

## bourdon tube pressure gauges all stainless steel construction DS 4", 6" (100-150mm)



PED 2014/68/UE ATEX 2014/34/UE TP TC 012/2011

These instruments are designed for chemical, petrochemical industries and for conventional power plants. They are built to resist to the most severe conditions created by the process medium and by the environment and to operate with highly viscous and non-crystallizable fluids. The quality of the materials used to build the sensing element allows to use them in case of high frequency pulsating pressures.

The TIG welding between the case and the process socket strengthens the instrument and assures a better containment of the dampening fluid. The advantages of filling the case with a dampening fluid are: reduced pointer fluctuation, reduced wearing off of movement's rotating parts when pulsant vibrations and pulsations occur. Moreover, the dampening fluid prevents condensate and corrosive atmospheres from affecting the case and from damaging the internal components of the instrument.

### 1.18.1 - Standard Model

**Design:** EN837-1.

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

**Ranges:** from 0...15 to 0...30000 psi (from 0...0,6 to 0...1600 bar or equivalent units).

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

**Ambient temperature:**

-4...+149 °F (-20...+65 °C), IP55 housing (EN 60529/IEC 529);

-63...+149 °F (-53...+65 °C), vented IP65/67 housing (EN 60529/IEC 529).

**Process fluid temperature:** -40...+302 °F (-40...+150 °C).

**Thermal drift:** ±0,4 %/10 °C of range (starting from 68°F - 20°C).

**Working pressure:**

100% of FSV for static pressure;

90% of FSV for pulsating pressure.

**Over pressure limit:** 30% of FSV (max 12 hours).

**Socket material:** AISI 316L st.st.

**Bourdon tube,** seamless tube: AISI 316L st.st. for pressure ranges up to 20000 psi (0...1000 bar); Duplex st.st for range ≥ 20000 psi (0...1600 bar)

**Case and ring:** stainless steel.

**Window:** tempered glass.

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

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

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

### 1.18.2 - Fillable Model

**Ambient temperature:** -4...+149 °F (-20...+65 °C), IP65/67 housing (EN 60529/IEC 529).

**Pointer:** not adjustable, aluminium, black.

**Other features:** as Standard Model.

### 1.18.3 - Filled Model

**Ranges:** from 0...15 to 0...30000 psi (from 0...1 to 0...1600 bar or equivalent units).

**Damping liquid:** glycerine 98% or silicon oil.

**Ambient temperature:**

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

-4...+149 °F (-20...+65 °C) with silicon oil fluid filling.

**Process fluid temperature:** max +149°F (+65 °C).

**Protection degree:** IP65/67 as per EN 60529/IEC 529.

**Pointer:** not adjustable, aluminium, black.

**Other features:** as Standard Model.

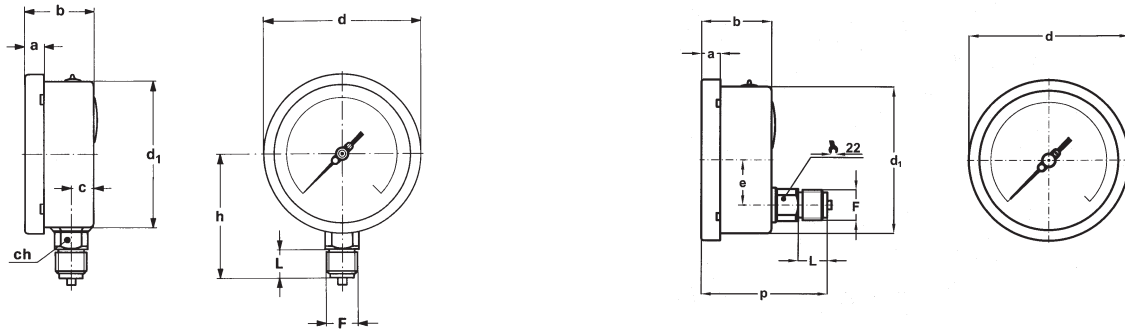
### INSTRUMENTS FOR OXYGEN

To suit safety criteria of standard EN837-1/2, the pressure gauges for oxygen service must be solid-front type (with baffle wall and safety bursting back).

