

Pressure Switches 1.06" (hex 27mm)

Snap action micro-switch with silver or gold contacts



- High-quality micro-switch for reliable switching
- Switching point easy to adjust¹⁾
- Differential can be set in our factory²⁾
- Self-cleaning contacts for a long working life (only 250V versions)
- High overpressure safety
- Long working life under harsh operating conditions
- Connector plug or protective cap to protect against moisture and dirt, and thus easy replacement on site by service personnel
- Various thread connections available to suit your installation
- Ready-wired variants – see pages 34 – 37
- A choice of zinc-plated steel or stainless steel as body material and a selection of diaphragm materials ensure high resistance to media

¹⁾ Switches we have preset are secured with sealing paint and have the switching pressure stamped on their body.

²⁾ Except for series 0140 / 0141

Technical Data



	Max. Voltage			Max. current			Body material					
	24 V	42 V	250 V	50 mA	2 A	4 A	Gold contacts	Silver contacts	Adjustable Differential	Zinc-plated steel	Stainless steel 1.4305	DIN valve connector
0140 ^{*)}			•		•			•			•	
0141 ^{*)}			•		•			•			•	
0170		•				•		•	•	•		
0171		•				•		•	•	•		
0180 ^{*)}			•			•		•	•	•		
0181 ^{*)}			•			•		•	•	•		
0183			•			•		•	•	•		
0184 ^{*)}			•			•		•	•	•		•
0185 ^{*)}			•			•		•	•	•		•
0186 ^{*)}			•			•		•	•	•	•	
0187 ^{*)}			•			•		•	•	•	•	
0190	•			•			•		•	•		
0191	•			•			•		•	•		
0196	•			•			•		•	•	•	
0197	•			•			•		•	•	•	

*) For further details of switching performance, see page 7

Technical Data

Degree of protection:	IP65 with suitable connector installed Terminals IP00
Switching frequency:	200 / min.
Temperature stability for diaphragm/seal materials:	NBR (BunaN) -22 °F – +212 °F (-30 °C – +100 °C) EPDM -22 °F – +248 °F (-30 °C – +120 °C) FKM 23 °F – +248 °F (-5 °C – +120 °C) Silicone -40 °F – +248 °F (-40 °C – +120 °C) HNBR -22 °F – +248 °F (-30 °C – +120 °C)
Mechanical life expectancy:	10 ⁶ cycles (life expectancy of diaphragm pressure switches only for pressures up to max. 725 psi)
Vibration resistance:	10 g / 5 – 200 Hz sine-wave
Shock resistance:	294 m/s ² ; 14 ms half-sine-wave
Switching performance:	see page 7
Differential:	adjustable 10 – 30% (only at factory); type 0140/0141 not adjustable, standard value approx. 10 – 20%
Max. ramp rate:	≤ 15 psi / ms

CE Marking

Directives of the European Council

Machinery Directive,
EMC Directive
Low Voltage Directive
ATEX Directive

Equipment that falls under these directives must have a declaration of conformity and carry the CE marking.

SUCO pressure switches are electrical equipment and therefore fall under the Low Voltage Directive 73/23/EC.

An EC Declaration of Conformity has been prepared for all products that fall under these directives and is kept on our premises. The catalogue pages for the relevant switches carry the CE marking.

