

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

PRESSURE MONITORING
PRESSURE SWITCHES
VACUUM SWITCHES
PRESSURE TRANSMITTERS



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

TRADITION AND INNOVATION



1938 ...

Robert Scheuffele opens a mechanical workshop.

1945 ...

Partnership formed by Robert Scheuffele and Georg Fuhrmann.

1950 ...

Registration of the name SUCO (Scheuffele und Co) as a trademark.

Development and production of centrifugal clutches and brakes.

Market leader in Germany and abroad.

The Company moves into a new production and administration building.

1960 ...

Electromagnetic clutches and brakes introduced into the production program. Development and production of pressure and vacuum switches started.

1970 ...

Establishment of a comprehensive dealer and sales network throughout Europe. SUCO mechanical pressure and vacuum switches become leaders in their market.

1970

Start of the development of the American market.

1997...

Creation of a distribution network in Asia. ISO 9001 certification of the company

From a mechanical workshop to an international industrial manufacturer



Design and development of new products using the latest CAD tools.



To simulate realistic environmental conditions and loads, our products are subjected to extensive trials and tests.



Assembly and testing of pressure switches done on semi or fully automated machines.



Fully-automatic setting of switching point with computer-aided documentation of results.



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



1999 ...

Founding of a subsidiary company, SUCO VSE, in France.

2001 ...

Certification to ISO 9001:2000.

2004 ...

Inauguration of the new building with modern production hall and 6500 ft² office area.

2005 ...

Change of corporate name to SUCO Robert Scheuffele GmbH & Co. KG.

2007

Founding of a subsidiary company, SUCO Technologies, Inc., in the USA.

2009

An additional flooring to the manufacturing building was added, creating approx. 1.000m² of new production capacity. Newest Certification Standard: ISO 9001:2008.

2010

Acquisition of the company ESI Technology Ltd., Wresham, Wales.



Thorough training at SUCO is an important guarantee for the continuing development of the company in the future.



Capacity and schedule planning of production orders to make optimum use of the available human, machinery and material resources.



Ultra-modern production plant with integrated, fully-automatic component handling for high efficiency.



Encapsulating equipment for customer-specific ready-wired pressure switches for highest degree of protection (leak tightness).



Latest measurement and inspection equipment for quality assurance in receiving and production.



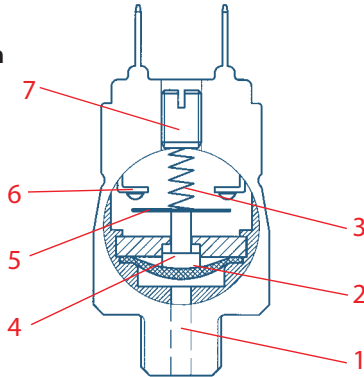
From here our products are dispatched to any country in the world.



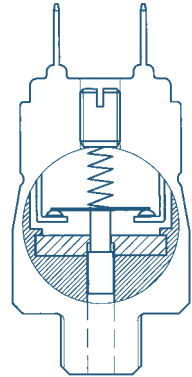
TECHNICAL EXPLANATIONS

How does a pressure switch work?

Diaphragm pressure switch
 SPST-NO
 (single pole single throw normally open)



Piston pressure switch
 SPST-NC
 (single pole single throw normally closed)



SPST-NO
 (Single pole / Single throw Normally open)

Description of operation for a normally open switch whose contacts close at its set point: Pressure enters through the connection (1) and acts on the diaphragm (2). If the force resulting from this pressure is greater than the force exerted by the preloaded compression spring (3), the plunger (4) moves taking with it the contact disc (5), which closes the circuit between the contacts (6). When the pressure falls again by an amount greater than the differential, the switch opens again.

SPST-NC
 Single pole / Single throw Normally closed)

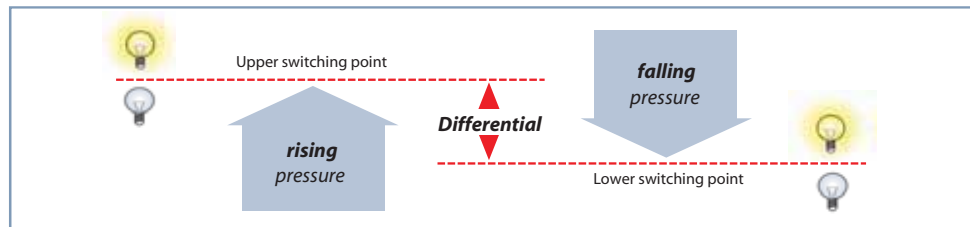
For a **normally closed** switch, the action of the contacts is reversed. By turning the setting screw (7), a pressure switch can be adjusted within its pressure range.

Snap action

By using a micro-switch with **Snap action** contacts, the normally open and normally closed functions can be combined in a single pressure switch.

Differential

Differential (switching lag) is the term given to the difference between the switching points when the pressure is rising and when it is falling. For pressure switches with non-adjustable **differential**, it is a function of the design. For SUCO switches with adjustable **differential**, it can typically be set in the range 10 to 30% of the switching point. The **differential** cannot be kept for the whole pressure range. It is only an average value.



Switching frequency

The **switching frequency** provides information about the possible number of switching cycles per minute. The figure given of 200/minute is intended only as a guide. Depending on the type of switch and the operating conditions, a considerably higher number of cycles can be achieved.

Vacuum

In our technical data, the figures for the **vacuum** range are given in inches of mercury (Hg) below atmospheric pressure. Data can also be specified as absolute pressure.

Our pressure switches are suitable for liquid and gaseous media. Gaseous media, however, place special demands on leak-tightness. The leakage rate varies with the type of gas, the working pressure, and the permeability of the seal material.

Because of their lower leakage rate, diaphragm switches are better suited to **gas applications** than piston-type switches. However, the latter can also be employed if certain precautions (e.g. venting the switch body) are taken.

Please consult us when you have a **gas application**.

The **tolerances** we quote relate to operation at room temperature (RT). The effects of temperature and aging can change **tolerance** ranges.

Gas applications

Tolerances

Conversion table for pressure units

Abbreviation for unit	Name of unit	PA = N/m ²	BAR	TORR	LB/IN ² , PSI
1 PA = N/m ²	PASCAL	1	0.00001	0.0075	0.00014
1 BAR	BAR	100 000	1	750.062	14.5
1 TORR = 1 mm Hg	MILLIMETERS of mercury	133.322	0.00133	1	0.01934
1 LBF/IN ² = 1 PSI	POUND-FORCE PER SQUARE INCH	6894	0.06894	51.71	1

Conversion table for temperature units

	K	°C	F
K	1	K-273.15	9/5 K-459.67
°C	°C +273.15	1	9/5°C +32
F	5/9 (F+459.67)	5/9 (F-32)	1

The data in our catalog concerning compatibility with various media relate mainly to seal materials. Testing the media compatibility of sealing and body materials for particular applications is the responsibility of the user.

The technical data we provide result from tests made during product development backed up by experience. They may not be applicable in all cases. It is the responsibility of the user to test the suitability of a switch for particular applications.

Media compatibility

Product information

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	
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	
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 to 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	

Pressure Monitoring Systems



Pressure Switches 0.95" (hex 24 mm) SPST-NO or SPST-NC

From page 10

Max. voltage 42 V

0166	Diaphragm pressure switch, male thread Zinc-plated steel body, overpressure safe up to 4350 psi	Pages 12 - 13
0163	Diaphragm pressure switch, male thread Zinc-plated steel body, overpressure safe up to 8700 psi	Pages 14 - 15
0169	Piston pressure switch, male thread Zinc-plated steel body, overpressure safe up to 8700 psi	Page 16
0167	Diaphragm pressure switch, male thread Brass body, overpressure safe up to 290 psi	Page 17
0120	Diaphragm pressure switch, bayonet connection DIN 72585-A1-2.1 Zinc-plated steel body, overpressure safe up to 4,350 psi	Pages 18
0121	Piston pressure switch, bayonet connection DIN 72585-A1-2.1 Zinc-plated steel body, overpressure safe up to 8,700 psi	Pages 19
	Accessories	Page 19



Pressure Switches 1.06" (hex 27 mm) Snap action micro-switch

From page 20

Switches with silver contacts, zinc-plated steel body

0140	Diaphragm pressure switch Differential non-adjustable, max. voltage 250 V	Page 22
0141	Piston pressure switch Differential non-adjustable, max. voltage 250 V	Page 22
0170	Diaphragm pressure switch Adjustable differential, max. voltage 42 V	Page 23
0171	Piston pressure switch Adjustable differential, max. voltage 42 V	Page 24
0180	Diaphragm pressure switch Adjustable differential, max. voltage 250 V	Page 25
0181	Piston pressure switch Adjustable differential, max. voltage 250 V	Page 26
0183	Piston pressure switch Snap action micro-switch with silver contacts, max. voltage 250 V	Page 27
0184	Diaphragm pressure switch with valve connector plug to DIN EN 175301, adjustable differential, max. voltage 250 V	Page 28
0185	Piston pressure switch with valve connector plug to DIN EN 175301, adjustable differential, max. voltage 250 V	Page 28








Switches with stainless steel bodies

0186	Diaphragm pressure switch, silver contacts Adjustable differential, max. voltage 250 V	Page 29
0187	Piston pressure switch, silver contacts Adjustable differential, max. voltage 250 V	Page 29
0196	Diaphragm pressure switch, gold contacts Adjustable differential, max. voltage 24 V	Page 30
0197	Piston pressure switch, gold contacts Adjustable differential, max. voltage 24 V	Page 30

Switches with gold contacts, zinc-plated steel body

0190	Diaphragm pressure switch Adjustable differential, max. voltage 24 V	Page 31
0191	Piston pressure switch Adjustable differential, max. voltage 24 V	Page 32
	Accessories	Page 33

Overview

	Ready-wired Pressure Switches	From page 34 -37	
	Mechanical pressure and vacuum switches can be supplied ready-wired with any available connector.		
0240	Diaphragm pressure switch, ready-wired, IP67 Switching point can be set by the customer after potting.	Page 36	
0241	Piston pressure switch, ready-wired, IP67 Switching point can be set by the customer after potting.	Page 37	
	Pressure Switches 1.18" (30 mm A/F), Snap action contacts	From page 38	
0159	Diaphragm / piston pressure switch Steplessly adjustable	Page 39	
0161	Diaphragm / piston pressure switch With valve connector similar to DIN EN 175301	Page 40	
0162	Diaphragm / piston pressure switch for manifold mounting, With valve connector similar to DIN EN 175301	Page 40	
0175	Diaphragm pressure switch high precision in low-pressure range, With valve connector similar to DIN EN 175301	Page 41	
	Explosion-protected Pressure Switches, Snap action contacts	From page 42	
	To new ATEX standards		
0165	Diaphragm / piston pressure switch, for explosive gases, Zone 1 Steplessly adjustable	Page 44	
0340	Diaphragm pressure switch, for explosive dusts, Zone 22 Steplessly adjustable	Page 45	
0341	Piston pressure switch, for explosive dusts, Zone 22 Steplessly adjustable	Page 45	
	Vacuum Switches	From page 46	
0150	Vacuum switch, Snap action contacts With valve connector similar to DIN EN 175301, max. voltage 250 V	Page 48	
0151	Vacuum switch, SPST-NO or SPST-NC With screw / spade terminals, max. voltage 42 V	Page 49	
	Accessories	Page 49	
	Electronic Pressure Switches	From page 50	
0520	Electronic pressure switch, SPST-NO or SPST-NC With ceramic sensor, steplessly adjustable	Page 52	
0570	Electronic pressure switch, Programmable, with display	Page 53	
	Pressure Transmitters	From page 54	
0605	Pressure transmitter, stainless steel diaphragm With voltage output 0.5–4.5 V ratiometrically	Page 56	
0610	Pressure transmitter, stainless steel diaphragm With voltage output 0–10 V	Page 56	
0620	Pressure transmitter, stainless steel diaphragm With current output 4–20 mA	Page 56	
	Accessories	Page 57	
	Our worldwide sales network	From page 58	

