

## bourdon tube "solid-front" pressure gauges NACE MR0175/ISO 15156-3 version DS 4", 6" (100-150mm)



PED 2014/68/UE ATEX 2014/34/UE

These instruments are built in conformity with the construction and safety specifications of EN 837-1/S3 e ASME B40.1. In case of leaks or break of the elastic element, the operator is protected by a solid separating wall placed on the front of the instrument and by the blow out back. They are usually used in the petrochemical industry; they are built to resist to the most severe conditions created by H<sub>2</sub>S and by the environment. The TIG welding between the case and the process socket, strengthens the instrument and assures a better tight in case of dampening fluid. The advantages of filling the case of the instrument with a dampening fluid are: reduced pointer fluctuation, reduced wear of rotating parts of the movement when pulsant vibrations and pulsations occur. Moreover condensation and corrosive atmospheres which could damage the internal parts.

### 1.41.1 - Standard Model

**Design:** EN 837-1.

**Safety designation:** S1 as per EN 837-2.

**Ranges:** from -30...0 INHG to 0...6000 psi (from -1...0 to 0...400 bar or equivalent units).

**Accuracy class:** 1 as per EN 837-1.

**Ambient temperature:** -13...+149 °F (-25...+65 °C).

**Process fluid temperature:** -40...+212 °F (-40...+100 °C).

**Working pressure:**

100% of FSV for static pressure;

90% of FSV for pulsating pressure.

**Over pressure limit:**

30% of FSV, max 6500 psi - 450 bar (max 12 hours).

**Special overpressure (upon request):**

1000 psi (60 bar) for pressure > 15 psi (1 bar) ... ≤ 150 psi (10 bar);

3500 psi (250 bar) for pressure > 150 psi (10 bar) ... ≤ 1500 psi (100 bar);

6500 psi (450 bar) for pressure > 1500 psi (100 bar) ... ≤ 6000 psi (400 bar).

**Protection degree:** IP 55 as per EN 60529/IEC 529.

**Bourdon tube:** AISI 316L st.st.

**Diaphragm seal filling fluid:** silicone oil.

**Wetted parts:** Hastelloy C276.

**Leak test:** Helium Test leak Search (max 1x10<sup>-6</sup> mbar x l x s<sup>-1</sup>)

**Case:** stainless steel.

**Ring:** stainless steel, bayonet lock.

**Blow out disk:** stainless steel.

**Window:** safety glass.

**Movement:** stainless steel with internal limit stops for minimum and maximum pressure.

**Dial:** aluminium, white with black markings.

**Pointer:** adjustable, aluminium, black.

### 1.41.2 - Fillable Model

**Protection degree:** IP 67 as per EN 60529/IEC 529.

**Other features:** as Standard Model.

### 1.41.3 - Filled Model

**Pressure gauges damping liquid:**

glycerine 98%, silicon oil or fluorinated fluid.

**Ambient temperature:**

+32...+149 °F (0...+65 °C) with glycerine filling;

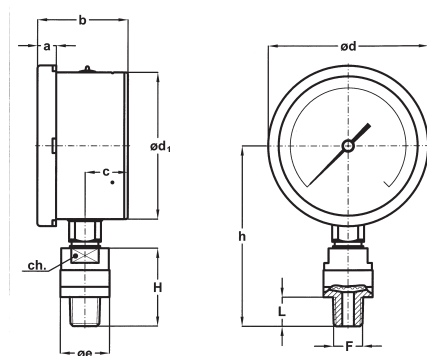
-40...+149 °F (-40...+65 °C) with silicon oil filling;

-40...+149 °F (-40...+65 °C) with fluorinated fluid filling.

**Process fluid temperature:** max +212°F (+100 °C).

**Protection degree:** IP 67 as per EN 60529/IEC 529.

**Other features:** as Standard Model.



**A - LOWER CONNECTION**

DS	Ranges	F	a	b	c	ø d	ø d <sub>1</sub>	ø e	h	H	L	ch	Weight (1)
<b>E</b> 4" (100)	≤ 160 psi (10 bar)	<b>43M</b> 1/2-14 NPT	0.51" (13)	2.46" (62,5)	1.16" (29,5)	4.35" (110,6)	3.97" (101)	2.24" (57)	4.86" (123,5)	2.12" (54)	0.78" (20)	1.06" (27)	2.44 lbs (1,11 kg)
	> 160 psi (10 bar)							1.33" (34)					
<b>G</b> 6" (150)	≤ 160 psi (10 bar)	<b>43M</b> 1/2-14 NPT	0.59" (15)	2.52" (64)	1.18" (30)	6.33" (161)	5.88" (149,6)	2.24" (57)	6.12" (155,5)	2.12" (54)	0.78" (20)	1.06" (27)	3.65 lbs (1,66 kg)
	> 160 psi (10 bar)							1.33" (34)					

dimensions : inches (mm)

(1) add 0.72 lbs (0,33 kg) for DS 4" (100) and 1.65 lbs (0,75 kg) for DS 6" (150), when filled

**OPTIONS**

Model	standard	fillable	filled
<b>2G1</b> - ATEX II 2G c version	<i>See the ATEX pressure gauges data-sheet for technical details</i>		
<b>2D1</b> - ATEX II 2GD c version			
<b>C40</b> - AISI 316L st. st. case and ring	◆	◆	◆
<b>E75</b> - NACE MR0175/ISO 15156-3 certificate	◆	◆	◆
<b>P02</b> - Oxygen service	◆	◆ (1)	◆ (2)
<b>P01</b> - Suitable for filling with silicone and fluorinated fluid		◆	
<b>S10</b> - Silicone filling			◆
<b>F30</b> - Fluorinated fluid filling			◆
<b>SPS</b> - Special overpressure	◆	◆	◆
<b>T01</b> - Tropicalization	◆	◆	◆

(1) to be ordered with instruments suitable for fluorinated fluid filling

(2) to be ordered with fluorinated fluid filled instruments

**"HOW TO ORDER" SEQUENCE**

Section / Model / Case / Mounting / Diameter / Range / Process connection / Options  
**1 41 1 A E 43M 2G1...2D1**  
**2 G C40...T01**  
**3**

