industrial Controls catalogue: IC 10 2017. For the latest information, visit the Industry Mall: www.siemens.com/industrymall/gb

Non-contact Safety Switches

Non-contact Safety Switches - SIRIUS 3SE6*

Description:	Fig.	Order number	L Price £	Prod. group
Plastic safety magnets, IP67:				
Switch block for door hinge left, 26x36mm, 1NO+1NC, M8 plug connector	1	3SE6616-3CA01	63.26	41K
Switch block for door hinge left, 26x36mm, 2NC, M8 plug connector	1	3SE6617-3CA01	63.26	41K
Switch block for door hinge left, 26x36mm, 2NC, 3m cable	2	3SE6617-3CA04	62.03	41K
Switch block for door hinge right, 26x36mm, 1NO+1NC, M8 plug connector	3	3SE6626-3CA01	63.26	41K
Switch block for door hinge right, 26x36mm, 2NC, M8 plug connector	3	3SE6627-3CA01	63.26	41K
Switch block for door hinge right, 26x36mm, 2NC, 3m cable	4	3SE6627-3CA04	62.03	41K
Switching magnet, 26x36mm hinge left	5	3SE6714-3CA	12.10	41K
Switching magnet, 26x36mm hinge right	6	3SE6724-3CA	12.10	41K
Switching magnet, 25x88mm, coded	7-8	3SE6704-2BA	13.02	41K
Switch block, 25x88mm, 1NO+1NC, 3m cable	9	3SE6605-2BA	41.83	41K
Switch block, 25x88mm, 2NC, 3m cable	9	3SE6604-2BA	53.62	41K
Switch block, 25x88mm, 1NO+1NC, M8 plug connector	9	3SE6605-2BA01	55.03	41K
Switch block, 25x88mm, 2NC, M8 plug connector	9	3SE6604-2BA01	66.95	41K
Switching magnet, 25x33mm, coded	9	3SE6704-3BA	13.02	41K
Switch block, 25x33mm, 1NO+1NC, 3m cable	10	3SE6605-3BA	41.83	41K
Switching magnet, round 30mm, coded	11	3SE6704-1BA	18.30	41K
Switch block, round 30mm, 1NO+1NC, 3m cable	12	3SE6605-1BA	46.25	41K
Safety relays for safety magnets:				
For connecting 1 set of safety magnets, Cat.4 / SIL3 / PL e, 24 VDC, 2NO (transistor) 1.5A (DC13)	13	3TK2841-1BB40	135.74	41L
For connecting 6 sets of safety magnets, Cat.3 / SIL2 / PL d, 24 V DC, 2NO+1NC (relay) 6A (AC15)	14	3SE6806-2CD00	313.24	41K
Accessories for safety magnets:				
Fill-up element 25x88mm	15	3SX3260	7.49	41K
Fill-up element 25x33mm	16	3SX3261	7.49	41K
Non-Contact RFID Safety Switches				
Family coded, M12 plug	17	3SE6315-0BB01	106.26	41K
Family coded, M12 plug with magnetic latching	17	3SE6315-1BB01	148.64	41K
Individually coded, Multiple teach-in capability, M12 plug	17	3SE6315-0BB02	156.62	41K
Individually coded, Multiple teach-in capability, M12 plug with magnetic latching	17	3SE6315-1BB02	195.93	41K
Individually coded, Single teach-in capability, M12 plug	17	3SE6315-0BB03	170.75	41K
Individually coded, Single teach-in capability, M12 plug with magnetic latching	17	3SE6315-1BB03	214.36	41K
RFID actuator standard	18	3SE6310-0BC01	20.39	41K
RFID actuator with magnetic latching 18N	18	3SE6310-1BC01	63.88	41K
Non-contact Safety Switch Accessories				
8 Pin Cable, M12, 3m	19	3SX5601-2GA03	25.37	41K
8 Pin Cable, M12, 10m	19	3SX5601-2GA10	36.61	41K
M8 Coupling with connecting cable 5m long, for M8 Connector 4-Pole, for 3SE66	20	3SX5601-3GA05	20.76	41K
Coupling with connecting cable 5m long, with 8mm catch connecto, 6-pole for 3SE66	21	3SX5601-4GA05	26.10	41K
Couple Gland M20	22	3SX5601-1A	4.53	41K

Flush mount (emergency-stop) pushbuttons & signalling lamps - SIRIUS 3SU1

Description:	Fig.	Order number	L Price £	Prod. group
Emergency-stop pushbuttons, plastic, flush mount, round 22mm, IP69K: (Delivery excl. contact block and holder. Consult pushbutton accessories for contact blocks needed.)				
Emergency-stop pushbutton, plastic, 40mm dia., turn to unlatch	1	3SU1000-1HB20-0AA0	13.27	41J
Emergency-stop pushbutton, plastic, 60mm dia., turn to unlatch	2	3SU1000-1JB20-0AA0	14.92	41J
Emergency-stop pushbutton, plastic, 40mm dia., with CES lock, turn to unlatch	3	3SU1000-1HR20-0AA0	44.75	41J
Emergency-stop pushbutton, plastic, 40mm dia., pull to unlatch	4	3SU1000-1HA20-0AA0	13.27	41J
Illuminated Emergency-stop pushbutton, plastic, 40mm dia., turn to unlatch	5	3SU1001-1HB20-0AA0	13.90	41J

For more models and comprehensive technical information, please see the Industrial Controls catalogue: IC 10 2017. For the latest information, visit the Industry Mall: www.siemens.com/industrymall/gb

Flush mount (emergency-stop) pushbuttons & signalling lamps - SIRIUS 3SU1* (continued)

Description:	Fig.	Order number	L Price £	Prod. group
Pushbuttons/signalling lamps, plastic, flush mount, round 22mm, IP69K:				
Pushbutton, flat, plastic, black	6	3SU1000-0AB10-0AA0	3.19	41J
Pushbutton, flat, plastic, red	7	3SU1000-0AB20-0AA0	3.19	41J
Pushbutton, flat, plastic, yellow	8	3SU1000-0AB30-0AA0	3.19	41J
Pushbutton, flat, plastic, green	9	3SU1000-0AB40-0AA0	3.19	41J
Pushbutton, flat, plastic, blue	10	3SU1000-0AB50-0AA0	3.19	41J
Pushbutton, flat, plastic, white	11	3SU1000-0AB60-0AA0	3.19	41J
Pushbutton, flat, plastic, clear	12	3SU1000-0AB70-0AA0	3.19	41J
Illuminated pushbutton, flat, plastic, red	13	3SU1001-0AB20-0AA0	4.38	41J
Illuminated pushbutton, flat, plastic, yellow	14	3SU1001-0AB30-0AA0	4.38	41J
Illuminated pushbutton, flat, plastic, green	15	3SU1001-0AB40-0AA0	4.38	41J
Illuminated pushbutton, flat, plastic, blue	16	3SU1001-0AB50-0AA0	4.38	41J
Illuminated pushbutton, flat, plastic, white	17	3SU1001-0AB60-0AA0	4.38	41J
Illuminated pushbutton, flat, plastic, clear	18	3SU1001-0AB70-0AA0	4.38	41J
Selector switch, plastic, black, white, 2 positions, latching, O / I	19	3SU1002-2BF60-0AA0	6.63	41J
Selector switch, plastic, black, white, 2 positions, momentary contact type, O / I	19	3SU1002-2BC60-0AA0	6.63	41J
Selector switch, plastic, black, white, 3 positions, latching, I / O / II	19	3SU1002-2BL60-0AA0	6.63	41J
Selector switch, plastic, black, white, 3 positions, momentary contact type, I / O / II	19	3SU1002-2BM60-0AA0	6.63	41J
Key switch, CES, plastic, latching, O / I, key removable in 2 positions	20	3SU1000-5BF11-0AA0	35.96	41J
Illuminated twin pushbuttons, plastic, flush mount, round 22mm, IP69K: (Delivery excl. contact block and holder. Consult pushbutton accessories for contact blocks needed.)				
Illuminated twin pushbuttons, flat, plastic, green/red, 2 pos., I / O	21	3SU1001-3AB42-0AK0	7.52	41J
Illuminated twin pushbuttons, flat, plastic, white/black, 2 pos., I / O	22	3SU1001-3AB61-0AK0	7.52	41J
Emergency-stop pushbuttons, metal, flush mount, 22mm, IP69K: (Delivery excl. contact block and holder. Consult pushbutton accessories for contact blocks needed.)				
Emergency-stop pushbutton, metal, 40mm dia., turn to unlatch	23	3SU1050-1HB20-0AA0	14.60	41J
Emergency-stop pushbutton, metal, 60mm dia., turn to unlatch	24	3SU1050-1JB20-0AA0	16.18	41J
Emergency-stop pushbutton, metal, 40mm dia., with CES lock, turn to unlatch	25	3SU1050-1HR20-0AA0	48.79	41J
Emergency pushbutton, metal, 40mm dia., pull to unlatch	26	3SU1050-1HA20-0AA0	14.60	41J
Illuminated Emergency-stop pushbutton, metal, 40mm dia., turn to unlatch	27	3SU1051-1HB20-0AA0	16.18	41J
Pushbuttons/signalling lamps, metal, flush mount, round 22mm, IP69K: (Delivery excl. contact block and holder. Consult pushbutton accessories for contact blocks needed.)				
Pushbutton, flat, metal, black	28	3SU1050-0AB10-0AA0	4.10	41J
Pushbutton, flat, metal, red	29	3SU1050-0AB20-0AA0	4.10	41J
Pushbutton, flat, metal, yellow	30	3SU1050-0AB30-0AA0	4.10	41J
Pushbutton, flat, metal, green	31	3SU1050-0AB40-0AA0	4.10	41J
Pushbutton, flat, metal, blue	32	3SU1050-0AB50-0AA0	4.10	41J
Pushbutton, flat, metal, white	33	3SU1050-0AB60-0AA0	4.10	41J
Pushbutton, flat, metal, clear	34	3SU1050-0AB70-0AA0	4.10	41J
Illuminated pushbutton, flat, metal, red	35	3SU1051-0AB20-0AA0	4.95	41J
Illuminated pushbutton, flat, metal, yellow	36	3SU1051-0AB30-0AA0	4.95	41J
Illuminated pushbutton, flat, metal, green	37	3SU1051-0AB40-0AA0	4.95	41J
Illuminated pushbutton, flat, metal, blue	38	3SU1051-0AB50-0AA0	4.95	41J
Illuminated pushbutton, flat, metal, white	39	3SU1051-0AB60-0AA0	4.95	41J
Illuminated pushbutton, flat, metal, clear	40	3SU1051-0AB70-0AA0	4.95	41J
Selector switch can be illuminated, metal, black, white, 2 positions, latching, O / I	41	3SU1052-2BF60-0AA0	7.58	41J
Selector switch can be illuminated, metal, black, white, 2 positions, momentary contact type, O / I	41	3SU1052-2BC60-0AA0	7.58	41J
Selector switch can be illuminated, metal, black, white, 3 positions, latching, I / O / II	41	3SU1052-2BL60-0AA0	7.58	41J
Selector switch can be illuminated, metal, black, white, 3 positions, momentary contact type, I / O / II	41	3SU1052-2BM60-0AA0	7.58	41J
Key switch, CES, metal, latching, O / I, key removable in 2 positions	42	3SU1050-5BF11-0AA0	39.31	41J

For more models and comprehensive technical information, please see the Industrial Controls catalogue: IC 10 2017. For the latest information, visit the Industry Mall: www.siemens.com/industrymall/gb
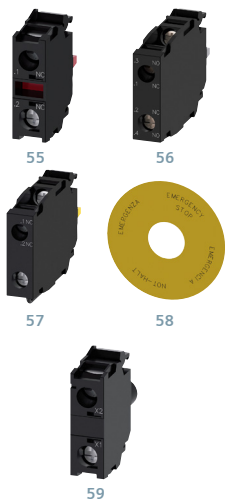
Pushbuttons & signalling lamps - flush mount

Flush mount (emergency-stop) pushbuttons & signalling lamps - SIRIUS 3SU1* (continued)

Pushbuttons and signalling lamps, round 16mm: see catalogue: IC 10 2016 catalogue