Pressure Switches 0.95" (hex 24mm)

SPST-NO (normally open) or
SPST-NC (normally closed)

Maximum voltage 42 V



Technical Data

Degree of protection:	IP65 (IP67/IP6K9K for 0120 /0121) Terminals IP00
Current rating (resistive):	≤ 4 A
Switching frequency:	200 / min.
Temperature stability for diaphragm/seal materials:	NBR (BunaN) -40 °F – +212 °F (-40 °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 (at pressures up to 725 psi)
Vibration resistance:	10 g / 5 – 200 Hz sine-wave
Shock resistance:	294 m/s ² ; 14 ms half-sine-wave



Technical Data

Type	Switching power	Material		Overpressure safe up to:		
		Zinc-plated Steel	Brass	290 psi	4350 psi	8700 psi
	100 VA					
0163	•	•				•
0166	•	•			•	
0167	•		•	•		
0169	•	•				•
0120	•	•			•	
0121	•	•				•

- Compact switch design, SPST-NC or SPST-NO
- Low-cost mechanical pressure switch to high SUCO quality standards
- High overpressure resistance and long working life even under harsh operating conditions
- Switching point easy to adjust - even during operation¹⁾
- Various thread connections to suit your installation (see relevant product data sheet)
- Ready-wired variants - see catalogue page 34
- Versions with spade and screw terminals
- Available with gold contacts upon request
- Other body materials are also possible

¹⁾ Pressure switches can be supplied preset from our factory. Switches we have preset are secured with sealing paint and have the switching pressure stamped on their body.





RoHS COMPLIANT

0166

Diaphragm pressure switches max 42 V

Zinc-plated steel body
With M3 screw terminals
Overpressure safe to **4350 psi¹⁾**

With male thread



- Also available with switching point preset in our factory.
- Other body materials and connection threads on request.
- Other diaphragm / seal materials on request, e.g. HNBR, silicone (last one for diaphragm type only).

• Accessories: see page 19



0166 Diaphragm pressure switches with screw terminals

Adjustment range in psi (tolerance at room temperature)	Thread	SPST-NO (normally open) —> :				SPST-NC (normally closed) —> :			
1.45 – 14.5 (± 2.90)	M 10x1 taper	0166	401	01	001	0166	402	01	005
	1/4" BSPP	0166	401	03	003	0166	402	03	007
	1/8" NPT	0166	401	04	004	0166	402	04	008
	1/4" NPT	0166	401	09	343	0166	402	09	344
	7/16 – 20 UNF	0166	401	20	301	0166	402	20	303
	9/16 – 18 UNF	0166	401	21	302	0166	402	21	304
14.5 – 145 (± 7.25)	M 10x1 taper	0166	405	01	017	0166	406	01	021
	1/4" BSPP	0166	405	03	019	0166	406	03	023
	1/8" NPT	0166	405	04	020	0166	406	04	024
	1/4" NPT	0166	405	09	347	0166	406	09	348
	7/16 – 20 UNF	0166	405	20	309	0166	406	20	311
	9/16 – 18 UNF	0166	405	21	310	0166	406	21	312
145 – 290 (± 14.50)	M 10x1 taper	0166	409	01	033	0166	410	01	037
	1/4" BSPP	0166	409	03	035	0166	410	03	039
	1/8" NPT	0166	409	04	036	0166	410	04	040
	1/4" NPT	0166	409	09	351	0166	410	09	352
	7/16 – 20 UNF	0166	409	20	317	0166	410	20	319
	9/16 – 18 UNF	0166	409	21	318	0166	410	21	320
290 – 725 (± 29.0)	M 10x1 taper	0166	413	01	049	0166	414	01	053
	1/4" BSPP	0166	413	03	051	0166	414	03	055
	1/8" NPT	0166	413	04	052	0166	414	04	056
	1/4" NPT	0166	413	09	355	0166	414	09	356
	7/16 – 20 UNF	0166	413	20	325	0166	414	20	327
	9/16 – 18 UNF	0166	413	21	326	0166	414	21	328

Order number:
Add figure for diaphragm/seal material

0166 XXX XX **X** XXX 0166 XXX XX **X** XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	=	1	=	1
EPDM	Hydrogen, acetylene, ozone, brake fluid etc.	=	2	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3	=	3

See page 10 for temperature ranges of diaphragm / seal materials

Warning!

When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 145 psi is not exceeded.

¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

Degree of protection IP65

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.



RoHS COMPLIANT

0163

Diaphragm pressure switches max 42 V

Zinc-plated steel body
 With M3 screw terminals
 Overpressure safe to **8700 psi** ¹⁾

With male thread



- Also available with switching point preset in our factory.
- Other body materials and connection threads on request.
- Other diaphragm / seal materials on request, e.g. HNBR, silicone (last one for diaphragm type only).

0163 Diaphragm pressure switches with screw terminals

Adjustment range in psi (tolerance at room temperature)	Thread	SPST-NO (normally open) —> :				SPST-NC (normally closed) —> > :			
1.45 – 14.5 (± 2.90)	M 10x1 taper	0163	401	01	001	0163	402	01	005
	1/4" BSPP	0163	401	03	003	0163	402	03	007
	1/8" NPT	0163	401	04	004	0163	402	04	008
	1/4" NPT	0163	401	09	343	0163	402	09	344
	7/16 – 20 UNF	0163	401	20	301	0163	402	20	303
	9/16 – 18 UNF	0163	401	21	302	0163	402	21	304
14.5 – 145 (± 7.25)	M 10x1 taper	0163	405	01	017	0163	406	01	021
	1/4" BSPP	0163	405	03	019	0163	406	03	023
	1/8" NPT	0163	405	04	020	0163	406	04	024
	1/4" NPT	0163	405	09	347	0163	406	09	348
	7/16 – 20 UNF	0163	405	20	309	0163	406	20	311
145 – 290 (± 14.50)	9/16 – 18 UNF	0163	405	21	310	0163	406	21	312
	M 10x1 taper	0163	409	01	033	0163	410	01	037
	1/4" BSPP	0163	409	03	035	0163	410	03	039
	1/8" NPT	0163	409	04	036	0163	410	04	040
	1/4" NPT	0163	409	09	351	0163	410	09	352
290 – 725 (± 29.0)	7/16 – 20 UNF	0163	409	20	317	0163	410	20	319
	9/16 – 18 UNF	0163	409	21	318	0163	410	21	320
	M 10x1 taper	0163	413	01	049	0163	414	01	053
	1/4" BSPP	0163	413	03	051	0163	414	03	055
	1/8" NPT	0163	413	04	052	0163	414	04	056
290 – 725 (± 29.0)	1/4" NPT	0163	413	09	355	0163	414	09	356
	7/16 – 20 UNF	0163	413	20	325	0163	414	20	327
	9/16 – 18 UNF	0163	413	21	326	0163	414	21	328
	9/16 – 18 UNF	0163	413	21	326	0163	414	21	328

Order number:
 Add figure for diaphragm/seal material
 0163 XXX XX **X** XXX 0163 XXX XX **X** XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	=	1	=	1
EPDM	Hydrogen, acetylene, ozone, brake fluid etc.	=	2	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3	=	3
See page 10 for temperature ranges of diaphragm / seal materials					

• Accessories: see page 19



Warning!

When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 145 psi is not exceeded.

¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

Degree of protection IP65

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.

0163

Diaphragm pressure switches max 42 V

Zinc-plated steel body
With spade terminals
Overpressure safe to **8700 psi¹⁾**

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



0163 Diaphragm pressure switches with spade terminals

Adjustment range in psi (tolerance at room temperature)	Thread	SPST-NO (normally open) →> :				SPST-NC (normally closed) →> :			
1.45 – 14.5 (± 2.90)	M 10x1 taper	0163	403	01	009	0163	404	01	013
	1/4" BSPP	0163	403	03	011	0163	404	03	015
	1/8" NPT	0163	403	04	012	0163	404	04	016
	1/4" NPT	0163	403	09	345	0163	404	09	346
	7/16 – 20 UNF	0163	403	20	305	0163	404	20	307
	9/16 – 18 UNF	0163	403	21	306	0163	404	21	308
14.5 – 145 (± 7.25)	M 10x1 taper	0163	407	01	025	0163	408	01	029
	1/4" BSPP	0163	407	03	027	0163	408	03	031
	1/8" NPT	0163	407	04	028	0163	408	04	032
	1/4" NPT	0163	407	09	349	0163	408	09	350
	7/16 – 20 UNF	0163	407	20	313	0163	408	20	315
	9/16 – 18 UNF	0163	407	21	314	0163	408	21	316
145 – 290 (± 14.50)	M 10x1 taper	0163	411	01	041	0163	412	01	045
	1/4" BSPP	0163	411	03	043	0163	412	03	047
	1/8" NPT	0163	411	04	044	0163	412	04	048
	1/4" NPT	0163	411	09	353	0163	412	09	354
	7/16 – 20 UNF	0163	411	20	321	0163	412	20	323
	9/16 – 18 UNF	0163	411	21	322	0163	412	21	324
290 – 725 (± 29.0)	M 10x1 taper	0163	415	01	057	0163	416	01	061
	1/4" BSPP	0163	415	03	059	0163	416	03	063
	1/8" NPT	0163	415	04	060	0163	416	04	064
	1/4" NPT	0163	415	09	357	0163	416	09	358
	7/16 – 20 UNF	0163	415	20	329	0163	416	20	331
	9/16 – 18 UNF	0163	415	21	330	0163	416	21	332

Order number:
Add figure for
diaphragm/seal material

0163 XXX XX **X** XXX 0163 XXX XX **X** XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	=	1	=	1
EPDM	Hydrogen, acetylene, ozone, brake fluid etc.	=	2	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3	=	3
See page 10 for temperature ranges of diaphragm / seal materials					

Warning!

When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 145 psi is not exceeded.

¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

Degree of protection IP65

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.

With male thread



• Also available with switching point preset in our factory.

• For ready-wired variants, see page 34 onwards.

• Other body materials and connection threads on request.

• Other diaphragm / seal materials on request, e.g. HNBR, silicone (last one for diaphragm type only).

• Accessories: see page 19



0167

Diaphragm pressure switches max 42 V

Brass body
With M3 screw or spade terminals
Overpressure safe to **290 psi**¹⁾

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



RoHS COMPLIANT

Adjustment range in psi (tolerance at room temperature)	Thread	SPST-NO (normally open) → :	SPST-NC (normally closed) → > :
---	--------	-----------------------------	---------------------------------

0167 Diaphragm pressure switches with screw terminals

1.45 – 14.5 (± 2.90)	M 10x1 taper	0167 401 01	001	0167 402 01	004
	1/8" BSPT	0167 401 12	002	0167 402 12	005
	1/2" BSPT	0167 401 07	003	0167 402 07	006
14.5 – 145 (± 7.25)	M 10x1 taper	0167 405 01	013	0167 406 01	016
	1/8" BSPT	0167 405 12	014	0167 406 12	017
	1/2" BSPT	0167 405 07	015	0167 406 07	018
145 – 290 (± 14.5)	M 10x1 taper	0167 409 01	025	0167 410 01	028
	1/8" BSPT	0167 409 12	026	0167 410 12	029
	1/2" BSPT	0167 409 07	027	0167 410 07	030

0167 Diaphragm pressure switches with spade terminals

1.45 – 14.5 (± 2.90)	M 10x1 taper	0167 403 01	007	0167 404 01	010
	1/8" BSPT	0167 403 12	008	0167 404 12	011
	1/2" BSPT	0167 403 07	009	0167 404 07	012
14.5 – 145 (± 7.25)	M 10x1 taper	0167 407 01	019	0167 408 01	022
	1/8" BSPT	0167 407 12	020	0167 408 12	023
	1/2" BSPT	0167 407 07	021	0167 408 07	024
145 – 290 (± 14.5)	M 10x1 taper	0167 411 01	031	0167 412 01	034
	1/8" BSPT	0167 411 12	032	0167 412 12	035
	1/2" BSPT	0167 411 07	033	0167 412 07	036

Order number:
Add figure for
diaphragm/seal material

0167 XXX XX **X** XXX 0167 XXX XX **X** XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	=	1	=	1
EPDM	Water, hydrogen, acetylene, ozone, brake fluid etc.	=	2	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3	=	3
See page 10 for temperature ranges of diaphragm / seal materials					

Warning!

