

Position switch with safety function

Z/T 196



Possible applications

Applications in elevators for:

- Elevator and escalator safety switches, e.g. hydraulic buffers, rope tension monitoring, over-travel.

Further applications:

- Applications in series-assembly providing optional pre-assembled switches with cable or standard connectors.

The Z/T 196 series offers position switches with safety function. The range occupies less space than a normal DIN-switch but offers the same mounting dimensions. Especially in safety circles of elevator construction the flat design offers new possibilities. Standard connectors as AMP positive lock, blade terminals 6, 35 x 0,8 mm or M12 x 4-pin female connector provide quick and economic assembly and exchangeability.

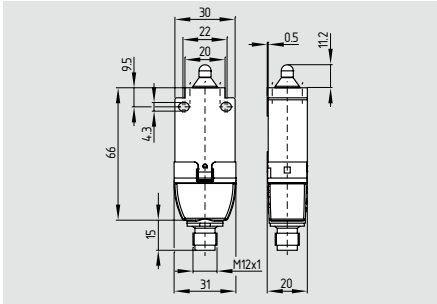
Alternatively the switch can be ordered prewired with standard or custom length cables in three possible cable entry positions to suit your application. Furthermore, a varied choice of actuators can be used in conjunction with the switch, which opens up an even wider variety of applications.



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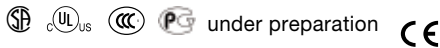
Position switches

Z/T 196



- Four connection alternatives: AMP positive lock plug, blade terminals 6,35 x 0,8 mm, standard 4-pin connector M12 or prewired with optional cable length
- Connector M12 or cable entry in 3 alternative positions
- Various actuator possibilities
- Switching elements: 1 NC contact / 1 NO contact (also changeover contacts possible, max. 2 contacts either NC or NO)
- Snap action (ref: Z) or slow action (ref: T) switches available
- Mounting details to DIN EN 50047
- Requires minimal space

Approvals



Ordering details

①② 196-③④⑤⑥⑦

No.	Option	Description
①	Z	Snap action ⊖
	T	Slow action ⊖
②	S	Plunger S
	R	Roller plunger R
	3K	Angled lever 3K
	V14H	Roller lever V14H
③	11	1 NO / 1 NC contact
	02	2 NC contacts
	20	2 NO contacts
④	UE	Changeover contacts
⑤	ST	Connector M12
	L	Prewired cable
⑥	1, 2, 3	Central, right, left position
⑦	1,5, 2,5, 3,5	Cable length 1,5, 2,5, 3,5 m

Technical data

Standards: IEC/EN 60947-5-1, BG-GS-ET-15

Material of the housing: glass-fibre reinforced thermoplastic, self-extinguishing

Standard prewired cable length: 1,5 m, 2,5 m, 3,5 m (other lengths on request)

Protection class: IP 67
Contacts: max. 2 NC (optional 1 NC / 1 NO or 2 NO)

Switching system: ⊖ IEC 60947-5-1 Snap- or Slow Action

U_{imp} : 4 kV
 U_i : 300 V
 I_{the} : 6 A
 U_e : 300 V
Utilisation category: AC-15 / DC-13
 I_e/U_e : Snap action 6 A / 250 VAC, 4 A / 24 VDC
Slow action 8 A / 250 VAC, 5 A / 24 VDC

Max. fuse rating: Snap action 6 A gG D-fuse
Slow action 10 A gG D-fuse

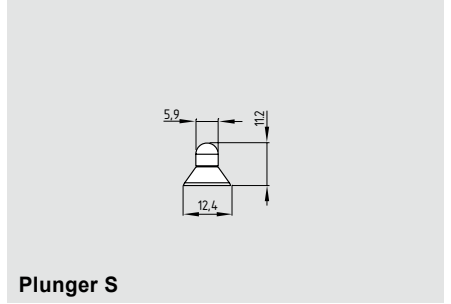
Ambient temperature: -25 °C ... +80 °C
Mechanical life: 10 million operations

Safety classification:

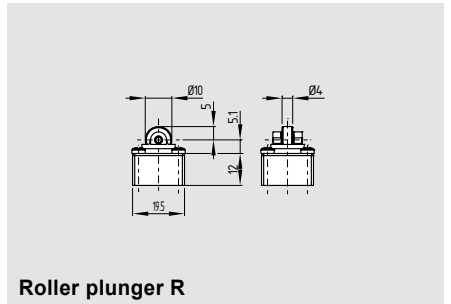
Standards: EN ISO 13849-1
 B_{10d} Normally closed contact (NC): 20.000.000
 B_{10d} Normally open contact (NO) at 10% I_e and ohmic load: 1.000.000
Service life: 20 years

$$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}} \quad n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{cycle}}$$

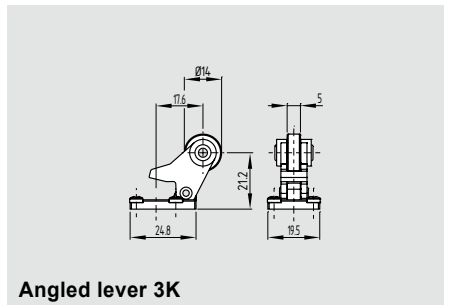
Actuator



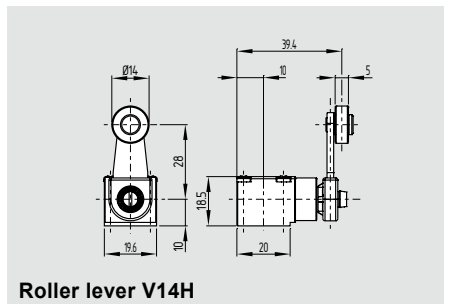
Plunger S



Roller plunger R



Angled lever 3K



Roller lever V14H

Note

Further technical information can be found in the Schmersal catalogues or in the online catalogue on the Internet: www.schmersal.net.



K.A. Schmersal GmbH
Industrielle Sicherheitssysteme

Mödinghofe 30
D-42279 Wuppertal
Postfach 24 02 63
D-42232 Wuppertal

Telefon +49 - (0)2 02 - 64 74 - 0
Telefax +49 - (0)2 02 - 64 74 - 1 00
E-Mail info@schmersal.com
Internet www.schmersal.com