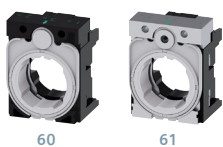| Description:	Fig.	Order number	L Price £	Prod. group
Indicator lamps, plastic, flush mount, round 22mm, IP69K: (Delivery excl. contact block and holder. Consult pushbutton accessories for contact blocks needed.)				
Indicator lights with smooth lens, plastic, red	43	3SU1001-6AA20-0AA0	2.55	41J
Indicator lights with smooth lens, plastic, yellow	44	3SU1001-6AA30-0AA0	2.55	41J
Indicator lights with smooth lens, plastic, green	45	3SU1001-6AA40-0AA0	2.55	41J
Indicator lights with smooth lens, plastic, blue	46	3SU1001-6AA50-0AA0	2.55	41J
Indicator lights with smooth lens, plastic, white	47	3SU1001-6AA60-0AA0	2.55	41J
Indicator lights with smooth lens, plastic, clear	48	3SU1001-6AA70-0AA0	2.55	41J
Indicator lamps, metal, flush mount, round 22mm, IP69K: (Delivery excl. contact block and holder. Consult pushbutton accessories for contact blocks needed.)				
Indicator lights with smooth lens, metal, red	49	3SU1051-6AA20-0AA0	2.97	41J
Indicator lights with smooth lens, metal, yellow	50	3SU1051-6AA30-0AA0	2.97	41J
Indicator lights with smooth lens, metal, green	51	3SU1051-6AA40-0AA0	2.97	41J
Indicator lights with smooth lens, metal, blue	52	3SU1051-6AA50-0AA0	2.97	41J
Indicator lights with smooth lens, metal, white	53	3SU1051-6AA60-0AA0	2.97	41J
Indicator lights with smooth lens, metal, clear	54	3SU1051-6AA70-0AA0	2.97	41J

Description:	Fig.	Order number	L Price £	Prod. group
Accessories for flush-mount pushbuttons/signalling lamps:				
Contact block 1NC, screw terminals	55	3SU1400-1AA10-1CA0	3.25	41J
Contact block 1NO, screw terminals	55	3SU1400-1AA10-1BA0	3.25	41J
Contact block 1NC + 1NC, screw terminals	56	3SU1400-1AA10-1FA0	5.30	41J
Contact block 2NO, screw terminals	56	3SU1400-1AA10-1DA0	7.33	41J
Contact block 2NC, screw terminals	56	3SU1400-1AA10-1EA0	7.33	41J
Contact block with mounting monitoring 1NC, screw terminals	57	3SU1400-1AA10-1HA0	7.84	41J
Yellow backing plate for emergency stop, round 80 mm (sticker), w/o inscription	58	3SU1900-0BC31-0AA0	2.47	41J
Yellow backing plate for emerg. stop, round 75 mm (sticker), 4 language (EN/DE/IT/SP)	58	3SU1900-0BC31-0NB0	2.76	41J
LED Module with integrated LED, yellow, 24 V AC / DC, screw terminals	59	3SU1401-1BB30-1AA0	4.95	41J
LED Module with integrated LED, red, 24 V AC / DC, screw terminals	59	3SU1401-1BB20-1AA0	4.95	41J
LED Module with integrated LED, green, 24 V AC / DC, screw terminals	59	3SU1401-1BB40-1AA0	4.95	41J
LED Module with integrated LED, blue, 24 V AC / DC, screw terminals	59	3SU1401-1BB50-1AA0	4.95	41J
LED Module with integrated LED, white, 24 V AC / DC, screw terminals	59	3SU1401-1BB60-1AA0	4.95	41J
LED Module with integrated LED, yellow, 110 V AC, screw terminals	59	3SU1401-1BC30-1AA0	8.78	41J
LED Module with integrated LED, red, 110 V AC, screw terminals	59	3SU1401-1BC20-1AA0	8.78	41J
LED Module with integrated LED, green, 110 V AC, screw terminals	59	3SU1401-1BC40-1AA0	8.78	41J
LED Module with integrated LED, blue, 110 V AC, screw terminals	59	3SU1401-1BC50-1AA0	8.78	41J
LED Module with integrated LED, white, 110 V AC, screw terminals	59	3SU1401-1BC60-1AA0	8.78	41J
LED Module with integrated LED, yellow, 230 V AC, screw terminals	59	3SU1401-1BF30-1AA0	8.78	41J
LED Module with integrated LED, red, 230 V AC, screw terminals	59	3SU1401-1BF20-1AA0	8.78	41J
LED Module with integrated LED, green, 230 V AC, screw terminals	59	3SU1401-1BF40-1AA0	8.78	41J
LED Module with integrated LED, blue, 230 V AC, screw terminals	59	3SU1401-1BF50-1AA0	8.78	41J
LED Module with integrated LED, white, 230 V AC, screw terminals	59	3SU1401-1BF60-1AA0	8.78	41J

*Contact blocks are stackable

Pushbuttons and signalling lamps, round 16mm and square 26mm: see catalogue: IC 10 2016 catalogue

Holders for pushbuttons & signalling lamps - SIRIUS 3SU1

Description:	Fig.	Order number	L Price £	Prod. group
Accessories for flush-mount pushbuttons/signalling lamps:				
Holder for 3 modules, plastic	60	3SU1500-0AA10-0AA0	1.25	41J
Holder for 3 modules, metal	61	3SU1550-0AA10-0AA0	1.39	41J

*For more models and comprehensive technical information, please see the Industrial Controls catalogue: IC 10 2017. For the latest information, visit the Industry Mall: www.siemens.com/industrymall/gb

Pushbutton enclosures - surface mount

Surface mount (emergency-stop) pushbutton enclosures - SIRIUS 3SU1

Loose pushbuttons/signalling lamps for fitting into the pushbutton enclosures can be found on page 19 under "Flush mount (emergency-stop) pushbuttons & signalling lamps".
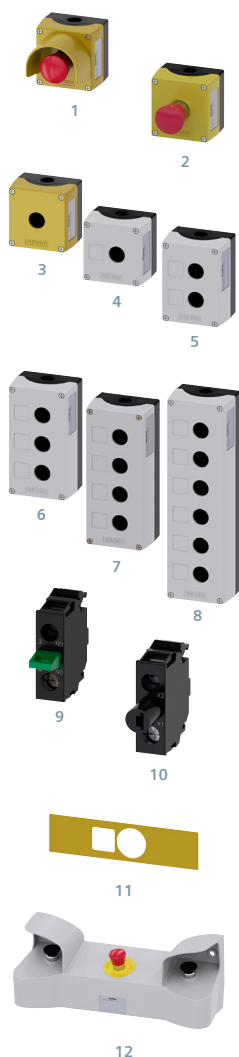
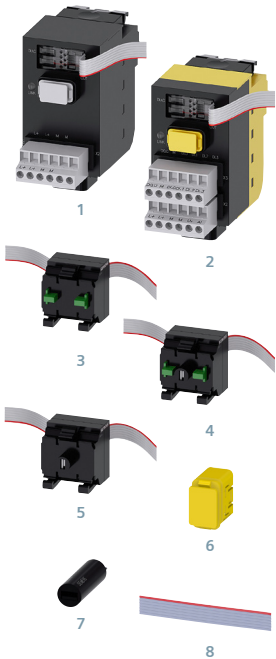| Description:	Fig.	Order number	L Price £	Prod. group
Emergency-stop pushbutton enclosures complete, plastic enclosure, 2xM20 cable entry, with 22mm round actuators, IP69K:				
Emergency-stop pushbutton enclosure, turn to unlatch, with protective collar, 2NC contacts	1	3SU1801-0NB00-2AC2	40.95	41J
Emergency-stop pushbutton enclosures complete, metal enclosure, 2xM20 cable entry, with 22mm round actuators, IP69K:				
Emergency-stop pushbutton enclosure, turn to unlatch, with protective collar, 2NC contacts	1	3SU1851-0NB00-2AC2	69.52	41J
Emergency-stop pushbutton enclosure, turn to unlatch, 2NC contacts	2	3SU1851-0NB00-2AA2	46.58	41J
Pushbutton enclosures, empty, metal enclosure 2xM20 cable entry, for 22mm round actuators, IP69K:				
Pushbutton enclosure, 1 position, yellow top part	3	3SU1851-0AA00-0AA2	23.57	41J
Pushbutton enclosure, 1 position, grey top part	4	3SU1851-0AA00-0AB1	20.54	41J
Pushbutton enclosure, 2 positions, grey top part	5	3SU1852-0AA00-0AB1	24.52	41J
Pushbutton enclosure, 3 positions, grey top part	6	3SU1853-0AA00-0AB1	32.55	41J
Pushbutton enclosure, 4 positions, grey top part	7	3SU1854-0AA00-0AB1	43.17	41J
Pushbutton enclosure, 6 positions, grey top part	8	3SU1856-0AA00-0AB1	56.06	41J
Pushbutton enclosure accessories:				
Contact block, bottom mount, 1NC, screw terminal	9	3SU1400-2AA10-1CA0	3.96	41J
Contact block, bottom mount, 1NO, screw terminal	9	3SU1400-2AA10-1BA0	3.96	41J
LED module, yellow, bottom mount, 24 V AC / DC, screw terminal	10	3SU1401-2BG30-1AA0	6.18	41J
LED module, red, bottom mount, 24 V AC / DC, screw terminal	10	3SU1401-2BB20-1AA0	5.24	41J
LED module, green, bottom mount, 24 V AC / DC, screw terminal	10	3SU1401-2BB40-1AA0	5.24	41J
LED module, blue, bottom mount, 24 V AC / DC, screw terminal	10	3SU1401-2BB50-1AA0	5.24	41J
LED module, white, bottom mount, 24 V AC / DC, screw terminal	10	3SU1401-2BB60-1AA0	5.24	41J
LED module, yellow, bottom mount, 110 V AC, screw terminal	10	3SU1401-2BC30-1AA0	10.11	41J
LED module, red, bottom mount, 110 V AC, screw terminal	10	3SU1401-2BC20-1AA0	10.11	41J
LED module, green, bottom mount, 110 V AC, screw terminal	10	3SU1401-2BC40-1AA0	10.11	41J
LED module, blue, bottom mount, 110 V AC, screw terminal	10	3SU1401-2BC50-1AA0	10.11	41J
LED module, white, bottom mount, 110 V AC, screw terminal	10	3SU1401-2BC60-1AA0	10.11	41J
LED module, yellow, bottom mount, 230 V AC, screw terminal	10	3SU1401-2BF30-1AA0	10.11	41J
LED module, red, bottom mount, 230 V AC, screw terminal	10	3SU1401-2BF20-1AA0	10.11	41J
LED module, green, bottom mount, 230 V AC, screw terminal	10	3SU1401-2BF40-1AA0	10.11	41J
LED module, blue, bottom mount, 230 V AC, screw terminal	10	3SU1401-2BF50-1AA0	10.11	41J
LED module, white, bottom mount, 230 V AC, screw terminal	10	3SU1401-2BF60-1AA0	10.11	41J
Yellow backing plate for emergency stop, (sticker), with recess for labelling plate	11	3SU1900-0BF31-0AA0	2.62	41J
Two hand operation console for command devices, 3 command points metal	12	3SU1853-3NB00-1AA1	328.64	41J

The new Sirius ACT Configurator Tool allows you to create you own Pushbutton enclosures:
www.siemens.com/sirius-act/configurator

*For more models and comprehensive technical information, please see the Industrial Controls catalogue: IC 10 2017. For the latest information, visit the Industry Mall: www.siemens.com/industrymall/gb

SIRIUS Safety Integrated quick-search catalogue 2018   **21**

Pushbuttons with Profinet

Profinet gateway - SIRIUS 3SU1

Description:	Fig.	Order number	L Price £	Prod. group
Profinet Interface Modules				
Standard IM, 24 V DC, 1–20 TMs connectable, screw terminals	1	3SU1400-1LK10-1AA1	151.68	41J
Fail-safe IM F, 24 V DC, 1–20 TMs connectable, screw terminals	2	3SU1400-1LL10-1BA1	237.00	41J
Profinet terminal modules				
"Commands" TM with 2 spring contacts	3	3SU1400-1MA10-1BA1	24.21	41J
"Commands and LED" TM with 2 spring contacts and integrated red LED	4	3SU1401-1MC20-1CA1	25.28	41J
"Commands and LED" TM with 2 spring contacts and integrated yellow LED	4	3SU1401-1MC30-1CA1	25.28	41J
"Commands and LED" TM with 2 spring contacts and integrated green LED	4	3SU1401-1MC40-1CA1	25.28	41J
"Commands and LED" TM with 2 spring contacts and integrated blue LED	4	3SU1401-1MC50-1CA1	25.28	41J
"Commands and LED" TM with 2 spring contacts and integrated white LED	4	3SU1401-1MC60-1CA1	25.28	41J
"Commands and LED" TM with 2 spring contacts and integrated amber LED	4	3SU1401-1MC00-1CA1	25.28	41J
"LED" TM with integrated red LED	5	3SU1401-1ME20-1DA1	23.38	41J
"LED" TM with integrated yellow LED	5	3SU1401-1ME30-1DA1	23.38	41J
"LED" TM with integrated green LED	5	3SU1401-1ME40-1DA1	23.38	41J
"LED" TM with integrated blue LED	5	3SU1401-1ME50-1DA1	23.38	41J
"LED" TM with integrated white LED	5	3SU1401-1ME60-1DA1	23.38	41J
"LED" TM with integrated amber LED	5	3SU1401-1ME00-1DA1	23.38	41J
Accessories				
Memory module for storage of configuration data, optional for IM, included for IM F	6	3RK3931-0AA00	19.07	42C
LED module, red, only illuminated for IM/IM F and SIRIUS ACT	7	3SU1401-3BA20-5AA0	3.35	41J
LED module, yellow, only illuminated for IM/IM F and SIRIUS ACT	7	3SU1401-3BA30-5AA0	3.35	41J
LED module, green, only illuminated for IM/IM F and SIRIUS ACT	7	3SU1401-3BA40-5AA0	3.35	41J
LED module, blue, only illuminated for IM/IM F and SIRIUS ACT	7	3SU1401-3BA50-5AA0	3.35	41J
LED module, white, only illuminated for IM/IM F and SIRIUS ACT	7	3SU1401-3BA60-5AA0	3.35	41J
LED module, amber, only illuminated for IM/IM F and SIRIUS ACT	7	3SU1401-3BA00-5AA0	3.35	41J
Flat ribbon cable, 7-core, cable length 5 m	8	3SU1900-0KQ80-0AA0	3.16	41J
Flat ribbon cable, 7-core, cable length 10 m	8	3SU1900-0KP80-0AA0	6.32	41J

