

Pressure Switch



PS150



APS36



APS48



VS160

Product Advantages:

- High accuracy, high stability
- Ultra high purity and unmatched corrosion resistance.

Typical Applications:

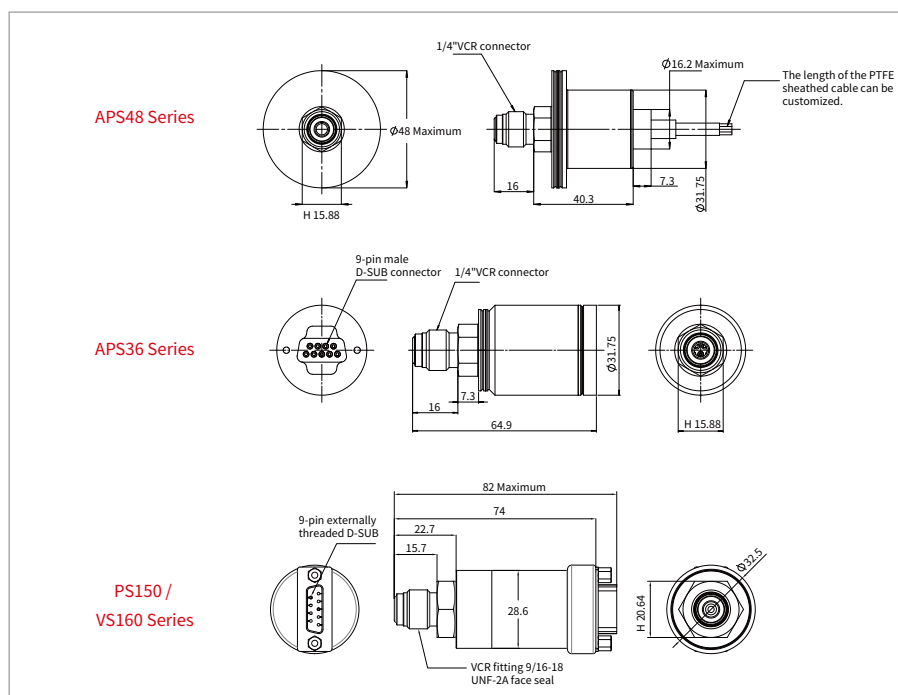
Semiconductor:

PVD, CVD, ALD, Etching, and Hybrid Process Equipment

Service Advantages:

Short lead time, faster service response, and high cost-performance.

Dimensions :



Vacuum Pressure Switch - APS Series

Product Advantages:

- Ultra-High Purity Fully-Welded Absolute Vacuum Pressure Switch
- Electron beam welded diaphragm sensor for High Reliability and Extended Service Life
- Hermetically Sealed with Zero-Reference Vacuum and Dual-Barrier Isolation
- Negative rate "Snap Action" Belleville load spring for Superior Repeatability and Vibration/Anti-Chatter Performance
- Custom-Configured at Factory to User Specifications
- Insensitive to mounting attitude
- Electron Beam Welded (EBW) Construction with 100% Helium Leak Testing
- Highly Repeatable Switching Signal for Alarm, Shutdown & System Interlock Applications



Specification Parameters:

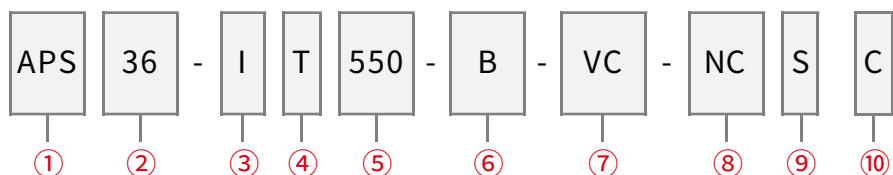
Features	APS48	APS36
End Fitting	1/4"VCR	1/4"VCR
Leak Rate	$<1 \times 10^{-10} \text{Pa} \cdot \text{m}^3/\text{s}$	$<1 \times 10^{-10} \text{Pa} \cdot \text{m}^3/\text{s}$
Available settings	20~150Torr	100~1000Torr
Body Material	316L VIM-VAR	316L VIM-VAR
Diaphragm Material	Hastelloy C-276	Hastelloy C-276
Minimum Service Life	1,000,000	1,000,000
Operating Temperature	-18°C~180°C Zone-Selectable	-18°C~180°C Zone-Selectable
Proof Pressure	0 psia-15 psig	0 psia-25 psig
Repeatability	$\pm 5 \text{torr} + 2\% \text{ Set Point}$	$\pm 15 \text{torr} + 2\% \text{ Set Point}$

