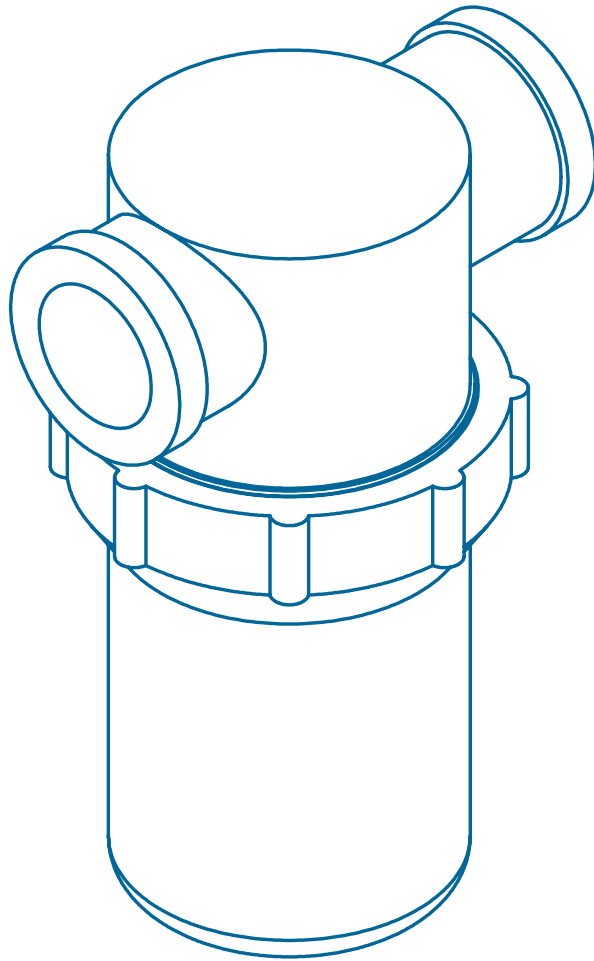
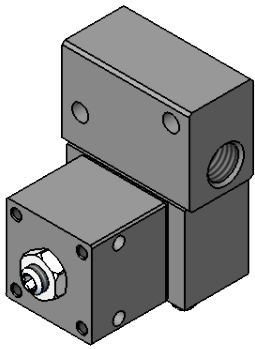


