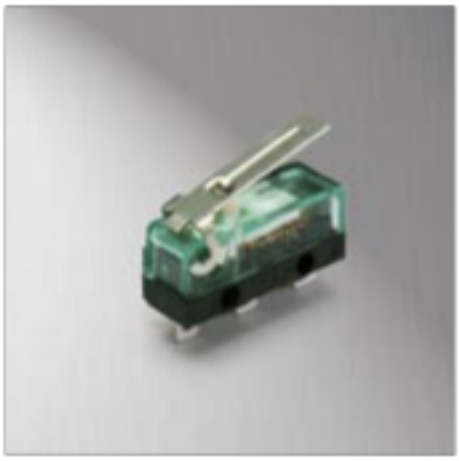
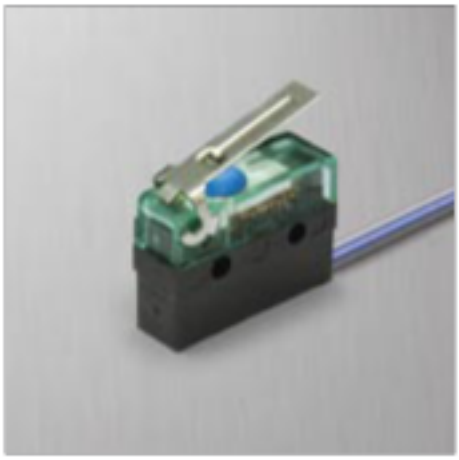
SCHALTBAU

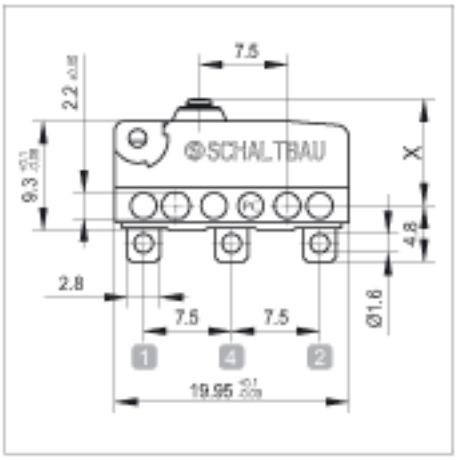
Connect · Contact · Control

Snap-action switches with positive opening operation

S880 Series







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Snap-action switches with positive opening operation, S880 Series

S880 Series snap-action switches feature positive opening operation, which guarantees that NC contacts will open reliably even when they have become welded due to short-circuits or overload currents. This makes them particularly suitable for all safety-related applications.

Features:

- V4 package snap-action switch with positive opening operation
- Many auxiliary actuator options
- Wiping contacts
- Snap mechanism highly resistant to shock and vibration

Applications:

Ideal for use in safety-related systems where miniaturization is important such as:

- Safety switches in medical technology, process automation, control units and systems
- Limit switches for machine and system control

Ordering code Example: **S880 W 1 G 6 a**

Series

Contact type

W	SPDT

Protection

	Contacts	Terminals
1	IP 40	IP 00
2	IP 60	IP 00
3	IP 67	IP 67*

Terminals

B	Leads attached on side opp. actuator, L = 500 mm
G	Solder terminals

Contact material

6	Silver (Ag/AgSnO$_2$)

Actuator options:

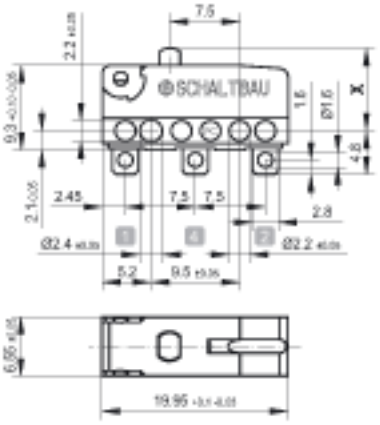
a	Pushbutton (standard)
k	Plain lever, short
r	Roller lever, long
t	Roller lever, short