Communication via Profinet Advantages

- Reduced wiring time - fewer sources of error during installation and commissioning
- Modular and plug-in design of all components
- No addressing of individual push buttons and command points required – only one IP address for up to 21 devices
- Diagnostics and Paramterization via the TIA-Portal
- Safety Integrated – making it possible to integrate safety technology; e.g. emergency stop with safety-related Interface Module via PROFIsafe communication
- Easy replacement of memory modules without programming knowledge

You can find all information at:.www.siemens.com/sirius-act-profinet or visit the Industry Mall: www.siemens.com/industrymall/gb. Technical specifications: www.siemens.com/sios.
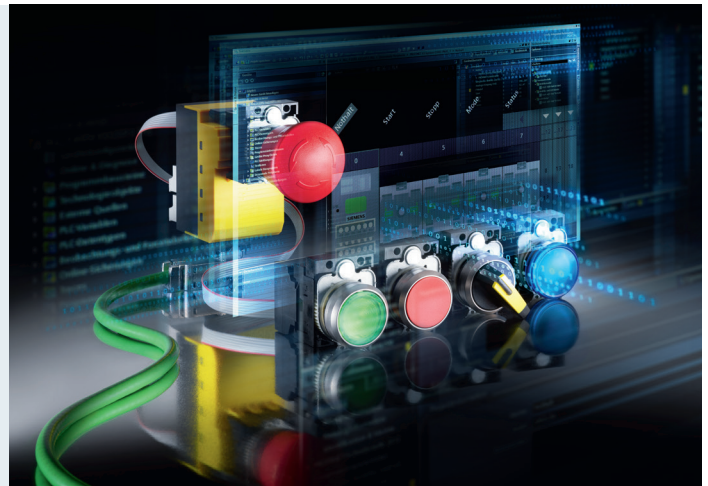
Pushbuttons with Profinet

Communication is one of the strong points of SIRIUS ACT: Besides the standard wiring, you can also connect the push buttons and signaling devices directly to the controller in the field or cabinet via PROFINET, AS-Interface and IO-Link. In this way, you can reduce wiring time and effort, minimize error sources and have more flexibility when you need to make modifications. Engineering in the Totally Integrated Automation Portal (TIA Portal) provides additional diagnostics and parameterization options. SIRIUS ACT push buttons and indicator lights – convincing in design, performance, ruggedness and handling. Enabling you to get things going.

## Top performance thanks to strong communication

SIRIUS ACT with PROFINET connects push buttons and signaling devices directly with the controller and HMI devices via PROFINET – including safety functions, with engineering and commissioning being simplified no end by the TIA Portal. Additional benefits include uniform data management, shorter downtimes thanks to faster fault diagnostics and option handling, which can be used to flexibly design plants and systems and even modify them during operation.

Detailed installation information available at: siemens.com/sirius-act-profinet-manual

SIRIUS ACT PROFINET

All devices that are not safety-related can be integrated easily with the interface module (IM).

1. CPU
2. Standard Interfacemodul
3. Terminalmodul
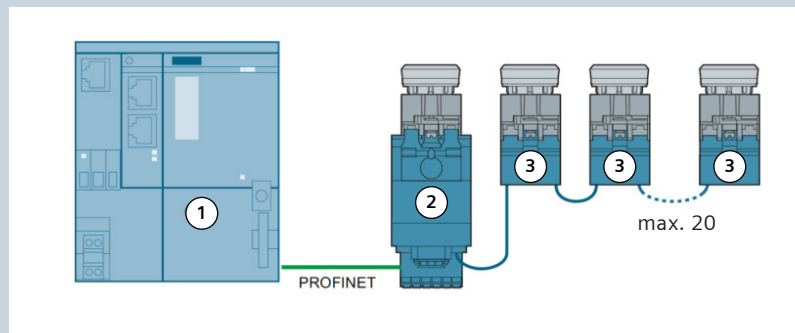
SIRIUS ACT PROFINET/PROFIsafe

If there is a safety-related SIRIUS ACT device (e.g. EMERGENCY STOP up to SIL 3) in the application, it can be integrated easily via the fail-safe interface module (IM F).
If safety-related, then connection to IM F.

1. CPU
2. Fail-safe Interfacemodul
3. Terminalmodul
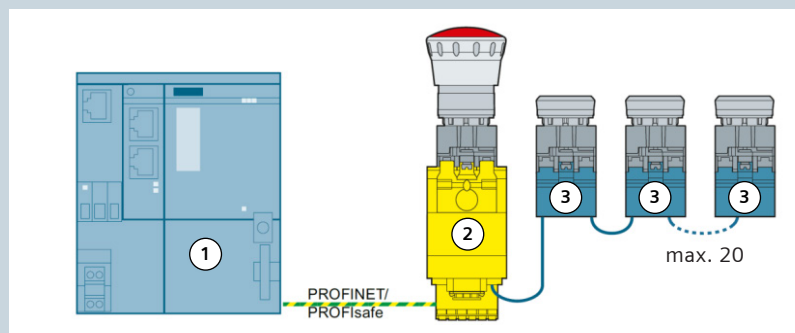
System Overview - Flexible for all types of applications

Components:	1 Interfacemodul + max. 20 Terminalmoduls
Max. Cable length between Moduls:	1 Meter
Total cable length (IM – TM):	10 Meters
Power Supply:	24 V DC
E-Stop:	if needed, only on the first position on the Fail-safe version

Application examples & reference materials

Parameter definitions depending on the sensor wiring

Slide switch		Description	Typical circuit
AUTO	**MONITORED**		**Basic unit 3SK1 Standard relay**
	✓	EMERGENCY STOP, single-channel, with monitored start	1 and 2
✓		EMERGENCY STOP, single-channel, with autostart	3 and 4
	✓	Two-channel, with cross-circuit detection, with monitored start	5
✓		Two-channel, with cross-circuit detection, with autostart	6
✓		Sensors with solid-state outputs, without crosscircuit detection, with autostart	7

DIP switch				Description	Typical circuit
1	**2**	**3**	**4**		**Basic units 3SK1 Standard / Advanced**
right	right	right	-	1 x two-channel, with cross-circuit detection, with monitored start	8
left	right	right	-	1 x two-channel, with cross-circuit detection with autostart	9
right	left	right	-	Electronic sensor, without cross-circuit detection, with monitored start	10
left	left	right	-	Electronic sensor, without cross-circuit detection, with autostart	11
right	left	left	-	2 x single-channel, without cross-circuit detection, with monitored start	12
left	left	left	-	2x single-channel, without cross-circuit detection, with autostart	13

DIP switch				Description	Typical circuit
1	**2**	**3**	**4**		**Basic units 3SK1 Advanced**
right	right	right	-	1NC/1NO sensor, with cross-circuit detection, with monitored start	14
left	right	right	-	1NC/1NO sensor, with cross-circuit detection, with autostart	15
left	right	right	-	Two-hand operation, with cross-circuit detection, with autostart	16

- not relevant

The black fields show the positions of the switches. Here, "Autostart" in each case.
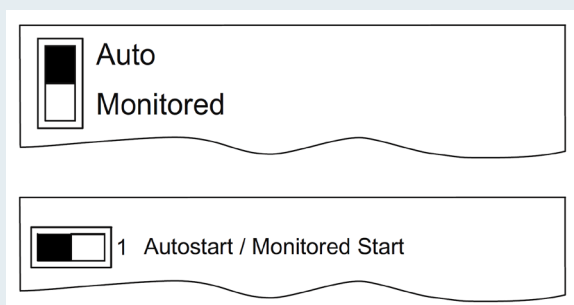
Typical circuit 1: Single-channel, with monitored start

* For 3SK1111-.AB30 basic unit only

•	Monitored start	
•	3SK1111 Standard relay	
•	Sensor: 1 NC contact	
Slide switch		
Auto	**Monitored**	
—	ON bottom	
Up to PL in accordance with ISO 13849-1		c
Up to Safety Integrity Level (SILCL) to IEC 62061		1
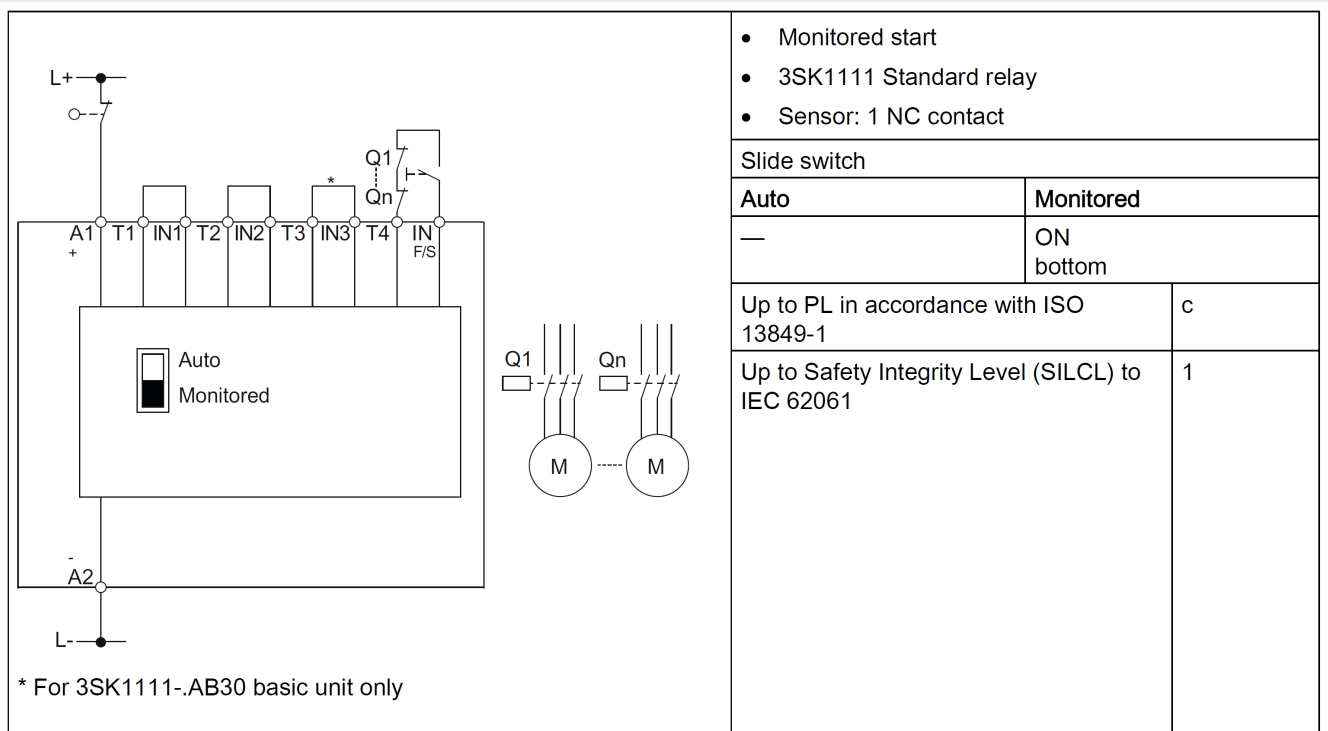
Typical circuit 2: Single-channel, with monitored start

