

MICRO DIGITAL VACUUM SWITCHES

These small devices, if accurately calibrated and compensated for temperatures, are able to give very precise digital signals to the set maximum measuring value.

The commutation point, which is within the scale value, can be easily programmed by means of an adjustment screw located on the upper part of the device. A red LED near the screw indicates the digital output signal commutation status.

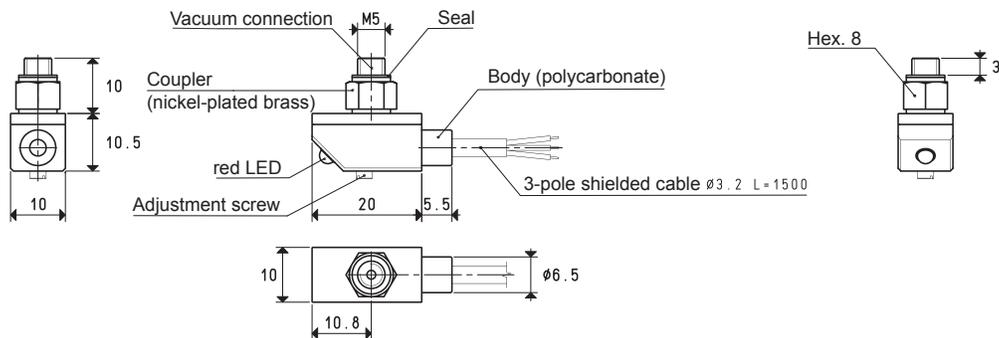
The pressure differential (hysteresis) between the set maximum value and the value of reset of the rest signal is 2% of the set value and cannot be adjusted.

They are composed of a polycarbonate enclosure, which includes the sensor and the electric circuit, and of a coupler or a small aluminium manifold with the vacuum connections.

Art. 12 05 10 can also be rotated freely to place the display in the desired position, without having to unscrew it from the vacuum connection. The vacuum connection can be carried out via male or female M5 connectors, while the electrical connection is made via a three-conductor cable which they are equipped with. Mini digital vacuum switches are suited for controlling dry air and non-corrosive gasses and they are recommended in all those cases that require a signal when a certain vacuum level is reached, for safety, for starting a cycle, for checking the cup grip, etc.

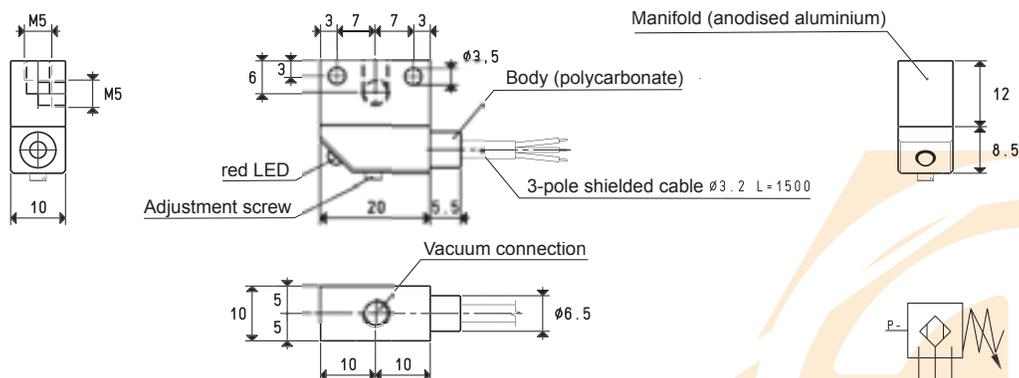


Art. 12 05 10



Cable colour	Connection
brown	positive pole \oplus
black	output signal
blue	negative pole \ominus

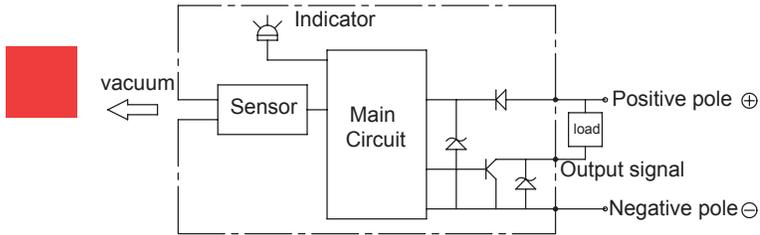
Art. 12 05 11



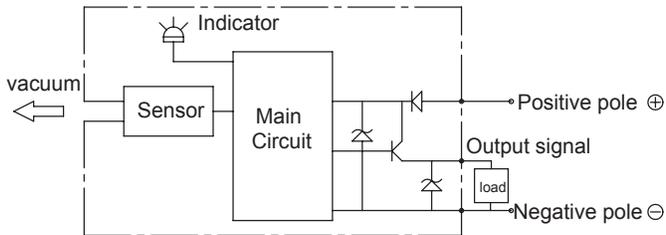
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INTERNAL ELECTRIC DIAGRAMS

- NPN on

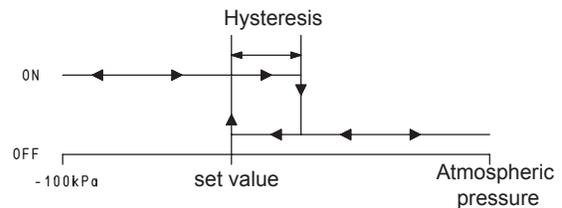


- PNP on



OUTPUT CONTACT DIAGRAM

The LED lights up at the preset pressure and turns off at the preset pressure minus the hysteresis



Electrical features and specifications	Art. 12 05 10 P Art. 12 05 11 P	Art. 12 05 10 N Art. 12 05 11 N
Adjustment range		da 0 a -100 kPa
maximum overpressure		200 kPa
Operating voltage		10.8 ÷ 30 VDC (Protection against polarity reversal)
Electrical absorption		≤20 mA
Commutation outputs	1 digital PNP, NO	80 mA maximum 1 digital NPN, NO
Reaction time		≤1 ms
Commutation frequency		1000Hz
Hysteresis		Not adjustable, 2% of the set maximum value
Repeatability		±2% of the measuring range
Commutation indicator		Red LED
Insulation resistance		100 MΩ
Proof voltage		500 VAC, 1 min
Protection class		IP 40
Working environment conditions		
Installation position		Any
Controlable fluids		Dry air and non-corrosive gasses
Operating temperature		-10 ÷ +60 °C
Storage temperature		-20 ÷ +70 °C
Emitted interference		In compliance with EN 55011, Group 1, Class B
Interference immunity		In compliance with EN 61326 - 1
Mechanical features and specifications		
Container material		Polycarbonate PC
Connection material		Nickel-plated brass and aluminium
Weight (without cable)		Approx. 5g
Electrical connection		1.5 m long three-conductor cable
Connection to fluid		M5 male or female thread

3D drawings available at www.vuototecnica.net