

## explosion-proof diaphragm pressure switches ATEX version



II 2G Ex db IIC T6 Gb  
II 2D Ex tb IIIC T85°C Db

Certificate :  
0425 ATEX 2634-01

This explosion-proof electrical construction complies with European Directive ATEX 2014/34/EU, for group II and category 2 GD. It is suitable for various uses in hazardous zones 1, 2, 21 and 22 where the use of explosion-proof instruments is required. The sensing element is a metallic diaphragm and acts directly on the microswitch through a self-centering pivot making the instrument function extremely reliable.

### 3.40

**Type of protection** explosion-proof enclosure “db/tb” as per EN 60079-0, EN 60079-1 and EN 60079-31.

**Marking:**

II 2G Ex db IIC T6 Gb  $-20 \leq T_a \leq +65 \text{ }^\circ\text{C}$   $-20 \leq T_p \leq +60 \text{ }^\circ\text{C}$   
II 2D Ex tb IIIC T85°C Db  $-20 \leq T_a \leq +65 \text{ }^\circ\text{C}$   $-20 \leq T_p \leq +60 \text{ }^\circ\text{C}$ .

**Protection:** IP 65 as per EN 60529.

**Ranges:** 0...1 bar/0...160 bar; -1...0 bar.

**Electrical specifications:** N. 1...2 SPDT microswitches, or N.1 with adjustable differential (see microswitches table).

**Differential:** fixed, or adjustable 10%...50% of setting range (see microswitches table).

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

**Set-point adjustment:** internal, micrometric adjustable.

**Earth contacts:** N. 1 internal, N. 1 external.

**Process fluid temperature:**  $-4...+140^\circ\text{F}$  ( $-20...+60 \text{ }^\circ\text{C}$ ).

**Ambient temperature:**  $-4...+149^\circ\text{F}$  ( $-20...+65 \text{ }^\circ\text{C}$ ).

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

**Process connection:** AISI 316 L st.st.

**Elastic element:** AISI 316 st.st. diaphragm for pressure range  $\leq 2,5$  bar; carbon steel diaphragm covered with AISI 316 L st.st. for pressure ranges  $> 2,5$  bar. Diaphragm VITON gasket.

**Case:** aluminium, blue polyurethane painted.

**Cover:** aluminium, beige polyurethane painted.

**Tag:** AISI 304 st.st., etched.

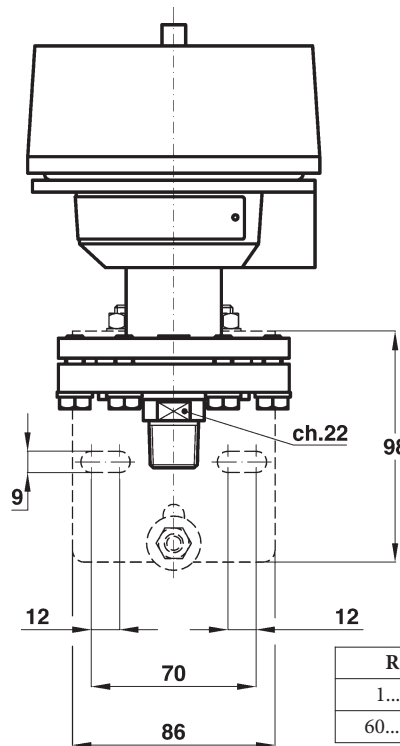
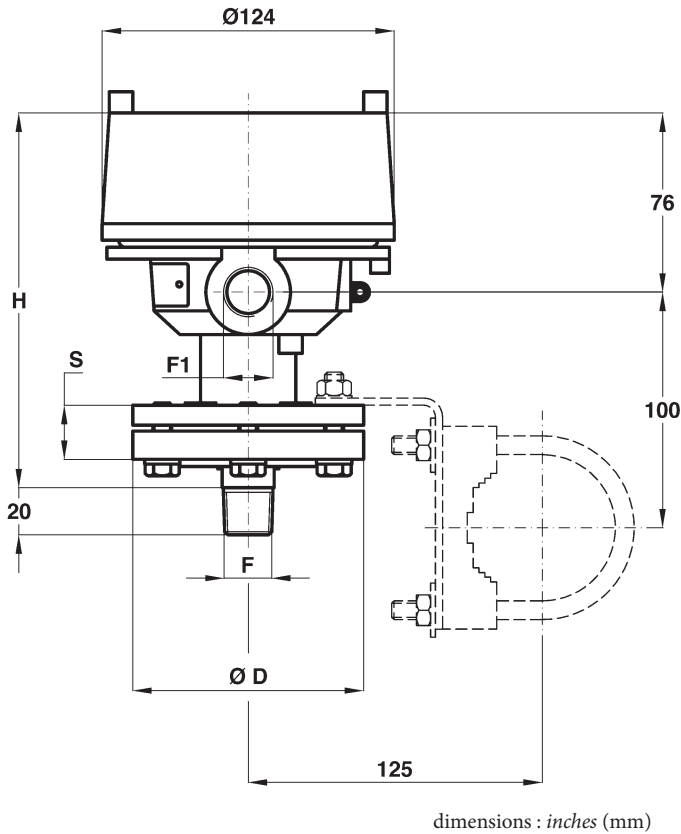
**Tell-tale vents:** polypropylene.

**Weight:** 6.39 lbs (2,9 kg).

Setting ranges	Test pressure	Special overrange (cod. F03)	Differential 1 micro (2)	Differential 2 micro (2)
0,06...1 bar (1)	1,2 bar	10 bar	25 mbar	60 mbar
0,06...1,6 bar (1)	2 bar	10 bar	30 mbar	60 mbar
0,06...2,5 bar (1)	3 bar	10 bar	40 mbar	60 mbar
0,08...4 bar	5 bar	15 bar	50 mbar	80 mbar
0,09...6 bar	8 bar	15 bar	60 mbar	90 mbar
0,15...10 bar	12 bar	20 bar	100 mbar	150 mbar
0,25...16 bar	20 bar	30 bar	160 mbar	250 mbar
0,4...25 bar	30 bar	35 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.

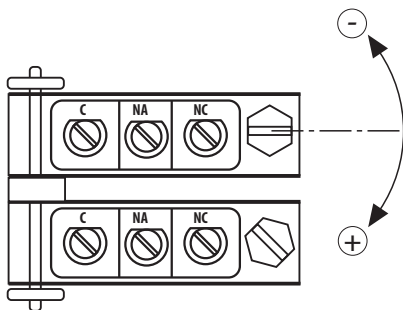


F1	
1	R 1/2-ISO 7/1
2	R 3/4-ISO 7/1
3	1/2-14 NPT
4	3/4-14 NPT
A	M20 x 1,5

F	
41M	G 1/2 B
43M	1/2-14 NPT
53M	3/4-14 NPT
97M	M20 x 1,5

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Set- point adjustment



MICROSWITCHES  
ohmic load

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

OPTIONS

<b>F03</b> - Special overpressure stop	<b>E30</b> - Nace MR 01.03 version (1)
<b>M26</b> - PTFE diaphragm	<b>M23</b> - Monel diaphragm
<b>S16</b> - Wall mounting bracket	<b>M22</b> - Hastelloy C diaphragm
<b>T01</b> - Tropicalization	<b>M29</b> - Tantalum diaphragm
<b>P02</b> - Oxygen service	<b>S31</b> - 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 / ATEX / Options

3 40 C, D, G, H 1 41M 2E2 F03...S31  
 I, L, M, P 2 43M  
 N, R, E 3 53M  
 S, T, U, V 4 97M  
 A

