

# bourdon tube "solid-front" pressure gauges

## HEAVY WORK

DS 4", 6" (100-150mm)

# MGS21



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

These instruments are designed for use in food, beverage, pharmaceutical, cryogenics, chemical and petrochemical processing industries, and in conventional and nuclear power plants. They are built to resist the most severe operating conditions created by the ambient environment and the process medium. The high strength of the sensing element makes these instrument suitable to withstand high overpressure up to 4 times the full scale value and together with the case filling, they are suitable to high dynamic pulsating pressure. An Argonarc welded case/socket strengthens the whole construction. The **solid-front** version of these instruments is built in accordance with safety specifications of **EN 837-1** and **ASME B40.1**. The safety construction consists of a **solid separating wall** in stainless steel, placed between the dial and the elastic element and a **blow out back** which is released from the case whenever an internal pressure, due to leaks, is created or the elastic element is broken.

### 1.21.1 - Standard Model

**Design:** EN 837-1.

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

**Campi scala:** from 0...15 to 15000 psi; (from 0...1 to 0...1000 bar or other equivalent units)

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

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

**Process fluid temperature:** -40...+302°F (-40...+150 °C).

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

**Working pressure:**

100% del FSV for static pressure;

90% del FSV for pulsating pressure.

**Overpressure limit:** 400% of FSV (see table at pag. 2)

**Protection degree:** IP 55 as per IEC 529.

**Socket material:** AISI 316L st.st.

**Bourdon tube:** AISI 316L st.st. steamless tube

**Case:** stainless steel.

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

**Blow out disc:** stainless steel.

**Window:** safety glass.

**Movement:** stainless steel with internal limit stop fro minimum and maximum pressure.

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

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

### 1.21.2 - Fillable Model - Lower connection only

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

**Other features:** as Standard Model.

### 1.21.3 - Filled Model - Lower connection only

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

**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 +149°F (+65 °C).

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

**Window:** tempered glass.

**Other features:** as Standard Model.

### OXYGEN INSTRUMENTS

Glycerine and silicon oil should not be used with highly oxydizing agents as oxygen, chlorine, nitric acid or hydrogrn peroxide because of danger of spontaneous chemical reaction, inflammability or explosion. The use of fluorinates fluid is recommended in these cases.



For use in potentially explosive atmospheres, instruments must be designed in conformity to **ATEX 94/9/CE**. This version is shown on separate data sheet available on request