•	Monitored start	
•	3SK1111 Standard relay	
•	Sensor: 1 NC contact	
Slide switch		
Auto	**Monitored**	
—	ON bottom	
Up to PL in accordance with ISO 13849-1		c
Up to Safety Integrity Level (SILCL) to IEC 62061		1
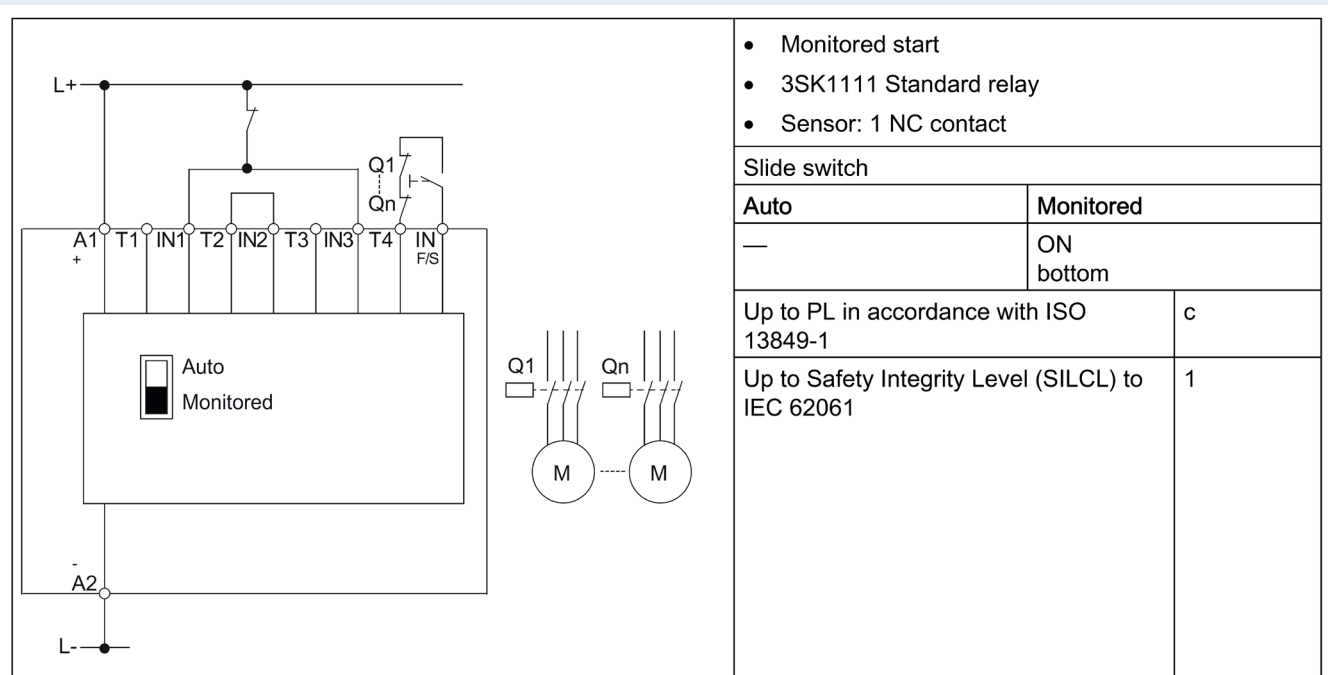
Typical circuits

Typical circuit 3: single-channel, with autostart

* For 3SK1111-.AB30 basic unit only

• Autostart		
• 3SK1111 Standard relay		
• Sensor: 1 NC contact		

Slide switch		
Auto	**Monitored**	
ON top	—	
Up to PL in accordance with ISO 13849-1		c
Up to Safety Integrity Level (SILCL) to IEC 62061		1
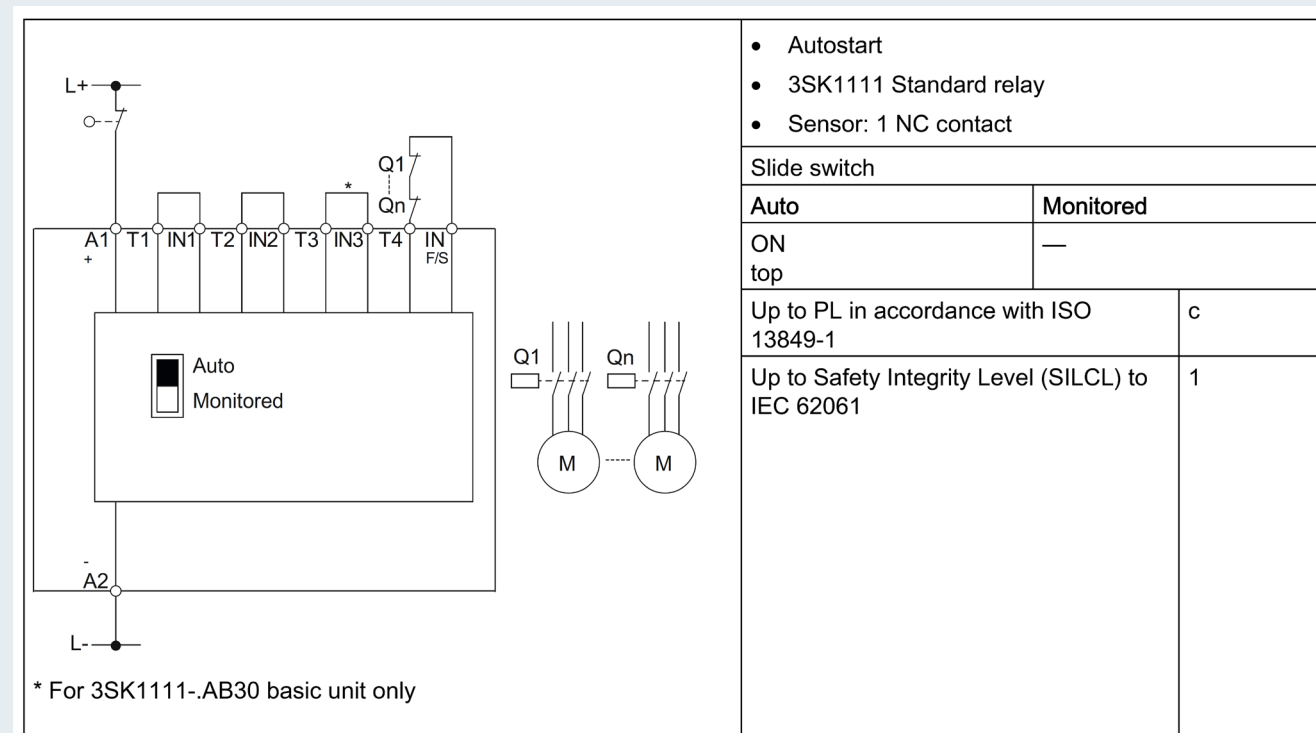
Typical circuit 4: single-channel, with autostart

• Autostart		
• 3SK1111 Standard relay		
• Sensor: 1 NC contact		

Slide switch		
Auto	**Monitored**	
ON top	—	
Up to PL in accordance with ISO 13849-1		c
Up to Safety Integrity Level (SILCL) to IEC 62061		1
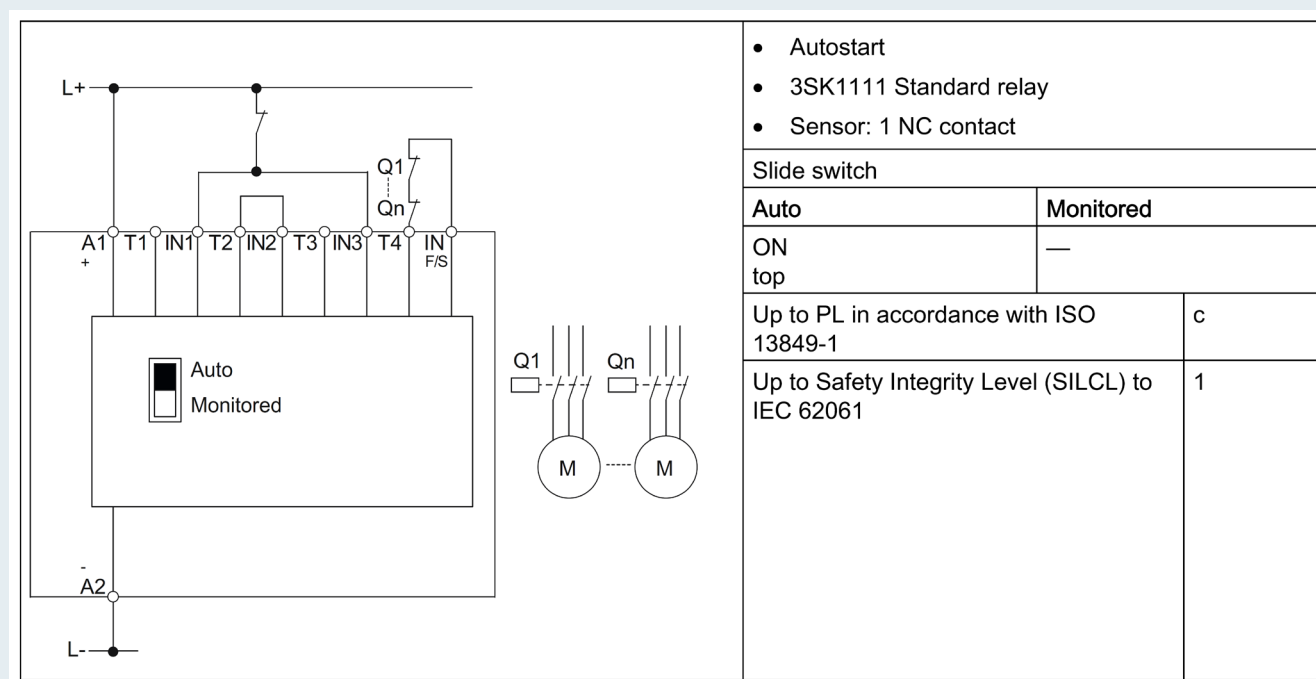
Typical circuit 5: EMERGENCY STOP two-channel, with cross-circuit detection, with monitored start

- Monitored start
- With cross-circuit detection
- Sensor: 2 NC contacts
- 3SK1111 Standard relay

Slide switch		
Auto	**Monitored**	
—	ON bottom	
Up to PL in accordance with ISO 13849-1		e
Up to Safety Integrity Level (SILCL) to IEC 62061		3

* For 3SK1111-.AB30 basic unit only
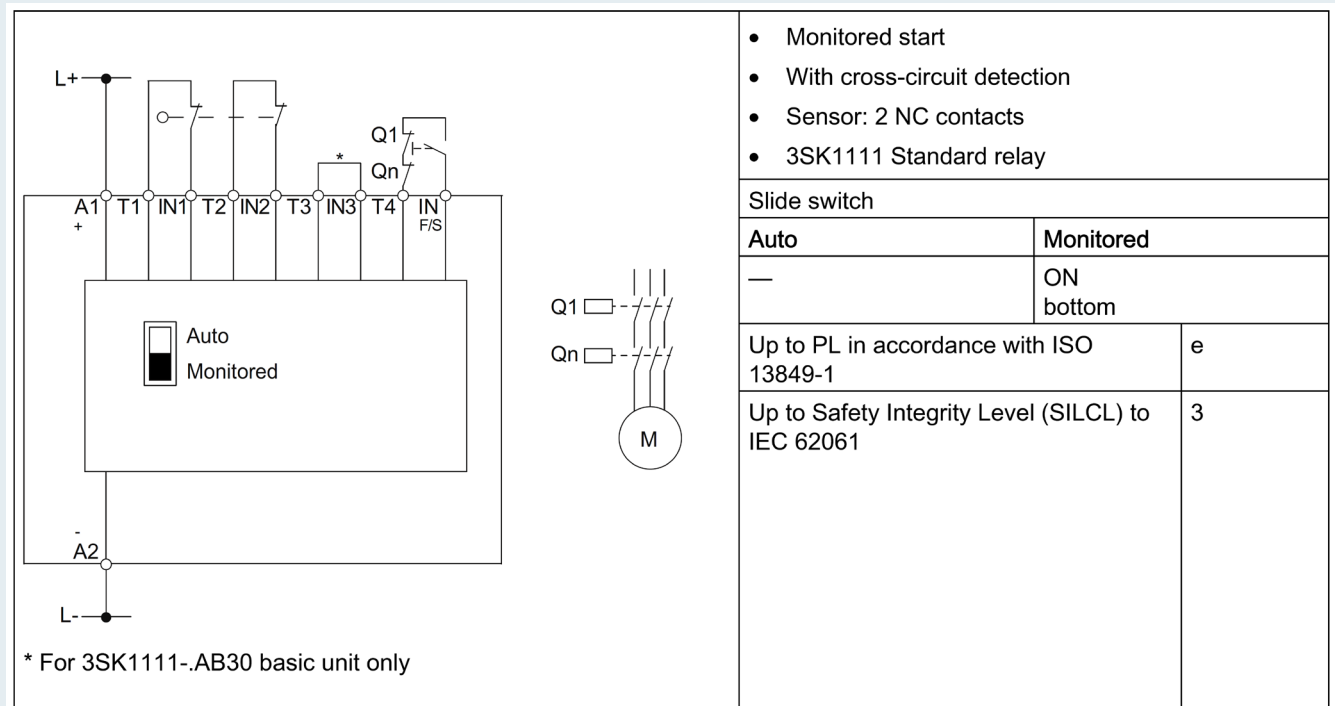
Typical circuit 6: Two-channel, with cross-circuit detection, with autostart

- Autostart
- With cross-circuit detection
- Sensor: 2 NC contacts
- 3SK1111 Standard relay

Slide switch		
Auto	**Monitored**	
ON top	—	
Up to PL in accordance with ISO 13849-1		e
Up to Safety Integrity Level (SILCL) to IEC 62061		3

