

# VACUUM SWITCHES

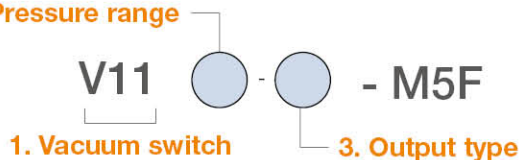
## V11

### I Specifications

Model	V11P	V11V	V11C
Rated pressure range	0.000 ~ 1.000 MPa	0.0 ~ 101.3 kPa	-100.0 ~ 100.0 kPa
Setting pressure range	-0.100 ~ 1.000 MPa	10.0 ~ 101.3 kPa	-101.0 ~ 101.0 kPa
Withstand pressure	1.5 MPa	500 kPa	500 kPa
Fluid	Filtered air, Non-corrosive / Non-flammable gas		
Set pressure resolution	kPa	-	0.1
	MPa	0.001	-
	Kgf/cm <sup>2</sup>	0.01	0.001
	bar	0.01	0.001
	psi	0.1	0.01
	inHg	-	0.1
	mmHg	-	1
Power supply voltage	12 to 24V DC±10%, Ripple (P-P) 10% or less		
Current consumption	≤ 40mA (With no load)		
Switch output	Output type	2 NPN or 2 PNP open collector	
	Max. load current	125 mA	
	Max. supply voltage	30V DC (at NPN output), 24V DC (at PNP output)	
	Residual voltage	≤ 1.5V	
	Response time	≤ 2.5ms (chattering-proof function : 25ms, 100ms, 250ms, 500ms, 1000ms and 1500ms selections)	
	Output short circuit protection	Yes	
Analog output	Voltage output	Voltage Impedance	1 ~ 5V (±2.5%) About 1Ω
	Linearity	±1% F.S.	
Display	LED display	4 digit, 7 segment (red)	
	Switch ON indicator	OUT 1 red / OUT 2 green	
	Updates time	About 0.2s	
	Indicator accuracy	±2% F.S. ±1 digit (ambient temperature : 25±3°C)	
Repeatability (Switch output)	±0.2% F.S. ±1 digit		
Environment	Enclosure	IP40	
	Operation ambient temp. range	0 ~ 50°C	
	Storage ambient temp. range	-10 ~ 60°C (No condensation or freezing)	
	Ambient humidity range	35 ~ 85% RH (No condensation)	
	Withstand voltage	1000V AC in -1min (between case and lead wire)	
	Insulation resistance	500MΩ (at 500V DC, between case and lead wire)	
	Vibration	Total amplitude 1.5mm or 10G, 10Hz-55Hz-10Hz scan for 1minute, two hours each direction of X, Y and Z	
	Shock	980m/s <sup>2</sup> (10G), 3 times each in direction of X, Y and Z	
Temperature characteristic	±2% F.S. of detected pressure (25°C) at temp. Range of 0 ~ 50°C		
Port size	M5		
Lead wire	26AWG, UL AWM 20276, 1000mm		
Weight	34.5g (with 1 meter lead wire)		

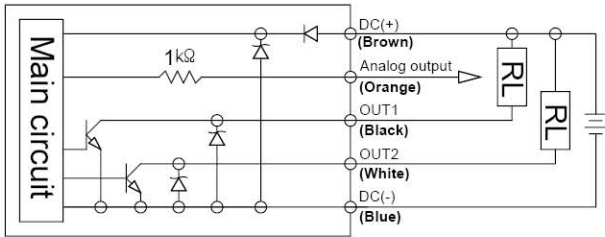
### I Build an Ordering No.

#### 2. Pressure range

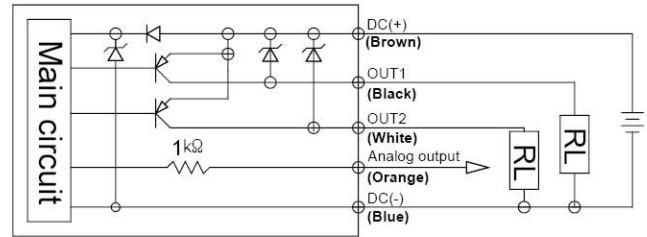


1. Vacuum switch	Description	Ordering No.
	Vacuum switch V11, Digital switch	V11
2. Pressure range	Description	Ordering No.
	Positive pressure	P
	Negative pressure	V
	Compound pressure	C
3. Output type	Description	Ordering No.
	2 NPN + Analog (voltage) output (1~5V)	010
	2 PNP + Analog (voltage) output (1~5V)	030

## Circuit diagram



[NPN output + Analog output (1~ 5V)]



[PNP output + Analog output (1~5V)]

## Dimensions

[ Unit : mm ]

