

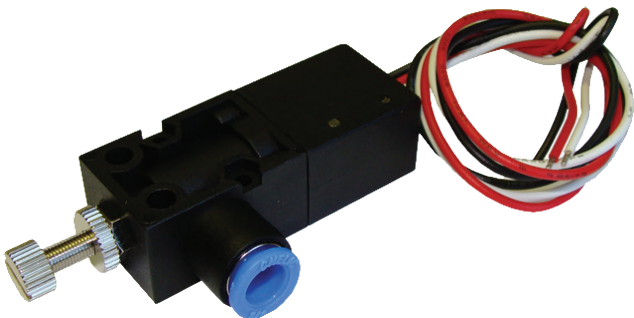


VACUUM SWITCHES

VAS VACUUM SWITCH



- Diaphragm vacuum switch
- Compact size
- Lightweight
- Inch port sizes 5/32", 1/4 & 5/16
- Metric port sizes 4, 6 & 8mm
- Fully adjustable

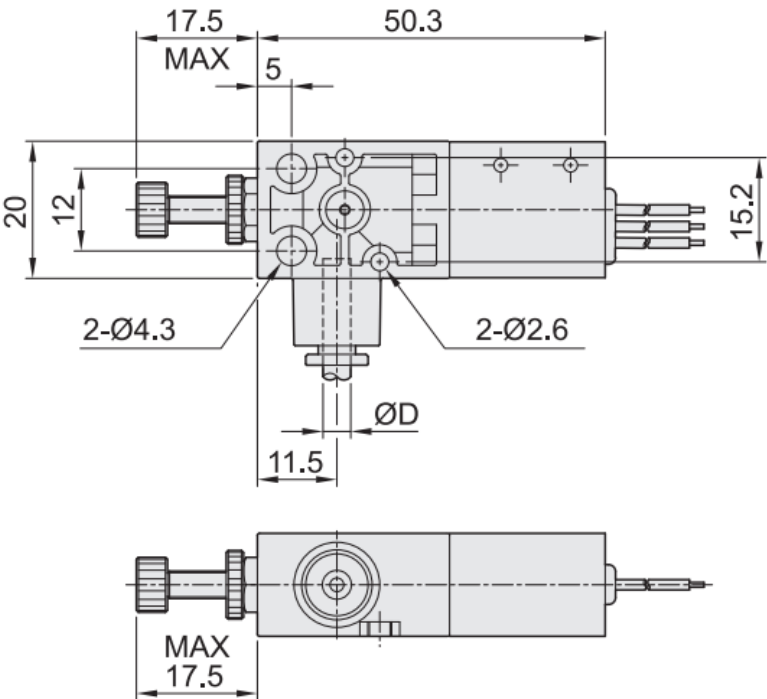


VAS	10	06
Series	Body Size	Vacuum Port Ø
	10	04 4mm (5/32")
		06 6mm
		08 8mm (5/16")
		1/4 1/4"

SPECIFICATIONS

Model	Vacuum Connection	Adjustment Range	Accuracy	Hysterisis	Electrical Rating
VAS1004	4mm / 5/32"	4.5-12"Hg	0.05kPa (1.5"Hg)	10kPa (3"Hg)	AC125V - 5A
VAS1006	6mm				
VAS1014	1/4"				
VAS1008	8mm / 5/16"				

DIMENSIONS (mm)



This vacuum switch is also part of the Vacuforce VABS vacuum venturi/switch combination. More details of this combination part can be found in the vacuum venturi section of the Vacuforce main catalogue.



- Adjustable vacuum from -0.1kPa to -83kPa (-3" H₂O to -332"H₂O)
- Snap action basic switch, up to 25A*, 125/250 VAC
- 1/8NPT Vacuum port
- Small size, lightweight, low cost
- Dependable long life of 10,000,000+ cycles

