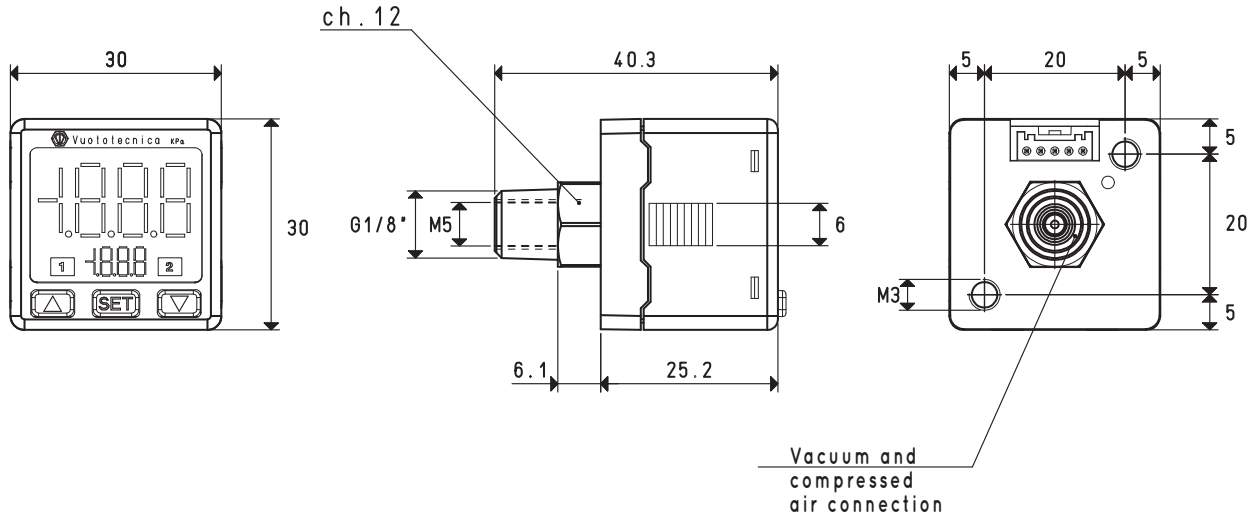
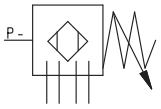
DIGITAL VACUUM SWITCHES WITH TWO-COLOUR DISPLAY

These devices are also enclosed within a robust ABS container. They are carefully calibrated and at compensated temperature, ensuring high-precision measurement values. Detected values are viewed on the main two-colour (red and green) display and programmable by the user to set different conditions. Setting values are easily viewable on a secondary display within the command panel. Two luminous indicators pertaining to outlets 1 and 2 indicate the switching status of both digital and the analogue output signals.
The switching outputs are completely independent.
The switching points within the scale values, including hysteresis, are easily programmable via the buttons located on the control panel. Additional functions are also programmable, such as comparison between two values, NO and NC contacts, choice of measurement unit, programmed value and function blocking, etc. The connection to the vacuum may be established by means of a male G 1/8" or female M5 double threading connection. It is possible to establish an electric connection by means of a removable, rapid installation data cable, supplied as standard.
Digital vacuum switches are suitable for measuring and controlling dry air and non-corrosive gases. They are recommended in all cases where maximum and minimum value signalling is required and set for safety reasons, in order to start a work cycle, control suction cup grip, and so on. With the hysteresis function, it is also possible to manage compressed air supply to vacuum generators, enabling considerable energy savings.



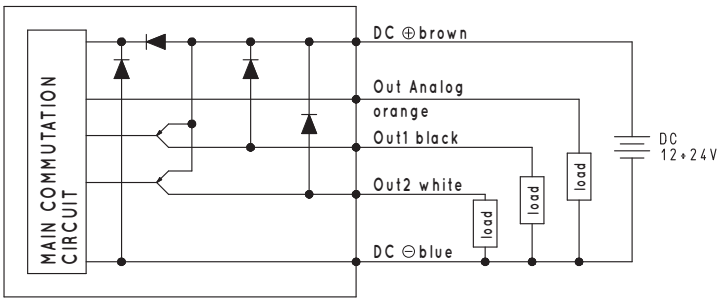


Conversion ratio: N (newton) = Kg x 9.81 (G-force) ; inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

GAS-NPT thread adapters available at page 1.128

ELECTRIC DIAGRAMS

PNP



Electrical features and specifications	Item 12 40 10 Vacuum switch	Item 12 40 20 Vacuum switch - Pressure switch
Adjustment range	from 0 to -1 bar	from -1 to 10 bar
Maximum overpressure	3 bar	15 bar
Minimum detected values	1 mbar	10 mbar
	0.001 Kgf/cm²	0.01 Kgf/cm²
	0.001 bar	0.01 bar
	0.01 psi	0.1 psi
	0.1 inHg	--
Operating voltage	12 ÷ 24 VDC, ±10% (Protection against polarity reversal)	
Electrical absorption	≤40 mA	
Digital output	2 PNP, max commutation power 125 mA	
Analog output	1 analog, 4 ÷ 20 mA ±2,5% F.S.	
Display tolerance	≤ ±2% F.S. ±1 digit	
Reaction time	≤ 2.5 ms	
Hysteresis	Adjustable	
Repeatability	±0.2% F.S. ±1 digit of the measuring range	
Display	7 segments, main two-colour (red - green) display, secondary display (orange)	
Insulation resistance	50 MΩ a 500 VDC	
Proof voltage	1000 VAC, 1 min	
Protection class	IP 40	
Working environment conditions		
Installation position	Any	
Measurable fluids	Non-corrosive gasses and dry air	
Operating temperature	0 ÷ +50 °C	
Storage temperature	-20 ÷ +60 °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	ABS - PC plastic	
Connection material	Nickel-plated brass	
Weight	80 g, electric cable included	
Electrical connection	With 4-conductor cable length 2 m	
Connection to fluid	Male G1/8" and female M5 thread	
Accessories		
Fixing kit	wall - Item 00 12 40 plane - Item 00 12 41 panel - Item 00 12 42 to panel + protection - Item 00 12 43	