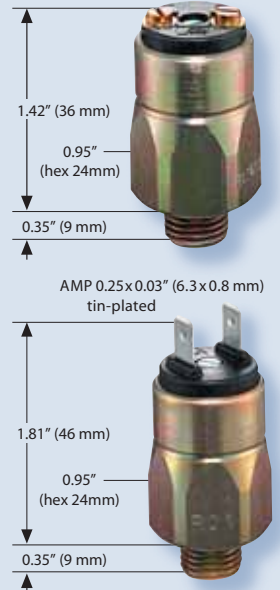
When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 145 psi is not exceeded.

¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

Degree of protection IP65

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.

With male thread



- Also available with switching point preset in our factory.
- For ready-wired variants, see page 34 onwards.
- Other body materials and connection threads on request.
- Other diaphragm / seal materials on request, e.g. HNBR, silicone (last one for diaphragm type only).
- Accessories: see page 19





Pressure switches with integrated connector

SPST-NO (normally open) or
SPST-NC (normally closed)
Maximum voltage 42 V



Technical Data

Max. voltage:	42 V
Current rating (resistive):	≤ 4 A
Switching capacity:	100 VA
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)
Pressure rise rate:	≤ 14.5 PSI/ms
Vibration resistance:	10 g / 5 – 200 Hz sine wave
Shock resistance:	294 m/s ² ; 14 ms half sine wave
Degree of protection:	Up to IP67 / IP6K9k according manufacturer instruction for particular connector system only in plugged position otherwise IP00

Accessories

for 0166, 0163, 0167, 0169 pressure switches

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



Protective cap

With central cable gland
for 0.06 - 0.20" (1.5 - 5 mm) cable diameter
Not suitable for voltages above 42 V !

Order number: 1-1-66-621-010



Protective cap

With two cable entries
for 0.07 - 0.09" (1.7 - 2.2 mm) cable diameter
Not suitable for voltages above 42 V !

Order number: 1-1-66-621-003

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) -40 °F – +212 °F (-40 °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.



RoHS COMPLIANT

0140/0141

Diaphragm/piston pressure switches max 250 V

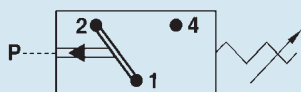
Zinc-plated steel body, with screw terminals
 With snap action switch and silver contacts
 Overpressure safe to **4350/8700 psi**¹⁾

- See page 7 for electrical properties

With male thread



- Also available with switching point preset in our factory.
- For ready-wired variants, see page 34 onwards.
- Other body materials and connection threads on request.
- Protection class 2, protective insulation
- Other diaphragm / seal materials on request, e.g. HNBR, silicone (last one for diaphragm type only).



- For further technical data, see page 21.

0140 Diaphragm pressure switches with screw terminals

Adjustment range in psi	Tolerance in psi (at room temperature)	Thread	Order number	p _{max} in psi
4.35 – 21.75	± 2.9	1/4" BSPP	0140 457 03 003	4350 ¹⁾
		1/8" NPT	0140 457 04 300	
		1/4" NPT	0140 457 09 305	
		7/16-20 UNF	0140 457 20 310	
9/16-18 UNF	0140 457 21 315			
14.5 – 145	± 7.25	1/4" BSPP	0140 458 03 006	
		1/8" NPT	0140 458 04 301	
		1/4" NPT	0140 458 09 306	
		7/16-20 UNF	0140 458 20 311	
9/16-18 UNF	0140 458 21 316			
145 – 290	± 14.5	1/4" BSPP	0140 459 03 009	
		1/8" NPT	0140 459 04 302	
		1/4" NPT	0140 459 09 307	
		7/16-20 UNF	0140 459 20 312	
9/16-18 UNF	0140 459 21 317			
290 – 725	± 29	1/4" BSPP	0140 461 03 012	
		1/8" NPT	0140 461 04 303	
		1/4" NPT	0140 461 09 308	
		7/16-20 UNF	0140 461 20 313	
9/16-18 UNF	0140 461 21 318			

0141 Piston pressure switches with screw terminals

Adjustment range in psi	Tolerance in psi (at room temperature)	Thread	Order number	p _{max} in psi
725 – 2175	± 72.5	1/4" BSPP	0141 460 03 003	8700 ¹⁾
		1/8" NPT	0141 460 04 304	
		1/4" NPT	0141 460 09 309	
		7/16-20 UNF	0141 460 20 314	
		9/16-18 UNF	0141 460 21 319	

! Order number Add figure for diaphragm/seal material

014X XXX XX **X** XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	=	1
EPDM	Hydrogen, acetylene, ozone, brake fluid etc.	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3

See page 21 for temperature ranges of diaphragm/seal materials

Warning!

When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 145 psi is not exceeded.

¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

Degree of protection IP65

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.

0170

Diaphragm pressure switches max 42 V

Zinc-plated steel body, with spade terminals
 With snap action switch and silver contacts
 Overpressure safe to **1450/4350** psi¹⁾
 Adjustable differential at factory



RoHS COMPLIANT

0170 Diaphragm pressure switches with spade terminals

Adjustment range in psi	Tolerance in psi (at room temperature)	Thread	Order number	p _{max.} in psi
4.35 – 21.75	± 2.9	M 10x1 taper	0170 457 01 001	1450 ¹⁾
		1/4" BSPP	0170 457 03 003	
		1/8" NPT	0170 457 04 318	
		1/4" NPT	0170 457 09 314	
		7/16 – 20 UNF	0170 457 20 301	
		9/16 – 18 UNF	0170 457 21 302	
14.5 – 145	± 7.25	M 10x1 taper	0170 458 01 004	1450 ¹⁾
		1/4" BSPP	0170 458 03 006	
		1/8" NPT	0170 458 04 319	
		1/4" NPT	0170 458 09 315	
		7/16 – 20 UNF	0170 458 20 303	
		9/16 – 18 UNF	0170 458 21 304	
14.5 – 145	± 7.25	M 10x1 taper	0170 458 01 040	1450 ¹⁾
		1/4" BSPP	0170 458 03 042	
		1/8" NPT	0170 458 04 343	
		1/4" NPT	0170 458 09 340	
		7/16 – 20 UNF	0170 458 20 341	
		9/16 – 18 UNF	0170 458 21 342	
145 – 725	± 43.5	M 10x1 taper	0170 459 01 007	4350 ¹⁾
		1/4" BSPP	0170 459 03 009	
		1/8" NPT	0170 459 04 320	
		1/4" NPT	0170 459 09 316	
		7/16 – 20 UNF	0170 459 20 305	
		9/16 – 18 UNF	0170 459 21 306	
145 – 1450	± 43.5 – 72.5	M 10x1 taper	0170 461 01 010	4350 ¹⁾
		1/4" BSPP	0170 461 03 012	
		1/8" NPT	0170 461 04 321	
		1/4" NPT	0170 461 09 317	
		7/16 – 20 UNF	0170 461 20 307	
		9/16 – 18 UNF	0170 461 21 308	

With male thread



- Also available with switching point preset in our factory.
- For ready-wired variants, see page 34 onwards.
- Other body materials and connection threads on request.
- Other diaphragm / seal materials on request, e.g. HNBR, silicone (last one for diaphragm type only).



- Accessories: see page 33



- For further technical data, see page 21.

Order number
 Add figure for diaphragm/seal material

017X XXX XX X XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	=	1
EPDM	Hydrogen, acetylene, ozone, brake fluid etc.	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3
See page 21 for temperature ranges of diaphragm/seal materials			

Warning!

When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 145 psi is not exceeded.

¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

Degree of protection IP65

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.





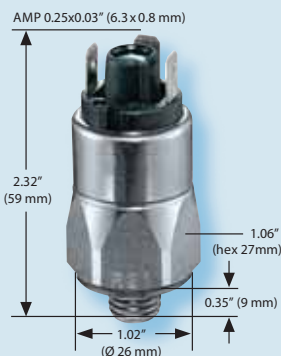
RoHS COMPLIANT

0171

Piston pressure switches max 42 V

Zinc-plated steel body, with spade terminals
With snap action switch and silver contacts
Overpressure safe to **8700** psi¹⁾
Adjustable differential at factory

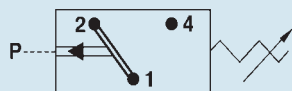
With male thread



- Also available with switching point preset in our factory.
- For ready-wired variants, see page 34 onwards.
- Other body materials and connection threads on request.
- Other diaphragm / seal materials on request, e.g. HNBR, silicone (last one for diaphragm type only).



- Accessories: see page 33



- For further technical data, see page 21.

0171 Piston pressure switches with spade terminals

Adjustment range in psi	Tolerance in psi (at room temperature)	Thread	Order number	p _{max.} in psi
725 – 2900	± 72.5	M 10x1 taper	0171 460 01 001	8700
		1/4" BSPP	0171 460 03 003	
		1/8" NPT	0171 460 04 304	
		1/4" NPT	0171 460 09 303	
		7/16 – 20 UNF	0171 460 20 301	
		9/16 – 18 UNF	0171 460 21 302	

Order number
Add figure for diaphragm/seal material

0171 XXX XX X XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	=	1
EPDM	Hydrogen, acetylene, ozone, brake fluid etc.	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3
See page 21 for temperature ranges of diaphragm/seal materials			

Warning!

When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 145 psi is not exceeded.

¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

Degree of protection IP65

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.

0180

Diaphragm pressure switches max 250 V

- Zinc-plated steel body, with spade terminals
- With snap action switch and silver contacts
- Overpressure safe to **1450/4350** psi¹⁾
- Adjustable differential at factory
- See page 7 for electrical properties

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



RoHS COMPLIANT

0180 Diaphragm pressure switches with spade terminals

Adjustment range in psi	Tolerance in psi (at room temperature)	Thread	Order number	p _{max.} in psi
4.35 – 21.75	± 2.9	M 10x1 taper	0180 457 01 001	1450 ¹⁾
		1/4" BSPP	0180 457 03 003	
		1/8" NPT	0180 457 04 318	
		1/4" NPT	0180 457 09 314	
		7/16 – 20 UNF	0180 457 20 301	
		9/16 – 18 UNF	0180 457 21 302	
14.5 – 145	± 7.25	M 10x1 taper	0180 458 01 004	1450 ¹⁾
		1/4" BSPP	0180 458 03 006	
		1/8" NPT	0180 458 04 319	
		1/4" NPT	0180 458 09 310	
		7/16 – 20 UNF	0180 458 20 303	
		9/16 – 18 UNF	0180 458 21 304	
14.5 – 145	± 7.25	M 10x1 taper	0180 458 01 040	1450 ¹⁾
		1/4" BSPP	0180 458 03 042	
		1/8" NPT	0180 458 04 343	
		1/4" NPT	0180 458 09 340	
		7/16 – 20 UNF	0180 458 20 341	
		9/16 – 18 UNF	0180 458 21 342	
145 – 725	± 43.5	M 10x1 taper	0180 459 01 007	4350 ¹⁾
		1/4" BSPP	0180 459 03 009	
		1/8" NPT	0180 459 04 320	
		1/4" NPT	0180 459 09 311	
		7/16 – 20 UNF	0180 459 20 305	
		9/16 – 18 UNF	0180 459 21 306	
145 – 1450	± 72.5	M 10x1 taper	0180 461 01 010	4350 ¹⁾
		1/4" BSPP	0180 461 03 012	
		1/8" NPT	0180 461 04 321	
		1/4" NPT	0180 461 09 312	
		7/16 – 20 UNF	0180 461 20 307	
		9/16 – 18 UNF	0180 461 21 308	

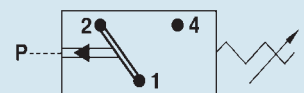
With male thread



- Also available with switching point preset in our factory.
- For ready-wired variants, see page 34 onwards.
- Other body materials and connection threads on request.
- Other diaphragm / seal materials on request, e.g. HNBR, silicone (last one for diaphragm type only).