Pressure gauges suitable for this service are detailed on MGS20 DS 4", 6" (100-150 mm) sheet.

**bourdon tube pressure gauges**  
**all stainless steel construction, DS 4", 6" (100-150mm)**

**MGS18**



**A - LOWER CONNECTION**

**D - BACK CONNECTION**

Mounting	DS	F	a	b	c	d	d <sub>1</sub>	e	h	p	L	Weight (1)
Lower	E 4" (100)	<b>41M</b> - G 1/2 A <b>43M</b> - 1/2-14 NPT	0.51" (13)	1.90" (48,5)	0.59" (15)	4.35" (110,5)	3.97" (101)		3.38" (86)		0.78" (20)	1.16 lbs (0,53 kg)
	G 6" (150)	<b>41M</b> - G 1/2 A <b>43M</b> - 1/2-14 NPT	0.59" (15)	1.96" (50,5)	0.61" (15,5)	6.33" (161)	5.88" (149,6)		4.60" (117)		0.78" (20)	2.09 lbs (0,95 kg)
Back	E 4" (100)	<b>41M</b> - G 1/2 A <b>43M</b> - 1/2-14 NPT	0.51" (13)	1.90" (48,5)		4.35" (110,5)	3.97" (101)	1.22" (31)		3.21" (81,5)	0.78" (20)	1.17 lbs (0,53 kg)
	G 6" (150)	<b>41M</b> - G 1/2 A <b>43M</b> - 1/2-14 NPT	0.59" (15)	1.96" (50,5)		6.33" (161)	5.88" (149,5)	1.22" (31)		3.19" (81)	0.78" (20)	1.87 lbs (0,85 kg)

dimensions : inches (mm)

(1) add 0.72 lbs (0,33 kg) for DS 4" (100) and 1.65 lbs (0,78 kg) for DS 6" (150), when filled

**OPTIONS**

Model	standard	fillable	filled
<b>B</b> - "U"-clamp, for back connection pressure gauges	◆	◆	◆
<b>C</b> - Back flange, for lower connection pressure gauges	◆	◆	◆
<b>E</b> - Front flange, for back connection pressure gauges		◆	◆
<b>2G2</b> - ATEX II 2G h - Dry - T.a. -20...+60 °C (2)	◆		
<b>2D2</b> - ATEX II 2GD h - Dry/Silicon oil <b>S10</b> - T.a. -20...+60 °C (2)			◆ (4)
<b>2D0</b> - ATEX II 2GD h - Glycerine filled, T.a. 0...+60 °C (2)			◆
<b>2D5</b> - ATEX II 2GD h - Vented housing version <b>ECV</b> , T.a. -53...+60 °C (2)	◆ (3) (5)		
<b>C40</b> - AISI 316L st. st. case and ring	◆	◆	◆
<b>K06</b> - Accuracy class 0,6 (1)	◆	◆	
<b>P01</b> - Suitable for filling with silicone		◆	
<b>S10</b> - Silicone oil filling			◆
<b>T01</b> - Tropicalization	◆	◆	◆
<b>T32</b> - Safety glass window	◆	◆	◆
<b>E67</b> - Protection degree IP65/67	◆		
<b>ECV</b> - Vented housing version - IP65 - T.a. -53...+65 °C (3) (6)	◆		

(1) For pressure ranges up to 6000 psi (400 bar)

(2) See catalogue sheet concerning ATEX execution.

(3) to be ordered with E67 option

(4) To be ordered with option S10

(5) to be ordered with ECV option

(6) in case of corrosive atmosphere the filled type should be chosen

**"HOW TO ORDER" SEQUENCE**

Section / Model / Case / Mounting / Diameter / Range / Process connection / Options  
**1 18 1 A E 41M B, C, E**  
**2 D G 43M 2G2...ECV**  
**3**

