0170 / 0171

Diaphragm/piston pressure switches 42 V

Zinc-plated steel body, with push-on terminals
With changeover switch and silver contacts
Overpressure safe to 100 / 300 / 600 bar*)

0170 Diaphragm pressure switches

Adjustment range in bar	Tolerance in bar (RT)	Thread	Order number					$p_{max.}$ in bar
0.3 - 1.5	± 0.2	M10x1taper	0170	457	01		001	100*)
		M 12x1.5	0170	457	02		002	
		G 1/4"	0170	457	03		003	
1 - 10	± 0.5	M10x1taper	0170	458	01		004	
		M 12x1.5	0170	458	02		005	
		G 1/4"	0170	458	03		006	
1 - 10	± 0.5 - 1.0	M10x1taper	0170	458	01		040	300*)
		M 12x1.5	0170	458	02		041	
		G 1/4"	0170	458	03		042	
10 - 50	± 3.0	M10x1taper	0170	459	01		007	
		M 12x1.5	0170	459	02		008	
		G 1/4"	0170	459	03		009	
10 - 100	± 3.0 - 5.0	M10x1taper	0170	461	01		010	
		M 12x1.5	0170	461	02		011	
		G 1/4"	0170	461	03		012	

0171 Piston pressure switches

Adjustment range in bar	Tolerance in bar (RT)	Thread	Order number					$p_{max.}$ in bar
50 - 200	± 5.0	M10x1taper	0171	460	01		001	600*)
		M12x1.5	0171	460	02		002	
		G 1/4"	0171	460	03		003	

Order number
Add figure for diaphragm/seal material

017X 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 21 for temperature ranges of diaphragm materials		

Warning!

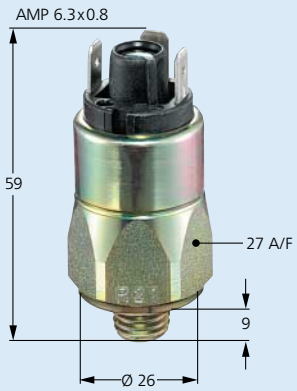
When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 10 bar is not exceeded.

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 IP65

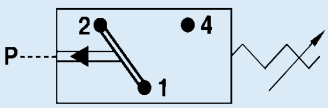
The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.



With external thread

- *Also available with switching point preset in our works.*
- *For ready-wired variants, see page 30 onwards.*
- *Other body materials and connection threads on request.*

- *Accessories: see page 29*



- *For further technical data, see page 21.*

Pressure Switches 27 A/F

Changeover contacts
With silver or gold contacts

- High-quality micro-switch for reliable switching
- Switching point easy to adjust [1)]
- Hysteresis can be set in our works [2)]
- Self-cleaning contacts for a long working life (only 250 V versions)
- High overpressure safety
- Long working life under harsh operating conditions
- Connection 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 30-33
- 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

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

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

TECHNICAL DATA

Degree of protection:	IP 65 with valve connector installed Terminals IP 00
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 Sinus
Shock resistance:	294 m/s²; 14 ms half-sine-wave
Switching performance:	see page 7

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.

Accessories

For 27 A/F pressure switches

Protective cap

With two cable entries
for 1.7 - 2.3 mm cable diameter
Not suitable for voltages above 42 V !

Order No.: 1-1-70-621-007

Connection plug

Cable gland Pg9
(clamping range 6 - 9 mm)

Order No.: 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 43650
0140 / 0141			
0170 / 0171	•	•	
0180 / 0181	• (up to max. 42V)	•	
0184 / 0185			• (for 24V and 250V on request) see also page 25
0190 / 0191	•	•	
0186 / 0187	• (up to max. 42V)	•	
0196 / 0197	•	•	