



DIGITAL VACUUM SWITCHES

3D drawings are available on vuototecnica.net

Changes the shape of these digital vacuum switches with respect to those previously described, from cylindrical to parallelepiped. However, the container in which they are enclosed remains in ABS and is also especially compact and extremely light to allow for its installation on board automatism and near use. These carefully calibrated devices are able to provide very accurate measurement values. The detected values are shown on the display, making it unnecessary to use a vacuum gauge. The panel includes two LED indicators, one green and one red, which indicate the switching status of the two digital output signals. The switching 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 comparisons between values, NO and NC contacts, the choice of the units of measure, the blocking of functions and programmed values, etc. The vacuum connection can be made by means of a G 1/8" male or M5 female double threading connection.

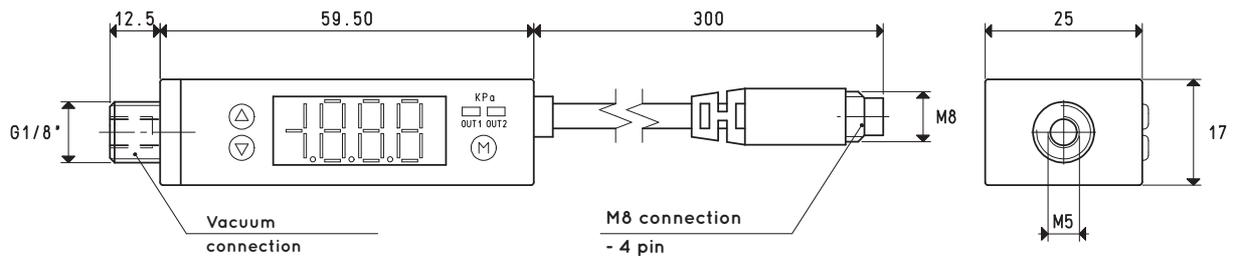
Electrical connection for item 12 30 10 is push-in with a M8-4 pin threaded jack. A connection cable can be provided in PUR upon request with corresponding axial or radial connector.

Instead, item 12 30 10 A already has an integrated PUR, 2-metre long connection cable. The adjustment range of vacuum switch 12 30 10 is from 0 to -1 bar, with two digital PNP outputs that can be set by means of Teach-in. The adjustment range of item 12 30 10 A, while it is also between 0 and -1 bar, can instead be interfaced with external logics via a 1 to 5 volt analogue output and two digital PNP outputs.

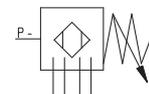
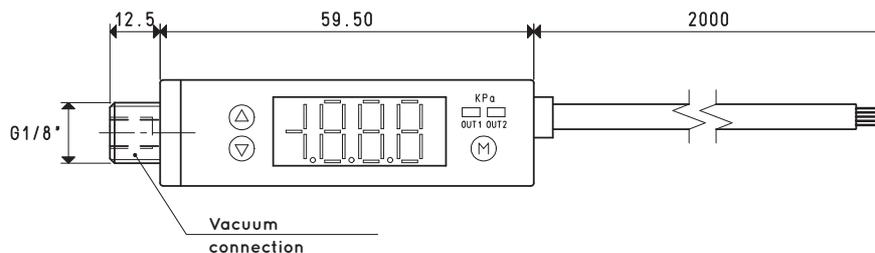
This series of digital vacuum switches is suitable for measuring and control of dry air and non-corrosive gases. These are recommended in all cases where maximum and minimum value signalling is required, set for safety reasons, in order to start a work cycle, to control vacuum cup gripping, and so on. In addition, with the hysteresis function, it is possible to manage the compressed air supply to the vacuum generators, allowing for considerable energy savings.



Item 12 30 10

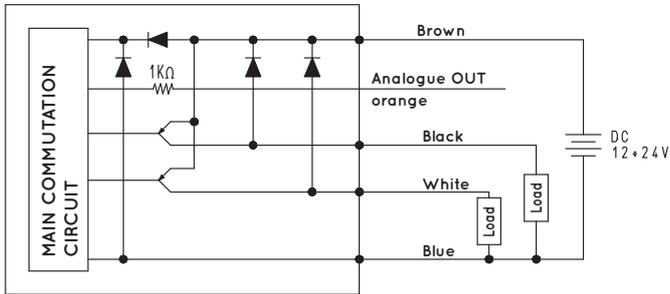


Item 12 30 10 A



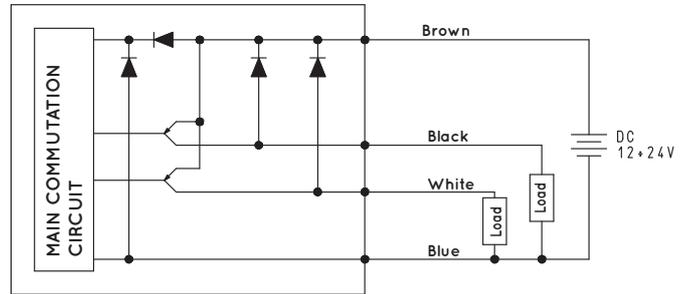
WIRING DIAGRAMS

PNP



Item 12 30 10 A

PNP



Item 12 30 10

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3

Characteristics and electrical specifications	Item 12 30 10 A Vacuum switch	Item 12 30 10 Vacuum switch
Adjustment range		from 0 to -1 bar
Maximum overpressure		3 bar
Minimum detectable values		0.1 KPa 0.001 Kg/cm ² 0.001 bar 0.01 psi 0.1 InHg 1 mmHg 0.1 mmH ₂ O
Operating voltage		12 - 24 VDC ±10% (Protection against polarity inversion)
Electrical absorption		≤60 mA
Digital output		2 PNP, maximum commutation current 100 mA
Analogue output	1 analogue, 1 + 5 V ±2% F.S.	--
Display tolerance		≤ ±2% F.S. ±1 digit
Reaction time		≤2.5 ms
Hysteresis		Adjustable
Repeatability		±0.2% ±1 digit of the measuring range
Display		LED at 3 1/2 digit, 7 segments, OUT 1 green OUT 2 red
Insulation resistance		50 MΩ to 500 VDC
Test voltage		1000 VAC, 1 min
Degree of protection		IP 40
Environmental operating conditions		
Installation position		Any
Measurable fluids		Non-corrosive gas and dry air
Operating temperature		0 - +50 °C
Storage temperature		-20 - +60 °C
Interference emission		In compliance with EN 55011, Group 1, class B
Resistance to interference		In compliance with EN 61326 - 1
Characteristics and mechanical specifications		
Container material		ABS plastic - PC
Connection material		Nickel-plated brass
Weight	65 g, including electrical cable	35 g, including electrical cable
Electrical connection	--	With M8-4 pin coupler
Electrical connection cable	5-wire 2m cable	4-wire 0.3 m cable
Connection to the fluid		Male G 1/8" or female M5 threading