

diaphragm pressure switch



PED 2014/68/EU

These diaphragm pressure switches are IP 65, and suitable for a variety of applications such as: chemical, petrochemical, conventional power station, and they withstand the most unfavourable working conditions, caused by either the process fluid aggressiveness or high ambient temperature. The sensing element is a metallic diaphragm and acts directly on the microswitch through a self-centering pivot. The simplicity of the design, without levers, cams or similar mechanism, gives the unit an exceptionally long working life.

3.27 - Standard Model

Electrical specifications: N. 1...2 SPDT microswitches (see microswitches table).

Differential: fixed (adjustable 10%...50% of setting range for pressure ranges ≥ 1 bar (see microswitches table).

Repeatability: $\leq 1\%$ of the full setting value.

Set-point adjustment: internal, micrometric adjustable.

Protection: IP 65 as per EN 60529/IEC 529.

Electrical wiring: terminal strip.

Earth contact: N. 1 internal.

Process temperature: $+212^{\circ}\text{F}$ max (100°C).

Ambient temperature: $-13...+149^{\circ}\text{F}$ ($-25...+65^{\circ}\text{C}$).

Thermal drift: $\leq 0,027\% / ^{\circ}\text{F}$ ($\leq 0,05\% / ^{\circ}\text{C}$).

Process connection: AISI 316 st.st.

Elastic element: AISI 316 st.st. diaphragm for pressure ranges $\leq 2,5$ bar; carbon steel diaphragm covered with AISI 316 st.st. for pressure ranges 4...100 bar.

Gasket: PTFE.

Case: AISI 304 st.st.

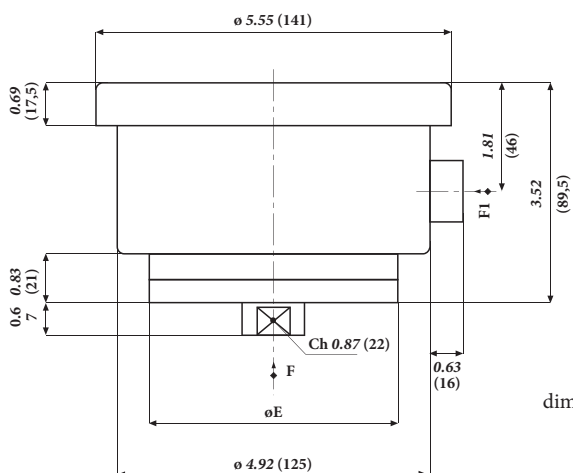
Cover: AISI 304 st.st., bayonet lock.

Tag: AISI 304 st.st., etched.

Setting range	Test pressure	Special overrange (cod. F03)	Differential 1 micro (2)	Differential 2 micro (2)
0,7...6 mbar (1)	10 mbar		0,5 mbar	
1...16 mbar (1)	20 mbar		0,8 mbar	
2...25 mbar (1)	30 mbar		1,2 mbar	
5...40 mbar (1)	0,5 bar	400 mbar	4 mbar	5 mbar
5...60 mbar (1)	0,5 bar	600 mbar	4 mbar	5 mbar
6...100 mbar (1)	0,5 bar	1 bar	4 mbar	6 mbar
9...160 mbar (1)	0,5 bar	1,6 bar	6 mbar	9 mbar
9...250 mbar (1)	1 bar	2,5 bar	6 mbar	9 mbar
15...400 mbar (1)	1 bar	4 bar	10 mbar	15 mbar
18...600 mbar (1)	1 bar	6 bar	12 mbar	18 mbar
0,06...1 bar (1)	1,2 bar	10 bar	25 mbar	60 mbar
0,06...1,6 bar (1)	2 bar	16 bar	30 mbar	60 mbar
0,06...2,5 bar (1)	3 bar	25 bar	40 mbar	60 mbar
0,08...4 bar	5 bar	40 bar	50 mbar	80 mbar
0,09...6 bar	8 bar	40 bar	60 mbar	90 mbar
0,15...10 bar	12 bar	40 bar	100 mbar	150 mbar
0,25...16 bar	20 bar	40 bar	160 mbar	250 mbar
0,4...25 bar	30 bar	40 bar	250 mbar	400 mbar
0,6...40 bar	48 bar	60 bar	400 mbar	600 mbar
0,9...60 bar	70 bar	80 bar	600 mbar	900 mbar
6...100 bar	120 bar		4 bar	6 bar
8...160 bar	185 bar		5 bar	8 bar

