3C.410-E
Issue 4 - 2010

D100 Pressure Gauge with siphon tubes and cocks

Description

D100 Pressure gauges are fitted with Bourdon spring loaded sensitive element, suitable for liquids, steam and non-hazardous and non-corrosive liquids.
The gauge dial has a 100 mm diameter with units marked in bar g. It is provided a supplemental index manually adjustable with special proper tool.
The product fully complies with UNI 86300 class 1,6 Directive.
The dial instrument can be fitted with a 3-port cock, one of which provided with unified flange to connect the sample manometer, and a siphon tube for use with high temperature fluids.

Standards

Pressure gauge and attachments fully complies with requirements of the European Pressure Equipment Directive 2014/68/EU.

Note: All certification / inspection requirements must be specified at the time of order placements.

Available pressure range

Range	Values	Unit
1	0 - 2.5	bar g
2	0 - 4	bar g
3	0 - 6	bar g
4	0 - 10	bar g
5	0 - 16	bar g
6	0 - 25	bar g

Sizes and pipe connections

Gauge connection is radial.

Device	Connection			
Gauge		3/8"- ½"	threaded male	gas parallel
Cock	Gauge side	3/8"- ½"	threaded female	gas parallel
	Siphon side	3/8"- ½"	threaded male	gas parallel
Siphone tube	Gauge side	3/8"- ½"	threaded female	gas parallel
	Siphon side	3/8"- ½"	threaded male	gas parallel

For detailed information relating to single component connections please refer to overleaf section “Dimensions/Weights”.

Pressure/temperature limits

Standard version

Design conditions		Gauge	Full scale reading
PMA -	Maximum allowable pressure	Gauge	Full scale reading
		Cock and siphon tube	25 bar g
TMA -	Maximum allowable temperature	Gauge	120°C
		Cock	120°C
		Siphon tube	250°C
Minimum allowable temperature			0°C
PMO -	Maximum operating pressure	Gauge	Full scale reading
		Cock and siphon tube	25 bar g
TMO -	Maximum operating temperature	for direct use	120°C
		With siphon tube and return flow	240°C

Inox version

Design conditions		Gauge	Full scale reading
PMA -	Maximum allowable pressure	Gauge	Full scale reading
		Cock	120 bar g @ 400°C
		Siphon tube	120 bar g @ 20°C
TMA -	Maximum allowable temperature	Gauge	120°C
		Cock	400°C @120 bar g
		Siphon tube	450°C @ 65 bar g
Minimum allowable temperature			0°C
PMO -	Maximum operating pressure	Gauge	Full scale reading
		Cock	120 bar g @ 400°C
		Siphon tube	120 bar g @ 20°C
TMO -	Maximum operating temperature	for direct use	120°C
		With siphon tube and return flow	240°C

Materials

Standard version

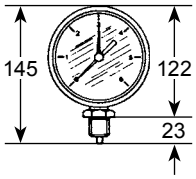
Part	Material
Gauge mase	Stainless steel
Gauge windows	Glass
Bourdon tube	Phosphor bronze
Gauge connection	Brass
Levers	Brass - Horology alloy
3-port cock	Brass
Siphon tube	Nickel - copper

Inox version

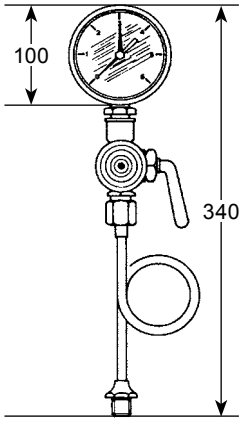
Part	Material
Gauge Case	Stainless steel
Gauge windows	Glass
Bourdon tube	AISI 316L
Gauge connection	AISI 316L
Levers	Stainless steel
3-port cock	AISI 316
Siphon tube	AISI 316L

Dimensions/weights (approximate) in mm and kg

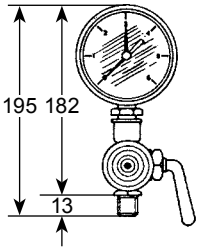
Standard version



D100 Gauge
(weight: 0.4 kg)

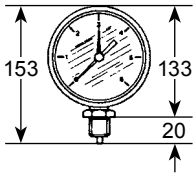


Gauge-cock-siphon
arrangement
(for steam, hot fluids etc.)
(weight: 0.8 kg)

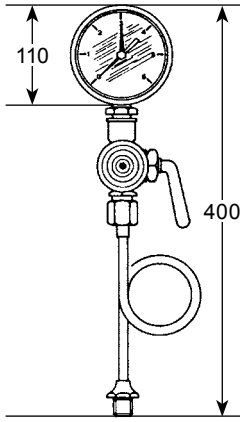


Gauge-cock
arrangement
(for water, compressed air etc.)
(weight: 0.7 kg)