Performance Specifications:

Model Number		APS48-IT50-A-VC-NCSL	APS48-IT100-A-VC-NCSL
End Fitting		1/4"VCR, KF25, IGS1.125"	
Leak Rate		$<1 \times 10^{-10} \text{Pa} \cdot \text{m}^3/\text{s}$	
Pressure	Trigger Value	45 - 65 Torr	85 - 115 Torr
	Reset Value	18 - 42 Torr	$\geq 75 \text{Torr}$
Body Material		316L VIM-VAR	
Diaphragm Material		Hastelloy C-276	
Minimum Service Life		1,000,000	
Temperature		Ambient Temperature	
Proof Pressure		0 psia-15 psig	
Repeatability		$\pm 5 \text{torr} + 2\% \text{ Set Point}$	

Model Number		APS36-IT500-B-VC-NCSC	APS36-IT550-B-VC-NCSC	APS36-IT730-B-VC-NCSC
End Fitting		1/4"VCR, KF25, IGS1.125"		
Leak Rate		$<1 \times 10^{-10} \text{Pa} \cdot \text{m}^3/\text{s}$		
Pressure	Trigger Value	450 - 550 Torr	515 - 630 Torr	695 - 765 Torr
	Reset Value	350 - 450 Torr	430 - 515 Torr	600 - 695 Torr
Body Material		316L VIM-VAR		
Diaphragm Material		Hastelloy C-276		
Minimum Service Life		1,000,000		
Temperature		-18°C~180°C Optional temperature		
Proof Pressure		0 psia-25 psig		
Repeatability		$\pm 15 \text{torr} + 2\% \text{ Set Point}$		

Selection Reference for APS Series:



① Series Name, Fixed Code

Code	Switch Model
APS	Absolute Pressure Switch

② Installation Specification, Fixed Code

Code	Available settings	Switch Model
48	20-150TORR	APS
36	100-1000TORR	APS

③ Actuation

Code	Remarks
I	Increasing pressure (Vacuum)
D	Decreasing pressure (Vacuum)

④ Definition of Pressure Unit

Code	Unit Type
P	PSI
I	Inches of mercury (Hg)
T	Torr (mm of mercury)
M	mm Hg VAC

⑤ Nominal value

Code	Remarks
30	Nominal value is 30
**	Enter the nominal value

⑥ Temperature - Resistance Range

Code	Temperature Range
/	Ambient temperature
A	Ambient temperature (-18 - 55°C)
B	High temperature (-18 - 180°C) area optional

⑦ End Fitting

Code	Remarks
VC	1/4 "Male VCR
NW	NW25 Flange
IGS	1.125 "Surface Mount

⑧ Contact Position

Code	Remarks
NC	Normally closed (0PSIG)
NO	Normally open (0 PSIG)
DT	SPDT(3wires)

⑨ Contact Material

Code	Electrical Performance Option
S	Silver Contacts, 1A@28VDC

⑩ Electrical Interfaces

Code	Type of Electrical Interface
L	Free Leads
C	Crimp - type Connector, Specify Manufacturer and P/N [Amp MR Series Standard]
**	Other Types of Connectors

Vacuum Pressure Switches - PS/VS Series

Product Advantages:

- High precision: It uses a precision sensor and an adjustable triggering mechanism, enabling high - precision pressure measurement and control.
- High reliability: It is manufactured with high - quality materials and advanced processes, and has good corrosion resistance, ensuring its reliability in harsh working environments.
- Fast response: It has a rapid response time, capable of real - time monitoring and controlling pressure changes to ensure the safe operation and stability of the equipment.
- Wide adjustment range: It is equipped with an adjustable triggering mechanism, allowing for flexible adjustment and control according to actual needs.
- Easy to install and maintain: It features a simple structural design and a convenient installation method, making it easy to maintain and repair.



Working principle:

The working principle of the PS and VS series pressure switches is based on the collaborative operation of sensors and triggering mechanisms. When the pressure of the monitored liquid or gas exceeds the set threshold, the sensor will detect the pressure change and transmit the signal to the triggering mechanism. Based on the received signal, the triggering mechanism activates the switch through the internal control mechanism, thereby achieving the monitoring and control of pressure.

