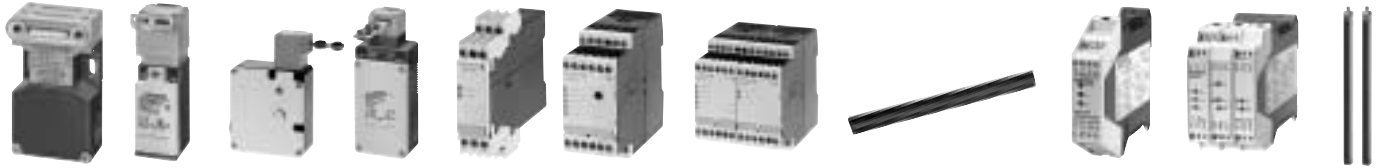


	E-Stop Push Button 3SB3	SIGUARD Two-Hand Control Panel 3SB38	SIGUARD Rope Pull Switches 3SE7	SIGUARD Magnet Switches 3SE6	Standard Limit Switches	Hinge Switches
Application	E-Stop control circuits	Two-hand press control circuits	Conveyor line monitoring (E-Stop)	Protected doors	Protected doors; machinery movement monitoring	Hinged or flapped door protection
Common Business Segments	All	Press industry	Automotive, conveyor industry	Food & beverage and printing industry	Robot, machine tool, packaging and processing industry	Packaging, machine tool industry, moulding machines
Product Range	Metal or plastic enclosed design NC and NO contact blocks 22mm mounting diameter	Metal or plastic enclosed housings for robust environment Mounting rack Connectable to 3TK28 34 safety press control relays	Metal and plastic (EN 50041 and EN 50047) enclosed housings Single or double side actuation NO/NC and NC/NC contacts	3 different sensor designs Two safety relay units for connecting up to 8 sensors	Metal or plastic design Different actuation heads Different varieties of NC and NO contacts	Metal enclosures Actuation heads for flapped or hinged doors NC/NO and NC/NC contacts
Specific Product Features	E-Stop mushroom shaped push button with push-pull or twist release Single person installation NC contact blocks with direct opening action	Pre-assembled with two control buttons and one E-Stop push button Ground, wall or rack mounting Ergonomical, manipulation-safe design acc. EN 60574	Up to 50m (single) and 2x50m (double) rope length Command on pulled or released wire Complete line of installation accessories Makes E-Stop accessible from everywhere	Coded sensors, prevent manipulation Minimized housing dimensions 2 safety (NO) outputs & 1 signalling (NC) output at each evaluation unit Self-monitoring	Metal and plastic enclosed housings acc. EN 50041 and EN 50047 dimensions	Tamper resistant mounting
Restart Control	Twist or pull release	Twist release for E-Stop Simultaneous push button actuation within 0.5s	Key, pull or push release	Start monitored by safety relay unit	Start monitored by safety relay unit	Start monitored by safety relay unit
Degree of Protection	IP67 (metal), IP66 (plastic)	IP67 (metal), IP65 (plastic)	IP65	IP67 (sensors)	IP67, IP66	IP66
Accessible Category (EN 60954-1)	Category 4 with two separated NC contact blocks	Type 4 acc. EN 60574 for appl. up to Category 4	Up to Category 4 with 2NC contacts	Up to Category 3 combined with 3SE6 relay unit	Up to Category 4 with 2NC contacts; 2 switches to be used when redundancy is required	Up to Category 4 with 2NC contacts
Safety Contact Characteristics	Direct opening NC contacts acc. to IEC 60947-5-1	Direct opening NC contacts acc. to IEC 60947-5-1	Direct opening NC contacts acc. to IEC 60947-5-1	Mechanical linked contacts acc. to IEC 60947-5-1 w/ direct opening action	Direct opening NC contacts acc. to IEC 60947-5-1	Direct opening NC contacts acc. to IEC 60947-5-1
Approvals	UL, CSA, CE BIA	UL, CSA, CE BG	UL, CSA, CE	UL, CSA, CE BG	UL, CSA, CE	UL, CSA, CE
Reasonable Product (Type B) Standard	Latching acc. EN 60418	Design acc. EN 60574, EN 60999	Latching acc. EN 60418	DIN VDE 0660-209	EN 61088	EN 61088
Catalog Section	Refer to Page 495	Refer to catalog SFPC-02000	Page 726	Refer to catalog SFPC-02000	Refer to Page 663	Refer to catalog SFPC-02000



Limit Switches With Separate Actuator	Interlocking Switches	SIGUARD E-Stop Safety Relays	SIGUARD Press Control Safety Relays	SIGUARD Safety Edges 3RG78 5	SIGUARD Light Curtains 3RG78 4
Universal door protection	Interlocking protection for protected doors	Evaluation units for E-Stop and protective door safety circuits providing control reliability and fault detection	Evaluation unit for two-hand control and over travel monitoring at presses	E-Stop protection against collisions with automatically operated machine parts like machine cabin doors, robots etc.	Optical access control for hazardous areas
