

diaphragm pressure switch



PED 2014/68/EU

These diaphragm pressure switches feature an IP 65 protection. They are suitable for many applications such as the chemical and petrochemical industry as well as the conventional power stations. They withstand the most unfavourable working conditions which may be created by the process fluid aggressiveness or by the ambient over temperature. The sensing element is a metallic diaphragm and acts directly on the microswitch through a self-centering pivot. This device is extremely reliable thanks to its simple design which is completely free from levers, cams or mechanism alike.

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.

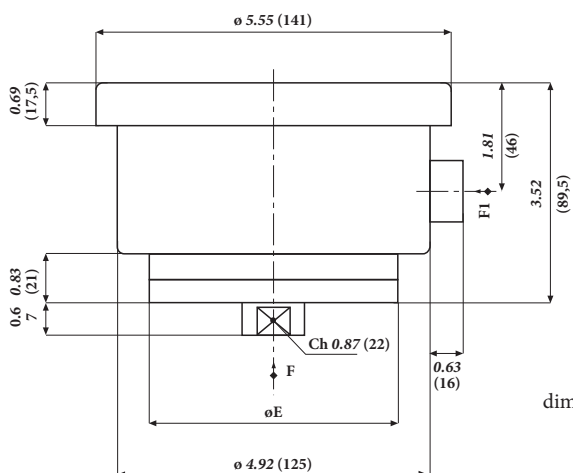
Cover: AISI 304 st.st., bayonet lock.

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 |

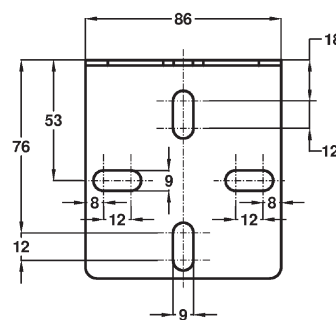
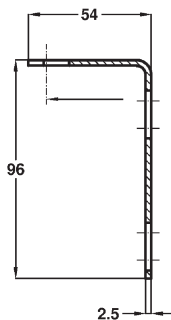
(1) also available for vacuum and compound

(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)

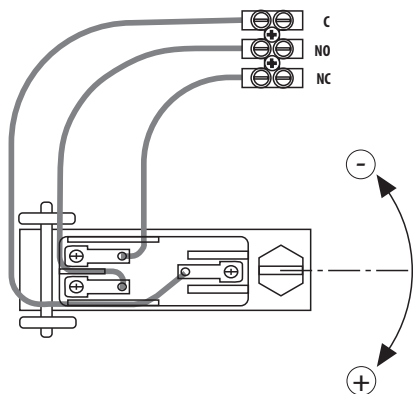
| Setting ranges | E | Weight : lbs (kg) |
|----------------|------------|-------------------|
| ≤ 600 mbar | 5.91 (150) | 7.27 (3,3) |
| ≥ 1 bar | 3.86 (98) | 5.05 (2,3) |



| 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 | 125 | 24 |
|-----------------|---------------------------------|---------|-----|------|
| | | Vac | Vac | 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 |

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