Specification Parameters:

Model Number		VS160-DT75-A-VC-NOSC	VS160-IT735-A-VC-NOSC
End Fitting		¼"VCR	
Leak Rate		<1×10 ⁻¹⁰ Pa·m ³ /s	
Available settings		40-635 Torr	
Pressure	Trigger Value	40-45 Torr	705-765 Torr
	Reset Value	100-192 Torr	618-710 Torr
Body Material		316L VIM-VAR	
Diaphragm Material		Hastelloy C-22	
Minimum Service Life		1,000,000	
Temperature		0°C~45°C	
Verification Pressure		775 Torr	
Setpoint tolerance		±30.48 Torr	

Typical Applications:

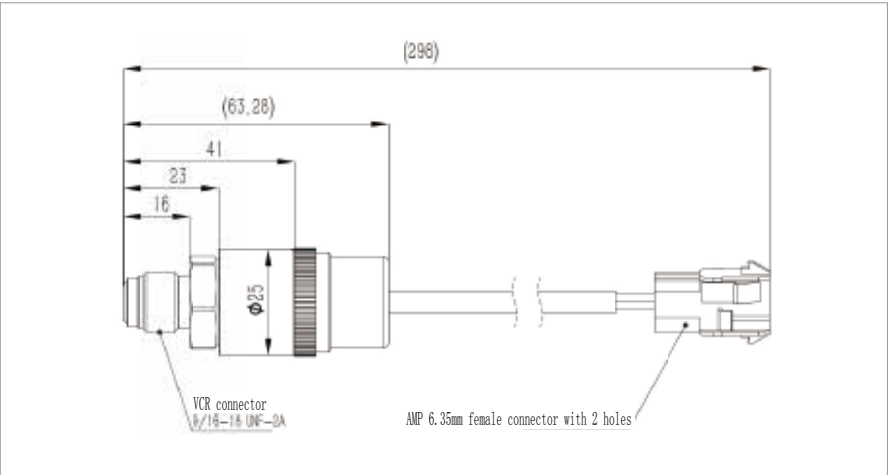
Semiconductor:

PVD, CVD, ALD, Etching and Composite Process Equipment

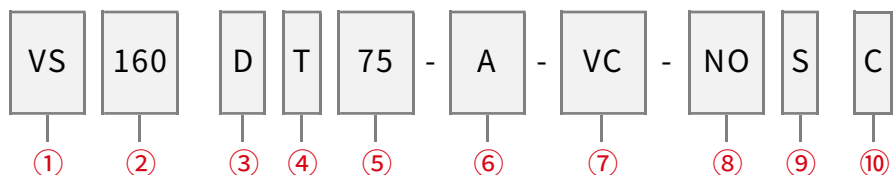
Service Advantages:

Short delivery time, faster service response time, and high cost - effectiveness.

Dimensions :



Selection Reference for PS/VS Series:



① Series Name, Fixed Code

Code	Switch Model
PS	Pressure Switch
VS	Vacuum Switch

② Installation Specification, Fixed Code

Code	Available settings	Switch Model
150	1~30 PSIG	PS
160	40~750 TORR	VS

③ Actuation

Code	Remarks
I	Increasing pressure
D	Decreasing pressure

④ Definition of Pressure Unit

Code	Unit Type
P	PSI
I	Inches of mercury (Hg)
T	Torr (mm of mercury)

⑤ Nominal value

Code	Remarks
75	Nominal value is 75
**	Enter the nominal value

⑥ Temperature - Resistance Range

Code	Temperature Range
/	Compatible with normal and high temperatures
A	Normal temperature (0 - 45°C)
B	High temperature (46 - 107°C)

⑦ End Fitting

Code	Remarks
VC	1/4 "Male VCR
NW	NW25 Flange
IGS	1.125 "C-seal

⑧ Contact Position

Code	Remarks
NC	Normally closed (760Torr)
NO	Normally open (760Torr)
DT	SPDT(3 wires)

⑨ Contact Material

Code	Electrical Performance Option
S	Silver contacts, 1A@28VDC

⑩ Electrical Interfaces

Code	Type of Electrical Interface
L	Free lead
C	Crimp - type connector, specify manufacturer and P/N [Amp MR series standard]
**	Other types of connectors