



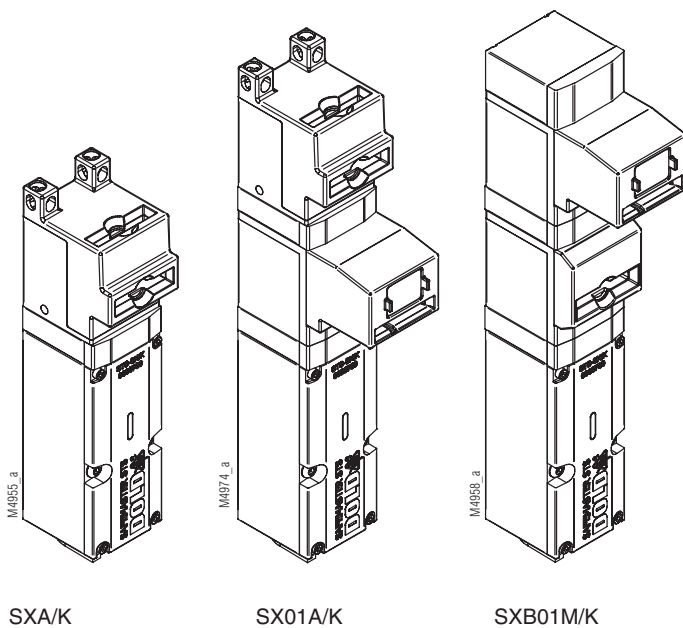
### STS/K-System Benefits

- EU-Test certificate according to the directive 2006/42/EG, annex IX
- For safety applications up to PLe/Category 4 according to EN/ISO 13849-1
- Modular and expandable system
- Rugged stainless steel and plastic design
- Wireless mechanical safeguarding
- Combines the benefits of safety switch, locking module and key transfer in a single system
- Easy installation through comprehensive accessories
- Protection against lock-in
- Coding level low, medium, high according to DIN EN ISO 14119:2014-03

### Features

- Switch module for monitoring actuator and key position
- Module expansions possible only above the module
- With integrated LEDs for status indication
- Optional single-channel / redundant / diverse switch-off possible
- This module is also available in stainless steel

### Installation Examples



### Approvals and Markings



### Application

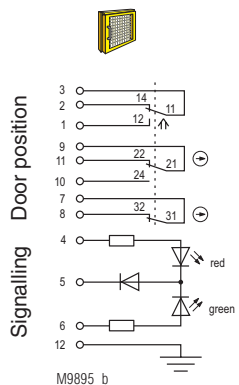
Switch modules SX/K is assembled together with other modules into a STS/K unit. They are used to secure separating guards by switching off hazardous movements. It must be ensured here that when the switch is being actuated the hazard will be stopped and/or the entries will be unlocked.

### Design and Operation

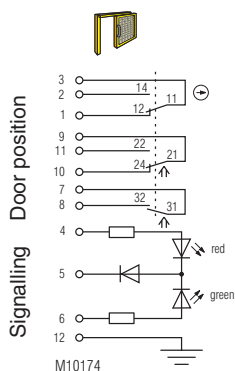
Switch module SX/K is a rugged and flexible switch module monitoring the safe position of one or several entries, e.g. protective hood or door, in the system. For this purpose the modules are used in connection with other mechanical STS/K modules, e.g. actuator modules B/K, key modules 01/K, R1/K and 01S/K and/or padlock module V/K. The key and padlock modules can be installed either above or below the actuator module used.

The switch module can also be used to only release keys in a key interlock system without an actuator module. This function is applied in key interlock systems with central shut-off or where the shut-off must take place outside the system, for instance in Ex zones, with strong vibration or dirt build-up, etc.

Optionally, 1-channel redundant or diverse shut-off is possible.



