

# bourdon tube pressure gauges NACE MR 01.75 / ISO 15156 version DS 4", 6" (100-150mm)

# MGS37



These instruments are designed for petrochemical industry. They are built to resist to the most severe conditions created by H<sub>2</sub>S and by the environment. 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 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

## 1.37.1 - 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 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-1)

**Case:** stainless steel.

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

**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.

## 1.37.2 - Fillable Model

**Protection degree:** IP 67 as per IEC 529.

**Other features:** as Standard Model.

## 1.37.3 - Filled Model

**Pressure gauges damping liquid:**

glycerine 98%, silicon oil or fluorinated fluid.

**Ambient temperature:**

+59...+149 °F (+15...+65 °C) with glycerine filling;

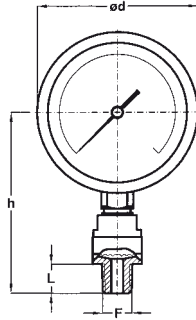
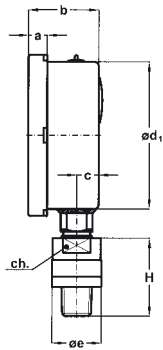
-49...+149 °F (-45...+65 °C) with silicon oil filling;

-76...+149 °F (-60...+65 °C) with fluorinated fluid filling.

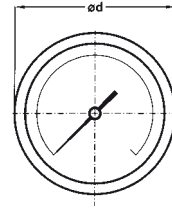
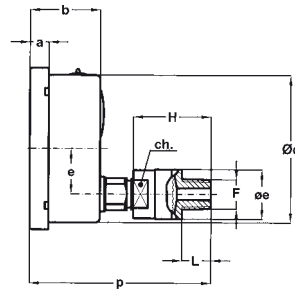
**Process fluid temperature:** max +212°F (+100 °C).

**Protection degree:** IP 67 as per IEC 529.

**Other features:** as Standard Model.



**A - LOWER CONNECTION**



**D - BACK CONNECTION**

DS	Ranges	F	a	b	c	ø d	ø d <sub>1</sub>	e	øe	h	H	L	p	ch	Weight (1)
<b>E</b> 4" (100)	≤ 160 psi (≤ 10 bar)	<b>43M</b> 1/2-14 NPT	0.51" (13)	1.91" (48,5)	0.59" (15)	4.35" (110,6)	3.97" (101)	1.22" (31)	2.24" (57)	4.86" (123,5)	2.12" (54)	0.78" (20)	4.94" (125,5)	1.06" (27)	2.18 lbs (0,99 kg)
	> 160 psi (> 10 bar)								1.34" (34)						
<b>G</b> 6" (150)	≤ 160 psi (≤ 10 bar)	<b>43M</b> 1/2-14 NPT	0.59" (15)	1.99" (50,5)	0.61" (15,5)	6.33" (161)	5.88" (149,6)	1.22" (31)	2.24" (57)	6.12" (155,5)	2.12" (54)	0.78" (20)	4.88" (124)	1.06" (27)	3.26 lbs (1,48 kg)
	> 160 psi (> 10 bar)								1.34" (34)						

dimensions : 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>E</b> - Front flange, for back connection pressure gauges	♦	♦	♦
<b>2G1</b> - ATEX II 2G c version	See the ATEX pressure gauges data-sheet for technical details		
<b>2D1</b> - ATEX II 2GD c version			
<b>C40</b> - AISI 316 cas and ring	♦	♦	♦
<b>E75</b> - NACE MR 01.75 / ISO 15156 certificate	♦	♦	♦
<b>P02</b> - Oxygen service	♦	♦ (1)	♦ (2)
<b>P01</b> - Suitable for filling with silicone / fluorinated fluid		♦	
<b>S10</b> - Silicone filling			♦
<b>F30</b> - Fluorinated fluid filling			♦
<b>SPS</b> - Special overpressure	♦	♦	♦
<b>T01</b> - Tropicalization	♦	♦	♦
<b>T32</b> - Safety glass window	♦	♦	♦

(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      37      1      **A**      **E**      **43M**      **E**  
                                  2      **D**      **G**      **2G1...2D1**  
                                  3      **C40...T32**