Electrical Data

info@suco-tech.com
330-722-1145
www.suco-tech.com

Rated operating voltage U_e	Rated operating current I_e	Utilization category	Model ranges:
250 volt AC 50 / 60 Hz	4 amp (2 amp)*	AC 12	0140 0141 0180 0181 0183 0184 0185 0186 0187
250 volt AC 50 / 60 Hz	1 amp	AC 14	
24 volt DC	4 / 4 amp (2 / 1 amp)*	DC 12 / DC 13	
50 volt DC	2 / 1 amp (1 / 0.5 amp)*	DC 12 / DC 13	
75 volt DC	1 / 0.5 amp (0.5 / 0.25 amp)*	DC 12 / DC 13	
125 volt DC	0.3 / 0.2 amp (0.2 / 0.1 amp)*	DC 12 / DC 13	
250 volt DC	0.25 / 0.2 amp (0.15 / 0.1 amp)*	DC 12 / DC 13	
Rated insulation voltage U_i :	300 volt		
Rated surge capacity U_{imp} :	2.5 kV (4 kV)*		
Rated thermal current I_{the} :	5 amp		
Switching overvoltage:	< 2.5 kV		
Rated frequency:	DC und 50 / 60 Hz		
Rated current of short-circuit protection:	Up to 5 amp (up to 3.5 amp)*		
Conditional short-circuit current:	< 350 amp		
IP degree of protection to EN60529:1991+A1:1999:	IP65 with plug		
Tightening torque of terminal screws:	< 0.35 Nm		
Conductor cross-section:	0.5 – 1.5 mm ²		
Rated operating voltage U_e	Rated operating current I_e	Utilization category	Model ranges:
250 volt AC 50 / 60 Hz	5 amp	AC 12	0150 0161 0162 0175
250 volt AC 50 / 60 Hz	1 amp	AC 14	
30 volt DC	3.5 / 3.5 amp	DC 12 / DC 13	
50 volt DC	2 / 1 amp	DC 12 / DC 13	
75 volt DC	1 / 0.5 amp	DC 12 / DC 13	
125 volt DC	0.3 / 0.2 amp	DC 12 / DC 13	
250 volt DC	0.35 / 0.2 amp	DC 12 / DC 13	
Rated insulation voltage U_i :	300 volt		
Rated surge capacity U_{imp} :	2.5 kV		
Rated thermal current I_{the} :	6 amp		
Switching overvoltage:	< 2.5 kV		
Rated frequency:	DC and 50 / 60 Hz		
Rated current of short-circuit protection:	Up to 6.3 amp		
Conditional short-circuit current:	< 350 amp		
IP degree of protection to EN60529:1991+A1:1999:	IP65 with plug		
Tightening torque of terminal screws:	< 0.35 Nm		
Conductor cross-section:	0.5 – 1.5 mm ²		
Rated operating voltage U_e	Rated operating current I_e	Utilization category	Model ranges:
250 volt AC 50 / 60 Hz	2.5 amp	AC 12	0159
250 volt AC 50 / 60 Hz	1 amp	AC 14	
30 volt DC	2 / 2 amp	DC 12 / DC 13	
50 volt DC	1 / 0.5 amp	DC 12 / DC 13	
75 volt DC	0.75 / 0.4 amp	DC 12 / DC 13	
125 volt DC	0.3 / 0.2 amp	DC 12 / DC 13	
250 volt DC	0.3 / 0.2 amp	DC 12 / DC 13	
Rated insulation voltage U_i :	300 volt		
Rated surge capacity U_{imp} :	2.5 kV		
Rated thermal current I_{the} :	6 amp		
Switching overvoltage:	< 2.5 kV		
Rated frequency:	DC and 50 / 60 Hz		
Rated current of short-circuit protection:	Up to 2.5 amp		
Conditional short-circuit current:	< 350 amp		
IP degree of protection to EN60529:1991+A1:1999:	IP65 with plug		
Tightening torque of terminal screws:	< 0.5 Nm		
Conductor cross-section:	0.5 – 1.5 mm ²		

* Figures in brackets apply to types 0140 and 0141

The utilization category describes among other things the voltages and currents and the way of load for our pressure switches according DIN EN 60947-5-1	Utilization category
AC 12 : Drive of resistive loads and semiconductor input circuits of optoelectronic couplers (e.g. PLC inputs)	
AC 14 : Drive of electromagnetic loads up to 72 VA	
DC 12 : Drive of resistive loads and semiconductor input circuits of optoelectronic couplers (e.g. PLC inputs)	
DC 13 : Drive of electromagnet	