

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



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

These instruments are designed for chemical, petrochemical industries and for conventional power energy station. They are built to resist to the most severe conditions created by the process medium and by the environment and for those fluids, which have high viscosity and do not crystallize. The quality of the materials used to build the sensible element allows their use with high frequency pulsating pressures.

The TIG welding between the case and the process socket, strengthens the instrument and assures better containment 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 are prevented.

### 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:**

-40...+149 °F (-40...+65 °C), IP55 housing (EN 60529/IEC 529);

-58...+149 °F (-50...+65 °C), vented IP67 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...1400 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:** -40...+149 °F (-40...+65 °C), IP 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 glycerine filling mixture;

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

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

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

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

**Other features:** as Standard Model.

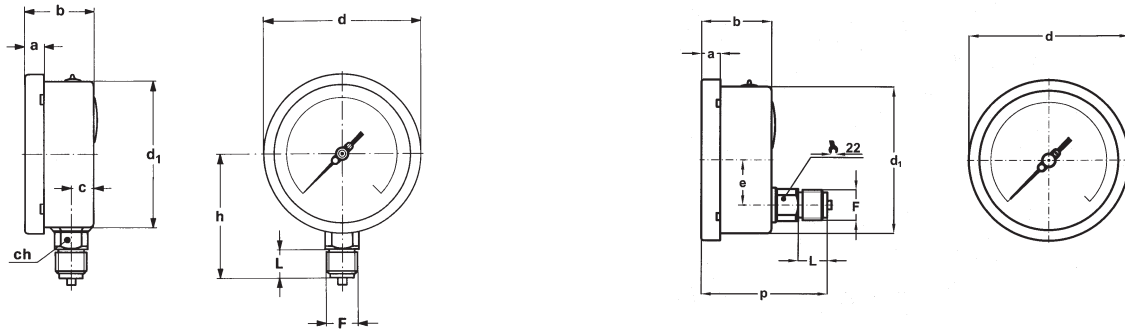
### INSTRUMENTS FOR OXYGEN

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)	41M - G 1/2 A 43M - 1/2-14 NPT	0.51" (13)	1.90" (48,5)	0.59" (15)	4.35" (110,6)	3.97" (101)		3.38" (86)		0.78" (20)	1.16 lbs (0,53 kg)
	F 6" (150)	41M - G 1/2 A 43M - 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)
	G 6" (150)	41M - G 1/2 A 43M - 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)	41M - G 1/2 A 43M - 1/2-14 NPT	0.51" (13)	1.90" (48,5)		4.35" (110,6)	3.97" (101)	1.22" (31)		3.42" (87)	0.78" (20)	1.17 lbs (0,53 kg)
	G 6" (150)	41M - G 1/2 A 43M - 1/2-14 NPT	0.59" (15)	1.96" (50,5)		6.33" (161)	5.88" (149,6)	1.22" (31)		3.36" (85,5)	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>2G1</b> - ATEX II 2G c version (separate data sheet)	See the ATEX pressure gauges data-sheet for technical details		
<b>2D1</b> - ATEX II 2GD c version (separate data sheet)			
<b>C40</b> - AISI 316J 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 filling			◆
<b>G11</b> - Glycerine filling mixture, DS 4" (100 mm)			◆
<b>T01</b> - Tropicalization	◆	◆	◆
<b>T32</b> - Safety glass window	◆	◆	◆

- (1) For pressure ranges up to 6000 psi (400 bar). Not available for receivers.
- (2) Accuracy refers to the area free from the maximum pointer action.
- (3) to be ordered with E67 option

- (4) not adjustable pointer
- (5) to be ordered with ECV option

**"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 2G1...T32**  
**3**

