

# bourdon tube "solid-front" pressure gauges NACE MR 01.75 / ISO 15156 version turret case - DS 4.5" (125mm)

# MGS61



In case of leaks or break of the elastic element the operator is protected by a stainless steel safety cell solid front 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 and for those fluids. The TIG welding between the safety cell and the process socket strengthens the instrument. 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.

## 1.61.2 - Fillable Model

**Design:** ASME B40.1

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

**Accuracy:** Grade 1A as per ASME B40.1 ( $\pm 1,0\%$  of span).

**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) ...  $\leq$  150 psi (10 bar);

3500 psi (250 bar) for pressure > 150 psi (10 bar) ...  $\leq$  1500 psi (100 bar);

6500 psi (450 bar) for pressure > 1500 psi (10 bar) ...  $\leq$  6000 psi (400 bar).

**Protection degree:** IP 65 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  $1 \times 10^{-6}$  mbar x l x s-1)

**Case and blow out disk:** strengthened polyammides with fiber glass, UV rays stabilized.

**Ring:** strengthened polypropylene, fiber glass.

**Safety cell:** 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.

## 1.61.3 - 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.

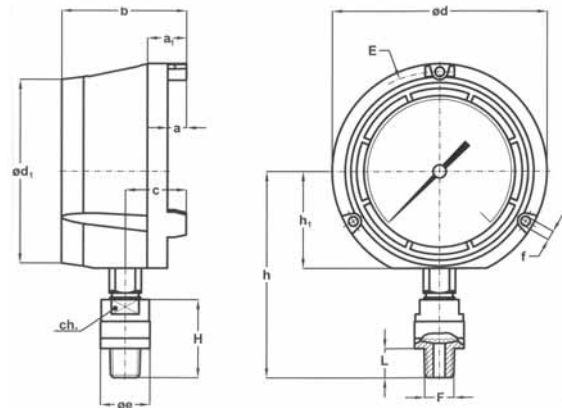
**Compensating device:** gum.

**Other features:** as Fillable Model.

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**NACE MR 01.75 / ISO 15156 version,**  
**turret case DS 4.5" (125mm)**

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RR2 - 12/09



**A - LOWER CONNECTION**

Ranges	F	a	a <sub>1</sub>	b	c	ø d	ø d <sub>1</sub>	ø e	E	f	h	h <sub>1</sub>	H	L	ch	Weight (1)
≤ 160 psi (10 bar)	43M 1/2-14 NPT	0.51" (13)	1.06" (27)	3.38" (86)	1.65" (42)	5.82" (148)	4.96" (126)	2.24" (57)	5.39" (137)	0.25" (6,5)	5.57" (141,5)	2.61" (66,5)	2.12" (54)	0.78" (20)	1.06" (27)	2.44 lbs (1,11 kg)
> 160 psi (10 bar)								1.33" (34)								

dimensions : inches (mm)

(1) add 1.10 lbs (0,5 kg), when filled

**OPTIONS**

Model	fillable	filled
<b>E75</b> - NACE MR 01.75 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 61 2 A F 43M E75...T32**  
**3**