



DIGITAL VACUUM AND PRESSURE SWITCHES

3D drawings are available on vuototecnica.net

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.

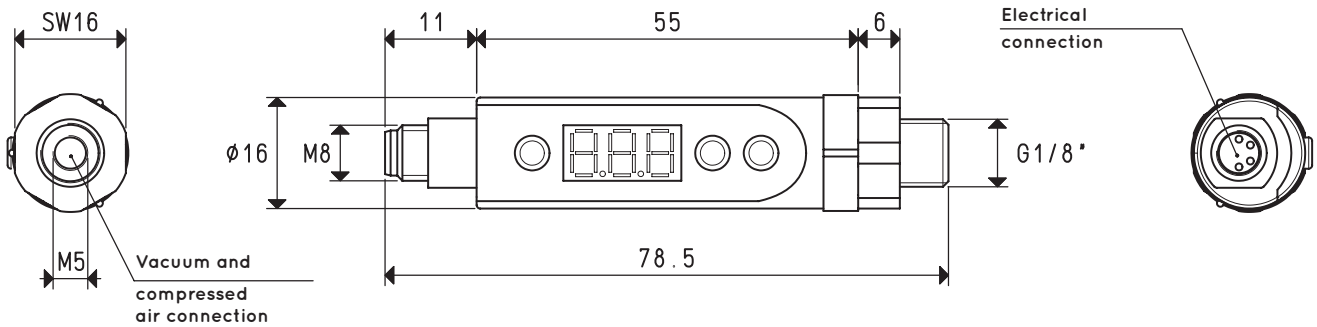
These digital switches are accurately calibrated and compensated for temperatures and therefore are able to give very precise measurements values. The detected values are shown on the display, making it unnecessary to use a vacuum gauge. The two LEDs, one red and one green, built-in the control panel,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

The two commutation outputs are completely independent. The switching points within the scale values, including hysteresis from 0 to 100% of the set value, are easily programmable via the buttons located 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.

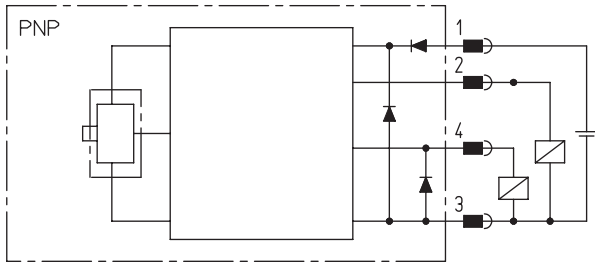
The vacuum or the pressure connections can be carried out via a dual male G 1/8" or female M5 threading. The electrical connection is an M8 4-pin threaded plug and upon request the connection cable is available in PUR, with an axial or radial connector. These switches are suited for measuring and controlling dry air and non-corrosive gas.

They are recommended in all those cases that require a signal when a certain level of vacuum 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.



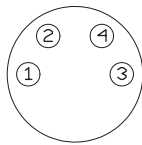


WIRING DIAGRAM



Connections

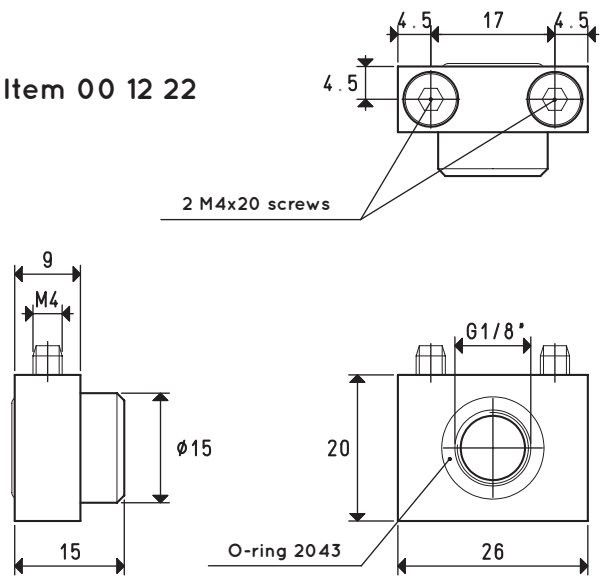
- 1. V+
- 2. commutation output 2
- 3. V-
- 4. commutation output 1



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

WALL FIXING KIT

Item 00 12 22



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Characteristics and electrical specifications	Item 12 10 10 Vacuum switch	Item 12 25 11 Pressure switch
Adjustment range	from 0 to -1 bar	from 0 to 10 bar
Maximum overpressure	5 bar	16 bar
Minimum detectable values	0.01 bar 1 KPa 1 mmHg 0.1 InHg	0.01 bar -- -- --
Operating voltage	10.8 - 30 VDC (Protection against polarity inversion)	
Electrical absorption	<15 mA / <3 mA energy saving mode	
Commutation output	2 digital PNP, 2 digital NPN, NO or NC programmable, maximum commutation current 250 mA	
Display tolerance	≤ ±2% F.S.	
Reaction time	≤2.8 ms	
Commutation frequency	200Hz	
Hysteresis	Adjustable from 0 to 100% of the maximum set value	
Repeatability	±0.2% of the measuring range	
Display	3-digit, 7-segment 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	20 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)

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

Adapters for GAS - NPT threading available on page 1.130