

## DIGITAL VACUUM AND PRESSURE SWITCHES

*These compact and extremely light digital vacuum and pressure switches are enclosed in a sturdy ABS casing. These features allow installation on the machine and close to the application.*

*These digital switches, accurately calibrated and compensated for temperatures, is able to give very precise measurements values. The measured values are shown on the display, making the vacuum gauge redundant. The two LEDs, one red and one green, built-in the control panel, indicate the commutation status of the two digital output signals.*

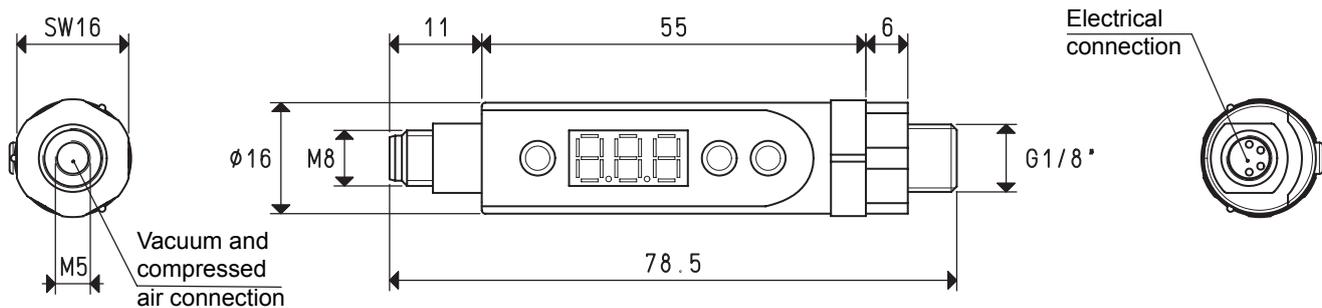
*The two commutation outputs are completely independent. The switch point between the scale values as well as the hysteresis from 0 to 100% of the set up value can be easily programmed via the push buttons on the control panel.*

*Other additional functions can be configured, such as the comparison between two values, NO and NC contacts, choice of the measurement unit, locking the programmed values and functions, display reversal, etc. 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 or the pressure connections can be carried out via a dual male G 1/8" or female M5 thread. The electrical connection is carried out via M8-4 pin threaded plug and upon request the connection cable is available in PUR, with an axial or radial connector. These switches are suited for measuring and controlling dry air and non-corrosive gasses. They are recommended in all those cases that require a signal when a certain vacuum level is reached set for safety, for starting a cycle, for checking the cup grip, etc. Moreover, the hysteresis function allows managing the vacuum generator compressed air supply, allowing considerable energy saving.*



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3D drawings available at [www.vuototecnica.net](http://www.vuototecnica.net)

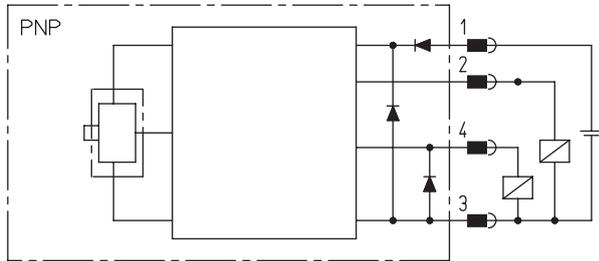
Conversion ratio: inch =  $\frac{\text{mm}}{25.4}$ ; pounds =  $\frac{\text{g}}{453.6}$ ; Kg =  $\frac{\text{g}}{0.4536}$

GAS-NPT thread adapters available at page 1.117

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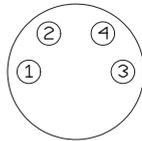
# DIGITAL VACUUM AND PRESSURE SWITCHES

## ELECTRIC DIAGRAM



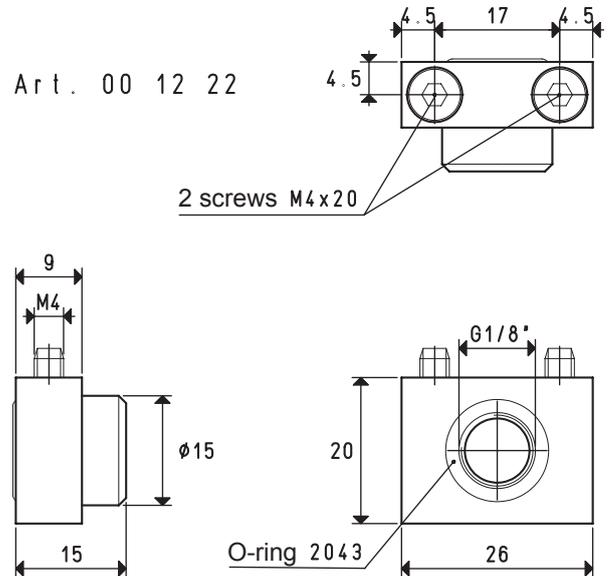
### Connections

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



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

## WALL-FIXING KIT



Electrical features and specifications	Art. 12 10 10 Vacuum switch	Art. 12 25 11 Pressure switch
Adjustment range	from 0 to -1 bar (g)	from 0 to 10 bar (g)
maximum overpressure	5 bar (g)	16 bar (g)
Minimum detected values	0.01 bar (g) 1 KPa 1 mmHg 0.1 InHg	0.01 bar (g) -- -- --
Operating voltage	10.8 ÷ 30 VDC (Protection against polarity reversal)	
Electrical absorption	≤35 mA	
Commutation output	2 digital PNP,NO or NC,max commutation power 125 mA	
Display tolerance	≤ ±1% F.S.	
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	
Display	3-digit, 7-segment LED	
Insulation resistance	100 MΩ a 500 VDC	
Proof voltage	1000 VDC, 1 min	
Protection class	IP 65	
<b>Working environment conditions</b>		
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	
<b>Mechanical features and specifications</b>		
Container material	ABS/PC plastic	
Connection material	Nickel-plated brass	
Weight	20 g	
Electrical connection	M8-4 pin plug	
Connection to fluid	Male G1/8", female M5 threads	
<b>Accessories</b>		
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](http://www.vuototecnica.net)