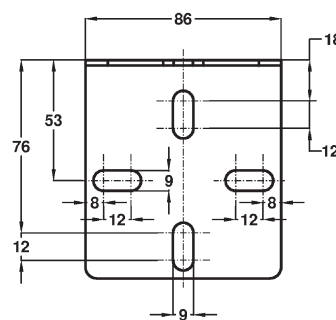
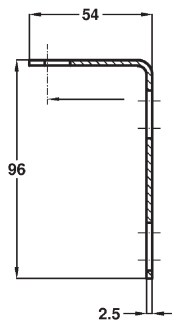
(1) also available for vacuum and compound

(2) differential and minimum set-point values for microswitches cod. I, L, N, R, S, T, U, V are 300% of those shown in table.



dimensions : inches (mm)

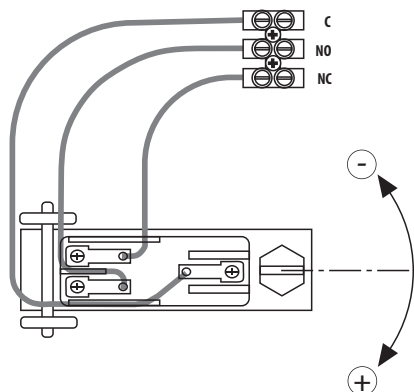
Setting ranges	E	Weight : lbs (kg)
≤ 600 mbar	5.91 (150)	7.27 (3,3)
≥ 1 bar	3.86 (98)	5.05 (2,3)



F
23F - 1/4-18 NPT F
43M - 1/2-14 NPT
43F - 1/2-14 NPT F
41M - G 1/2 A

F1
1 - R 1/2-ISO 7/1
2 - R 3/4-ISO 7/1
3 - 1/2-14 NPT
4 - 3/4-14 NPT
A - M20 x 1,5
P11 - cable gland

Set-point adjustment



MICROSWITCHES
ohmic load

Single / Double	Type	250 Vac	125 Vac	24 Vdc
C / D	std.	(1) 15A	15A	0,1A
G / H	SPLASH	(2) 15A	15A	0,1A
I / L	goldplated	(2)	1A	0,1A
M / P	inert gas filled	(2) 15A	15A	0,1A
N / R	goldplated and inert gas filled	(2)	1A	0,1A
E	adjustable dead band	(3) 20A	20A	0,1A
S / T	SPLASH VDC	(2) 15A	15A	6A
U / V	inert gas filled VDC	(2) 15A	15A	6A

(1) for pressure ranges ≥ 40 mbar
(2) for pressure ranges ≥ 1 bar

OPTIONS

F03 - Special overpressure stop	E30 - Nace MR 01.03 version (1)
M26 - PTFE diaphragm	M23 - Monel diaphragm
S16 - Wall mounting bracket	M22 - Hastelloy C diaphragm
T01 - Tropicalization	M29 - Tantalum diaphragm
P02 - Oxygen service	S31 - 2"stake's mounting bracket

(1) Monel or Hastelloy C diaphragm.

"HOW TO ORDER" SEQUENCE

Section	Model	Set-point Adjustment	Microswitch	Electrical connection	Process connection	Options
3	27	A, B, G, H	1	23F	F03...S31	
		I, L, M, P	2	43M		
		N, R, E	3	43F		
		S, T, U, V	4	41M		
			A			
			P11			

Copyright © Nuova Fima srl. All rights reserved. Any part of this publication should not be reproduced without a written Nuova Fima's srl approval