Accessories: see page 33



For further technical data, see page 21.

Order number
Add figure for diaphragm/seal material

0180 XXX XX **X** XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	=	1
EPDM	Hydrogen, acetylene, ozone, brake fluid etc.	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3
See page 21 for temperature ranges of diaphragm/seal materials			





RoHS COMPLIANT

0181

Piston pressure switches max 250 V

Zinc-plated steel body, with spade terminals
With snap action switch and silver contacts
Overpressure safe to **8700 psi** ¹⁾
Adjustable differential at factory

- See page 7 for electrical properties

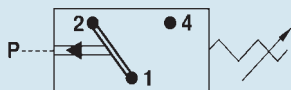
With male thread



- Also available with switching point preset in our factory.
- For ready-wired variants, see page 34 onwards.
- Other body materials and connection threads on request.
- Other diaphragm / seal materials on request, e.g. HNBR, silicone (last one for diaphragm type only).



- Accessories: see page 33



- For further technical data, see page 21.

0181 Piston pressure switches with spade terminals

Adjustment range in psi	Tolerance in psi (at room temperature)	Thread	Order number				p _{max.} in psi
725 – 2900	± 72.5	M 10x1 taper	0181	460	01	001	8700
		1/4" BSPP	0181	460	03	003	
		1/8" NPT	0181	460	04	304	
		1/4" NPT	0181	460	09	303	
		7/16 – 20 UNF	0181	460	20	301	
9/16 – 18 UNF	0181	460	21	302			

Order number
Add figure for diaphragm/seal material

0181 XXX XX **X** XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	=	1
EPDM	Hydrogen, acetylene, ozone, brake fluid etc.	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3
See page 21 for temperature ranges of diaphragm/seal materials			

Warning!

When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 145 psi is not exceeded.

¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

Degree of protection IP65

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.

0183 SMALL SIZE. GREAT PERFORMANCE.

Piston pressure switch max 250 V

With snap action microswitch and silver contacts

- 2.4" installation height
- Differential set at factory
- 1450 – 5800 psi adjustment range
- Overpressure safe to **8700** psi¹⁾



RoHS COMPLIANT

0183 Technical Data

Voltage	up to max. 250 V		
Current	max. 4 A		
Degree of protection	IP65 plugs IP00		
Switching frequency	200/min.		
Temperature stability for seal materials	NBR	-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)
Differential	10 – 30% adjustable at factory		
Mechanical life expectancy	10 ⁶ cycles		
Body material	zinc plated steel (Fe//ZnNi(12)6//A/T2)		

0183 Piston pressure switch

Adjustment range in psi	Tolerance in psi (at room temperature)	Thread	Order number	p _{max.} in psi
1450 – 4350	± 145.0	M 14 x 1.5	0183 462 10 051	8700 ¹⁾
2900 – 5800			0183 463 10 061	

Order number
Add figure for seal material

0183 XXX 10 **X** XXX

NBR (BunaN)	Hydraulic/machine oil, turpentine, heating oil, air etc.	=	1
EPDM	Acetylene, ozone, brake fluid etc.	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3

0183 Accessories

Adapter from M 14 x 1.5 to 1/4" BSPP	Adapter from M14 x 1.5 to M 12 x 1.5
Order number: 1-1-83-420-006	Order number: 1-1-83-420-007

Thread to ISO 6149-3
(included O-ring to match seal material)



- Also available with switching point preset in our factory.
- Ready-wired variants on request.
- Other body materials and connection threads on request!



Accessories: see page 33



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



RoHS COMPLIANT

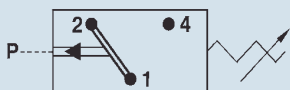
With male thread



• Also available with switching point preset in our factory.

• Other body materials and connection threads on request.

• Other diaphragm / seal materials on request, e.g. HNBR, silicone (last one for diaphragm type only).



• For further technical data, see page 21.

0184/0185

Diaphragm/piston pressure switches max 250 V

Zinc-plated steel body, with connector plug to DIN EN 175301 (DIN 43650)
With snap action switch and silver contacts
Overpressure safe to **1450/4350/8700 psi** ¹⁾
Adjustable differential at factory

• See page 7 for electrical properties

0184 Diaphragm pressure switches

Adjustment range in psi	Tolerance in psi (at room temperature)	Thread	Order number	p _{max} in psi
4.35 – 21.75	± 2.9	M 10 x 1 taper	0184 457 01 001	1450 ¹⁾
		M 12 x 1.5	0184 457 02 002	
		1/4" BSPP	0184 457 03 003	
14.5 – 145	± 7.25	M 10 x 1 taper	0184 458 01 040	4350 ¹⁾
		M 12 x 1.5	0184 458 02 041	
		1/4" BSPP	0184 458 03 042	
145 – 725	± 43.5	M 10 x 1 taper	0184 459 01 007	4350 ¹⁾
		M 12x1.5	0184 459 02 008	
		1/4" BSPP	0184 459 03 009	
145 – 1450	± 43.5 – 72.5	M 10 x 1 taper	0184 461 01 010	4350 ¹⁾
		M 12 x 1.5	0184 461 02 011	
		1/4" BSPP	0184 461 03 012	

0185 Piston pressure switches

Adjustment range in psi	Tolerance in psi (at room temperature)	Thread	Order number	p _{max} in psi
725 – 2900	± 72.5	M 10 x 1 taper	0185 460 01 001	8700 ¹⁾
		M 12 x 1.5	0185 460 02 002	
		1/4" BSPP	0185 460 03 003	

! Order number Add figure for diaphragm/seal material

018X XXX XX X XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	=	1
EPDM	Hydrogen, acetylene, ozone, brake fluid etc.	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3

See page 21 for temperature ranges of diaphragm/seal materials

Warning!

When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 145 psi is not exceeded.

¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

Degree of protection IP65

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.

0186/0187

Diaphragm/piston pressure switches max 250 V Stainless steel (1.4305) body

With snap action switch and silver contacts
Max. voltage 250 V, overpressure safe to **4350/8700 psi**¹⁾
Adjustable differential at factory
• See page 7 for electrical properties



RoHS COMPLIANT

0186 Diaphragm pressure switches with spade terminals

Adjustment range in psi	Tolerance in psi (at room temperature)	Thread	Order number	p _{max.} in psi
7.25 – 72.5	± 2.9	1/4" BSPP	0186 457 03 003	4350 ¹⁾
14.5 – 145	± 7.25		0186 458 03 006	
145 – 725	± 43.5		0186 459 03 009	
145 – 1450	± 43.5 – 72.5		0186 461 03 012	

0187 Piston pressure switches with spade terminals

Adjustment range in psi	Tolerance in psi (at room temperature)	Thread	Order number	p _{max.} in psi
725 – 2900	± 72.5	1/4" BSPP	0187 460 03 003	8700 ¹⁾

! Order number
Add figure for diaphragm/seal material

018X XXX XX X XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	=	1
EPDM	Water, hydrogen, acetylene, ozone, brake fluid etc.	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3
See page 21 for temperature ranges of diaphragm/seal materials			

Warning!

When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 145 psi is not exceeded.

¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

Degree of protection IP65

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.

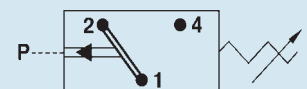
With male thread



- Also available with switching point preset in our factory.
- For ready-wired variants, see page 34 onwards.
- Other body materials and connection threads on request.
- Other diaphragm / seal materials on request, e.g. HNBR, silicone (last one for diaphragm type only).



- Accessories: see page 33



- For further technical data, see page 21.

0196/0197

Diaphragm/piston pressure switches max 24 V Stainless steel (1.4305) body

With snap action switch and gold contacts
Max. voltage 24 V
Overpressure safe to **4350/8700** psi¹⁾
Adjustable differential at factory

RoHS COMPLIANT

With male thread



- Also available with switching point preset in our factory.
- For ready-wired variants, see page 34 onwards.
- Other body materials and connection threads on request.
- Other diaphragm / seal materials on request, e.g. HNBR, silicone (last one for diaphragm type only).



• Accessories: see page 33



• For further technical data, see page 21.

0196 Diaphragm pressure switches with spade terminals

Adjustment range in psi	Tolerance in psi (at room temperature)	Thread	Order number	p _{max.} in psi
7.25 – 72.5	± 2.9	1/4" BSPP	0196 457 03 003	4350 ¹⁾
14.5 – 145	± 7.25		0196 458 03 006	
145 – 725	± 43.5		0196 459 03 009	
145 – 1450	± 43.5 – 72.5		0196 461 03 012	

0197 Piston pressure switches with spade terminals

Adjustment range in psi	Tolerance in psi (at room temperature)	Thread	Order number	p _{max.} in psi
725 – 2900	± 72.5	1/4" BSPP	0197 460 03 003	8700 ¹⁾

Order number
Add figure for diaphragm/seal material

019X XXX XX **X** XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	=	1
EPDM	Water, hydrogen, acetylene, ozone, brake fluid etc.	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3
See page 21 for temperature ranges of diaphragm/seal materials			

Warning!

When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 145 psi is not exceeded.

¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

Degree of protection IP65

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.

0190

Diaphragm pressure switches max 24 V

Zinc-plated steel body, with spade terminals
With snap action switch and gold contacts
Overpressure safe to **1450/4350** psi¹⁾
Adjustable differential at factory



RoHS COMPLIANT

0190 Diaphragm pressure switches with spade terminals

Adjustment range in psi	Tolerance in psi (at room temperature)	Thread	Order number	p _{max.} in psi
4.35 – 21.75	± 2.9	M 10x1 taper	0190 457 01 [] 001	1450 ¹⁾
		1/4" BSPP	0190 457 03 [] 003	
		1/8" NPT	0190 457 04 [] 318	
		1/4" NPT	0190 457 09 [] 314	
		7/16 – 20 UNF	0190 457 20 [] 301	
		9/16 – 18 UNF	0190 457 21 [] 302	
14.5 – 145	± 7.25	M 10x1 taper	0190 458 01 [] 004	
		1/4" BSPP	0190 458 03 [] 006	
		1/8" NPT	0190 458 04 [] 319	
		1/4" NPT	0190 458 09 [] 315	
		7/16 – 20 UNF	0190 458 20 [] 303	
		9/16 – 18 UNF	0190 458 21 [] 304	
14.5 – 145	± 7.25	M 10x1 taper	0190 458 01 [] 040	
		1/4" BSPP	0190 458 03 [] 042	
		1/8" NPT	0190 458 04 [] 343	
		1/4" NPT	0190 458 09 [] 340	
		7/16 – 20 UNF	0190 458 20 [] 341	
		9/16 – 18 UNF	0190 458 21 [] 342	
145 – 725	± 43.5	M 10x1 taper	0190 459 01 [] 007	4350 ¹⁾
		1/4" BSPP	0190 459 03 [] 009	
		1/8" NPT	0190 459 04 [] 320	
		1/4" NPT	0190 459 09 [] 316	
		7/16 – 20 UNF	0190 459 20 [] 305	
		9/16 – 18 UNF	0190 459 21 [] 306	
145 – 1450	43.5 – 72.5	M 10x1 taper	0190 461 01 [] 010	
		1/4" BSPP	0190 461 03 [] 012	
		1/8" NPT	0190 461 04 [] 321	
		1/4" NPT	0190 461 09 [] 317	
		7/16 – 20 UNF	0190 461 20 [] 307	
		9/16 – 18 UNF	0190 461 21 [] 308	



- Also available with switching point preset in our factory.
- For ready-wired variants, see page 34 onwards.
- Other body materials and connection threads on request.
- Other diaphragm / seal materials on request, e.g. HNBR, silicone (last one for diaphragm type only).



