



## Ex position switch Ex ES 97 TK-11 -60°C Material number: 1415038

### Features/Options:

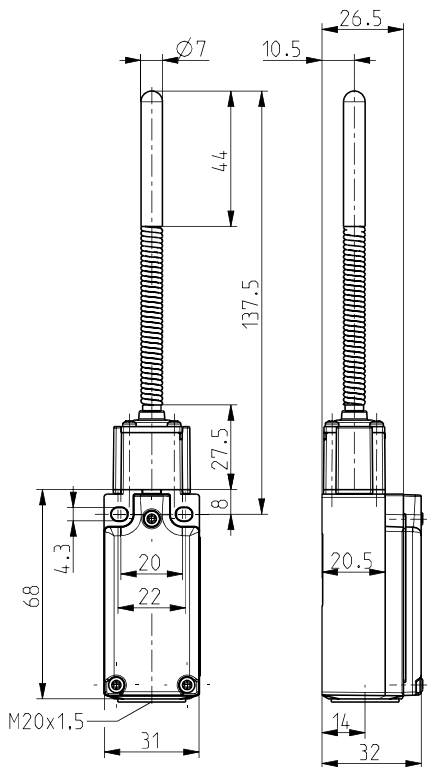
- Ex zone 1 and 21
- Thermoplastic enclosure
- Cold-resistant down to -60 °C
- High degree of protection IP 66 / IP 67 / IP 69
- Design to EN 50047

- Wiring compartment
- Double insulated
- Actuator: Spring rod with plastic tip TK

### Notes

- 1 Ex"e" cable gland M20x1.5 included in delivery

### Dimensions



### Technical data


Applied standards	EN 60947-5-1, EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31
Enclosure	thermoplastic, glass-fibre reinforced, impact resistant, self-extinguishing UL 94 V-0
Cover	thermoset, glass-fibre reinforced, impact resistant, self-extinguishing UL 94 V-0
Sealing	silicone
Tightening torque	cover screws: 0.4 ... 0.45 Nm connecting thread of cable gland: max. 2 Nm cap nut of cable gland: max. 5 Nm
Degree of protection	IP 66 to EN 60079-0 + IEC/EN 60529 (... -60 °C) IP 67 to EN 60079-0 + IEC/EN 60529 (... -20 °C) IP 67 / IP 69 to IEC/EN 60529 IP 69K to ISO 20653
Switch insert	1 x 8080/1-1
Contact material	Silver, nickel-plated
Switching system	slow action
Switching elements	1 NC/1 NO contact, type Zb
Connection	screw connection terminals
Cable cross-section	min. 0,75 mm <sup>2</sup> / AWG 18, max. 1,5 mm <sup>2</sup> / AWG 16, incl. conductor ferrules
Cable entry	M20 x 1,5; screwing depth max. 9 mm; use only Ex approved and certified cable glands with min. degree of protection IP 66 and suitable for the specified ambient temperature range
Clamping range	7 ... 12 mm

Errors and omissions excepted.

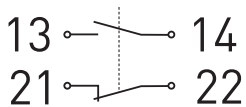


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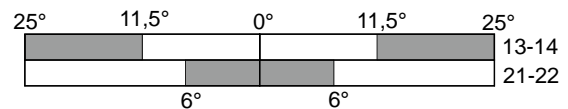
## Technical data

Utilisation category	AC-15
Rated operating current $I_e$	max. 2 A or 4 A <input type="checkbox"/>
Rated operating voltage $U_e$	max. 500 VAC, max. 250 VAC for unequal potential
Degree of pollution	3
Mechanical life	> 1 million operations
Impact energy	max. 7 J
Temperature class	T6
Ambient temperature	-60 °C ... +55 °C max. 4 A, +60 °C max. 2 A
Short-circuit protection	2 A / 4 A gG/gN fuse
Ex marking	<p>⊕ II 2G Ex db eb IIC T6 Gb,          ⊕ II 2D Ex tb IIIC T80 °C Db          IECEX Ex db eb IIC T6 Gb,          Ex tb IIIC T80 °C Db</p>
Approvals	<p>BVS 16 ATEX E 052          IECEX BVS 16.0052</p> 
Weight	123 g

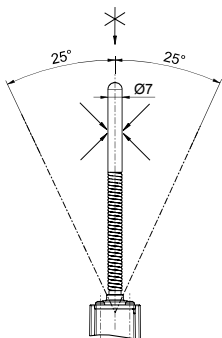
## Contact diagram



## Switching diagram



## Switching angle



Errors and omissions excepted.