

# VACUUM SWITCHES

## VP32

### Features and Strengths

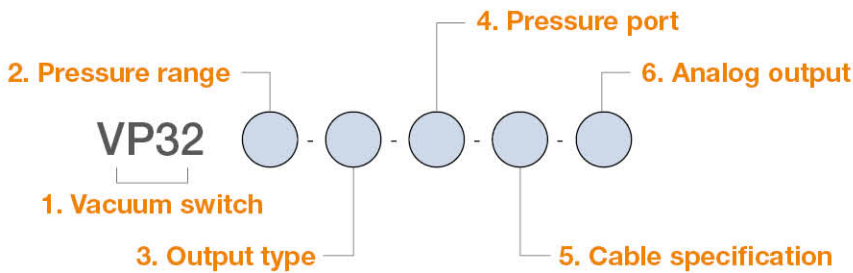
2 PNP outputs, NO or NC – Independently selectable for each output  
 3-colour LCD display, easy readout  
 7 programmable vacuum units, for example kPa, inHg, mmHg, etc.  
 Dual display allows actual and set value to be displayed at the same time  
 Selectable "Key-Lock mode" with display indicator to avoid unauthorized changes  
 Selectable "Power-Save mode" with display indicator  
 Mounting brackets included



### Specifications

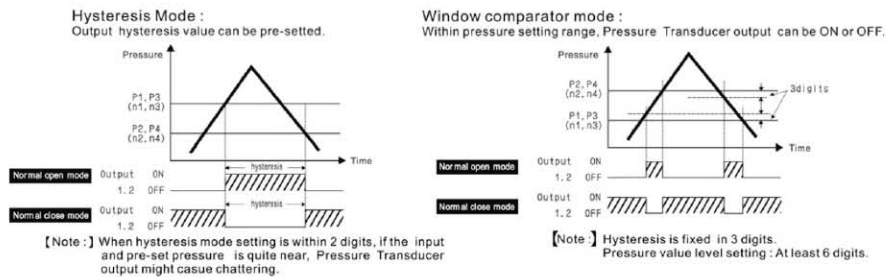
Model	VP32C	VP32V	VP32P
Applicable fluid	Air, Non corrosive gases, Incombustible gases		
Pressure range	-100.0 ~ 100.0 kPa	0.0 ~ -101.3 kPa	0.000 ~ 1.000 MPa
Withstand pressure	300 kPa		
Indicator resolution	kPa	0.1	-
	MPa	-	0.001
	Kgf / cm <sup>2</sup>	0.001	0.01
	bar	0.001	0.01
	Psi	0.01	0.1
	inHg	0.1	-
	mmHg	1	-
Power supply voltage	12 ~ 24 VDC ±10%, Ripple (P-P) 10% or less		
Current consumption	≤ 40 mA (with no load)		
Switch output	NPN open collector Max. load current : 125mA Max. supply voltage : 30VDC Residual voltage : ≤ 1.5V (load current 125mA)		PNP open collector Max. load current : 125mA Max. supply voltage : 24VDC Residual voltage : ≤ 1.5V (load current 125mA)
Analog output	Output Voltage : 1~5V ≤ ±2.5%F.S.(within rated pressure range) Linearity : ≤±1% F.S. Output impedance : 1kΩ		
Repeatability (Switch output)	≤±0.2% F.S. ±1digit		
Response time	≤2.5ms (chattering-proof function : 25ms,100ms, 250ms, 500ms, 1000ms, 1500ms selections)		
Output short circuit protection	Yes		
Indicator accuracy	One point set	Adjustable within 1~8 digits	
	Hysteresis mode	Adjustable within 1~8 digits	
	Window mode	Fixed (3 digits)	
Environment	Enclosure	IP40	
	Ambient temp. range	Operation : 0 ~ 50°C, Storage : -10 ~ 60°C (No condensation or freezing)	
	Ambient humidity range	Operation/ Storage : 35~85% RH (No condensation)	
	Vibration	Total amplitude 1.5mm or 10G, 10Hz-150Hz-10Hz scan for 1 minute, hours each direction of X, Y and Z	
	Shock	1000 %g (10G), 3 times each indirection of X,Y and Z	
Temperature characteristic	≤±2% F.S of detected pressure (25°C) at temp. range 0~50°C		
Port size	PT 1/8" male, M5		
Lead wire	F1: 1/8" PT, M5		
Weight	Approx. 80g (with 2M lead wire), Approx. 45g (with male connector)		

## I Build an Ordering No.

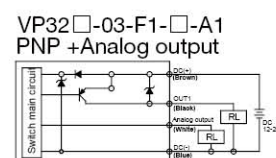
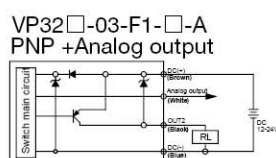
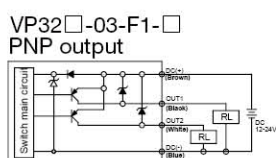
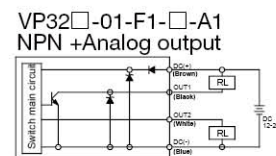
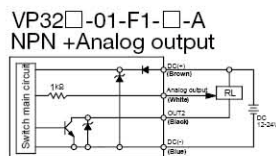
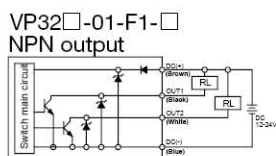