* only in combination with terminal option B

Dimension and circuit diagram, Specifications

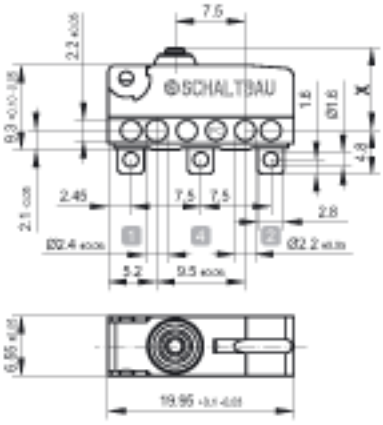
- **S880 W1G6 a**

SPDT, contacts sealed to IP40, terminals sealed to IP00, solder terminals, silver-plated contacts, no auxiliary actuator



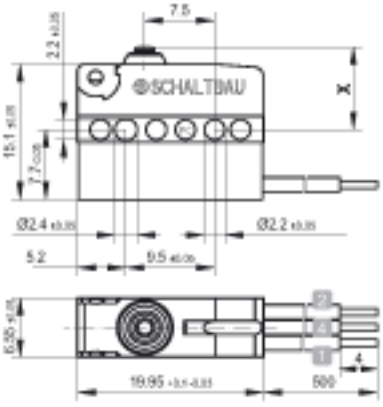
- **S880 W2G6 a**

SPDT, contacts sealed to IP60, terminals sealed to IP00, solder terminals, silver-plated contacts, no auxiliary actuator



- **S880 W3B6 a**

SPDT, contacts sealed to IP67, terminals sealed to IP67, leads attached on side opposite actuator, silver-plated contacts, no auxiliary actuator

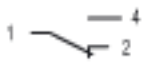


Actuator position	Actuator travel X
Free position	9.1 mm ± 0.15 mm
Operating position	8.4 mm ± 0.2 mm
Release position	8.55 mm ± 0.2 mm
Total positive opening travel	7.35 mm
Total travel position	7.15 mm, min.
Movement differential	0.15 mm (typical)

Note: *To ensure the proper working of the positive opening operation it is necessary to depress the plunger to the point of total positive opening travel. However, it must not be squeezed beyond total travel position.*

Mounting: Tightening torque of the screws is 0.2 Nm max.

- **Circuit diagram:**



Specifications*	S880
Contact configuration	1 SPDT
Conv. thermal current I_{th}	6 A (at T_U = 85°C)
Rated insulation voltage U_i	IP40 ▶ 125 V at PD3 IP40 ▶ 250 V at PD2 IP67 ▶ 250 V at PD3
Rat. imp. withstand voltage U_{imp}	2,5 kV
Overvoltage category	OV II
Contact material	Ag / AgSnO$_2$
Contact gap	1.1 mm typical
Contact force	0.2 N typical
Contact resistance, typical, without leads connected	100 mΩ max.
Utilization category	AC 15 230 V / 1.0 A DC 13 60 V / 0.5 A
Actuating force	2.0 N max.
Release force	0.15 N min.
Positive opening force**	15 N
Maximum actuator travel**	1.95 mm
Operating frequency	200 cycles/min max.
Vibration resistance (EN 60068-2-6) 10 ... 500 Hz all directions (at 10 µs maximum opening time)	50 g (no auxiliary actuator)
Shock resistance (EN 60068-2-27) at 10 µs maximum opening time	50 g (no auxiliary actuator)
Degree of protection (EN 60529)	Contacts IP40/IP60/IP67 Terminals IP00/IP67
Short-circuit protection	4 A gG (IEC 60269-2)
Mechanical endurance	1.5 million operating cycles
Ambient temperature T_a	IP40 / IP60: -40°C ... +85°C IP67: -25°C ... +85°C
Housing Pedestal	PC, green, transparent PC, black
Mounting position	any
Weight, no leads	1,5 g
Approvals pending	VDE C UL US CCC

* valid for new switches ** measured next to actuator

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Reduced scale diagrams / dimensions in mm

For updated product information visit www.schaltbau-gmbh.com.

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