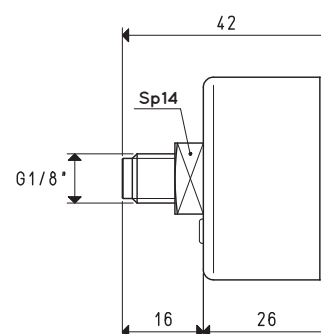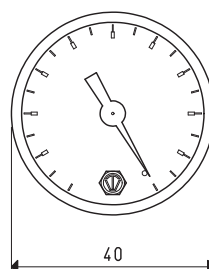# VACUUM AND PRESSURE GAUGES

The measurement method of our vacuum gauges is based on the principle of the Bourdon spring (Eugène Bourdon, France, 1808 – 1884).
It is made using section tubes in special copper alloy, one end is welded to the threaded pin of the vacuum-pressure gauge, thus forming a single body with it, while the other closed end is free. As the vacuum or the pressure inside increases, it tends to shift from the initial position (Bourdon effect). The movement of the free end of the spring determines the vacuum-pressure measurement. For easier reading, this movement is amplified by means of a connection lever and transmitted to the pointer.
Everything is contained in a sturdy case made from different materials according to the function of models, fastened onto a threaded fitting for connection to the system. The face and index are visible thanks to a clear plastic protective disc. They are available in various versions, with radial or coaxial connectors, with built-in or external flange, dry or glycerine filled. With the exception of the Ø 40 mm vacuum gauges, all other models have a double scale dial.
All the vacuum and pressure gauges we will describe on these pages are made in compliance with all the safety standards and measurement units in force in the European Union.

VACUUM GAUGE

Item	Scale KPa	Double Scale	Admissable scale error	Temperature of use	Notes	Case material	Weight g
09 03 15	0 ÷ -100	--	2.5%	-10 °C ÷ +50 °C	dry	Black plastic	52
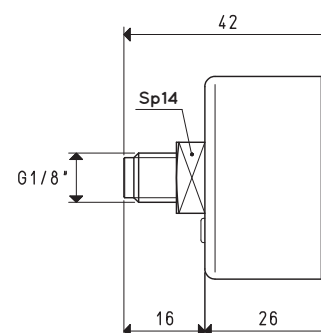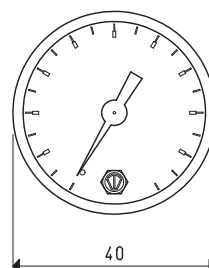
PRESSURE GAUGES

Item	Scale bar	Double Scale	Admissable scale error	Temperature of use	Notes	Case material	Weight g
09 03 20	0 ÷ 1.6	0 ÷ 23 psi	2.5%	-10 °C ÷ +50 °C	dry	Black plastic	54
09 03 25	0 ÷ 10	0 ÷ 1.0 MPa	2.5%	-10 °C ÷ +50 °C	dry	Black plastic	54
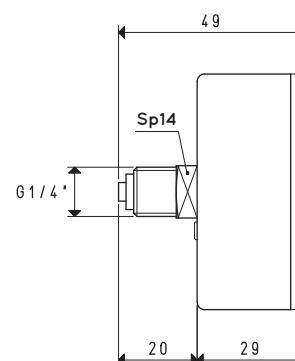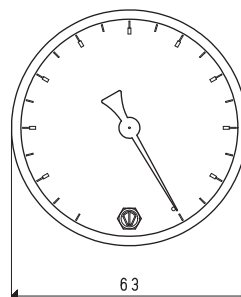
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)   inch = $\dfrac{mm}{25.4}$; pounds = $\dfrac{g}{453.6}$ = $\dfrac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130
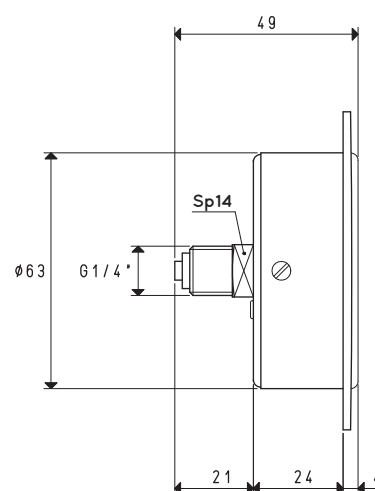
3