PSF109S-NPT-81-330

Part Number

SPECIFICATIONS

MECHANICAL SPECIFICATIONS

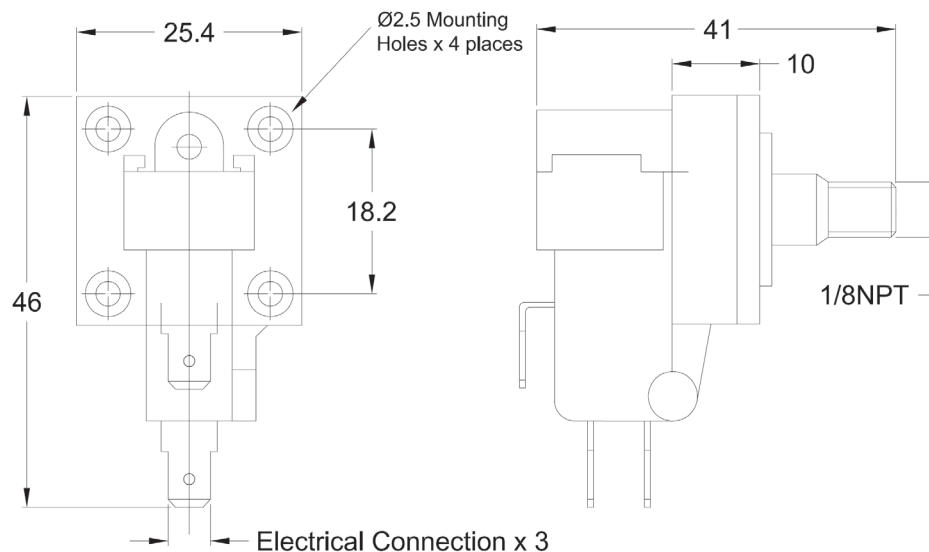
Standard Tolerance	+/-20%
Switch Type	Normally Open or Normally Closed
Switching Medium	Air
Operating Temperature	4 - 65°C / 40-150°F

PHYSICAL SPECIFICATIONS

Case Material	Polycarbonate
Vacuum Port	1/8NPT Male
Diaphragm Material	Polyurethane
Electrical Terminals	0.187" x 0.020" Spade Terminal
Weight	20g

ELECTRICAL SPECIFICATIONS

Current Rating	15A
Operating Voltage	125/250VAC



LF20 VACUUM SWITCH



- OEM type diaphragm vacuum switch
- Compact size
- Air and liquid compliant
- 1/8NPT Male vacuum port
- Factory set point
- Tamper free construction



The LF20 pressure switch is specifically designed to stand up to extended duty applications. This switch is factory set but capable of field adjustment. It features different diaphragms for compatibility with a wide variety of fluids, and various terminations. Among the outstanding design benefits are its durable construction, compact size, and enhanced set point integrity. It can be widely used for pool and spa, anti-skid braking systems, water pump systems, and dental air compressors, heavy construction, off road equipments and other pressure control systems.

Model Number	Switch Point	Type	Rubber Boot	Connection Port
LF20-V-31111B-15"HG	15"Hg	Normally Closed	Included	1/8NPT
LF20-V-32111B-15"HG	15"Hg	Normally Open		

SPECIFICATIONS

Model	Vacuum Connection
Maximum Over Pressure	150psi(g)
Burst Pressure	500 psi(g)
Operating Temperature Range	-40°F to +176°F (-40°C to +80°C)
Switch Type	Direct action, blade contact
Electrical Rating	120/240VAC, 375VA 120VVAC, 5.8FLA-34.8LRA 240VAC 2.9FLA-15LRA 24VAC/DC, 3A
Dielectric Strength	750 VRMS across open contacts
	1550 VRMS terminal to fitting
Terminals	1/4" Spade Connection
Connection	1/8NPT (other connection types available, please inquire)

DIMENSIONS (mm)



ASSEMBLY



LF20 Switch

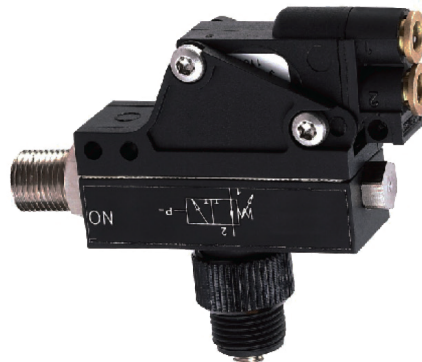


Rubber Boot



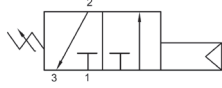
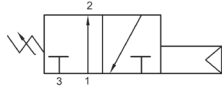
Assembled

- Typically used in an all pneumatic circuit
- Can be used as an energy saving device for vacuum venturi systems
- 1/8NPT and G1/8 Male vacuum port
- 4mm (5/32") Pneumatic connection ports
- Field adjustable



SPECIFICATIONS

Model Number	Vacuum Switch Range	Type	Signal Pressure Range	Temperature Rating	Hysteresis	Weight
AVS-212	-15kPa to -95kPa (4.5-28.5"Hg)	Normally Closed	1.5-8bar (23-120psi)	-10°C to 60°C (14°F - 140°F)	12kPa (3"Hg)	44g (1.5oz)
AVS-213	-10kPa to -95kPa (3-28.5"Hg)	Normally Open			3kPa (0.1"Hg)	