* For 3SK1111-.AB30 basic unit only
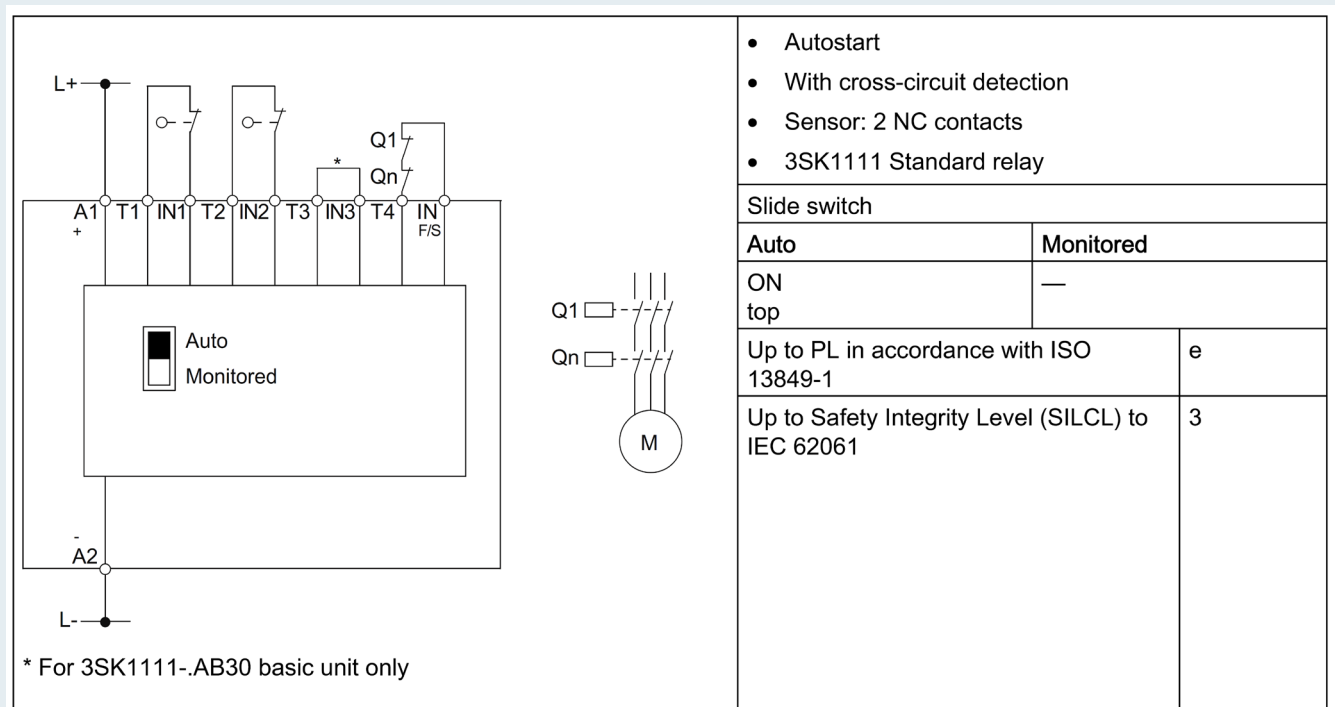
Typical circuits

Typical circuit 7: Sensors with solid-state outputs, without cross-circuit detection, with autostart

- Autostart
- Without cross-circuit detection
- Sensor: 2-channel non-floating
- 3SK1111 Standard relay

Slide switch	
Auto	**Monitored**
ON top	—

Up to PL in accordance with ISO 13849-1	e
Up to Safety Integrity Level (SILCL) to IEC 62061	3
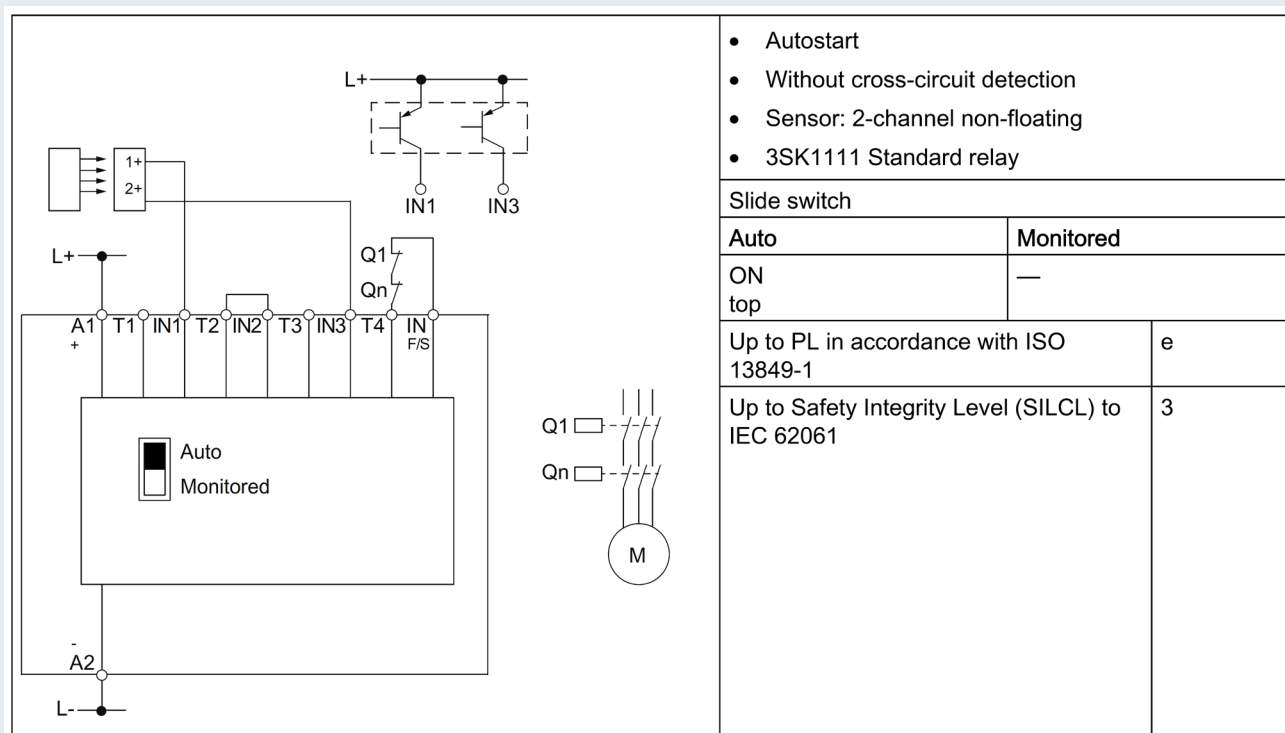
Typical circuits for 3SK1 Standard solid-state basic units or 3SK1 Advanced basic units

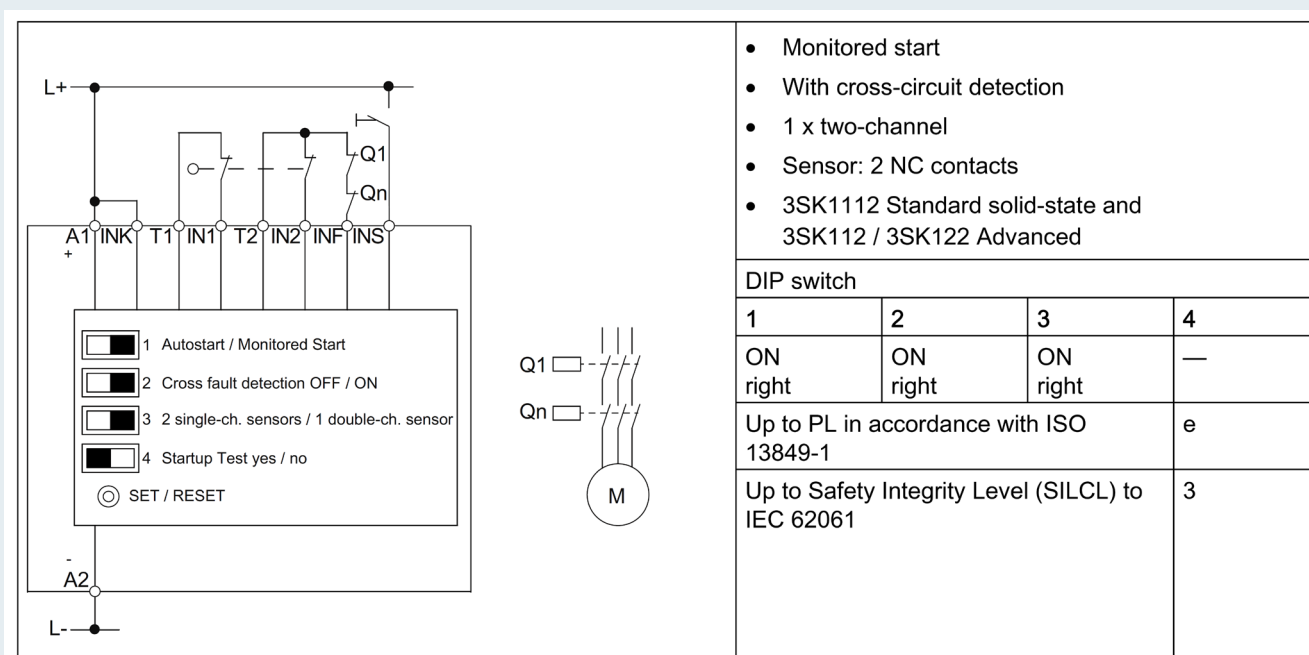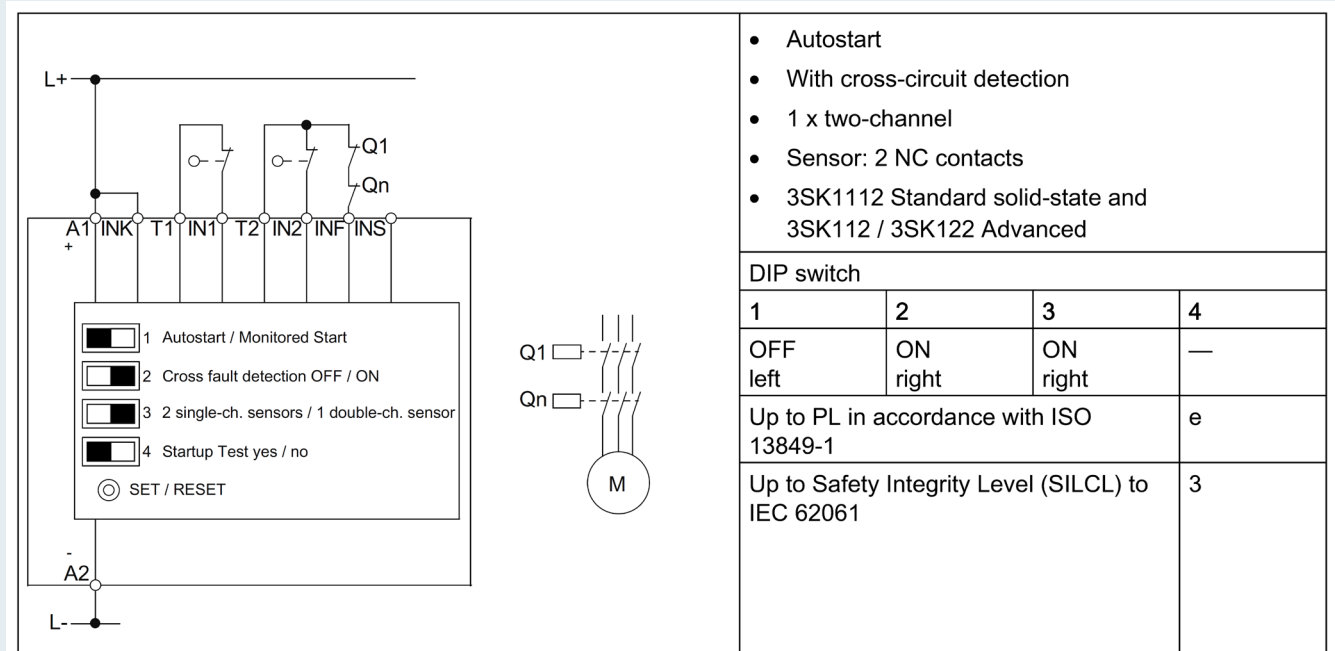**Typical circuit 8: EMERGENCY STOP two-channel, with cross-circuit detection, with monitored start**

- Monitored start
- With cross-circuit detection
- 1 x two-channel
- Sensor: 2 NC contacts
- 3SK1112 Standard solid-state and 3SK112 / 3SK122 Advanced

DIP switch			
1	2	3	4
ON right	ON right	ON right	—

Up to PL in accordance with ISO 13849-1	e
Up to Safety Integrity Level (SILCL) to IEC 62061	3