Packaging, machine tool industry, molding machines	Automotive, metal processing industry	Press industry, machine tool industry, packaging	Press industry	Machinery industry	Press industry, automotive, robot perimeter protection
Metal and plastic enclosed design acc. EN 50041 and EN 50047 31mm, 40mm and 52mm body Different actuation keys NC/NO or NC/NC contacts	Metal and plastic enclosed design Solenoid forced or spring forced locking mechanism Different NC/NO and NC/NC contact pairs for solenoid and actuator monitoring 90mm or 56mm body	4 basic units 22.5mm; 2 basic units 45mm and 1 expansion unit with LED Auto or manual start Instant or time delayed safety enabling contacts Non-safe monitoring contacts Different voltages (24V, 120V and 230V) for AC and DC power supply	1 two-hand control unit plus 1 over travel monitor with a width of 45mm Usage in compliance with 3SB38 two-hand control panel	Optical transmitter and receiver units for different ranges up to 10m Aluminum mounting profile Rubber profile Safety relay unit with 2 NO safety contacts and 1 signalling contact for direct connection	Transmitter and receiver unit with 14mm, 30mm and 50mm resolution; Heights from 150mm up to 3000mm Host and guest units for serial connection available Various accessory kits such as reflecting mirrors, diagnosis software tool and laser alignment tool Two safety relay units for standard or muting operation
Metal and plastic enclosures Separate coded actuator, tamper resistant Flexible actuators for low angle actuation	Heavy duty metal housing and small plastic enclosure Separate coded actuator, tamper resistant Integrated electromagnetic interlocking Manual sealed or key release opportunity Flexible actuators for low angle actuation	35mm DIN rail snap mounting Self-monitoring Feedback circuit for contactor monitoring Delayed enabling contacts from 0.055s to 30s Expansion unit to connect on each basic relay device (providing 3 more safety outputs with each expansion unit) Two product lines with relays or contactors used	35mm DIN rail snap mounting Self-monitoring	Sender/receiver unit fits easily to the rubber profile All lengths customizable up to 15m – easy to cut Self-monitoring	Different resolutions for finger, hand, limb and body detection Robust housing Self-monitoring and self-checking Diagnosis via LCD display and software tool Immune to electrical interferences, ambient light and welding projections Two different transmission channels for disturbance-free operation of machines in the vicinity Simple connection via plug-in connector
Start monitored by safety relay unit	Start monitored by safety relay unit	Manual or auto start	Auto start, controlled by two-hand control unit	Start monitored by safety relay unit	Manual or Auto start controlled by safety relay unit
IP67, IP65	IP67, IP65	IP40 (enclosure), IP20 (terminals)	IP40 (enclosure), IP20 (terminals)	IP67 (sensor), IP20 (relay unit)	IP65 (sensor), IP20 (relay unit)
Up to Category 4 with 2NC contacts; 2 switches to be used when redundancy is required	Up to Category 4 with 2NC contacts; 2 switches to be used when redundancy is required	Category 3 or Category 4; Category 3 for delayed outputs	Category 4	Category 4 with 3RG78 5 safety relay unit	Type 4 acc. EN 61496 for appl. up to Category 4 w/ 3RG78 4 safety relay units
Direct opening NC contacts acc. to IEC 60947-5-1	Direct opening NC contacts acc. to IEC 60947-5-1	Mechanical linked contacts acc. to IEC 60947-5-1	Mechanical linked contacts acc. to IEC 60947-5-1	Mechanical linked contacts acc. to IEC 60947-5-1	Mechanical linked contacts acc. to IEC 60947-5-1 w/ direct opening action
UL, CSA, CE, BG, BIA	UL, CSA, CE, BG, BIA	UL, CSA, CE, BG, BIA, SUVA	UL, CSA, CE, BG, BIA, SUVA	UL, CE, BG	UL, CSA, CE, BIA, TUV
EN 61088	EN 61088	EN 954-1	EN 954-1	EN 61760-2	Optical protective device acc. EN 61496-1 and 2
Page 725	Page 726	Page 723	Page 723	Refer to catalog SFPC-02000	Page 722