- Accessories: see page 33



- For further technical data, see page 21.

! Order number
Add figure for diaphragm/seal material

0190 XXX XX **X** XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	=	1
EPDM	Hydrogen, acetylene, ozone, brake fluid etc.	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3

See page 21 for temperature ranges of diaphragm/seal materials



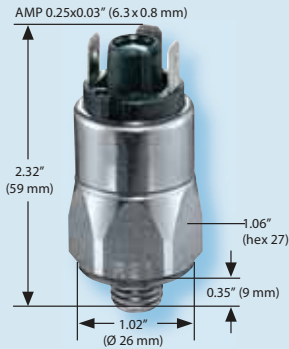
RoHS COMPLIANT

0191

Piston pressure switches max 24 V

Zinc-plated steel body, with spade terminals
With snap action switch and gold contacts
Overpressure safe to **8700** psi ¹⁾
Adjustable differential at factory

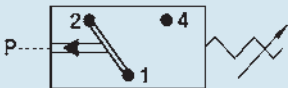
With male thread



- Also available with switching point preset in our factory.
- For ready-wired variants, see page 34 onwards.
- Other body materials and connection threads on request.
- Other diaphragm / seal materials on request, e.g. HNBR, silicone (last one for diaphragm type only).



• Accessories: see page 33



• For further technical data, see page 21.

0191 Piston pressure switches with spade terminals

Adjustment range in psi	Tolerance in psi (at room temperature)	Thread	Order number	p _{max.} in psi
725 – 2900	± 72.5	M 10x1 taper	0191 460 01 001	8700
		1/4" BSPP	0191 460 03 003	
		1/8" NPT	0191 460 04 304	
		1/4" NPT	0191 460 09 303	
		7/16 – 20 UNF	0191 460 20 301	
		9/16 – 18 UNF	0191 460 21 302	

Order number
Add figure for diaphragm/seal material

0191 XXX XX **X** XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	=	1
EPDM	Hydrogen, acetylene, ozone, brake fluid etc.	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3
See page 21 for temperature ranges of diaphragm/seal materials			

Warning!

When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 145 psi is not exceeded.

¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

Degree of protection IP65

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.

Accessories

For key-size 1.06" (hex 27mm) pressure switches



Protective cap

With two cable entries
for 0.07 - 0.09" (1.7 - 2.3 mm) cable diameter
Not suitable for voltages above 42 V!

Order number: 1-1-70-621-007



Connector plug

Cable gland PG 9
clamping range 0.23 - 0.35" (6 - 9 mm)
Not suitable for voltages above 250 V!

Order number.: 1-1-80-652-002



Application matrix for accessories

Pressure switch range	Protective cap 1-1-70-621-007	Connector plug 1-1-80-652-002	Connector plug with indicator light to DIN EN 175301-803-A 24 VDC: 1-1-84-652-011 110 VAC on request
0170 / 0171	•	•	
0180 / 0181	• (up to max. 42 V)	•	
0183	• (up to max. 42 V)	•	
0184 / 0185			• (for 24 V and 250 V on request)
0186 / 0187	• (up to max. 42 V)	•	
0196 / 0197	•	•	

Ready-wired Pressure Switches



Applications

Our pressure switches mostly have a degree of protection IP65. This may not be adequate for all applications. Especially for commercial vehicles, mobile hydraulics, and similar applications where IP67 or IP6K9K may be required.

At SUCO any commercially-available connector system can be supplied ready-wired with a customer-specific cable length. This ensures great flexibility, and we can also supply small quantities without the need for expensive tooling.

The technical data of ready-wired pressure switch variants are substantially the same as those of the standard models. Differences in the technical data will be agreed with the customer and defined on a customer-specific drawing of the ready-wired pressure switch.

Pressure switches suitable for ready-wiring

are supplied with the switching point preset in our factory. The switching point can not be changed subsequently. It is therefore essential that the switching point is stated when the order is placed.

Pressure switch ranges suitable for ready-wiring



0263/0266
0267
0269

See pages 10 - 11
for technical data



0270/0271
0290/0291
0296/0297

See page 20 - 21
for technical data

A selection from the wide variety of plugs we can supply.



Plugs to
DIN 72585

AMP Junior/Timer

Cannon plugs

AMP Superseal

Packard plugs
(Weather Pack)

Packard plugs
(Weather Pack)

Deutsch plugs
(DT 06)

Deutsch plugs
(DT 04 - 2P)

Deutsch plugs
(DT 04 - 3P)

Further plugs and
connectors available
on request

We supply the type
and length of cable
you need

0240/0241

Diaphragm/piston pressure switches

Depending on connection, suitable for 42 V or 250 V
With snap action switch and silver contacts
Overpressure safe to **4350/8700** psi¹⁾



Technical Data

Voltage:	42 V / 250 V depending on connection
Current:	max. 2 A
Degree of protection:	IP67
Protection class:	2, protective insulation, <input type="checkbox"/>
Switching frequency:	200 / min.
Differential:	10 – 20% not adjustable
Mechanical life expectancy:	10 ⁶ cycles (at pressures up to 50 bar)
Materials:	body: zinc-plated steel protective cover: anodised aluminum
cable:	standard delivery 2 m with wire end sleeves
max. ramp rate:	≤ 15 psi / ms

- Switching point can be adjusted after potting
- Degree of protection **IP67**

0240 Diaphragm pressure switches

Adjustment range in psi	Tolerance in psi (at room temperature)	Thread	Order number			P _{max.} in psi
4.35 – 21.75	± 2.9	1/4" BSPP	0240	457	03	003
		NPT 1/8	0240	457	04	300
		NPT 1/4	0240	457	09	305
		7/16-20 UNF	0240	457	20	310
		9/16-18 UNF	0240	457	21	315
14.5 – 145	± 7.25	1/4" BSPP	0240	458	03	006
		NPT 1/8	0240	458	04	301
		NPT 1/4	0240	458	09	306
		7/16-20 UNF	0240	458	20	311
		9/16-18 UNF	0240	458	21	316
145 – 290	± 14.5	1/4" BSPP	0240	459	03	009
		NPT 1/8	0240	459	04	302
		NPT 1/4	0240	459	09	307
		7/16-20 UNF	0240	459	20	312
		9/16-18 UNF	0240	459	21	317
290 – 725	± 29.0	1/4" BSPP	0240	461	03	012
		NPT 1/8	0240	461	04	303
		NPT 1/4	0240	461	09	308
		7/16-20 UNF	0240	461	20	313
		9/16-18 UNF	0240	461	21	318

4350 ¹⁾

0241 Piston pressure switches

Adjustment range in psi	Tolerance in psi (at room temperature)	Thread	Order number			P _{max.} in psi
725 – 2175	± 72.5	1/4" BSPP	0241	460	03	003
		NPT 1/8	0241	460	04	304
		NPT 1/4	0241	460	09	309
		7/16-20 UNF	0241	460	20	314
		9/16-18 UNF	0241	460	21	319

8700 ¹⁾

Order number:
Add figure for
● **diaphragm/seal material**

024X XXX XX **X** XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	=	1
EPDM	Hydrogen, acetylene, ozone, brake fluid etc.	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3

See page 23 for temperature ranges of diaphragm / seal materials

Warning!

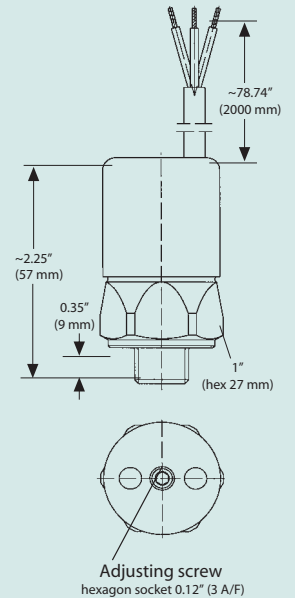
When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 145 psi is not exceeded.

Piston-type pressure switches are only to a limited extent suitable for use with gases and oxygen. See explanation on page 5.

¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

Degree of protection IP67

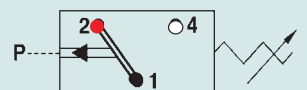
The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.



- **Options:**
other cable lengths and connectors on request
fixed, pre-set switching point
- **Other body materials and connection threads on request.**
- **Other diaphragm/seal materials on request, e.g. HNBR, silicone (last one for diaphragm type only).**

Contact assignment:

- 1 = black
- 2 = red
- 4 = white



CE Marking

Directives of the
 European Council

**Machinery Directive,
 EMC Directive
 Low Voltage Directive
 ATEX Directive**

Pressure Switches 30 A/F

Snap action micro-switch



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 catalog pages for the relevant switches carry the CE marking.



Technical data

Degree of protection:	IP65 valve connector fitted		
Switching frequency:	200 / min.		
Temperature stability for diaphragm/seal materials:	NBR (BunaN)	-40 °F – +212 °F	(-40 °C – +100 °C)
	EPDM	-22 °F – +248 °F	(-30 °C – +120 °C)
	FKM	23 °F – +248 °F	(-5 °C – +120 °C)
Mechanical life expectancy:	10 ⁶ cycles (at pressures up to 725 psi)		
Vibration resistance:	10 g / 5–200 Hz sine-wave		
Shock resistance:	294 m/s ² ; 14 ms half-sine-wave		
Body material:	AlMgSi1 F28		
Switching performance:	see page 7		
Differential:	Type 0159:	10 – 30 % (not adjustable)	
	Type 0161, 0162, 0175:	10 – 30 % (adjustable at factory)	

- Panel or manifold mounting for clear, maintenance-friendly installation
- Easily adjustable by user
- High-quality micro-switch for reliable switching
- High overpressure safety
- Connection plug for simple installation on site

0159

Diaphragm/piston pressure switches max 250 V

Aluminum body
With snap action switch and silver contacts
Overpressure safe to **2900/8700** psi ¹⁾
Max. voltage 250 V

• See page 7 for electrical properties



- Switching point steplessly adjustable with switch in operating condition by turning knurled knob

0159 Diaphragm pressure switches

Adjustment range in psi	Tolerance in psi (room temperature)	p _{max.} in psi	Thread	Order number
2.9 – 29	± 2.9 – 4.35	2900 ¹⁾	1/4" BSPP female	0159 426 14 001
7.25 – 72.5	± 2.9 – 7.25			0159 427 14 001
14.5 – 145	± 7.25			0159 428 14 001
29 – 290	± 14.5			0159 429 14 001
72.5 – 725	± 43.5			0159 430 14 001
145 – 1450	± 43.5 – 72.5			0159 431 14 001

0159 Piston pressure switches

Adjustment range in psi	Tolerance in psi (room temperature)	p _{max.} in psi	Thread	Order number
145 – 1450	± 43.5 – 72.5	8700 ¹⁾	1/4" BSPP female	0159 432 14 001
362.5 – 3625	± 72.5 – 101.5			0159 433 14 001
580 – 5800	± 72.5 – 130.5			0159 434 14 001

! Order number
Add figure for diaphragm/seal material

0159 XXX XX **X** XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	=	1
EPDM	Hydrogen, acetylene, ozone, brake fluid etc.	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3
See page 38 for temperature ranges of diaphragm / seal materials			

Warning!

