

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



PED 2014/68/UE ATEX 2014/34/UE TP TC 012/2011

These instruments are built in conformity with the construction and safety specifications of **EN 837-1/S3** and **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 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 reinforces the instrument and ensures better sealing, especially when the instrument is filled with damping liquid. Filling the case with damping liquid helps to reduce the pointer's fluctuation and minimizes wear of the movement's rotating components in the presence of vibrations and pulsations. Additionally, it prevents condensation and the formation of corrosive atmospheres, thereby protecting the internal parts of the instrument.

### 1.40.1 - Standard Model

**Design:** EN 837-1, ISO 17945, 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:**

-4...+149 °F (-20...+65 °C), IP55 housing (IEC 529);

-63...+149 °F (-53...+65 °C), vented IP65/67 housing (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 l x s<sup>-1</sup>).

**Case, ring and blow out disk:**

DN100 in AISI 316L st.st.

DN 150 in AISI 304 st.st. (available in AISI316L st.st. upon request)

**Window:** safety glass.

**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:** -4...+149 °F (-20...+65 °C), IP 65/67 housing (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) glycerine filling;

-4...+149 °F (-20...+65 °C) silicon oil filling and fluorinated fluid filling;

-76...+149 °F (-60...+65 °C) low temperatures special silicon oil filling.

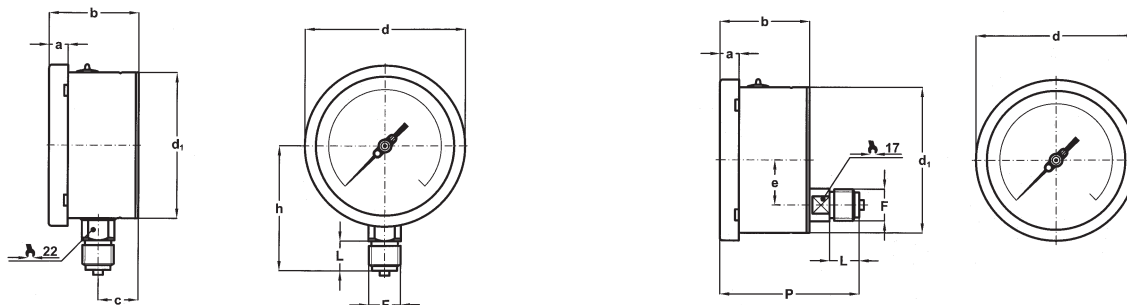
**Process fluid temperature:** max +149°F (+65 °C).

**Protection degree:** IP 65/67 as per IEC 529.

**Other features:** as Standard Model

**bourdon tube "solid-front" pressure gauges,  
NACE MR0103/MR0175 versions, 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
<b>C40</b> - Case, ring and blow out disk in AISI 316L st. st. (compulsory option for DN100)	◆	◆	◆
<b>C</b> - Back flange, for lower connection pressure gauges	◆	◆	◆
<b>E</b> - Front flange, for back connection pressure gauges	◆		
<b>2G2</b> - ATEX II 2G h - Dry - A.t. -20...+60 °C (1)	◆		
<b>2D2</b> - ATEX II 2GD h - Dry/Silicon oil <b>S10</b> - A.t. -20...+60 °C (1)			◆ (2)
<b>2D0</b> - ATEX II 2GD h - Glycerine filled - A.t. 0...+60 °C (1)			◆
<b>2D5</b> - ATEX II 2GD h - Vented housing version <b>ECV</b> - A.t. -53...+60 °C (1)	◆ (3) (4)		
<b>2D6</b> - ATEX II 2GD h - Special silicone oil <b>S60</b> - A.t. -60...+60 °C (1)			◆ (5)
<b>E07</b> - Socket material MONEL 400	◆	◆	◆
<b>E30</b> - Certification NACE MR0103 - ISO 17945	◆	◆	◆
<b>E75</b> - Certification NACE MR0175 - ISO 15156-3	◆	◆	◆
<b>P03</b> - Compensating device for DS 4" model (100 mm), lower mounting		◆	◆
<b>S10</b> - Silicone oil filling			◆
<b>E67</b> - Protection degree IP65/67	◆		
<b>S60</b> - Special silicone oil filling for low temperatures- A.t. -60...+65 °C			◆
<b>ECV</b> - Vented housing version - IP65/67 - A.t. -53...+65 °C (3) (6)	◆		

(1) Please see catalogue sheet concerning the ATEX version

(2) To be ordered with S10 option

(3) To be ordered with E67 option

(4) To be ordered with ECV option

(5) To be ordered with S60 option

(6) with corrosive atmospheres please select the filled model

**"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**

