

CALIBRATION CERTIFICATE

Gesa M**-MA

Certificate Nr G***/201*

CUSTOMER IDENTIFICATION:

Name: Company
2nd Street

Person in charge: John Smith
Reference: order ***
Date of order: 1th January 201*

IDENTIFICATION OF THE INSTRUMENT TO BE TESTED:

Description: Pressure gauge Bourdon type. Radial connection. Inner elements in Stainless Steel AISI 316.

Pressure range: 0+25 bar

Subdivision: 0,5 bar

Construction: Case and ring in stainless steel AISI 304 Ø100mm.
Threaded connection ½" BSP according to UNE-EN 10226-1
Glycerine filled
Class 1,0 according to UNE-EN 837-1
Degree of protection IP 65 according to EN 60529 / IEC 529
Dimensions and tolerances according to UNE-EN 22768-1

Inner reference: R936

REFERENCE INSTRUMENT

Description: Digital pressure gauge with radial connection. Class 0,05 according to UNE-EN 837-1.

ENAC certificate nr. 3913

Uncertainty: $U = 8,8 \text{ mbar}$

Inner reference GE-19

The expanded uncertainty U has been obtained by multiplying the standard uncertainty uc by a coverage factor $k=2$ according to CEA-ENAC-LC/02 Rev.1 January 98)

Traceability: To international patterns referred to the "Centro Español de Metrología" – C.E.M. Madrid.

TEST METHODOLOGY

Procedure: Pressure driven by a manual pump. Different pressure points are fixed on the measuring instrument (inverse calibration) in two series, one increasing and one decreasing according to the inner procedure Gesa PC/05/2011

Fluid: Water at ambient temperature.

Certificate Nr G***/201*

TEST RESULTS

Point	Instrument (bar)	Tester (with corrections)					Average differences (Instrument-tester) (bar)	Expanded Uncertainty (K=2) (bar)
		Upwards 1 (bar)	Downwards 1 (bar)	Upwards 2 (bar)	Downwards 2 (bar)	Average (bar)		
1	5	4,910	4,910	4,910	4,910	4,910	0,090	0,10
2	10	9,906	9,906	9,906	9,906	9,906	0,094	0,11
3	16	15,808	15,808	15,808	15,808	15,808	0,192	0,22
4	18	17,838	17,838	17,838	17,838	17,838	0,162	0,19
5	20	19,784	19,784	19,784	19,784	19,784	0,217	0,25
6	22	21,764	21,764	21,764	21,764	21,764	0,236	0,27
7	25	24,757	24,757	24,757	24,757	24,757	0,243	0,28

The expanded uncertainty U has been obtained by multiplying the standard uncertainty u_c by a coverage factor $k=2$. The standard uncertainty u_c has been obtained according to document EAL-R2.

Test conditions:

Room temperature: $22 \pm 2^\circ\text{C}$
 Atmospheric pressure: 1022 mbar
 Relative humidity: $75 \pm 10\%$

Test date: 28 February 2012
 Validity: 27 February 2013

Calibration service