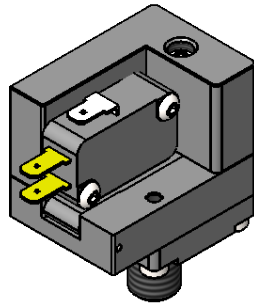
SECTION 5

SYSTEM ACCESSORIES

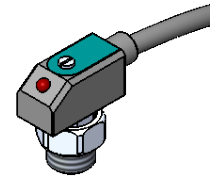




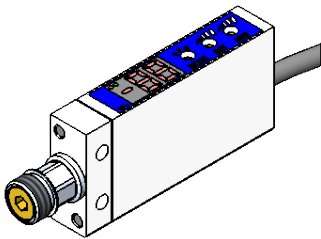
Vacustat



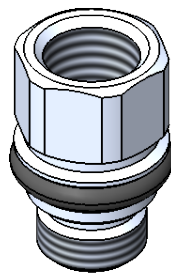
Mechanical Switches



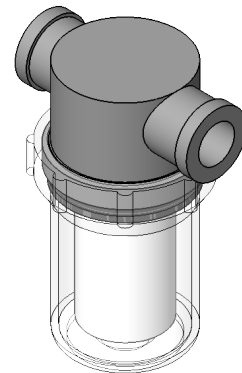
Electronic Sensors



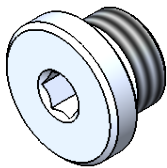
Digital Sensors



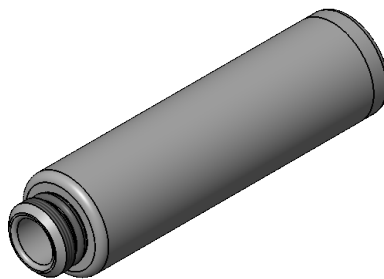
Vacuum Switch Protector



Filters



Pipe Plugs



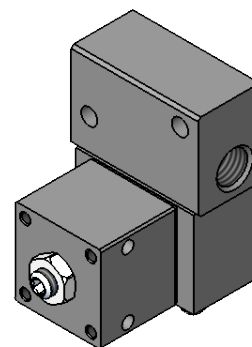
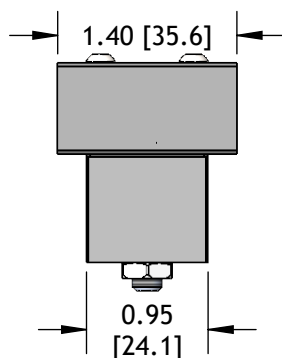
Silencers

Vacustat	3
Mechanical Switches	4, 5
Electronic Sensors	6
Digital Sensors	7-9
Vacuum Switch Protector	10
Filters	10, 11
Pipe Plugs	11
Silencers	12

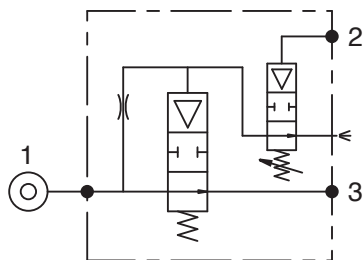
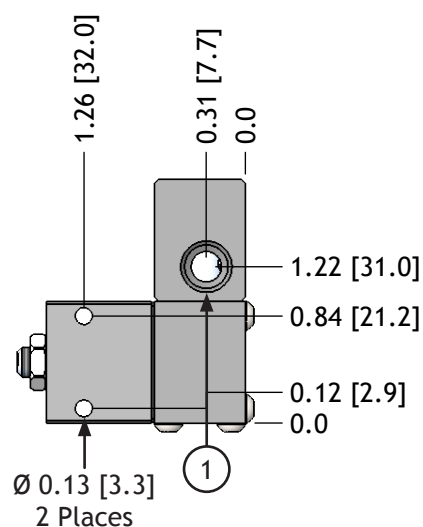
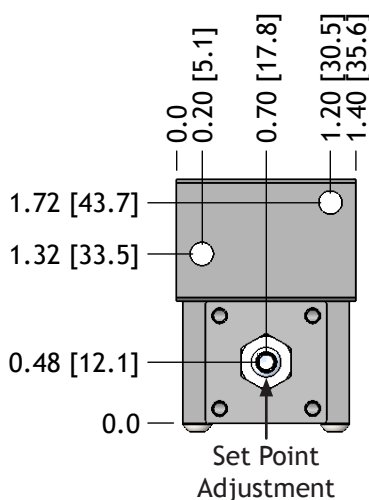
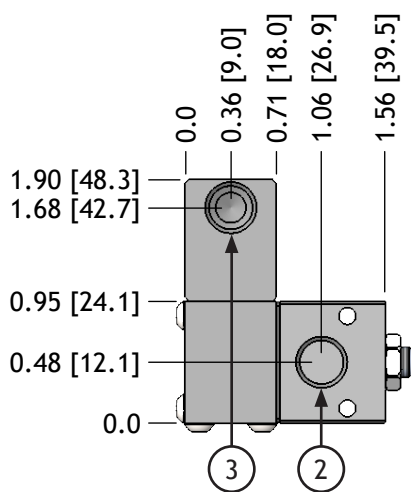
Vacustat: VU-18F

The Vacustat is the basis for energy-save controls and is used with any suitable vacuum pump in conjunction with a vacuum check valve. Vacuum pumps that are equipped with an integral, non-return valve or a vacuum pump and external vacuum check valve, such as VC18, fit the requirements for a Vacustat control. As always, energy-saver controls can only be used in leak-free systems and some provision must be made to dissipate the checked vacuum and release the work-piece when desired.

VU-18F is an adjustable, vacuum-controlled 2/2 valve that supplies compressed air to the vacuum pump whenever system vacuum level is shallower than the Vacustat set-point. When the set-point is achieved, the Vacustat shuts off the pump air-supply until system vacuum level requires replenishment.