VACUUM GAUGE

Item	Scale mbar	Double Scale KPa	Admissable scale error	Temperature of use	Notes	Case material	Weight g
09 03 10	0 ÷ -1000	0 ÷ -100	2.5%	-10 °C ÷ +50 °C	dry	black plastic	134
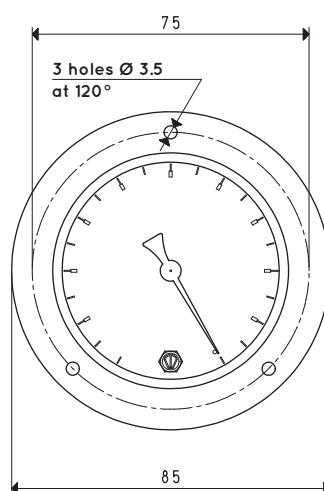
VACUUM GAUGE

Item	Scale mbar	Double Scale KPa	Admissable scale error	Temperature of use	Notes	Case material	Flange material	Weight g
09 01 10	0 ÷ -1000	0 ÷ -100	2.5%	-10 °C ÷ +50 °C	dry	black plastic	chrome-plated steel	162
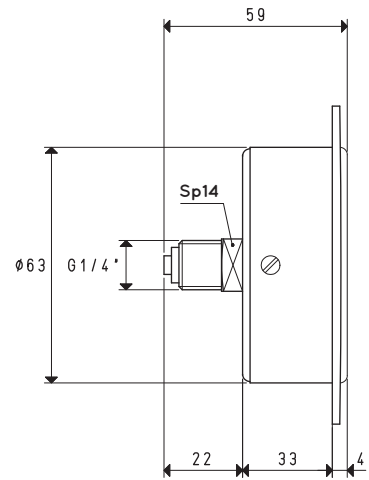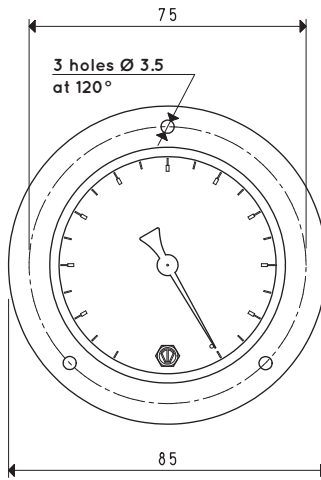
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)   inch = $\dfrac{mm}{25.4}$; pounds = $\dfrac{g}{453.6}$ = $\dfrac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130
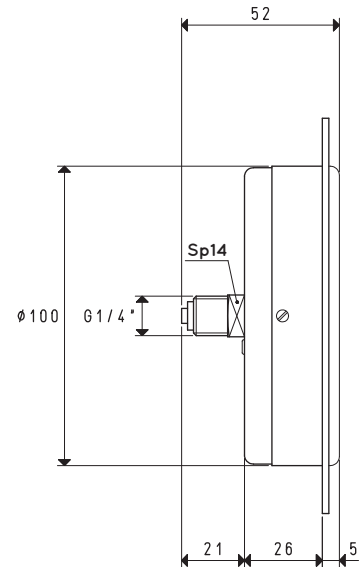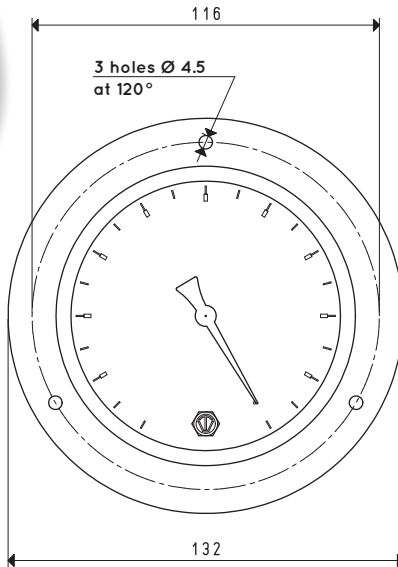
VACUUM GAUGES

