

# bourdon tube pressure gauges

## anti-vibration version

### DS 4" (100mm)

# MS4

- Laser calibration up to 400bar
- Free zero
- Fillable with glycerine "on site"
- Safety plug



**CE** Compliance to requirement of  
PED 97/23/EC

Instruments designed for use on power units, pump, hydro-cleaning machines, presses, engine compressors, turbines, diesel engines, chemical, petrochemical and refrigerating plants and on machines and equipment where pulsating pressures or mechanical vibrations are apparent. They can be used with gaseous or liquid media which do not corrode copper alloy and which do not have high viscosity or do not cristalize.

#### 1.04.2 - Fillable Model

**Design:** EN 837-1.

**Safety designation:** S1 as per EN 837-2.

**Ranges:** from 0...15 to 0...15000 PSI (from 0...1 to 0...1000 bar or other equivalent units).

**Accuracy class:** 1,6 as per EN 837-1.

**Ambient temperature:** -13...+149°F (-25...+65 °C).

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

**Thermal drift:** max ±0,4 % / 10 K of ranges (starting from 68°F- 20°C).

**Working pressure:**

75% of FSV for static pressure;

66% of FSV for pulsating pressure.

**Overpressure (max 15 min):**

25% of FSV of ranges ≤ 1500 psi (100 bar);

15% of FSV for ranges over 1500 psi (100 bar).

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

**Socket material:** copper alloy, with internal restrictor ø 0.03" (0,8 mm)

**Bourdon tube:**

copper alloy for ranges ≤ 10000 psi (600 bar);

AISI 316L st.st. for ranges 15000 psi (1000 bar).

**Case:** stainless steel.

**Ring:** stainless steel, polished , crimped.

**Window:** tempered glass.

**Movement:** copper and stainless steel.

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

**Pointer:** not adjustable, aluminium,black

#### 1.04.3 - Filled Model

**Damping liquid:** glycerine 98%, silicon oil.

**Ambient temperature:**

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

-22...+149 °F (-30...+65 °C) with silicon oil filling.

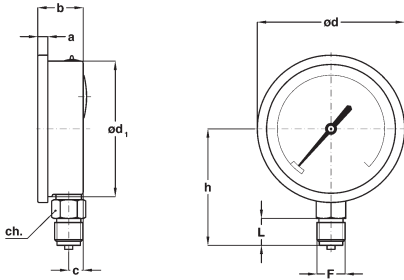
**Process fluid temperature:** max+149°F (+65°C) .

**Other features:** as Fillable Model.

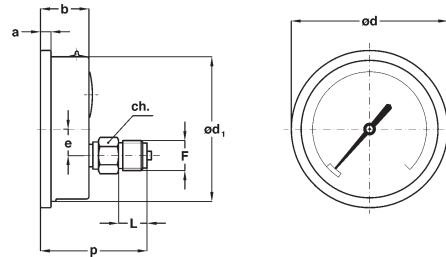
**bourdon tube pressure gauges**  
**anti-vibration version, DS 4" (100mm)**

**MS4**

RB4 - 01/09



**A - LOWER CONNECTION**



**D - BACK CONNECTION**

Mounting	F	a	b	c	d	d <sub>1</sub>	e (3)	h	p	ch	L	Weight
Lower	<b>41M</b> - G 1/2 A	0.29"	1.33"	0.43"	4.33"	3.97"		3.42"		0.86"	0.78"	0.88 lbs (1)
	<b>43M</b> - 1/2-14 NPT	(7,5)	(34)	(11)	(110)	(101)		(87)		(22)	(20)	(0,4 kg)
Back	<b>41M</b> - G 1/2 A	0.29"	1.33"		4.33"	3.97"	1.14"		2.95"	0.86"	0.78"	0.79 lbs (2)
	<b>43M</b> - 1/2-14 NPT	(7,5)	(34)		(110)	(101)	(29)		(75)	(22)	(20)	(0,36 kg)

(1) Add 0.5 lbs (0,23 kg) when filled - (2) Add 0.53 lbs (0,24 kg) when filled - (3) quote "e" will become 0,73 lbs (18,5 mm) within 2009

**OPTIONS**

Model	fillable	filled
<b>B</b> - "U"-clamp, for back connection pressure gauges	◆	◆
<b>C</b> - Back flange, for lower connection pressure gauges	◆	◆
<b>E</b> - Front flange, for back connection pressure gauges	◆	◆
<b>P01</b> - Suitable for filling with silicone	◆	
<b>S06</b> - Restrictor plug ø 0.01" (0,4 mm)	◆	◆
<b>S10</b> - Silicone filling		◆

**"HOW TO ORDER" SEQUENCE**

Section / Model / Case / Mounting / Diameter / Range / Process connection / Options  
**1**     **04**     **2**     **A**     **E**     **41M**     **B, C, E**  
                                  **3**     **D**     **43M**     **P01...S10**

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