Typical circuit 9: Two-channel, with cross-circuit detection, with autostart

- Autostart
- With cross-circuit detection
- 1 x two-channel
- Sensor: 2 NC contacts
- 3SK1112 Standard solid-state and 3SK112 / 3SK122 Advanced

DIP switch			
1	2	3	4
OFF left	ON right	ON right	—
Up to PL in accordance with ISO 13849-1			e
Up to Safety Integrity Level (SILCL) to IEC 62061			3

Typical circuit 10: Electronic sensor, 2-channel, without cross-circuit detection, with monitored start

- Monitored start
- Without cross-circuit detection
- 1 x two-channel
- Sensor: 2-channel non-floating
- 3SK1112 Standard solid-state and 3SK112 Advanced

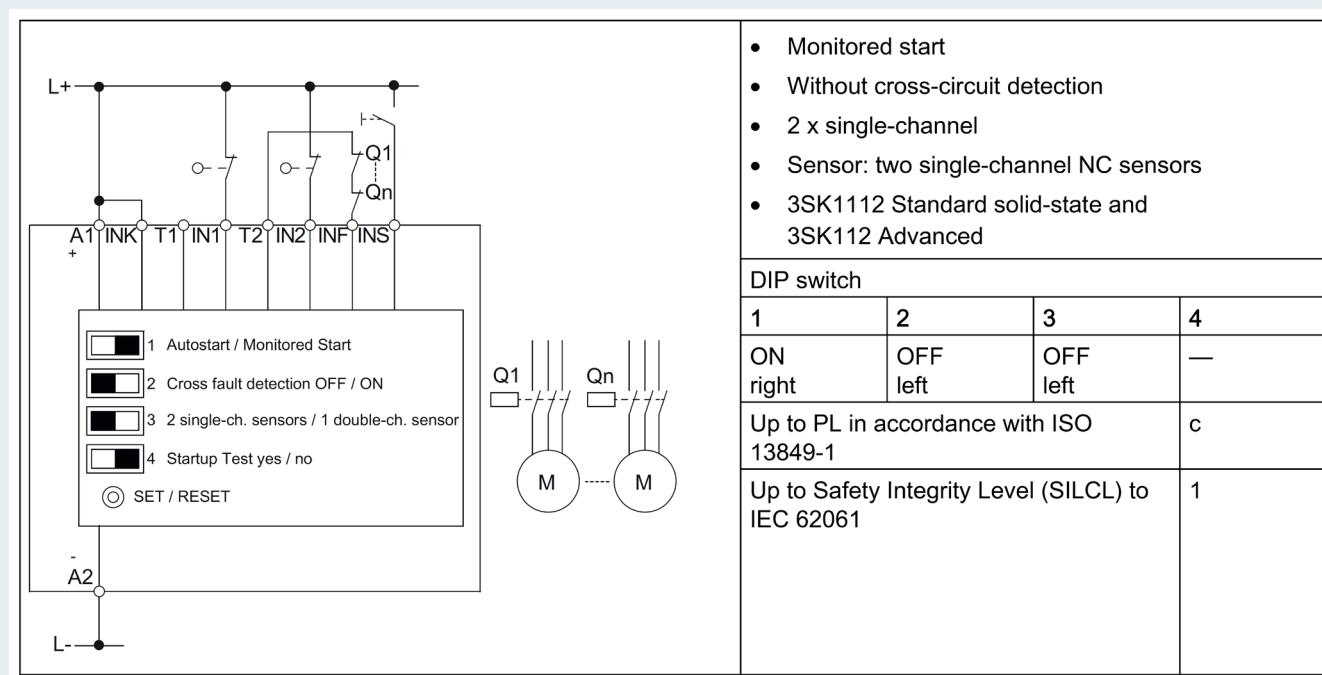| DIP switch			
1	2	3	4
ON right	OFF left	ON right	—
Up to PL in accordance with ISO 13849-1			e
Up to Safety Integrity Level (SILCL) to IEC 62061			3
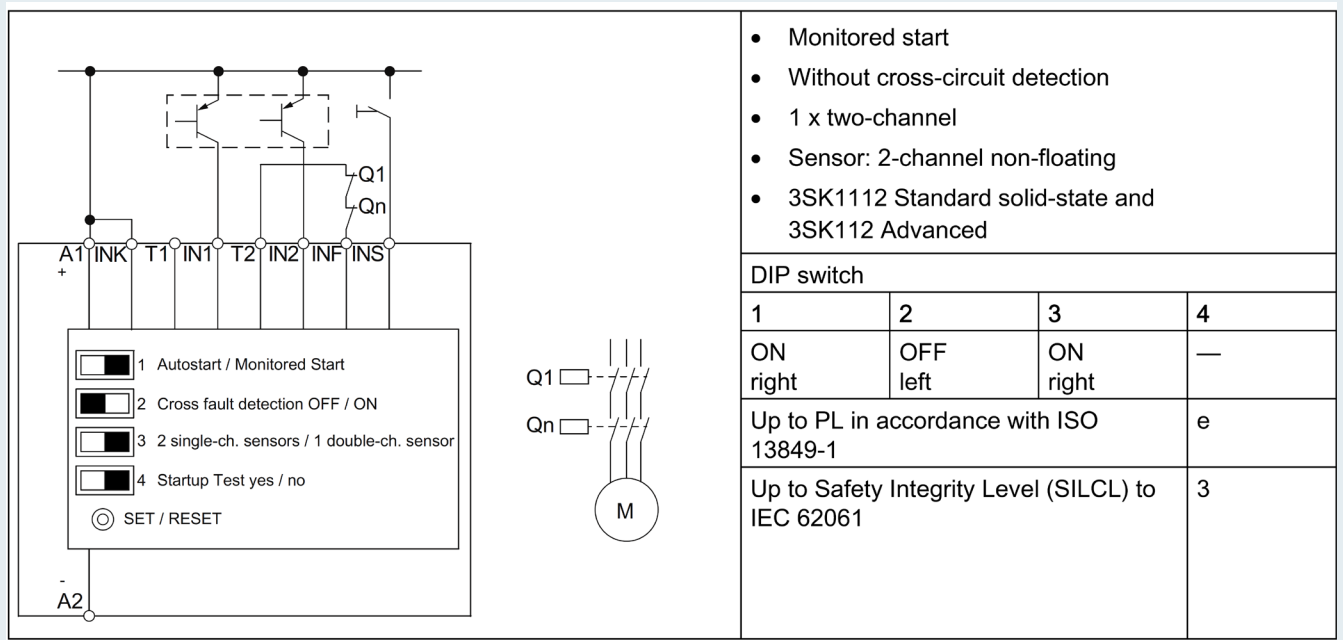
Typical circuits

Typical circuit 11: Electronic sensor, two-channel, without cross-circuit detection, with autostart

- Autostart
- Without cross-circuit detection
- 1 x two-channel
- Sensor: 2-channel non-floating
- 3SK1112 Standard solid-state and 3SK112 Advanced

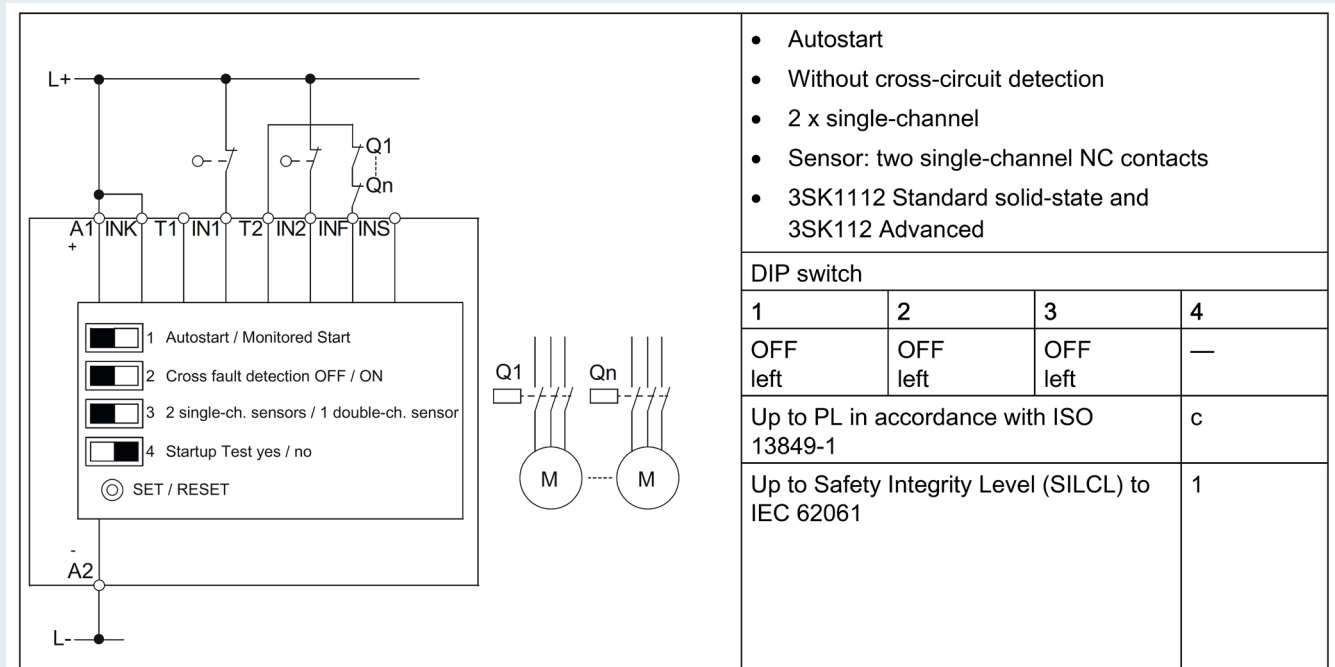| DIP switch			
1	2	3	4
OFF left	OFF left	ON right	—
Up to PL in accordance with ISO 13849-1			e
Up to Safety Integrity Level (SILCL) to IEC 62061			3
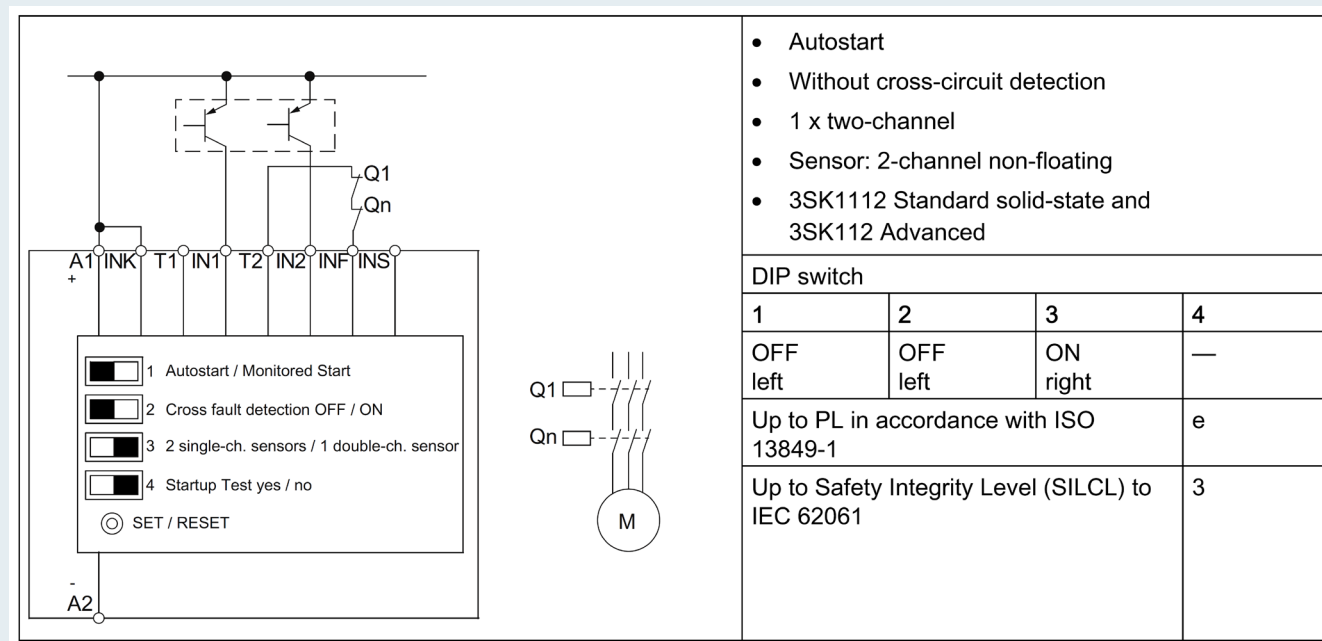
Note: Single-channel connection - If only one single-channel sensor is used, the other sensor circuit must be jumper

