

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

MGS41



PED 97/23/CE
ATEX 94/9/CE

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 H₂S 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 1x10⁻⁶ mbar x l x s⁻¹)

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;

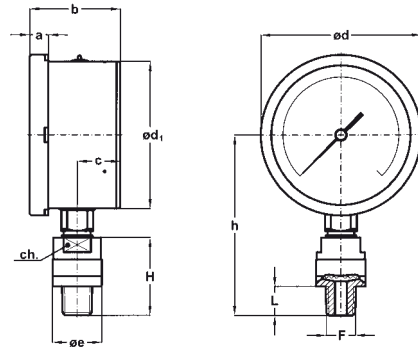
-40...+149 °F (-40...+65 °C) with silicon oil filling;

-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 ₁	ø e	h	H	L	ch	Weight (1)
E 4" (100)	≤ 160 psi (10 bar)	43M 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)					
G 6" (150)	≤ 160 psi (10 bar)	43M 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
2G1 - ATEX II 2G c version	<i>See the ATEX pressure gauges data-sheet for technical details</i>		
2D1 - ATEX II 2GD c version			
C40 - AISI 316L st. st. case and ring	♦	♦	♦
E75 - NACE MR0175/ISO 15156-3 certificate	♦	♦	♦
P02 - Oxygen service	♦	♦ (1)	♦ (2)
P01 - Suitable for filling with silicone and fluorinated fluid		♦	
S10 - Silicone filling			♦
F30 - Fluorinated fluid filling			♦
SPS - Special overpressure	♦	♦	♦
T01 - 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