

Pressure measurement

Model **7321**

**Empty stainless steel pressure gauge
with diaphragm seal separator
316L stainless steel
SMS female swivel connector**



Specifications

Connection: Female SMS in compliance with SMS 1145

Ambient temperature: +10°C to +40°C

Fluid temperature: -10°C to +80°C (for SIP and CIP max. +130°C)

Pressure range: Ø63: 0 to 40 bar

Ø100: -1/0 to 0/40 bar

Accuracy: class I according to EN 837

Material: AISI 304 housing

Diaphragm seal and separator in AISI 316L

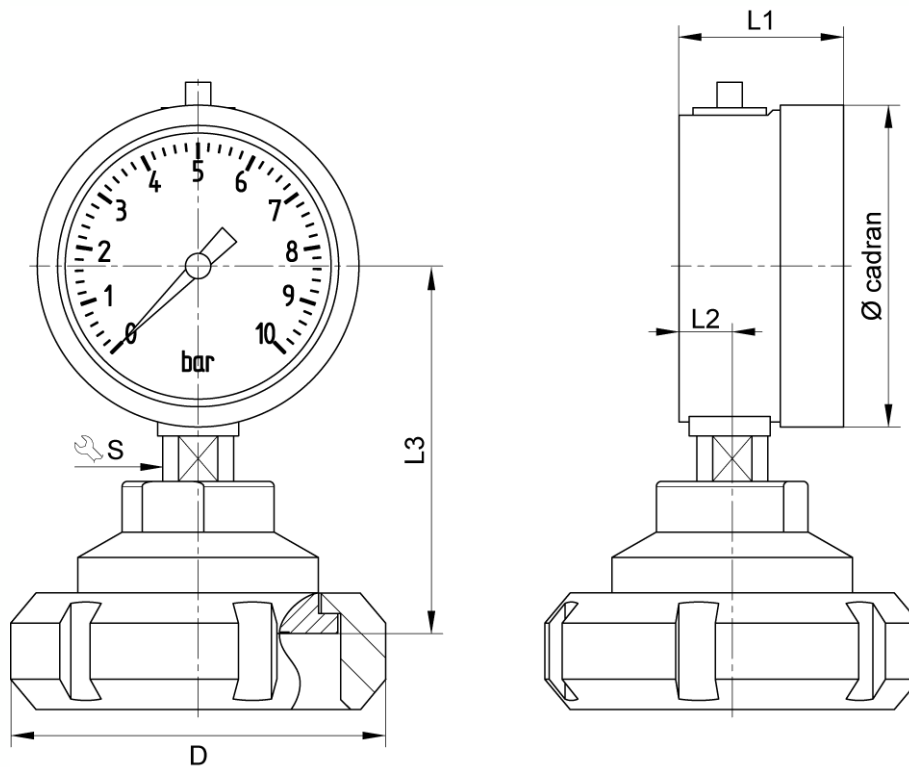
Protection rating: IP65



Béné Inox – 11 chemin de la Pierre Blanche – 69800 SAINT-PRIEST – S.A.S with 240 000 € share capital – SIREN N° 311 810 287
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7321-B V0721



Dial Ø (mm)	D DN38 (mm)	D DN51 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	S (mm)
63	74	84	33	9.5	115	14
100	74	84	49.5	15.5	118	22

Pressure (bar)	Part number Ø63 (DN38)	Part number Ø63 (DN51)	Part number Ø100 (DN38)	Part number Ø100 (DN51)
-1 / 0	-	-	273213 -0	273216 -0
-1 / 3	-	-	273213-3	273216-3
-1 / 5	-	-	273213-5	273216-5
-1 / 9	-	-	273213-9	273216-9
0 / 2.5	273212-2	273215-2	273213-2	273216-2
0 / 4	273212-4	273215-4	273213-4	273216-4
0 / 6	273212-6	273215-6	273213-6	273216-6
0 / 10	273212-10	273215-10	273213-10	273216-10
0 / 16	273212-16	273215-16	273213-16	273216-16
0 / 25	273212-25	273215-25	273213-25	273216-25
0 / 40	273212-40	273215-40	273213-40	273216-40

You can order from the Wika range for these models if you add a W to the end of the part number (e.g. 273212-2W).