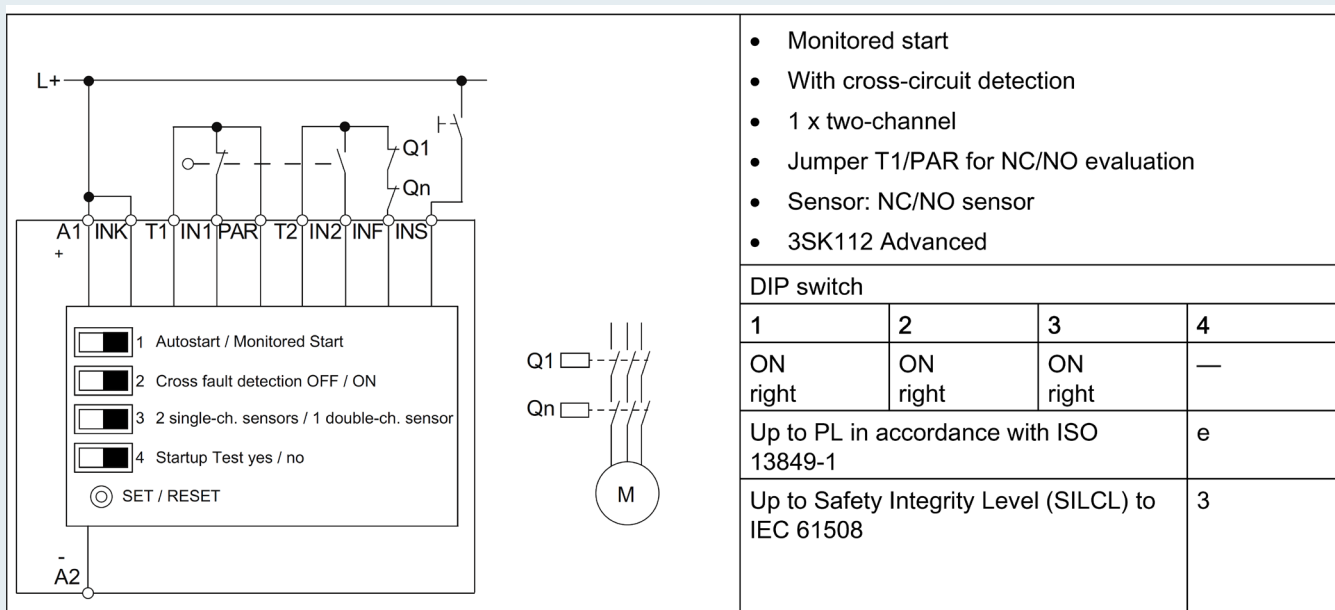**Typical circuit 12: 2 x single-channel, without cross-circuit detection, with monitored start**

- Monitored start
- Without cross-circuit detection
- 2 x single-channel
- Sensor: two single-channel NC sensors
- 3SK1112 Standard solid-state and 3SK112 Advanced

DIP switch			
1	2	3	4
ON right	OFF left	OFF left	—
Up to PL in accordance with ISO 13849-1			c
Up to Safety Integrity Level (SILCL) to IEC 62061			1

Typical circuit 13: 2x single-channel, without cross-circuit detection, with autostart

- Autostart
- Without cross-circuit detection
- 2 x single-channel
- Sensor: two single-channel NC contacts
- 3SK1112 Standard solid-state and 3SK112 Advanced

DIP switch			
1	2	3	4
OFF left	OFF left	OFF left	—
Up to PL in accordance with ISO 13849-1			c
Up to Safety Integrity Level (SILCL) to IEC 62061			1

Typical circuits for 3SK1 Advanced basic units only

Typical circuit 14: 1NC/1NO sensor, with cross-circuit detection, with monitored start

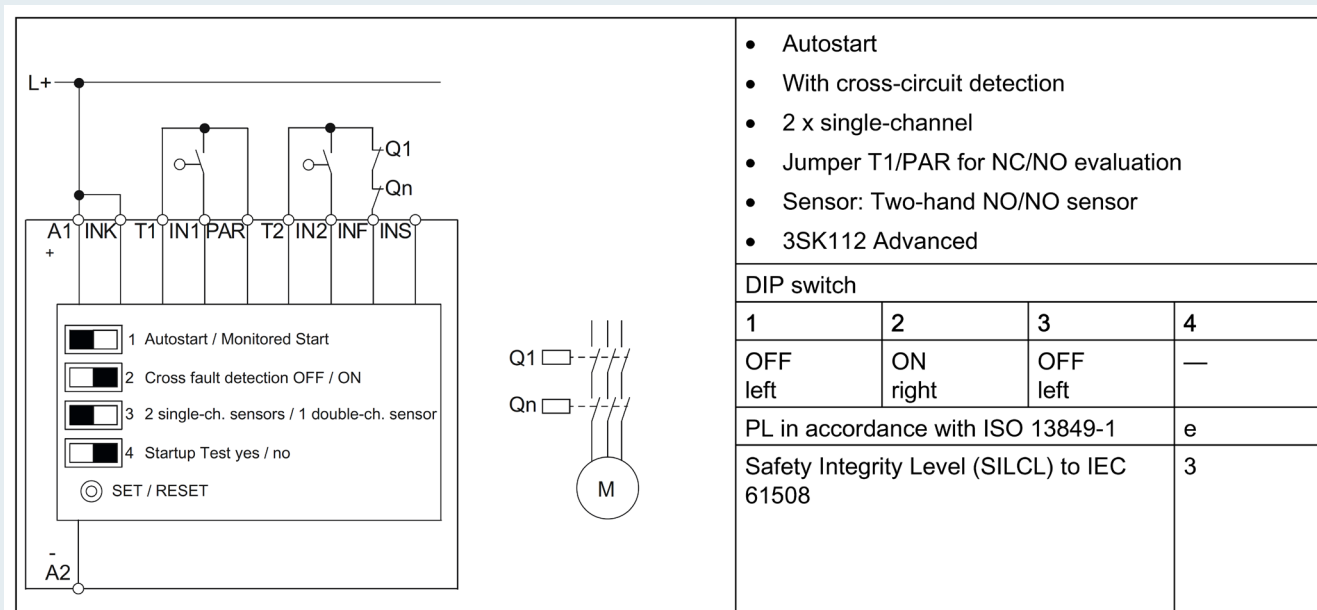- Monitored start
- With cross-circuit detection
- 1 x two-channel
- Jumper T1/PAR for NC/NO evaluation
- Sensor: NC/NO sensor
- 3SK112 Advanced

DIP switch			
1	2	3	4
ON right	ON right	ON right	—
Up to PL in accordance with ISO 13849-1			e
Up to Safety Integrity Level (SILCL) to IEC 61508			3

Typical circuits

15 Typical circuit 15: 1NC/1NO sensor, with cross-circuit detection, with autostart

- Autostart
- With cross-circuit detection
- 1 x two-channel
- Jumper T1/PAR for NC/NO evaluation
- Sensor: NC/NO sensor
- 3SK112 Advanced

DIP switch			
1	2	3	4
OFF left	ON right	ON right	—
PL in accordance with ISO 13849-1			e
Safety Integrity Level (SILCL) to IEC 61508			3
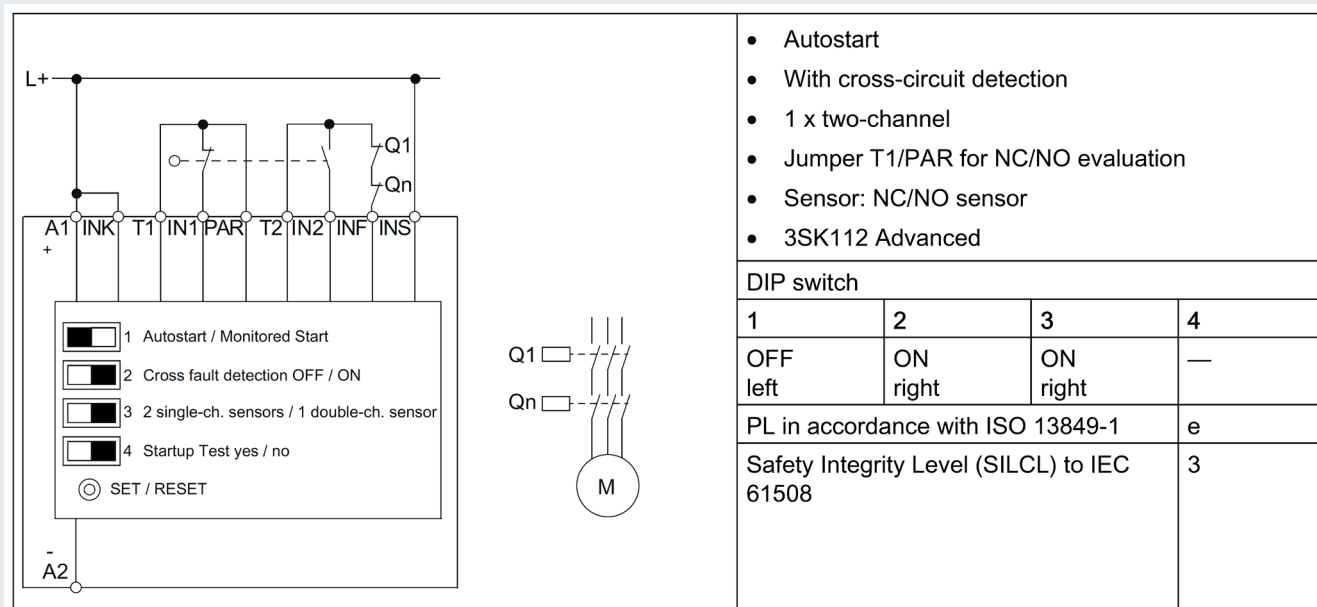
16 Typical circuit 16: Two-hand operation, with cross-circuit detection, with autostart

- Autostart
- With cross-circuit detection
- 2 x single-channel
- Jumper T1/PAR for NC/NO evaluation
- Sensor: Two-hand NO/NO sensor
- 3SK112 Advanced

DIP switch			
1	2	3	4
OFF left	ON right	OFF left	—
PL in accordance with ISO 13849-1			e
Safety Integrity Level (SILCL) to IEC 61508			3

SIRIUS 3TK2 to 3TK1 conversion chart

Previous Article No. 3TK28	New Article No. of the successor type 3SK1, only 22.5 mm wide	
	Standard version	Advanced version
3TK282...		
3TK2820-1CB30	3SK1111-1AB30	3SK1121-1AB40
3TK2821-1CB30	3SK1111-1AB30	3SK1121-1AB40
3TK2821-2CB30	3SK1111-2AB30	3SK1121-2AB40
3TK2822-1CB30	3SK1111-1AB30	3SK1121-1AB40
3TK2823-1CB30	3SK1111-1AB30	3SK1121-1AB40
3TK2824-1AL20	3SK1111-1AW20	3SK1121-1AB40 + 3SK1230-1AW20
3TK2824-1BB40	3SK1111-1AB30	3SK1121-1AB40
3TK2824-1CB30	3SK1111-1AB30	3SK1121-1AB40
3TK2825-1AJ20	3SK1111-1AW20	3SK1121-1AB40 + 3SK1230-1AW20
3TK2825-1AL20	3SK1111-1AW20	3SK1121-1AB40 + 3SK1230-1AW20
3TK2825-1BB40	3SK1111-1AB30	3SK1121-1AB40
3TK2825-2BB40	3SK1111-2AB30	3SK1121-2AB40
3TK2827-1BB40	--	3SK1121-1CB42
3TK2827-1BB41	--	3SK1121-1CB41
3TK2828-1BB40	--	3SK1121-1CB42
3TK2828-1BB41	--	3SK1121-1CB41
3TK283...		
3TK2830-1AL20	3SK1211-1BW20	3SK1211-1BB40
3TK2830-1CB30	3SK1211-1BB40	3SK1211-1BW20
3TK2830-2CB30	3SK1211-2BB40	3SK1211-2BB40
3TK2834-1BB40	--	3SK1121-1AB40
3TK284...		
3TK2840-1BB40	3SK1112-1BB40	3SK1122-1AB40
3TK2841-1BB40	3SK1112-1BB40	3SK1122-1AB40

Functional Safety

Our support

At Siemens we offer you an effective means right from the start of preventing faults inherent in processes and of keeping an efficient, verified record of functional & operational safety. Through inspections, documentation, consulting and defining remedial measures, we assist you in meeting the current safety requirements most effectively.

