

ANALOG VACUUM SWITCHES



These compact and extremely light switches come enclosed in a sturdy ABS casing; these features allow their installation on the machine and close to the application. If accurately calibrated, these analog switches provide very precise measurements values. The adjustment range is from 0 to -1 bar (g) and can be interfaced with external logics via an analog output from 1 to 5 Volts and a digital PNP output, configurable via Teach-In.

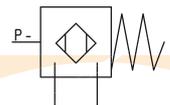
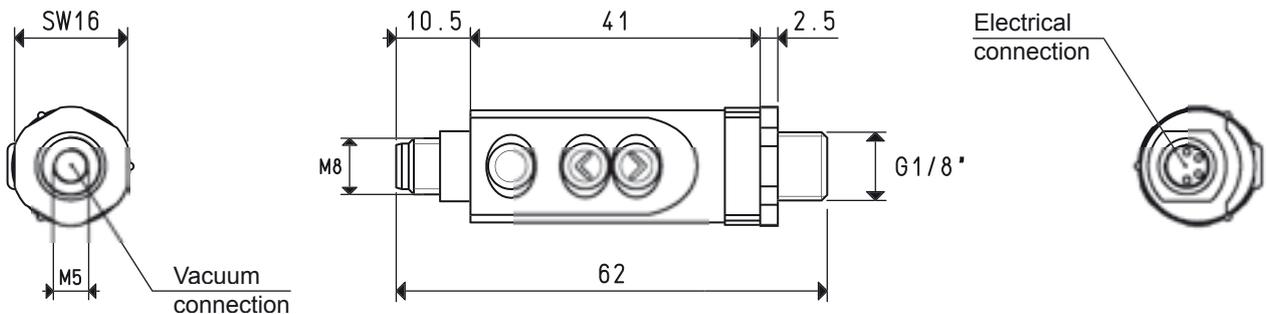
The commutation point, as well as the hysteresis from 0 to 100% of the set value, can be easily programmed via push buttons located on the control panel; the two two-colour LEDs on the control panel signal the commutation status and the error code, if any.

These devices can be rotated freely to place the display in the desired position, without having to unscrew them from the vacuum connection.

The vacuum connection is dual threaded: male G 1/8" or female M5. The electrical connection is an M8 4-pin threaded plug and upon request the connection cable is available in PUR, with an axial or radial connector.

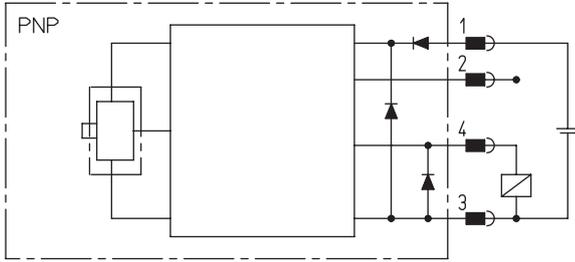
These vacuum switches are suited for measuring and controlling dry air and non-corrosive gasses. They are recommended in all those cases that require a measurement and commutation to be installed on safety or energy-saving devices, on systems for optimising the work cycle time and in circuit vacuum level adjustment circuits.

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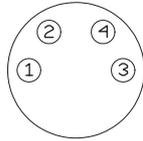
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ELECTRIC DIAGRAM



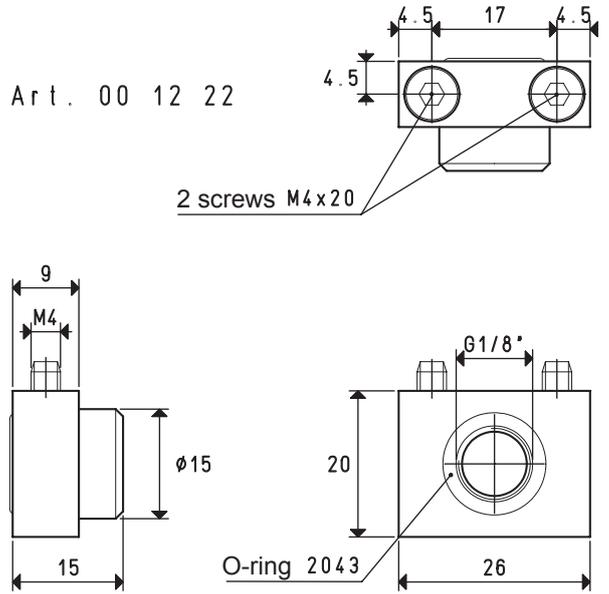
Connections

- 1 . V +
- 2 . analog output
- 3 . V -
- 4 . commutation output



Cable colour
 Pin1 = brown
 Pin2 = white
 Pin3 = blue
 Pin4 = black

WALL-FIXING KIT



Electrical features and specifications

Art. 12 07 10

Adjustment range	from 0 to -1 bar (g)
maximum overpressure	5 bar (g)
Operating voltage	10.8 ÷ 30 VDC (Protection against polarity reversal)
Electrical absorption	≤30 mA
Commutation output	1 digital PNP, NO or NC, max. commutation power 125 mA
Analog output	1 ÷ 5 V; load impedance ≥500 Ω
Output tolerance	±1%
Offset	1 V ÷ 0.1 Volt
Reaction time	≤2.5 ms
Commutation frequency	400Hz
Hysteresis	Adjustable from 0 to 100% of the set maximum value
Repeatability	±0.2% of the measuring range
Error code signal	via two-colour LEDs
Insulation resistance	100 MΩ a 500 VDC
Proof voltage	1000 VDC, 1 min
Protection class	IP 65

Working environment conditions

Installation position	Any
Measurable fluids	Non-corrosive gasses and dry air
Operating temperature	0 ÷ +50 °C
Storage temperature	-20 ÷ +80 °C
Emitted interference	In compliance with DIN EN 50081 - 1
Interference immunity	In compliance with DIN EN 50082 - 2

Mechanical features and specifications

Container material	ABS/PC plastic
Connection material	Nickel-plated brass
Weight	19 g
Electrical connection	M8-4 pin plug
Connection to fluid	Male G1/8", female M5 threads

Accessories

Electrical connection cable	With axial connector, mt. 5 - PUR M8 x 1x 0.25 mm	- Art. 00 12 20
Electrical connection cable	With radial connector, mt. 5 - PUR M8 x 1x 0.25 mm	- Art. 00 12 21
Wall-mounting kit	Support with O-ring and screws	- Art. 00 12 22

3D drawings available at www.vuototecnica.net