



ANALOGUE VACUUM SWITCH

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 analogue switches provide very precise measurements values.

The adjustment range is from 0 to -1 bar and can be interfaced with external logics via an analogue output from 1 to 5 Volts and a digital PNP output, configurable via Teach-In.

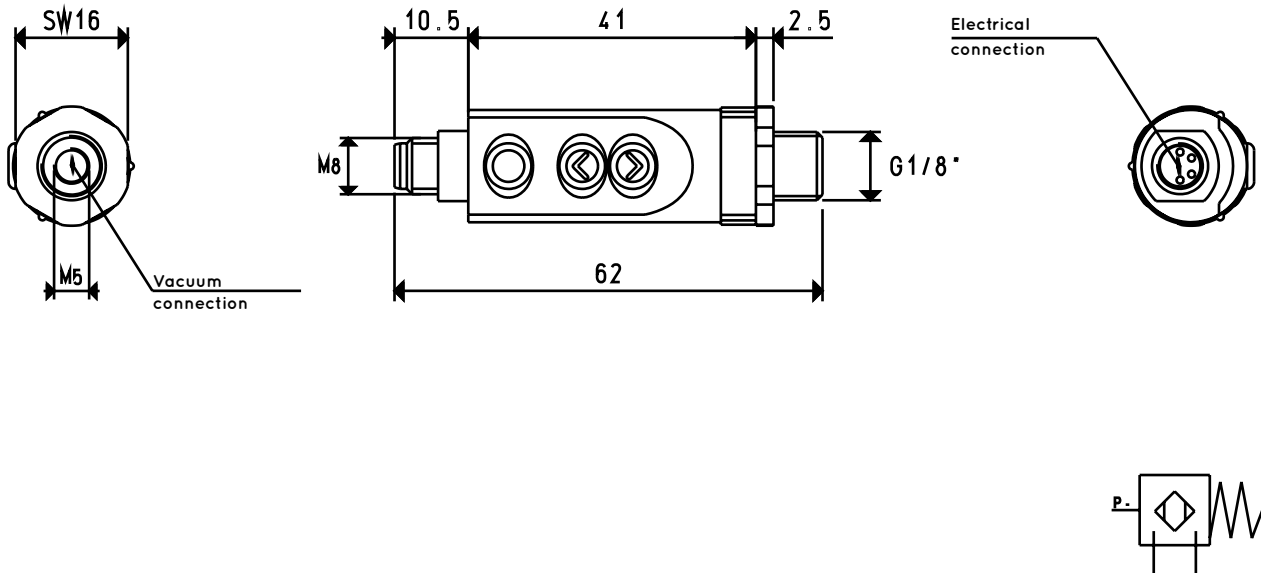
The switching point, as well as the hysteresis from 0 to 100% of the set value, can be easily programmed via push buttons located on the control panel; the two two-colour LEDs on the control panel signal the commutation status and the error code, if any.

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.

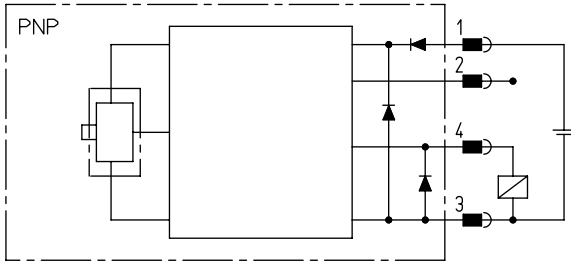
These vacuum switches are suited for measuring and controlling dry air and non-corrosive gasses.

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 level of vacuum adjustment circuits.

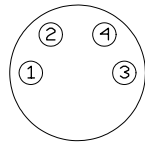




WIRING DIAGRAM



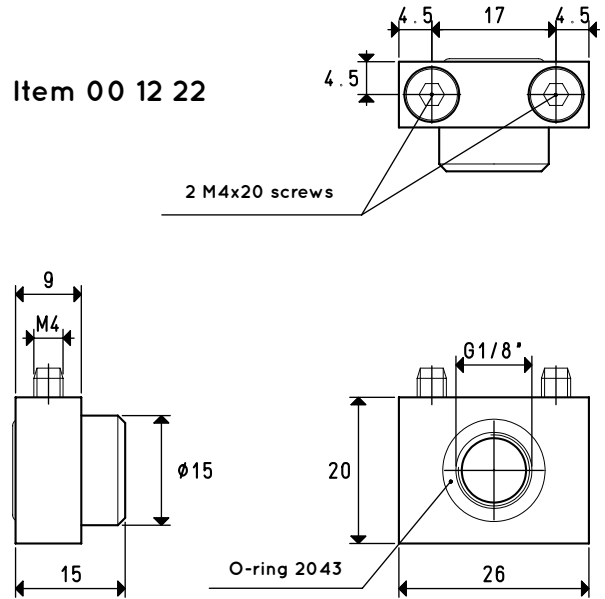
- Connections
 1. V+
 2. analogue output
 3. V-
 4. commutation output



- Cable colours
 Pin1 = brown
 Pin2 = white
 Pin3 = blue
 Pin4 = black

WALL FIXING KIT

Item 00 12 22



3D drawings are available on vuototecnica.net

Characteristics and electrical specifications	Item 12 07 10 Vacuum switch
Adjustment range	from 0 to -1 bar
Maximum overpressure	5 bar
Operating voltage	10.8 - 30 VDC (Protection against polarity inversion)
Electrical absorption	≤30 mA
Commutation output	1 digital PNP, NO or NC programmable, maximum commutation current 250 mA
Analogue output	1 - 5 V; impedance load ≥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 maximum set value
Repeatability	±0.2% of the measuring range
Error code signal	Two-colour LED
Insulation resistance	100 MΩ to 500 VDC
Test voltage	1000 VAC, 1 min
Degree of protection	IP 65
Environmental operating conditions	
Installation position	Any
Measurable fluids	Non-corrosive gas and dry air
Operating temperature	0 - +50 °C
Storage temperature	-20 - +80 °C
Interference emission	In compliance with DIN EN 50081 - 1
Resistance to interference	In compliance with DIN EN 50082 - 2
Characteristics and mechanical specifications	
Container material	ABS plastic - PC
Connection material	Nickel-plated brass
Weight	19 g
Electrical connection	With M8 - 4 pin coupler
Connection to the fluid	Male G 1/8" or female M5 threading
Accessories	
Electrical connection cable	With axial connector, 5 m - PUR M8 x 1x 0.25 mm - Item 00 12 20
Electrical connection cable	With radial connector, 5 m - PUR M8 x 1x 0.25 mm - Item 00 12 21
Wall fixing kit	Support with o-ring and screws - Item 00 12 22

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130