

## bourdon tube "solid-front" pressure gauges NACE MR0103/MR0175 - ISO 15156-3 version DS 4", 6" (100-150mm)



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

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 and natural gas industry; they are built to resist to the most severe conditions created by H<sub>2</sub>S, by the environment and for those fluids, which have high viscosity and do not crystallize. 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.

### 1.40.1 - Standard Model

**Design:** EN 837-1, ISO 15156-3.

**Safety designation:** S3 as per EN 837-2.

**Ranges:** from 0...15 to 0...10000 psi ; (from 0...1 to 0...600 bar or other 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.

**Overpressure:** 30% of FSV (max 12 h).

**Socket material:** AISI 316L or MONEL 400.

**Bourdon tube:** MONEL 400 seamless tube

**Leak test:** Helium Test leak search, (max 1x10<sup>-6</sup> mbar x 1 x s<sup>-1</sup>).

**Case:** stainless steel

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

**Blow out disk:** stainless steel.

**Window:** safety glass (with external zero adjustment on request).

**Movement:** stainless steel with internal limit stops.

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

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

### 1.40.2 - Fillable Model - Lower connection only

**Ambient temperature:** -40...+149 °F (-40...+65 °C), IP 67 housing (EN 60529/IEC 529).

**Other features:** as Standard Model.

### 1.40.3 - Filled Model - Lower connection only

**Filling liquid:** glycerina 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 or fluorinated fluid filling.

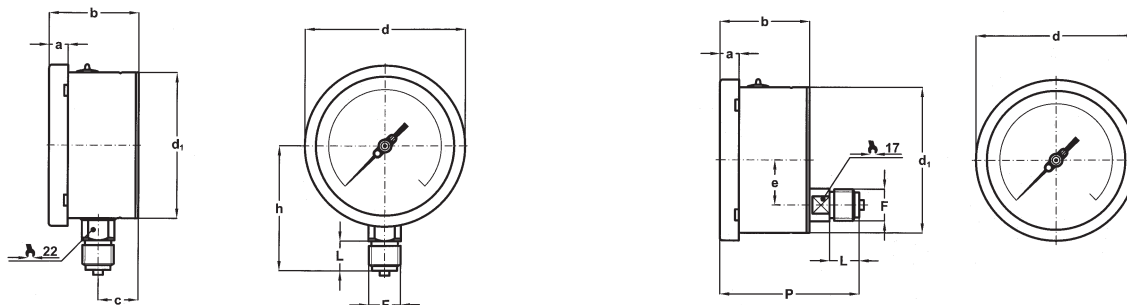
**Process fluid temperature:** +149°F (+65 °C).

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

**Other features:** as Standard Model

**bourdon tube "solid-front" pressure gauges,  
NACE MR0103/MR0175 - ISO15156-3 version, DS 4", 6" (100-150mm)**

**MGS40**



**A - LOWER CONNECTION**

**D - BACK CONNECTION,  
Standard model only**

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	0.51"	2.46"	1.16"	4.35"	3.97"		3.38"		0.78"	1.43 lbs (1)
		43M - 1/2-14 NPT	(13)	(62,5)	(29,5)	(110,6)	(101)		(86)		(20)	(0,65 kg)
Lower	G 6" (150)	41M - G 1/2 A	0.59"	2.51"	1.18"	6.33"	5.92"		4.60"		0.78"	2.64 lbs (1)
		43M - 1/2-14 NPT	(15)	(64)	(30)	(161)	(150,5)		(117)		(20)	(1,2 kg)
Back	E 4" (100)	41M - G 1/2 A	0.51"	2.46"		4.35"	3.97"	1.22"		3.75"	0.78"	1.54 lbs
		43M - 1/2-14 NPT	(13)	(62,5)		(110,6)	(101)	(31)		(95,5)	(20)	(0,70 kg)
Back	G 6" (150)	41M - G 1/2 A	0.59"	2.51"		6.33"	5.92"	1.22"		3.77"	0.78"	2.53 lbs
		43M - 1/2-14 NPT	(13)	(64)		(161)	(150,5)	(31)		(96)	(20)	(1,15 kg)

dimensions : inches (mm)

(1) add 0.73 lbs (0,33 kg) for DS 4" (100) and 1.76 lbs (0,8 kg) for DS 6" (150), when filled

**OPTIONS**

Model	standard	fillable	filled
C - Back flange, for lower connection pressure gauges	◆	◆	◆
E - Front flange, for back connection pressure gauges	◆		
2G1 - ATEX II 2G c version	See the ATEX pressure gauges data-sheet for technical details		
2D1 - ATEX II 2GD c version			
C40 - AISI 316L st. st. case, ring and blow out disk	◆	◆	◆
E07 - Socket material MONEL 400	◆	◆	◆
E30 - NACE MR0103/MR0175 - ISO 15156-3 certificate	◆	◆	◆
F30 - Fluorinated fluid filling			◆
P01 - Suitable for filling with silicone/Fluorinated fluid		◆	
P03 - Compensating device, for DS 4" (100 mm) and lower mounting only	◆	◆	◆
S10 - Silicone filling			◆
ECV - Vented housing version, Ambient temperature -50...+65 °C (1) (2)	◆		
E67 - Protection degree IP67 (3)	◆		
T01 - Tropicalization	◆	◆	◆

(1) to be ordered with E67 option

(2) lower mounting and not adjustable pointer

(3) to be ordered with ECV option

**"HOW TO ORDER" SEQUENCE**

Section / Model / Case / Mounting / Diameter / Special version /Range / Process connection / Options

1 40 1 A E -- 41M C...E  
2 D G E07 43M 2G1...T01  
3

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