When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 145 psi is not exceeded.

Piston-type pressure switches are only to a limited extent suitable for use with gases and oxygen. See explanation on page 5.

¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

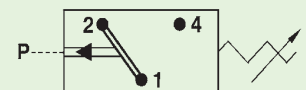
Degree of protection IP65

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.

With female thread



- Also available with switching point preset in our factory.



- For further technical data see page 38



0161/0162

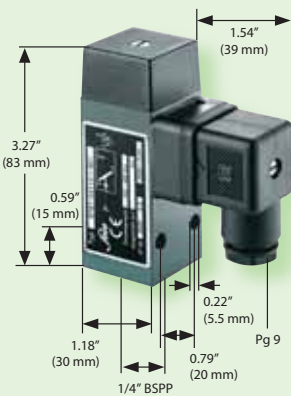
Diaphragm/piston pressure switches max 250 V

- Aluminum body
- With snap action switch and silver contacts
- Max. voltage 250 V
- Overpressure safe to **2900/8700** psi¹⁾
- With connector plug similar to DIN EN 175301 (DIN 43650)
- Adjustable differential at factory

• See page 7 for electrical properties

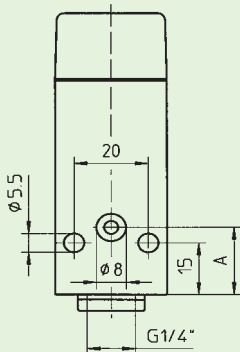
0161

With female thread

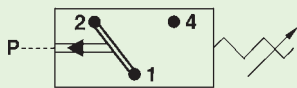


0162

Manifold mounting



• Also available with switching point preset in our factory.



• For further technical data see page 38

Diaphragm pressure switches

Adjustment range in psi	Tolerance in psi (room temperature)	Dim."A" in inch	P _{max.} in psi	0161				0162 ²⁾					
				1/4" BSPP female				Manifold mounting					
7.25 – 14.5	± 2.9	0.59"	2900 ¹⁾	0161	436	14	X	001	0162	436	14	X	001
7.25 – 72.5	± 2.9 – 7.25			0161	437	14	X	001	0162	437	14	X	001
14.5 – 145	± 7.25			0161	438	14	X	001	0162	438	14	X	001
145 – 725	± 43.5			0161	439	14	X	001	0162	439	14	X	001
725 – 1450	± 43.5 – 72.5			0161	440	14	X	001	0162	440	14	X	001

Piston pressure switches

Adjustment range in psi	Tolerance in psi (room temperature)	Dim."A" in inch	P _{max.} in psi	0161				0162 ²⁾					
				1/4" BSPP female				Manifold mounting					
1450 – 5800	± 72.5 – 130.5	0.77"	8700 ¹⁾	0161	441	14	X	001	0162	441	14	X	001

! Order number Add figure for diaphragm/seal material

0161 XXX XX **X** XXX 0162 XXX XX **X** XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	=	1	=	1
EPDM	Hydrogen, acetylene, ozone, brake fluid etc.	=	2	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3	=	3
See page 38 for temperature ranges of diaphragm/seal materials					

²⁾ 0162 Diaphragm pressure switches: scope of supply includes O-ring NBR 5 x 1.5

0175

Diaphragm pressure switches max 250 V

Aluminum body
With snap action switch and silver contacts
Max. voltage 250 V
Overpressure safe to **362 psi**¹⁾
With connector plug similar to DIN EN 175301 (DIN 43650)
Adjustable differential at factory

- See page 7 for electrical properties



0175 Diaphragm pressure switches

Adjustment range in psi	Tolerance in psi (room temperature)	P _{max.} in psi	Thread	Order number			
1.45 – 14.5	± 1.45 – 2.9	362 ¹⁾	1/4" BSPP female	0175	435	14	001

Order number
Add figure for diaphragm/
seal material

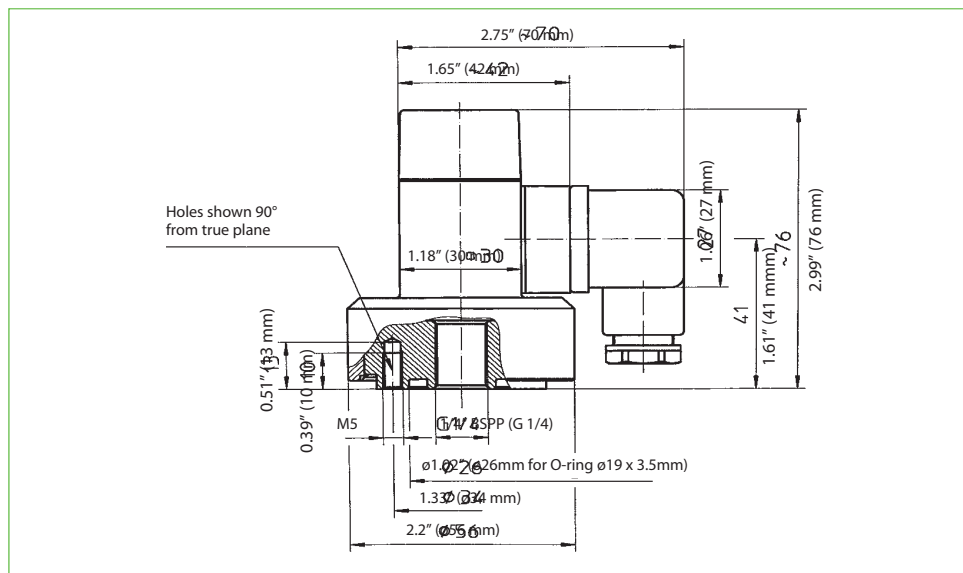
0175 XXX XX **X** XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	=	1
EPDM	Hydrogen, acetylene, ozone, brake fluid etc.	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3
See page 38 for temperature ranges of diaphragm/seal materials			

With female thread



- Also available with switching point preset in our factory.



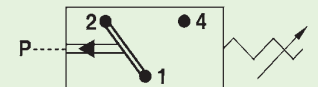
Warning!

When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 145 psi is not exceeded.

¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

Degree of protection IP65

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.



- For further technical data see page 38

Explosion-Protected Pressure Switches

To new ATEX standard



Technical data

	0165	0340	0341
Degree of protection:		IP65	
Protection zone:	1	22	22
Switching power:	1 A / 250 VAC 0.25 A / 250 VDC	2 A / 250 VAC	
Body material:	AlMgSi1 F28	Steel, zinc-plated Anodised aluminum	
Conductor cross-section:	3 x 0.75 mm ²	3 x 0.5 mm ²	
Switching frequency:	200 / min.		
Temperature range:	NBR, EPDM: -4 °F – +176 °F (-20 °C – +80 °C); FKM: +23 °F – +176 °F (-5 °C – +80 °C)		
Mechanical life expectancy:	10 ⁶ cycles (at pressures up to 50 bar)		
Vibration resistance:	10 g / 5 – 200 Hz sine-wave		
Shock resistance:	294 m/s ² ; 14 ms half-sine-wave		
Cable length:	standard delivery 2 m with wire end sleeves		
Differential:	10 – 30% (not adjustable)		



Technical data

- ATEX-certified for use in potentially-explosive atmospheres
- Compact design
- Micro-switch for reliable operation
- Switching point can be easily adjusted by user when switch is in operation

Explosion-protected pressure switches are classified by ATEX and approved according to the type of combustible material that may be expected where they are to be used. The sub-divisions are:

Gases and vapors

Dusts

Methane dust

Our pressure switches are suitable for gases and vapors, or for dust according to type. They are not suitable for use in methane dust (mining applications).

The table provides an overview of the sub-division into zones, equipment groups and equipment categories.

Conditions in locations with potentially-explosive atmosphere

Combustible material	Occurrence of combustible material in location	Designation of location with specified hazard	Marking required on equipment to be used in the specified zone	
			Equipment group	Equipment category
Gases Vapors	Present continuously, for long periods or frequently	Zone 0	II	1G
	Occurs occasionally	Zone 1	II	2G or 1G
	Unlikely to occur, and then only seldom or for short periods	Zone 2	II	3G or 2G or 1G
Dusts	Present continuously, for long periods or frequently	Zone 20	II	1D
	Occurs occasionally	Zone 21	II	2D or 1D
	Occurs if accumulated dust is disturbed, and then only seldom or for short periods	Zone 22	II	3D or 2D or 1D
Methane Dust	–	Mining industry	I	M1
	–	Mining industry	I	M1 or M2

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 catalog pages for the relevant switches carry the CE marking.



0165

Diaphragm/piston pressure switches 250 V

ATEX 0102 CE

Ex II 2G EEx d II C T6 / T5 (gas-protected)

Aluminum body
With snap action microswitch
Max. voltage 250 V
Overpressure safe to **2900 / 8700 psi**¹⁾

With female thread

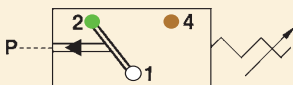


• Also available with switching point preset in our factory.

• Other cable lengths on request.

Contact assignment:

- 1 = white
- 2 = green
- 4 = brown



• For further technical data, see page 43

0165 Diaphragm pressure switches

Adjustment range in psi	Tolerance in psi (at room temp)	Thread	Order number	p _{max.} in psi
14.5 – 87	± 7.25	1/4" BSPP female	0165 448 14 001	2900 ¹⁾
72.5 – 725	± 43.5	1/4" BSPP female	0165 449 14 001	

0165 Piston pressure switches

Adjustment range in psi	Tolerance in psi (at room temp)	Thread	Order number	p _{max.} in psi
290 – 1450	± 43.5 – 72.5	1/4" BSPP female	0165 450 14 001	8700 ¹⁾
1450 – 5800	± 72.5 – 130.5	1/4" BSPP female	0165 451 14 001	

Order number
Add figure for diaphragm/seal material

0165 XXX XX **X** XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	=	1
EPDM	Hydrogen, acetylene, ozone, brake fluid etc.	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3
See page 42 for temperature ranges of diaphragm / seal materials			

Warning!

When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 145 psi is not exceeded.

Piston-type pressure switches are only to a limited extent suitable for use with gases and oxygen. See explanation on page 5.

¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

Degree of protection IP65

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.

0340/0341

Diaphragm/piston pressure switches 250 V

ATEX CE

II 3D IP65 T90°C (dust-protected)

Zinc-plated steel body
With snap action switch
Max. voltage 250 V
Overpressure safe to **4350 / 8700 psi**¹⁾



0340 Diaphragm pressure switches

Adjustment range in psi	Tolerance in psi (at room temperature)	Thread	Order number	p _{max.} in psi
4.35 – 21.75	± 2.9	1/4" BSPP	0340 457 03 003	4350 ¹⁾
14.5 – 145	± 7.25 – 14.5		0340 458 03 006	
145 – 290	± 14.5		0340 459 03 009	
290 – 725	± 29.0		0340 461 03 012	

0341 Piston pressure switches

Adjustment range in psi	Tolerance in psi (at room temperature)	Thread	Order number	p _{max.} in psi
725 – 2175	± 72.5	1/4" BSPP	0341 460 03 003	8700 ¹⁾

Order number
Add figure for diaphragm/seal material

034X XXX XX X XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	=	1
EPDM	Hydrogen, acetylene, ozone, brake fluid etc.	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3
See page 42 for temperature ranges of diaphragm / seal materials			

Warning!