VACUUM GAUGE

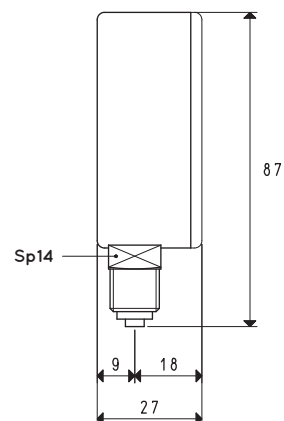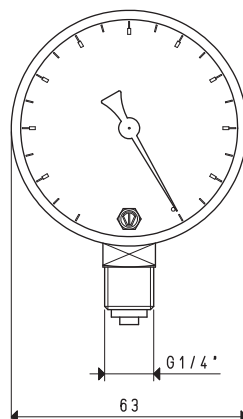| Item	Scale mbar	Double Scale KPa	Admissable scale error	Temperature of use	Notes	Case material	Flange material	Weight g
09 01 16	0 ÷ -1000	0 ÷ -100	1.6%	-10 °C ÷ +50 °C	in glycerine bath	Die-cast brass	chrome-plated steel	348

VACUUM GAUGE

Item	Scale mbar	Double Scale KPa	Admissable scale error	Temperature of use	Notes	Case and flange material	Weight g
09 02 10	0 ÷ -1000	0 ÷ -100	1%	-10 °C ÷ +50 °C	dry	black steel	346
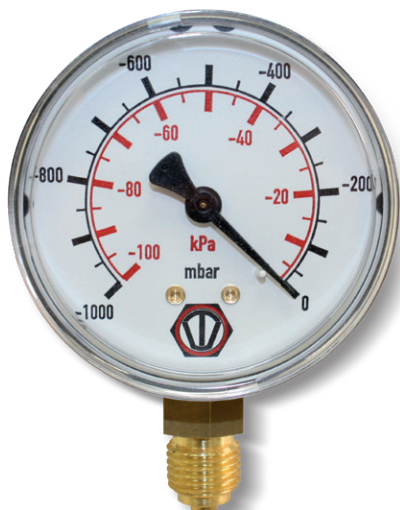
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)   inch = $\dfrac{mm}{25.4}$; pounds = $\dfrac{g}{453.6}$ = $\dfrac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

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VACUUM GAUGE

Item	Scale mbar	Double Scale KPa	Admissable scale error	Temperature of use	Notes	Case material	Weight g
09 05 10	0 ÷ -1000	0 ÷ -100	2.5%	-10 °C ÷ +50 °C	dry	black plastic	136
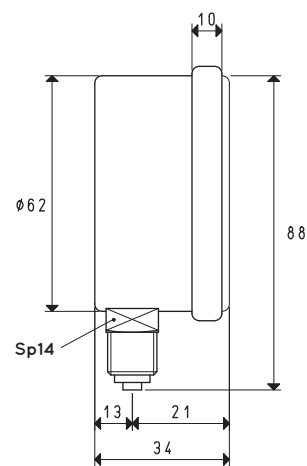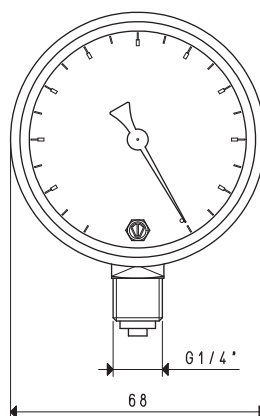
VACUUM GAUGE

Item	Scale mbar	Double Scale KPa	Admissable scale error	Temperature of use	Notes	Case material	Weight g
09 05 16	0 ÷ -1000	0 ÷ -100	1.6%	-10 °C ÷ +50 °C	in glycerine bath	stainless steel	218

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\dfrac{mm}{25.4}$; pounds = $\dfrac{g}{453.6}$ = $\dfrac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130