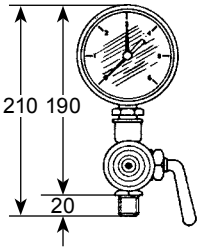
Inox version



D100 Gauge
(weight: 0.4 kg)



Gauge-cock-siphon
arrangement
(for steam, hot fluids etc.)
(weight: 1.1 kg)



Gauge-cock
arrangement
(for water, compressed air etc.)
(weight: 0.9 kg)

How to specify and order

Example: No. 1 off D100 Spirax Sarco pressure dial gauge, $^{3}/_{8}$" gas radial connections, 0 - 10 bar g range, fitted with a PN 25 brass 3-port cock and fitted with flange to connect the sample manometer and nickel-copper siphon tube.

Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions 3.741.5275.100 supplied with the product.

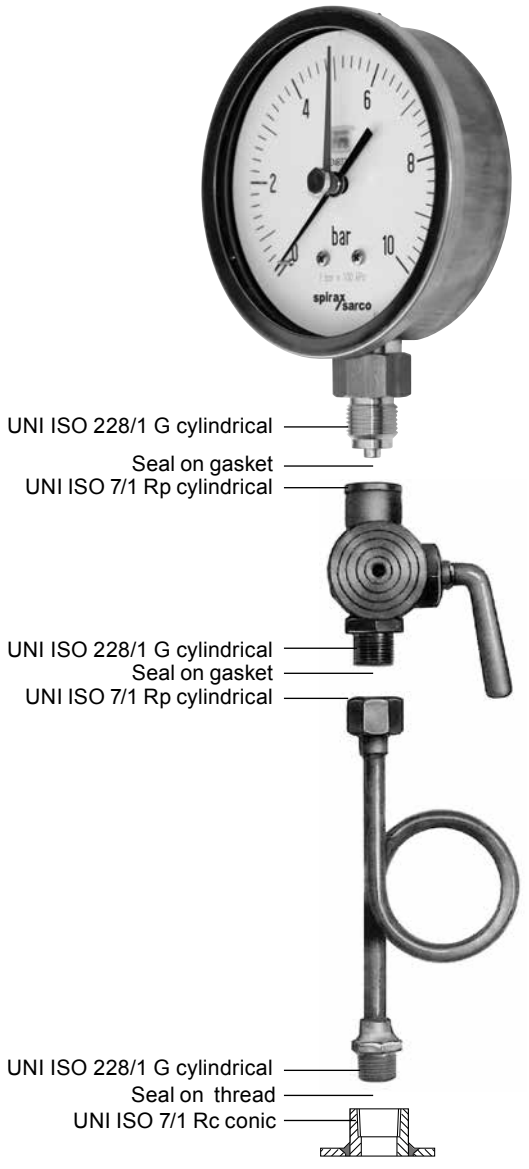
Installation note: as with all instrumentation, the Spirax Sarco pressure gauge is a delicate measuring device and care has to be taken in its installation and use, to prevent shock and mistreatment that can damage and alter their precision and functionality.
It is recommended that all gauges are fitted with a gauge isolation cock to assist when calibration or maintenance is necessary.
When used on steam or other hot gases over the maximum temperature suggested, gauges must be protected from excessive heat by the use of an appropriate siphon tube. The siphon pipe should be primed with water prior to fitting the gauge and commissioning.
Insert a smooth gasket to ensure the seal between gauge and cock and between cock and the siphon tube.
This gasket must be constructed with material suitable for working temperature and compatible with the process fluid (gaskets not supplied).
The seal between siphon tube and process is performed on the thread, arranging the appropriate connection by means of threaded tapered coupling sleeve as shown in the drawing. Care should be taken if the installation is exposed to frost as gauges can burst. Pressure gauges should also be free from vibration and rapid and repetitive mechanical pressure pulse.
Screw and fasten the gauge with an appropriate spanner applied to the connection properly shaped: refrain torsional effort on the instrument case.
The instrument scale must be chosen so that during normal operation the pressure is maintained at values included within the upper limit of 75% of the maximum allowed value. Full scale value mustn't be exceeded even if occasionally.

Maintenance note: replacements of parts or components are not provided for sealed gauges. If it should emerge that, due to shocks or temporary overpressure, the unit has lost its functionality and/or calibration, it is necessary to proceed to its replacement.

Warning: always handle slowly the isolation cock, to avoid shock effects caused by sudden pressure changes.

Disposal

These products are recyclable: is not considered that there is an ecological hazard resulting from their disposal, provided that appropriate precautions are taken.



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