**Fig. 1:**  
Locked while activated:  
Actuator and key inserted,  
Door closed



**Fig. 2:**  
Lock deactivated:  
Actuator removed  
Door open

Switching logic

			<b>Fig. 1</b>	<b>Fig. 2</b>
Door contacts	3	2		
	3	1		
	9	11		
	9	10		
	7	8		

closed  
 open

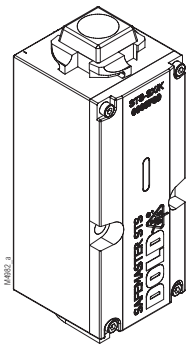
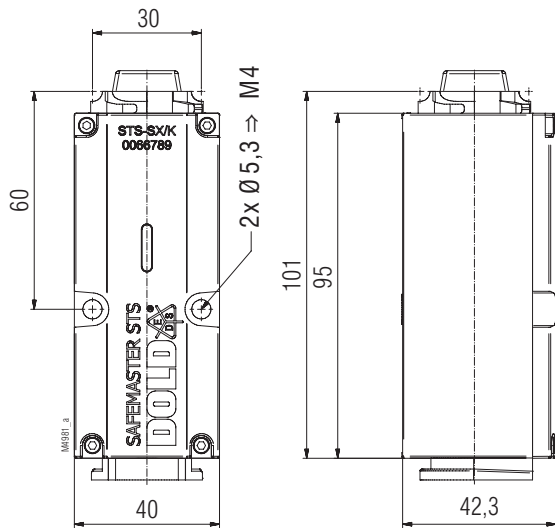
Enclosure:	PA + GF
Internal parts and inserting slots:	Stainless steel V4A / AISI 316
Degree of protection:	IP 65
Temperature range:	- 25 °C to + 40 °C
Storage temperature:	- 25 °C to + 60 °C
Mechanical principle:	Rotating axis with redundant actuator
Connection method:	Cage clamp terminals
min. connection cross-section:	0.25 mm <sup>2</sup>
max. connection cross-section:	0.75 mm <sup>2</sup>
Cable entry:	1 x M20 x 1.5
B10 <sub>d</sub> :	2 x 10 <sup>6</sup> switching cycles
Electrical service life:	5 x 10 <sup>6</sup> switching cycles
min. operating speed:	100 mm/s
max. operating speed:	250 mm/s
max. switching frequency:	360/h
Nominal voltage U <sub>N</sub> :	AC/DC 24 V
Nominal voltage range:	0.85 ... 1.1 U <sub>N</sub>
Power consumption:	0.3 W
Rated impulse voltage:	0.8 kV
Rated insulation voltage:	≤ 50 V
Overtoltage category:	III
Pollution degree:	2
max. operating current:	2 A
Contacts:	1 NC contact, 2 diverse changeover contacts
Switching principle:	Changeover contact with forced-opening snap-action switch
Utilization category of switching elements	
to AC 15:	1 A
to DC 13:	0.5 A
Short circuit strength, max. fusing:	2 A gG
Contact material:	Ag / AgSnO <sub>2</sub>
Indicator:	LED red/green, separate selection possible
Test principles:	EN ISO 13849-1:2008 DIN EN ISO 14119:2014-03 EN 60947-5-1:2005 GS-ET-15:02.2011 GS-ET-19:02-2011 GS-ET-31:02-2010
Intended use:	up to max. cat. 4, PL e according to EN ISO 13849-1
Mounting:	according to DIN EN 50041
Contact elements:	IEC EN 60947-5-1 Appendix K
Diagnostic coverage (DC):	see data sheets STS basic units and STS design guide
Protection against faults of common cause:	see table in STS design guide
Repair and replacement:	by manufacturer only
Test intervals:	
for PL a to d:	min. once a year
for PL e:	min. once a month

**ATTENTION !**



To avoid wrong usage (e.g. by overload, mounting position or usage in acid, alkaline or other hostile ambient conditions) the limitations of the product have to be observed. Please check in advance if your application requires the usage of the more robust stainless steel model of SAFE-MASTER STS. The requirements of the mounting and operating instruction must be fulfilled.

## Dimension [mm]



## Variants and Accessories

Switch modules RX/K

For applications where the key modules 10/K, 10S/K or actuator module K/K shall be installed above the switch module, version RX/K is available. For more information, refer to the data sheet for switch modules RX/K.

## Ordering Designation

Switching module SX/K  
Article number: 0066789

