

Pressure Switch PM1



- Adjustable switch point
- Change over contact
- Flat plug 6.3×0.8 with rubber protection cap or
- Circular plug M12×1

Characteristics

Mechanical pressure controller in which a membrane or piston is pre-tensioned by a spring. The adjustment screws permits the setting of the switch point.

Technical data

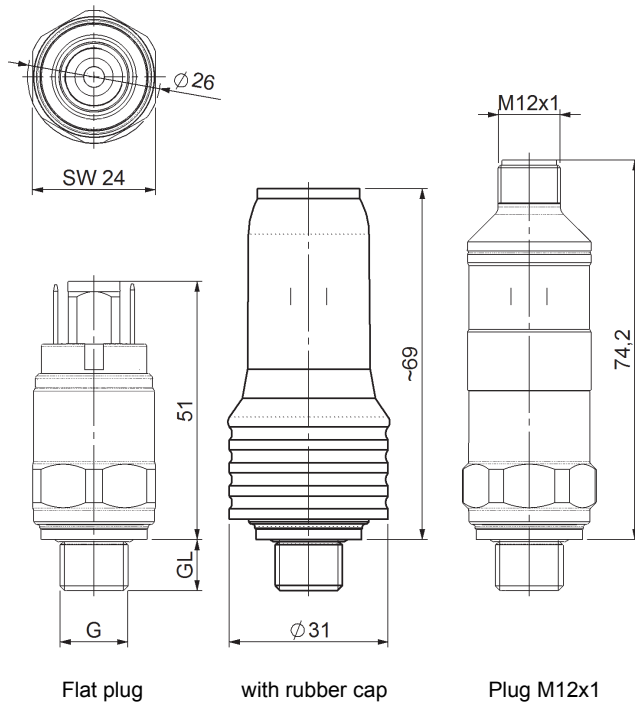
Switch	Mechanical switch	
Process connection	For vacuum switch pressure range -0,85..-0,15 bar rel.	G 1/8 B; G 1/4 B
	For diaphragm and piston press switch Switching range from 0,2..2 bar gauge to 30..320 bar gauge	R 1/4 B; G 1/4 B; G 3/8 B; 1/4 NPT; 1/8 NPT; M10x1
Switching range	-0,85..320 bar gauge	for details see table "Ranges"
Pressure resistance	PS 20 bar/PS 60bar / PS 350 bar	
Tolerance	Switching range -0,85..-0,15 bar gauge	Reference value ± 0,05 bar bei +20°C
	Switching range 0,2..+320 bar gauge	Max. ±2% regarded to final range value at 20°C
Hysteresis	Switching range -0,85..-0,15 bar gauge (vacuum switch)	Reference value 250 mbar (not adjustable)
	Switching range 0,2..+16 bar gauge (Diaphragm press switch)	Reference value 0,1 bar +5..10 % of switch point (not adjustable)
	Switching range 10..320 bar gauge (Piston press switch)	Reference value 5 bar +5..10 % of switching point (not adjustable)

Media temperature	Seal: NBR Low temperature-NBR FKM EPDM	-20..+80 °C -40..+80 °C 0..+100 °C -40..+100 °C
Media	Water, oils, gases	
Wiring	Flat plug 6,3×0,8 Change over Nr. 0.466	
	Circular plug M12×1, 4-pin Change over Nr. 0.463	
Switching voltage	Max. 48 VAC/DC	
Switching current	Max. 2 A (1 A inductive)	
Ingress protection	Flat plug: IP 00 with rubber protection cap: IP 54 Circular plug M12×1: IP67 (with mating plug)	
Electrical connection	3 x Flat plug 6,3x0,8 Optional: Circular plug M12x1 Cable output Deutsch plug DT04-2P	
Materials medium contact	Diaphragm press switch: steel, zinc coated or stainless steel (1.4305) NBR or EPDM or FKM	Piston press switch: steel, zinc coated or stainless steel (1.4305) PTFE with NBR or EPDM or FKM
	PA 6.6, NBR, Rubber	
Weight	0,10 kg	
Installation location	installation location as desired	

Ranges

Switching Range bar (gauge)	Type	Pressure resistance PS bar	Functional principle
- 0,85...-0,15	001	20	Diaphragm
0,2...2	002	60	
0,5...8	008		
1...16	016		
10...30	030	350	Piston
10...80	080		
10...120	120		
10...160	160		
20...200	200		
20...250	250		
30...320	320		

Dimensions



Handling and operation

Notes

- If the medium is dirty, install a filter.
- It must be ensured that the values given for voltage, current, and power are not exceeded.
- Check resistance to aggressive media, no DI water.
- Flat plug version 6,3x0,8 supplied with rubber cap.

Torques and thread lengths of the fluid connections

G ¹ / ₄ , ¹ / ₄ NPT	20-25 Nm	12 mm
R ¹ / ₈ , G ¹ / ₈ , ¹ / ₈ NPT, M10x1	15-20 Nm	10 mm

Adjustment

- Set the desired switching value using a hex wrench (size 2). Turn to right increases the value.
- M12x1: The adjustment is done in the factory.

Connection thread

Male thread G ¹ / ₈ B; G ¹ / ₄ B	ISO228-1
Optional: 7/16-20 UNF	SAEJ514 E ANSI/ASME B1.1
R ¹ / ₈ ; R ¹ / ₄ ; R ³ / ₈	ISO7
¹ / ₈ NPT; ¹ / ₄ NPT	ANSI/ASME B1.20.1
M10x1	DIN13-5

Ordering code

PM1 - 1. 2. 3. 4. 5. 6.

1. Switching range	
001	- 0,85...-0,15 bar
002	0,2..2 bar
008	0,5..8 bar
016	1..16 bar
030	10..30 bar
080	10..80 bar
120	10..120 bar
160	10..160 bar
200	20..200 bar
250	20..250 bar
320	30..320 bar
2. Connection material	
S	Steel, zinc coated
K	Stainless steel
3. Connection size	
004A	G ¹ / ₈ B
004H	R ¹ / ₈ B
008A	G ¹ / ₄ B
009H	NPT ¹ / ₈
011A	M10x1 (no stainless steel)
012H	NPT ¹ / ₄
4. Rotatable	
0	Fixed
5. Electrical connection	
U	Flat plug 6,3x0,8 with rubber cap
S	Circular plug M12x1*
6. Sealing / diaphragm	
N	NBR
E	EPDM
V	FKM

*only with adjustment ex factory

Options

- Factory setting of the switch point on falling or rising pressure.