When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 145 psi is not exceeded.

Piston-type pressure switches are only to a limited extent suitable for use with gases and oxygen. See explanation on page 5.

¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

Degree of protection IP65

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.

With male thread

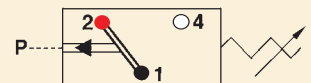


• Also available with switching point preset in our factory.

• Other cable lengths on request.

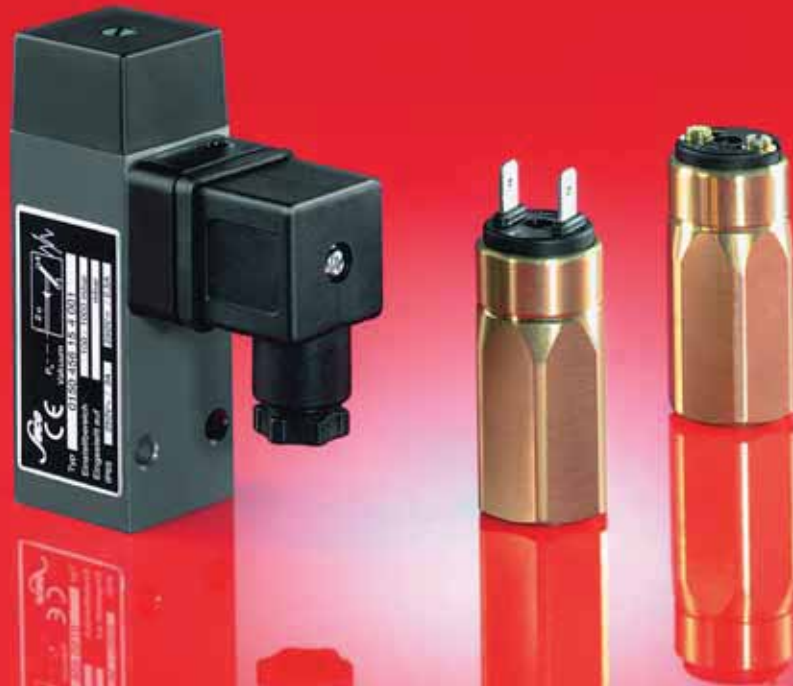
Contact assignment:

- 1 = black
- 2 = red
- 4 = white



• For further technical data, see page 43

Vacuum Switches



Technical data

	0150	0151
Degree of protection:	IP65	
Switching power:	See page 7	100 VA
Max. voltage:	250 V	42 V
Temperature stability:	-4 °F – +212 °F (-20 °C – +100 °C)	23 °F – +248 °F (-5 °C – +120 °C)
Body material:	AlMgSi1 F28	Brass
Switching frequency:	200 / min.	
Mechanical life expectancy:	10 ⁶ cycles (at pressures up to 290 psi)	
Vibration resistance:	10 g / 5– 200 Hz sine-wave	
Shock resistance:	294 m/s ² ; 14 ms half-sine-wave	
Max. ramp rate:	≤ 15 psi / ms	



- Low-cost switch with high SUCO standard of quality
- Switching point easy to adjust
- High overpressure resistance and long working life even under harsh operating conditions
- Model 0150 with micro-switch for reliable switching
- Model 0150 with panel-mounting feature
- Model 0151 as normally open or normally closed

In 1656, the statesman and scientist Otto von Guericke devised the Magdeburg hemispheres. He used the air pump he had invented to create a vacuum within them and showed the magnitude of air pressure in a sensational public demonstration.



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 vacuum 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.





0150

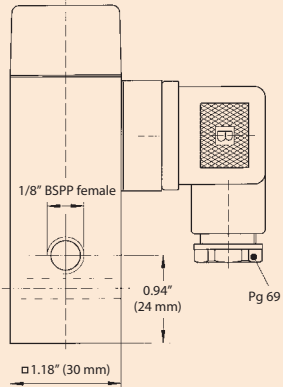
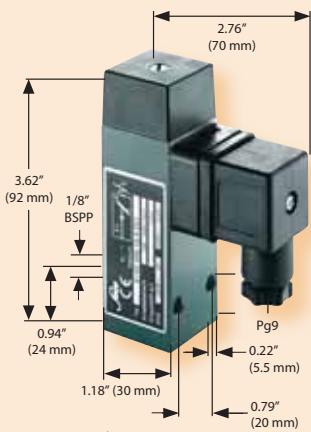
Vacuum switch 250 V

With built-in Snap action micro-switch

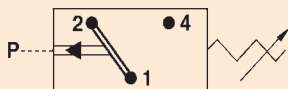
Aluminum body
Max. voltage 250 V
Overpressure safe to 290 psi¹⁾
Differential ca. 1.5" – 3 Hg" (non-adjustable)

• See page 7 for electrical properties

With female thread



• Also available with switching point preset in our factory.



• For further technical data, see page 46

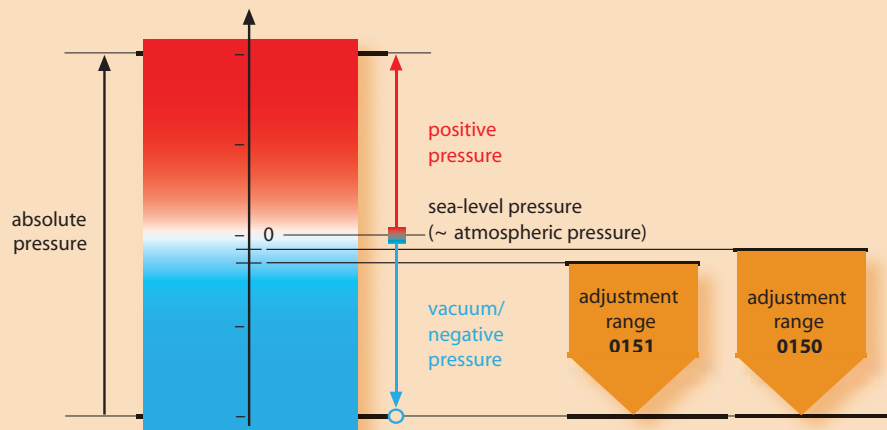
0150 Vacuum switch

Adjustment range in. Hg	Tolerance in. Hg (at room temperature)	Thread	Order number	P _{max.} in psi
3" – 29"	± 1.5"	1/8" BSPP female	0150 456 15 4 001	290 ¹⁾

Diaphragm/seal material

ECO:	Air, oils, greases, fuels etc.	=	4
Temperature stability:	-22 °F – +248 °F (-30 °C – +120 °C)		

Comparison absolute pressure / relative pressure



¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

Degree of protection IP65

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.

0151

Vacuum switch 42 V

SPST-NO (normally open) or SPST-NC (normally closed)

Brass body
With M3 screw or spade terminals
Max. voltage 42 V
Overpressure safe to **290 psi**¹⁾

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

0151 Vacuum switch with screw terminals

Adjustment range in. Hg	Tolerance in. Hg (at room temp)	Thread	p _{max.} in psi	SPST-NO (normally open) → :	SPST-NC (normally closed) → :
6.0" – 29"	± 3.0"	1/8" BSPP female	290 ¹⁾	0151 452 15 3 001	0151 453 15 3 001

0151 Vacuum switch with spade terminals

Adjustment range in. Hg	Tolerance in. Hg (at room temp)	Thread	p _{max.} in psi	SPST-NO (normally open) → :	SPST-NC (normally closed) → :
6.0" – 29"	± 3.0"	1/8" BSPP female	290 ¹⁾	0151 454 15 3 001	0151 455 15 3 001

Diaphragm/seal material

FKM:	Air, oils, greases, fuels	=	3	=	3
Temperature stability: 23 °F – +248 °F (-5 °C – +120 °C)					

Accessories

Protective cap

With central cable gland
for 0.06 - 0.20" (1.5 - 5 mm) cable diameter
Order Number: 1-1-66-621-010
Not suitable for voltages above 42 V!



Protective cap

With two cable entries
for 0.07 - 0.09" (1.7 - 2.2 mm) cable diameter
Order Number: 1-1-66-621-003
Not suitable for voltages above 42 V!



¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

Degree of protection IP65

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.

With female thread



AMP 0.25 x 0.03" (6.3x0.8 mm)
tin-plated



• Also available with switching point preset in our factory.

• For further technical data, see page 44

Electronic Pressure Switches



- Precision pressure sensors for high accuracy (0.5 % full scale)
- Electronic evaluation of switching point permits extremely small or very large differential settings
- Switching point easily set by the user



Technical data for electronic pressure switches

	0520	0570
Switching function:	SPST-NO (normally open) / SPST-NC (normally closed)	SPST-NO / SPST-NC programmable, time-delayed switching, zero-resetting, peak-value memory (within setting range), switching-pointcounter
Differential:	2 – 95% programmable at our works (max. tolerance $\pm 1.0\%$ full scale)	1 – 99% programmable using key-pad
Adjustment:	Switching point can be set on site by the customer using a screwdriver via setting potentiometer when operating voltage is applied	Programmable using key-pad on front face
Outputs:	Transistor output (1.4 A / PNP)	2 Transistor outputs (each 1.4 A / PNP) 1 analogue output (4–20 mA)
Indication of circuit status:	—	By 2 LEDs (yellow)
Time-delayed switching:	—	Adjustable 0 – 3.0 s
Pressure display:	—	Current pressure can be shown in bar or PSI on 3-digit LED-display (red)
Materials:	Zinc-plated steel body	Medium-contact parts anodised aluminum, body is zinc die-casting
Access coding:	—	The switch can have a number code between 1 and 999
Supply voltage:	18 – 36 VDC	12 – 30 VDC
Degree of protection:	IP65	
Switching time:	< 4 ms	
Accuracy:	$\pm 0.5\%$ (FS at room temperature)	
Temperature range:	NBR, EPDM: -4 °F – +176 °F (-20 °C – +80 °C); FKM: 23 °F – +176 °F (-5 °C – +80 °C)	
Temperature compensation:	-4 °F – +176 °F (-20 °C – +80 °C), error = 1.5% overall	
Temperature drift:	$\pm 0.2\%$ / 10 K	
Life expectancy:	5 x 10 ⁶ cycles	
Vibration resistance:	10 g at 5 – 2000 Hz sine-wave	
Shock resistance:	294 m/s ² , 14 ms half-sine-wave to DIN 40046	
EMC:	To EN 50081-1, EN 50081-2, EN 50082-2	

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 electronic switches comply with the EMC Directive 89/336/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.



0520

Electronic pressure switches

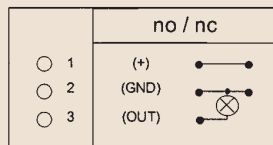
Zinc-plated steel body
Ceramic sensor with thick film technology
Supply voltage 18 – 36 VDC
Overpressure safe to **290/2175/7250** psi¹⁾
Differential programmable in our factory from 2 – 95%

- Simple, mechanical adjustment of switching point

With female thread



- Also available with switching point preset in our factory.



- For further technical data, see page 51

0520 Electronic pressure switches

Adjustment range in psi	Differential ²⁾ in psi	Thread	p _{max.} in psi	Burst pressure in psi	SPST-NO (normally open) → :		SPST-NC (normally closed) → :	
0 – 145	7.25	1/4" BSPP female	290 ¹⁾	363	0520 470 14	001	0520 471 14	001
0 – 1450	72.5		2175 ¹⁾	2538	0520 472 14	001	0520 473 14	001
0 – 3625	145		7250 ¹⁾	8700	0520 474 14	001	0520 475 14	001

! Order number Add figure for diaphragm/seal material **0520** XXX XX **X** XXX **0520** XXX XX **X** XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	= 1	= 1
EPDM	Hydrogen, acetylene, ozone, brake fluid etc.	= 2	= 2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	= 3	= 3
See page 51 for temperature ranges of diaphragm / seal materials			

Warning!