AVS-212NC	
AVS-213NO	

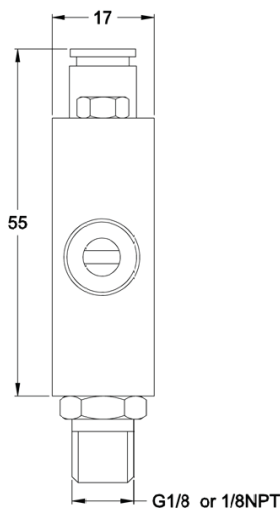
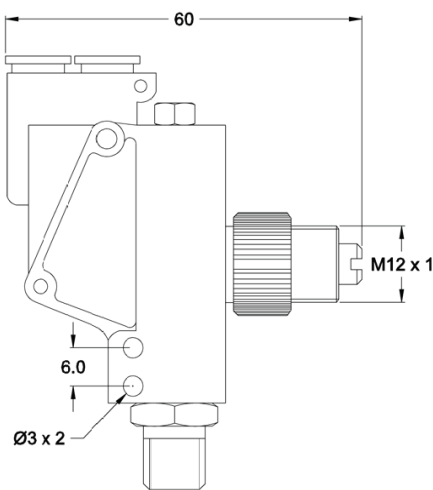
NORMALLY CLOSED FUNCTION

Compressed air is supplied to port (1). As the vacuum increases the path between ports (1) and (2) remain closed. Once the vacuum set point is reached, the ports connect passing air through the switch.

NORMALLY OPEN FUNCTION

Compressed air is supplied to port (1). As the vacuum is increasing the path between ports (1) and (2) remain open with signal air passing through the switch. Once the vacuum set point is reached, the ports close stopping the flow of signal air.

DIMENSIONS (mm)



AP25 & AP30 PRESURE SENSOR



- Solid state digital vacuum & pressure switches
- Two types AP25 and AP30
- Suitable for vacuum and pressure use
- Selectable pressure units, kPa, bar, psi, mmHg
- IP65 Insulation



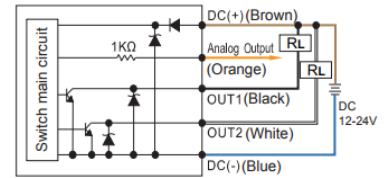
AP25

AP30

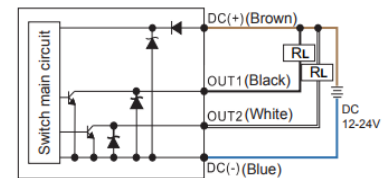
AP25	V	01	QD
Series	Type	Output	Connection
AP25	C Compound	01 2 x NPN + 1 x Analogue	600mm Lead
AP30	P Pressure	02 2 x NPN	QD M8 Male non analogue only
	V Vacuum	03 2 x PNP + 1 x Analogue	
		04 2 x PNP	

SPECIFICATIONS	
Media	Non lubricated dry air or non corrosive gas
Over Pressure	3bar (45psi)
Electrical Connection	M8 4 Pin male connector (analogue use 6ft lead wire)
Operating Voltage	12 – 24VDC $\pm 10\%$
Current Consumption	$\leq 55\text{mA}$
Display	4 Digit 7 Segment Red LED
Display Units	kPa, MPa, kgf/cm ² , bar, psi, inHg, mmHg, mmH ₂ O
Repeatability	$\leq 2\%$ F.S ± 1 digit
Hysteresis	Adjustable
Response Time	$\leq 2.5\text{ms}$ (chatter proof selectable 24, 192 & 768ms)
Indicator	OUT1 = Green LED OUT2 = Red LED
Analogue Output	1 to 5V $\leq \pm 5\%$ F.S Linearity $\leq \pm 1\%$ F.S
Insulation	AP25 - IP65, AP30 - IP40
Ambient Temperature	0-50°C (32-122°F)
Vacuum / Pressure Port	G1/8 & 1/8NPT Female
Shock Resistance	980m/s (100G) 3 times in each direction X,Y & Z
Weight 71g 35g	AP25 - 71g, AP30 - 35g