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Use

Description

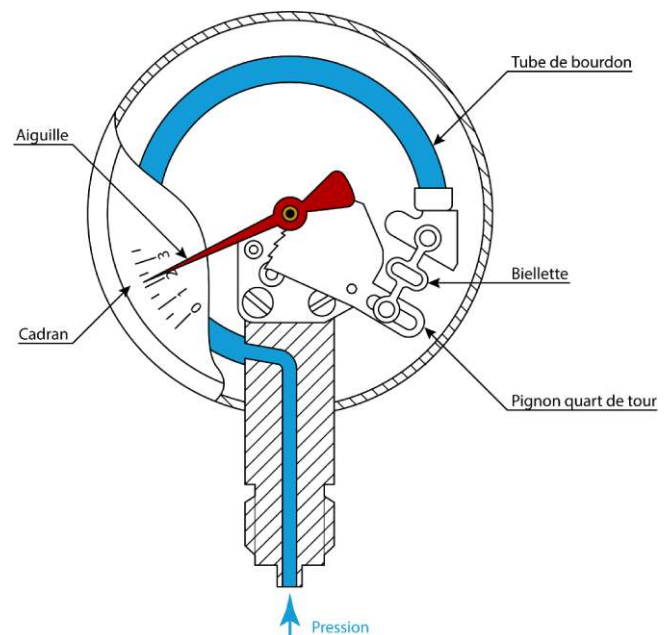
A Bourdon tube pressure gauge works through the movement of the free end of the tube in response to the measured pressure.

When the pressure increases, the tube unwinds and when the pressure decreases the tube winds up around itself.

The free end of the tube is linked to a needle through a mechanical system that converts the tube's movement into needle rotation.

The pressure gauge includes a graduated dial so that the needle points to the measured pressure.

The diaphragm, assembled by direct welding, allows the measurement instrument to be kept separate from the fluid it is measuring. Pressure is transferred to the measurement instrument through the transmission liquid. The separator should be filled with KN 59 oil (FDA approved).



The surface roughness for the parts in contact with fluid is $Ra \leq 0.76 \mu m$ according to ASME BPE SF3.

Fluids

Bourdon tube pressure gauges assembled on a separator can be used for aggressive, adhesive, crystallising, corrosive, highly viscous or toxic fluids.

You must check the fluid is compatible with 316L stainless steel.

You can fill the case with glycerine to make sure the gauge is easy to read for applications with very dynamic pressure cycles or vibrations (we can fill the gauge on request).

Installation

Make sure that you do not disassemble the gauge's dial from its diaphragm separator part when you assemble and disassemble the pressure gauge onto pipes.

Only use tools on the flat part of the SMS connector, which is under the part noted S on the diagram, to avoid this issue.

Accessories

Here is a list of all of our pressure gauge accessories:

- The pressure gauge can be isolated if you install it on a cock to facilitate maintenance and so that you do not need to purge the piping if you need to carry out maintenance on the measuring instrument.
 - Model **7388**: Pressure gauge cock - with 316 Ti stainless steel valve body and needle (including bleed screw)
 - Model **7389**: Pressure gauge valve - Brass
 - Model **7377**: Pressure gauge valve - 316 Ti stainless steel
- If you need to cool the fluid, when the fluid temperature is higher than the pressure gauge's temperature range:
 - Model **7346**: Trumpet form siphon - 316 stainless steel
 - Model **7347**: U-form siphon - 316 Ti stainless steel
 - Model **7348**: High pressure straight siphon - 316 Ti stainless steel
 - Model **7304**: Cooling fin - 316 stainless steel
- If you need to protect the pressure gauge from excess pressure:
 - Model **7349**: Pressure limiter - 316 stainless steel
 - Model **7350**: Pressure damper - 316 stainless steel
- Model **7312**: Pressure gauge options:
 - Front or back skirt (axial and vertical)
 - Back fixing bracket (axial)
 - COFRAC calibration certificateThe skirts and brackets cannot be used with the Wika range.
- Model **7305**: Pressure gauge gasket