1. Vacuum switch	Description	Ordering No.
	Vacuum Switch, LED-Display	VP32
2. Pressure range	Description	Ordering No.
	Compound pressure (-100.0 ~ 100.0 kPa)	C
	Negative pressure (-101.3 ~ 0 kPa)	V
	Positive pressure (0.00 ~ 1.00 MPa)	P
3. Output type	Description	Ordering No.
	2 NPN output	01
	2 PNP output	03
4. Pressure port	Description	Ordering No.
	PT1/8" male, M5 female	F1
5. Cable specification	Description	Ordering No.
	2m Lead wire type	Blank
	M8-4 pin male connector	C
6. Analog output	Description	Ordering No.
	No analog output	Blank
	1 ~ 5V Analog output : <i>only for wire type</i>	A

## I Operating mode



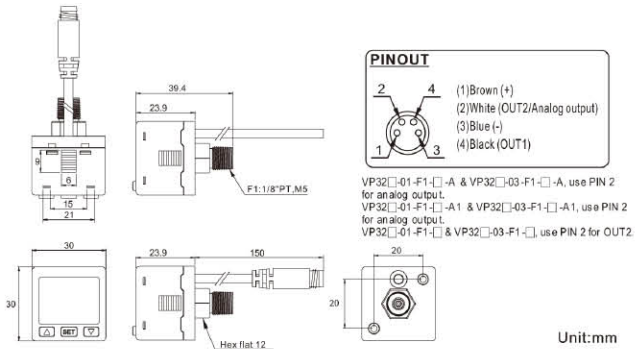
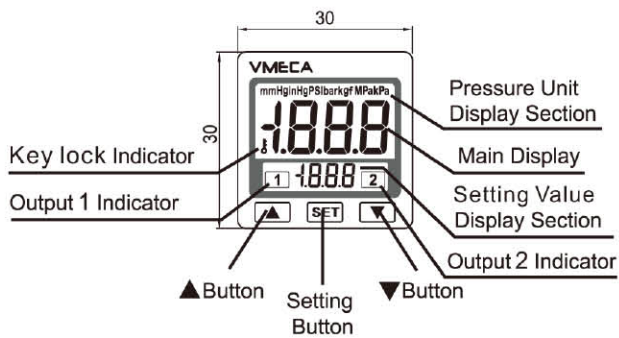
## I Circuit diagram and examples of connection



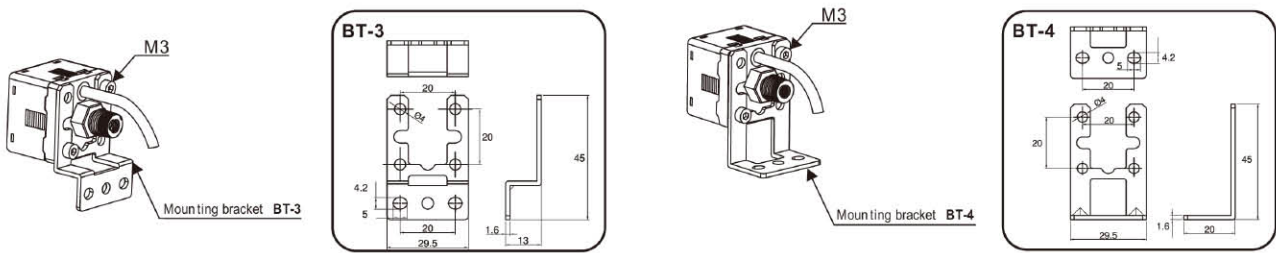
# VACUUM SWITCHES

## Dimension

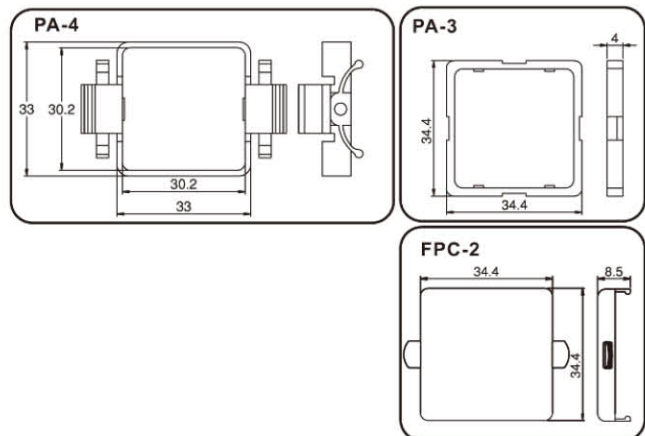
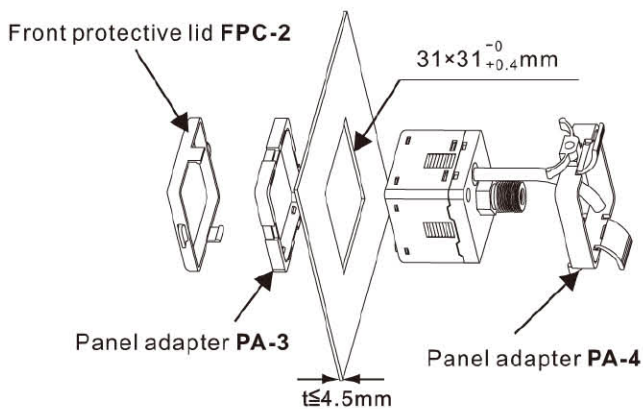
[ Unit : mm ]



## [Body]



## [Mounting bracket]



## [Panel type]