When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 145 psi is not exceeded.

¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

²⁾ Factory set, if no special customer request.

Degree of protection IP65

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.

0570

Electronic pressure switches

Aluminum and zinc die-cast body
 Ceramic sensor with thick film technology
 Supply voltage 12 – 30 VDC
 Overpressure safe to **290/2175/8700** psi¹⁾
 Programmable using key-pad on front face

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



- Time delayed switching (programmable)
- Peak-value memory (within setting range)
- Coding to prevent tampering

0570 Electronic pressure switches

Adjustment range in psi	Thread	P _{max.} in psi	Burst pressure in psi	Order number
0 – 145	1/4" BSPP female	290 ¹⁾	363	0570 467 14 001
0 – 1450		2175 ¹⁾	2538	0570 468 14 001
0 – 5800		8700 ¹⁾	10,150	0570 469 14 001

! Order number
 Add figure for diaphragm/seal material

0570 XXX XX **X** XXX

NBR (BunaN)	Hydraulic / machine oil, turpentine, heating oil, air etc.	=	1
EPDM	Hydrogen, acetylene, ozone, brake fluid etc.	=	2
FKM	Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc.	=	3
See page 51 for temperature ranges of diaphragm / seal materials			

Warning!

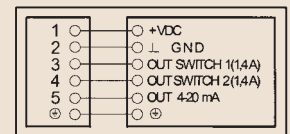
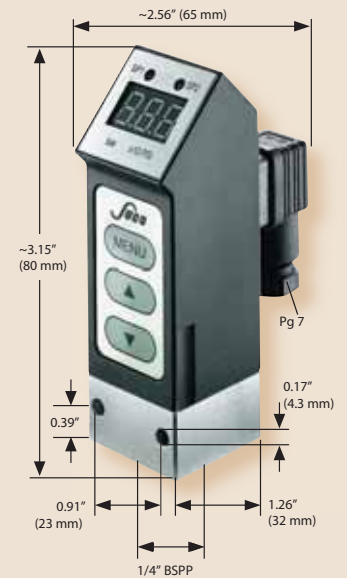
When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 145 psi is not exceeded.

¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

Degree of protection IP65

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.

With female thread



• For further technical data, see page 49



Pressure Transducers Pressure Transmitters

www.suco-tech.com



- Silicon-on-Sapphire technology (SoS) for highest accuracy, reliability and safe process monitoring.
- High overpressure safety for use in mobile hydraulics.
- Long life even with high pressure rise rates.
- Wetted parts made of stainless steel and titanium to ensure problem-free medium compatibility.
- Welded diaphragm, no internal seals.
- Customized versions on request.
- There are many more options available than shown in this brochure.

**CE marking**

SUCO pressure transducers / transmitters are covered by the EMV-directive 89/336/EC.

An EC Declaration of Conformity has been issued for these pressure transducers / transmitters and is on file at our offices.

Degree of protection

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the electrical connection complies with regulations other than those stated and whether it can be used for special applications which could not be foreseen by us.

Oxygen warning!

Do not use for oxygen applications!

Type	0705	0710	0720
Output signal:	0.5 – 4.5 V radiometrically	0 – 10 V (3-wire)	4 – 20 mA (2-wire)
Supply voltage U_b :	5 VDC \pm 10 % max. 6.5 VDC	12 – 32 VDC	10 – 32 VDC
Maximum load:	\geq 4.7 k Ω	\geq 4.7 k Ω	\leq ($U_b - 10$ V) / 20 mA
Accuracy:	\pm 0.5 % full scale at room temperature		
Long term stability:	\pm 0.1 % FS p. a.		
Repeatability:	\pm 0.1 % FS		
Thermal error:	\pm 0.01 % FS/ $^{\circ}$ C		
Compensated temperature range:	-40 $^{\circ}$ F to +176 $^{\circ}$ F (-40 $^{\circ}$ C to +80 $^{\circ}$ C)		
Temperature range ambient:	-40 $^{\circ}$ F to +212 $^{\circ}$ F (-40 $^{\circ}$ C to +100 $^{\circ}$ C)		
Temperature range media:	-40 $^{\circ}$ F to +257 $^{\circ}$ F (-40 $^{\circ}$ C to +125 $^{\circ}$ C)		
Mechanical life expectancy:	10^7 pulses up to p_{nom}		
Overload factor p_o ¹⁾ :	4xp _{nom,static} ; over 8,700 psi = p_o : 23,925 psi (over 600 bar = p_o : 1,650 bar)		
Burst pressure ¹⁾ :	8xp _{nom,static} ; over 5,800 psi = burst pressure : 29,000 psi (over 400 bar = burst pressure: 2,000 bar)		
Wetted part materials:	stainless steel 1.4305 / SAE Grade 303, titanium		
Maximum pressure rise rate:	< 72,500 psi/s (< 5.0 bar / ms)		
Response time 10 - 90% :	< 2 ms		
Resistance against vibrations:	20 g, 4 - 2000Hz DIN EN 60068-2-6		
Shock proof:	Half sine 500 m/s, 11 ms DIN EN 60068-2-29		
IP- protection class:	IP67 at M 12x1, DIN 72585 (Bayonet) IP65 at DIN EN 175301-803 and cable connection		
EMC:	EMV 89/336/EG, EN 61000-6-2, EN 61000-6-3		
Max. length of connection cable:	100 ft (ca. 30 m)		
Protection against reverse polarity, short-circuit and over voltage surges::	built-in		
Weight:	ca. 2.8 oz / 80 g (DIN 175301 ca. 3.9 oz / 110 g)		

¹⁾Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

0705 / 0710 / 0720

Order matrix for Pressure Transducers / Transmitters

www.suco-tech.com

	Type	Pressure range	Pressure connection	Pressure Units	Electrical connection
<div style="display: flex; justify-content: space-around;"> ↓ ↓ ↓ ↓ ↓ </div>					
Type					
0.5 – 4.5 V ratiometrically	0705				
0 – 10 V 3-wire	0710				
4 – 20 mA 2-wire	0720				
Pressure range					
0 – 10 bar (0 - 145 PSI)	101				
0 – 16 bar (0 - 232 PSI)	161				
0 – 25 bar (0 - 362 PSI)	251				
0 – 40 bar (0 - 580 PSI)	401				
0 – 60 bar (0 - 870 PSI)	601				
0 – 100 bar (0 - 1,450 PSI)	102				
0 – 160 bar (0 - 2,320 PSI)	162				
0 – 250 bar (0 - 3,620 PSI)	252				
0 – 400 bar (0 - 5,800 PSI)	402				
0 – 600 bar (0 - 8,700 PSI)	602				
pressure connection					
1/4" BSPP – DIN 3852-E	41				
1/4" BSPP – DIN 3852-A	03				
NPT 1/8	04				
NPT 1/4	09				
M 10x1 tap.	13				
7/16-20 UNF	20				
9/16-18 UNF	21				
M 14x1.5 – DIN 3852-E	42				
Pressure Units					
bar	B				
psi	P				
Electrical connection					
DIN EN 175301-803-A (DIN 43 650-A) Socket device included	001				
M 12 – DIN EN 61071-2-101 D	002				
DIN 72585-A1-4.1 (Bayonet)	004				
Cable connection (length of cable 2 m / 78" standard)	011				

Order number	07XX	XXX	XX	X	XXX

Abbreviation for unit	Pa = N/m ²	bar	lbf/in ² , PSI
1 Pascal	1	0.00001	0.00014
1 bar	100,000	1	14.5
1 lbf/in ² , PSI	6894	0.06894	1

Accessories (not included)

Socket device M 12x1 straight



Order number:
1-6-00-652-016

Socket device M 12x1 angular



Order number:
1-6-00-652-017

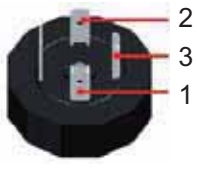
Oxygen warning!
Do not use for oxygen applications!



0705 / 0710 / 0720

Technical explanations

DIN EN 175301-803-A



0705 + 0710	0720
1: U _{out}	1: nc
2: Gnd	2: I _{out}
3: Uv+	3: Uv+

x ~ 60 mm (without connector)
x ~ 76 mm (with connector)

d = ø 22 mm

Order number: **001**

M 12 – DIN EN 61071-2-101 D




0705 + 0710	0720
1: Uv+	1: Uv+
2: U _{out}	2: nc
3: Gnd	3: I _{out}
4: nc	4: nc

x ~ 54 mm

d = ø 22 mm

Order number: **002**

DIN 72585-A1-4.1




0705 + 0710	0720
1: Uv+	1: Uv+
2: Gnd	2: nc
3: U _{out}	3: I _{out}
4: nc	4: nc

x ~ 65 mm

d = ø 22 mm

Order number: **004**

Cable connection



0705 + 0710	0720
1: Uv+	1: Uv+
2: Gnd	2: nc
3: U _{out}	3: I _{out}

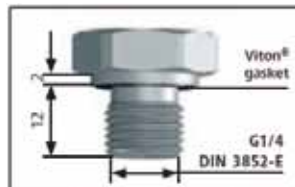
x ~ 44 mm (+ 20 mm bend relief)
length of cable ~ 2 m / 78"

d = ø 22 mm

Order number: **011**



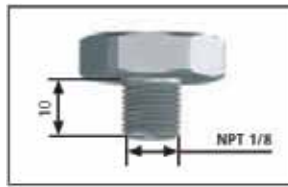
hex 22 mm



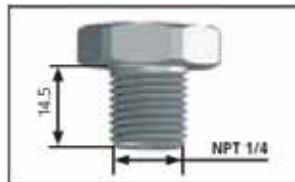
Order number: 41



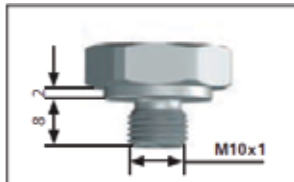
Order number: 03



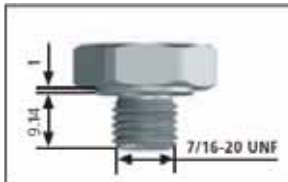
Order number: 04



Order number: 09



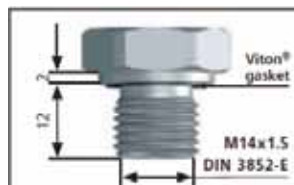
Order number: 13



Order number: 20



Order number: 21

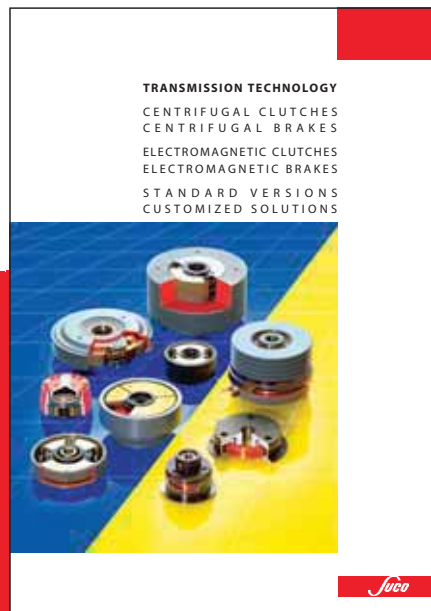


Order number: 42

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

Driving, coupling and braking with SUCO

Please ask for our catalog or visit our
homepage: www.suco-tech.com



www.suco-tech.com

Your distributor for SUCO products:



SUCO Technologies, Inc.
803 E. Washington St.
Medina, Ohio 44256

Phone: 330-722-1145
Fax: 330-723-2979
Toll-free: 800-473-7313

www.suco-tech.com
E-mail: info@suco-tech.com