Verification
Hazard and risk assessment
Design and engineering
Installation and startup
Operation and maintenance
Modernisation and upgrade
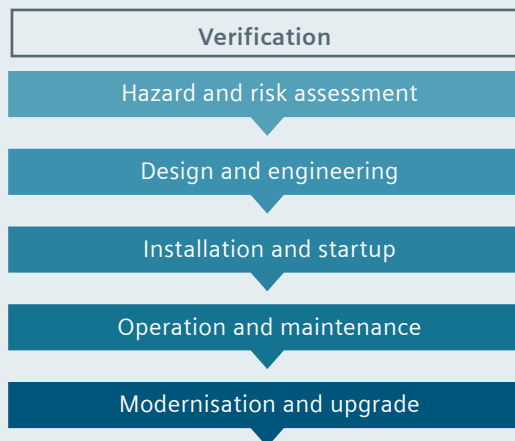
Support from Design to Upgrade

At Siemens we know the topic of functional safety involves much more than just installing SIL certified hardware and software components. It requires expert knowledge that is up-to-date with the latest technologies, standards and guidelines:

- Before creating a machine, the machine manufacturer carries out a risk analysis while observing all of the relevant standards. This shows what risks the machine poses and how they must be countered
- The risk analysis reveals which components are needed for making the hazardous zones safe. The safety must be verified so that the machine receives its CE marking
- The operator must observe the occupational health & safety guidelines – as well as the documentation for following the machinery directive (supply of machinery safety regulations) that the machine manufacturer must produce
- If maintenance is required, it must be performed quickly in order to keep downtimes and standstills as short as possible. If a fault does occur, it must be eliminated as soon as possible or with only the shortest possible interruptions
- In order to bring existing plants up to the state of the art of safety engineering, expansion or modernisation measures are necessary

Our Range of Services

- Management and assessment of functional safety and audits
- Planning and design of the SLC (safety plan)
- Hazard and risk assessment (EN ISO 12100)
- SIL /PL assessments
- Safety Requirements Specification (SRS)
- Support in planning and design of controls
- Assessment of safety logic programming against best practice
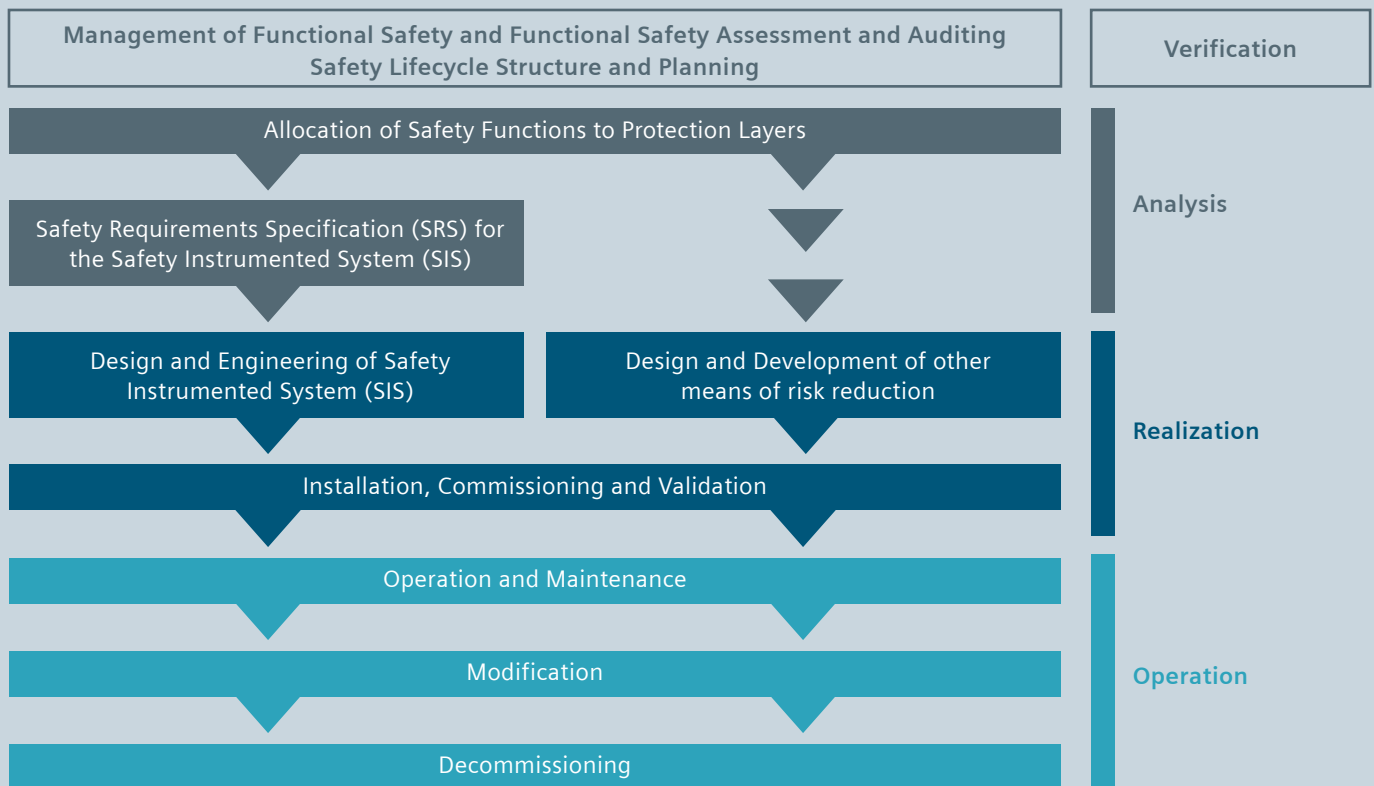- Verification (e.g. SIL verification, H/W & S/W audit)

Benefits

- Standardised processes for faster and safer project implementation and commissioning
- Comprehensive package of services from risk identification and verification to plant start-up and modernisation.
- Uniform verification and validation documentation
- Independent competent team
- Detailed safety application examples

*For more information contact us at safetyintegrated.uk.gb@siemens.com

Safer Plants are more Profitable Plants*

Management of Functional Safety and Functional Safety Assessment and Auditing Safety Lifecycle Structure and Planning	Verification
Allocation of Safety Functions to Protection Layers	Analysis
Safety Requirements Specification (SRS) for the Safety Instrumented System (SIS)	
Design and Engineering of Safety Instrumented System (SIS) / Design and Development of other means of risk reduction	Realization
Installation, Commissioning and Validation	
Operation and Maintenance	Operation
Modification	
Decommissioning	

At Siemens, we recognise that Functional safety is about more than just installing SIL-certified hardware and software components. It requires expert knowledge that is up-to-date with the latest technologies, standards and guidelines.

Plant operators who use Safety Instrumented Systems (SIS) to help reduce risk – including chemical plants, refineries and combustion facilities – must implement a system for the management of functional safety, to ensure that they have reduced risk to and acceptable level.

We understand the importance of effective Functional Safety Management (FSM). By ensuring that all Safety Lifecycle phases are properly planned, undertaken and verified we can be certain that the desired safety integrity level (SIL) targets are met. We can provide a range of services to help you implement a functional safety management system or to identify and address gaps in your existing systems. We can also provide additional technical expertise to help identify hazards, analyse risk and assess SIL requirements.

Our Range of Services

- Management and assessment of functional safety and audits
- Planning and design of the Safety Lifecycle (safety planning)
- Hazard and safety assessment facilitation (HAZID, HAZOP)
- Allocation of safety functions to protection layers
- SIL Assessments (Risk Graph, LOPA)
- Safety Requirement Specifications (SRS)

Benefits

- Standardised processes for faster and safer project implementation and commissioning
- Uniform verification and validation documentation
- Interdisciplinary team of experts with process and automation know-how leading to reduced development time and costs.
- Tailor-made safety concepts giving accelerated plant acceptance

Errors which are not identified in the early stages of a project are often very complex and expensive to correct later on. We can help you avoid systematic errors in all project phases with our standardised engineering guidelines and verification templates.

Failsafe products

AS-interface: Simple, safe and uniform

- Industrial communication with the AS interface field bus IO system
- Waterproof system solutions (IP65/67)
- Easy assembly
- Failsafe technology integrating seamlessly up to PL e/ SIL 3 / Cat.4

Designs and comprehensive technical information about AS interface and ASIsafe can be found:
- In the Industrial Communication catalogue: IKPI 2015, section 6
- In the Safety Integrated catalogue: SI 10 2014
- On the internet: www.siemens.nl/AS-interface

Failsafe motor management system*
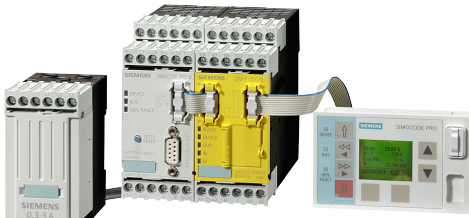
SIMOCODE-pro V 3UF7: Complete motor management system with integrated failsafe technology

- Motor control
- Thermal overload protection
- Integration of failsafe technology for safe motor disconnection up to PL e / SIL 3 / Cat.4

Designs and comprehensive technical information about SIMOCODE can be found:
- In the Industrial Control catalogue: **IC 10 2017**

SIMATIC failsafe controllers*

SIMATIC automation system with integrated failsafe technology:

- Standard and failsafe automation in one PLC up to PL e/ SIL 3
- Failsafe HMI panels
- Failsafe communication, even via WLAN
- Use of open-standard field buses PROFIBUS and PROFINET

Designs and comprehensive technical information can be found:
- In the Safety Integrated catalogue: **SI 10 2014**

SINAMICS failsafe drives*

SINAMICS drive technology with integrated failsafe functionality

- Failsafe functionality fully integrated in drive up to PL d/ SIL 2
- Sensorless/encoderless measuring principle
- Single or multi-axis control
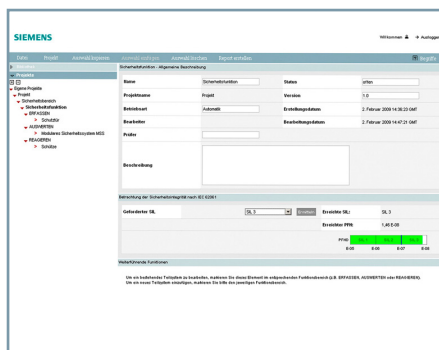- Use of open-standard field buses PROFIBUS and PROFINET

Designs and comprehensive technical information can be found:
- In the Safety Integrated catalogue: **SI 10 2014**

*For the latest information, visit the Industry Mall: www.siemens.com/industrymall/gb

Safety tool, functional examples & B10 values

Safety Evaluation Tool: Safe machine concepts without detours


Safety Evaluation Tool: Online SIL (EN 62061) and PL (EN ISO 13849) calculation for safety functions

Siemens offers you, as an engineer and plant manager, a free online tool with which you can calculate the safety of your machine's safety functions in accordance with **EN 62061** and **EN ISO 13849-1**. At the same time, this TÜV-certified online tool allows you to comprehensively document the calculated data.

For more information, or to get going immediately with the Safety Evaluation Tool, go to: **www.siemens.com/safety-evaluation-tool**

Functional connection examples for machine safety applications (Functional Examples)
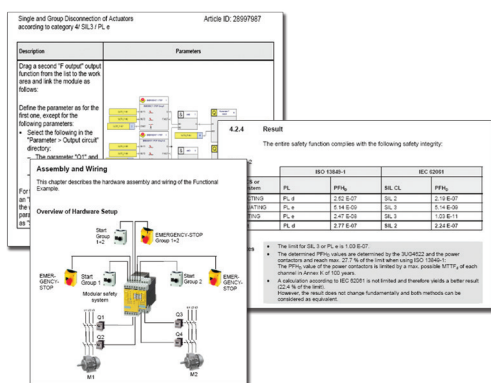
Siemens makes designing easy with fully worked-out examples of machine safety applications

The Functional Examples comprise of:
- Description of the safety function
- Hardware structure and software program
- Connection diagrams
- Fully worked-out and motivated SIL and PL calculations of the safety function.

For further functional connection examples (downloadable) please visit our machine safety website: **www.siemens.co.uk/safety** and look under 'Functional Examples'.

B10 values of SIRIUS components

Comprehensive information about machine safety standards can be found in the brochure: "Functional safety of machines and production plants - Simple implementation of the European Machine Directive". For more information about standards, you can also visit our special site for machine safety: **www.siemens.co.uk/safety**

SIRIUS – standard B10 values of electromechanical components
Electromechanical components are subject to wear and tear. The risk of failure of electromechanical components can be calculated with the B10 value and the operating cycle. The B10 value is expressed in the number of switching cycles. This is the number of switching cycles during which 10% of the specimens failed during a durability test.

In accordance with ISO 13849-2 (annex D), ISO/FDIS13849-1:2005 (annex C) and EN62061 (annex D, failure rates of electrical/electromechanical components) the B10 values must be defined for electromechanical components.

Siemens SIRIUS product group Electromechanical components)		Normal B10 values (switching cycles)	Percentage dangerous failure
Emergency stop switches (with mechanically forced break contacts)	Turn to unlatch	100,000	20%
	Pull to unlatch	30,000	20%
Cable-operated switches for emergency stop function (with mechanically forced break contacts)		1,000,000	20%
Standard position switches (with mechanically forced break contacts)		10,000,000	20%
Position switches with separate actuator/key switch (with mechanically forced break contacts)		1,000,000	20%
Position switches with electromagnetic locking (with mechanically forced break contacts)		1,000,000	20%
Hinge switches (with mechanically forced break contacts)		1,000,000	20%
Pushbutton switches (with mechanically forced break contacts)		10,000,000	20%
Contactors/motor starters (with mechanically linked or mirrored contacts)		1,000,000	20%

ZST 1117