






Safety door switches with stainless steel head or full stainless steel body

This safety door switches use a stainless steel head or even a full stainless steel body to increase the robustness.






- 2NC/1NO or 3NC contacts
- Key entry turnable to back side
- 4 key insertion positions
- 3 M20 conduit entries
- Positive break contacts (to IEC 60947-5-1)

Ordering information

Switches

Type	Housing	Conduit	Contacts	Order code
	Plastic body with metal head	M20	2NC/1NO Slow action	F3S-TGR-KM15-21
			3NC Slow action	F3S-TGR-KM15-30
	Plastic body with metal head		2NC/1NO Slow action	F3S-TGR-KM16-21
			3NC Slow action	F3S-TGR-KM16-30
	Full stainless steel body		2NC/1NO Slow action	F3S-TGR-KH16-21
			3NC Slow action	F3S-TGR-KH16-30

Keys (order separately)

Type		Order code
for metal head		F39-TGR-KAM
Horizontal mounting		F39-TGR-KF
plastic flexible		F39-TGR-KPF
heavy flexible		F39-TGR-KHF
hygienic flexible		F39-TGR-KHFH

Accessories

Item	Remarks	Order code
M20 Gland	Stainless steel 316 for F3S-TGR-KH16 types	F39-TGR-M20
Mounting screws	Set of Torx safety screws (M4, 4 × 30 mm, 4 × 20 mm, 4 × 10 mm; incl. washers and Torx bit)	F39-TGR-N-SCREWS

Specifications

Item	F3S-TGR-KM15	F3S-TGR-KM16	F3S-TGR-KH16
Standards	EN1088, IEC 60947-5-1, EN 60204-1, UL508 EN ISO 13849-1: up to PLe ^{*1} EN 62061: up to SIL3 ^{*1}		
Mechanical reliability B10d	2.5 × 10 ⁶ operations at 100mA load		
PFHd	3.44 × 10 ⁻⁸		
Proof test interval (Life)	35 years		
MTTFd	356 years		
Utilization category	AC15 A300 3 A		
Thermal current (Ith)	5 A		
Rated insulation/Withstand voltages	500 VAC/2,500 VAC		
Rated travel for positive opening	8 mm		
Actuator entry minimum radius	175 mm standard, 100mm flexible		
Maximum approach/Withdrawal speed	600 mm/s		
Body dimensions (W × H × D)	54 × 88.4 × 34.5 mm	58 × 100.4 × 34.5 mm	58 × 103.5 × 39.5 mm
Fixing	2 × M5, 40 mm distance	4 × M5, 40 mm distance	
Conduit entry	M20		
Material	Body	Polyester	
	Head	Stainless steel 316	
Enclosure Protection	IP67		
Temperature Range	-25 to 80°C		
Vibration	IEC 68-2-6, 10-55 Hz +1 Hz, Excursion: 0.35 mm, 1 octave/min		

*1 Depending upon system architecture