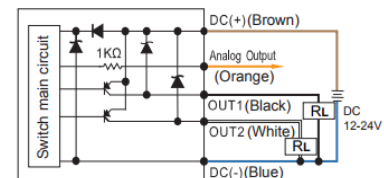
NPN Output & Analog Output



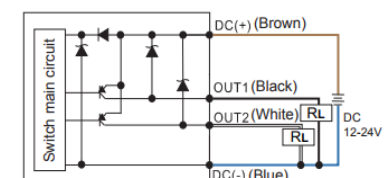
NPN Output



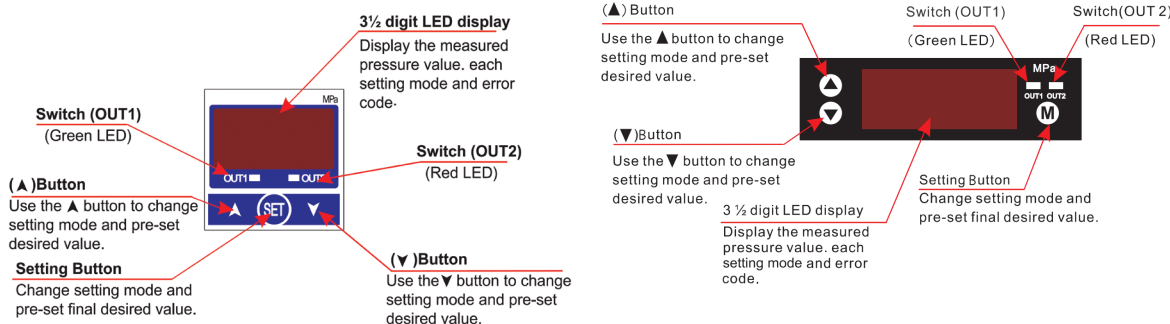
PNP Output & Analog Output



PNP Output



Panel Instructions

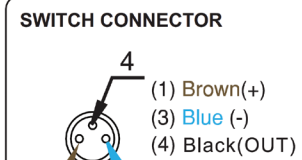


- Solid state digital vacuum & pressure switches
- Suitable for vacuum and pressure use
- Miniature design
- Stem and thread connection ports

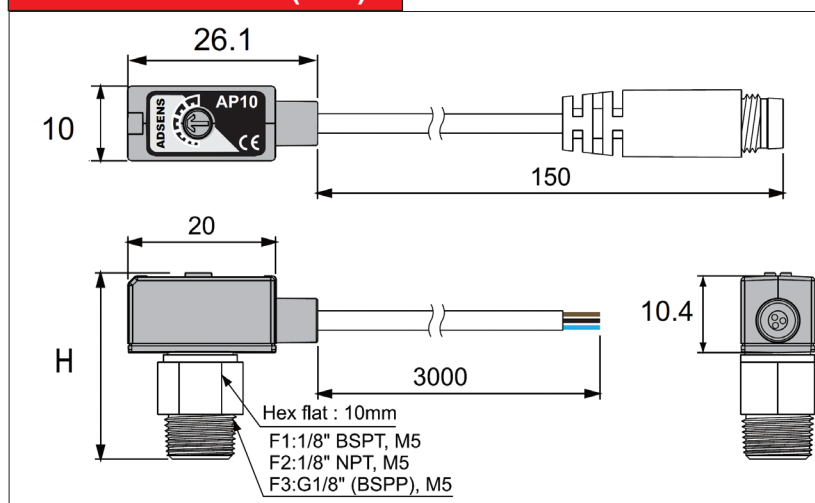


AP10	V	01	1/4	C
Series	Type	Output	Vacuum Port	Electrical Connection
	P Pressure	02 2 x NPN	1/4 Ø1/4" Stem	9ft Lead
	V Vacuum	04 2 x PNP	R4 Ø4mm Stem	C M8 3 Pin Male
			R6 Ø6mm Stem	
			F1 1/8BSPT	
			F2 1/8NPT	
			M5 M5x0.8	

SPECIFICATIONS	
Media	Non lubricated dry air or non corrosive gas
Maximum Over Pressure	AP10V - 6bar (87psi), AP10P - 14bar (217psi)
Electrical Connection	M8 3 Pin male connector or 9ft lead wire
Operating Voltage	10.8 – 30VDC (includes ripple voltage)
Load Current	90mA max.
Repeatability	≤1% F.S ± 1 digit
Hysteresis	3% F.S. max
Response Time	≤2.5ms (chatter proof selectable 24, 192 & 768ms)
Indicator	Red LED turns on
Insulation	IP40
Ambient Temp.	0-60°C (32-140°F)
Vacuum / Pressure Port	Push In Stem for Fitting or 1/8NPT Male
Shock Resistance	980m/s (100G) 3 times in each direction X,Y & Z
Weight	50g with 9ft cable



DIMENSIONS (mm)



Height (H)		
1/4	Ø1/4" Stem	30mm
R4	Ø4mm Stem	32mm
R6	Ø6mm Stem	30mm
F1	1/8BSPT	25mm
F2	1/8NPT	
M5	M5x0.8	23mm



NOTES