0159

Diaphragm/piston pressure switches, 250V

Aluminium body
With changeover switch and silver contacts
Overpressure safe to 200 / 600 bar *)
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 bar	Tolerance in bar (RT)	$p_{max.}$ in bar	Thread	Order number
0.2 – 2	± 0.2 – 0.3	200*)	G 1/4" Internal	0159 426 14 001
0.5 – 5	± 0.2 – 0.5			0159 427 14 001
1 – 10	± 0.5			0159 428 14 001
2 – 20	± 1.0			0159 429 14 001
5 – 50	± 3.0			0159 430 14 001
10 – 100	± 3.0 – 5.0			0159 431 14 001

0159 Piston pressure switches

Adjustment range in bar	Tolerance in bar (RT)	$p_{max.}$ in bar	Thread	Order number
10 – 100	± 3.0 – 5.0	600*)	G 1/4" Internal	0159 432 14 001
25 – 250	± 5.0 – 7.0			0159 433 14 001
40 – 400	± 5.0 – 9.0			0159 434 14 001

Order Number:
Add figure for diaphragm/seal material

0159 XXX XX **X** XXX

NBR	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 34 for temperature ranges of diaphragm materials		

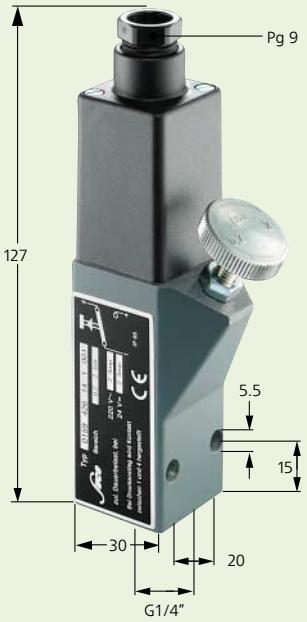
Warning!
When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 10 bar is not exceeded.

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

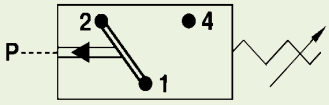
*) Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

Degree of protection IP 6 5
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.

0159
With internal thread



• *Also available with switching point preset in our works.*



• *For further technical data see page 34*

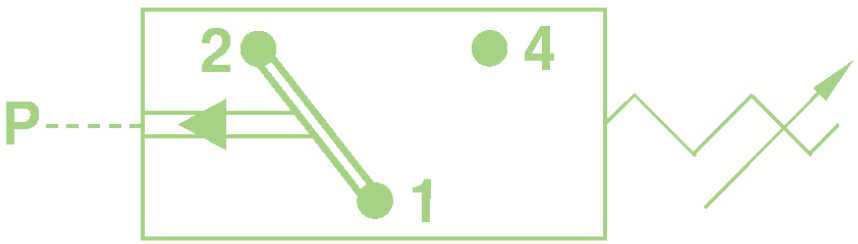
Pressure Switches 30 A/F

Changeover contacts

TECHNICAL DATA

Degree of protection:	IP 65 valve connector fitted
Switching frequency:	200 / min.
Temperature stability:	NBR -30° ... +100°C EPDM -30° ... +120°C FKM -5° ... +120°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/s²; 14 ms half-sine-wave
Body material:	AlMgSi1 F28
Switching performance:	see page 7

- Panel or manifold mounting for clear, maintenance-friendly installation
- Easily adjustable by user [1)]
- Many types have adjustable hysteresis [2)]
- High-quality micro-switch for reliable switching
- High overpressure safety
- Connection plug for simple installation on site



[1)] Except models 0158, 0188

[2)] Except models 0158, 0159, 0188

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.

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

Electrical Data

Rated operating voltage U_e	Rated operating current I_e		Utilisation category	Model ranges:
250 volt AC 50 / 60 Hz	4 amp	(2 amp)*	AC 12	
250 volt AC 50 / 60 Hz	1 amp		AC 14	0140
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	0141
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	0180
250 volt DC	0.25 / 0.2 amp	(0.15 / 0.1 amp)*	DC 12 / DC 13	
Rated insulation voltage U_i:	300 Volt			0181
Rated surge capacity U_{imp}:	2.5 kV (4 kV)*			
Rated thermal current I_{the}:	5 amp			0184
Switching overvoltage:	< 2.5 kV			
Rated frequency:	DC und 50 / 60 Hz			0185
Rated current of short-circuit protection:	Up to 5 amp	(up to 3.5 amp)*		
Conditional short-circuit current:	< 350 amp			0186
IP degree of protection to EN60529:1991+A1:1999:	IP 65		With plug	
Tightening torque of terminal screws:	< 0.35 Nm			0187
Conductor cross-section:	0.5 – 1.5 mm²			

** Figures in brackets apply to Types 0140 und 0141*

Rated operating voltage U_e	Rated operating current I_e	Utilisation category	Model ranges:
250 volt AC 50 / 60 Hz	5 amp	AC 12	
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	0150
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		0161
Rated surge capacity U_{imp}:	2.5 kV		
Rated thermal current I_{the}:	6 amp		0162
Switching overvoltage:	< 2.5 kV		
Rated frequency:	DC und 50 / 60 Hz		
Rated current of short-circuit protection:	Up to 6,3 amp		0175
Conditional short-circuit current:	< 350 amp		
IP degree of protection to EN60529:1991+A1:1999:	IP 65	With plug	
Tightening torque of terminal screws:	< 0.35 Nm		
Conductor cross-section:	0.5 – 1.5 mm²		

Rated operating voltage U_e	Rated operating current I_e	Utilisation category	Model ranges:
250 volt AC 50 / 60 Hz	2.5 amp	AC 12	
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	0158
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		0159
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		0188
Conditional short-circuit current:	< 350 amp		
IP degree of protection to EN60529:1991+A1:1999:	IP 65	With plug	
Tightening torque of terminal screws:	< 0.5 Nm		
Conductor cross-section:	0.5 – 1.5 mm²		