Weight: lbs [g]
0.23 [105.7]



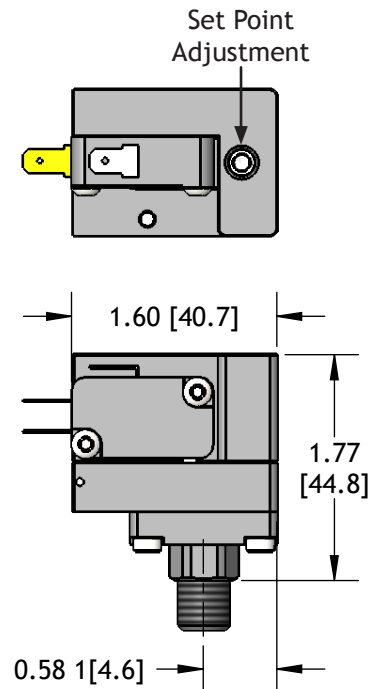
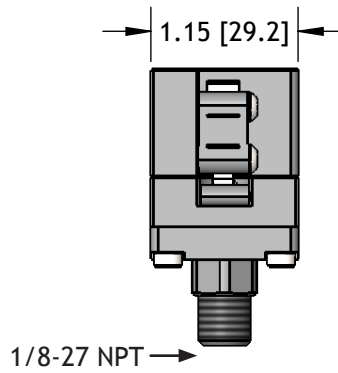
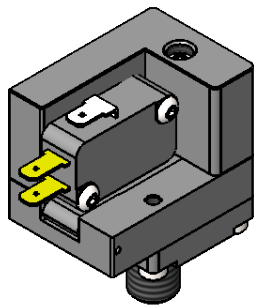
Code	Function	Ports
1	Air Supply - Main	G 1/8 NPSF
V	Vacuum Sense Port	G 1/8 NPSF
2	Air Supply to Pump	G 1/8 NPSF

Mechanical Pressure Switches

PSA18-E - Electrical Output

Electrical Pressure Sensors come with UL and CSA snap action, silver contact, SPDT (Single Pole Double Throw) switch with 0.187 in (4.75 mm) spade terminals. Triple terminal electrical connector and insulator kit for attaching wires is included.

Construction: aluminum housing, stainless steel spring and fasteners, nylon reinforced Nitrile diaphragm

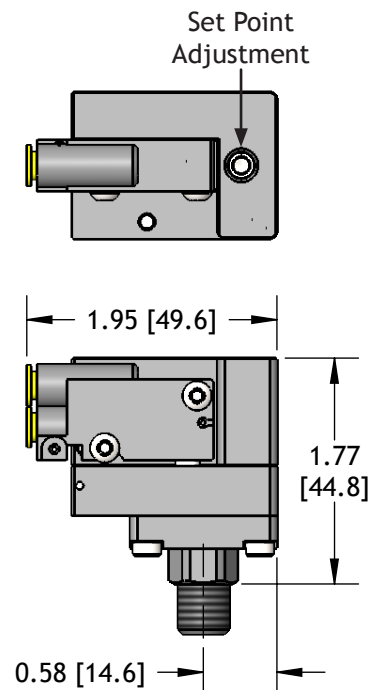
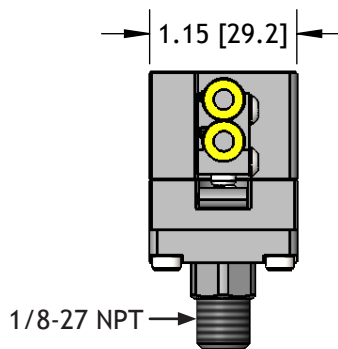
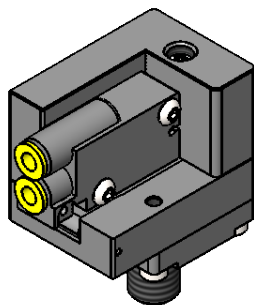


PSA18-NOP / PSA18-NCL - Pneumatic Output

Pneumatic Vacuum Sensors are available in normally-closed (NCL) and normally-open (NOP) versions. NCL sensors are open to pass air when the desired set point is achieved. NCL sensors close to block air when the desired set point is achieved. Both versions have integral 5/32 in (4 mm) tube connectors.

Construction: aluminum housing, stainless steel spring and fasteners, nylon reinforced Nitrile diaphragm

Port 1 - Air Supply
Port 2 - Output Signal



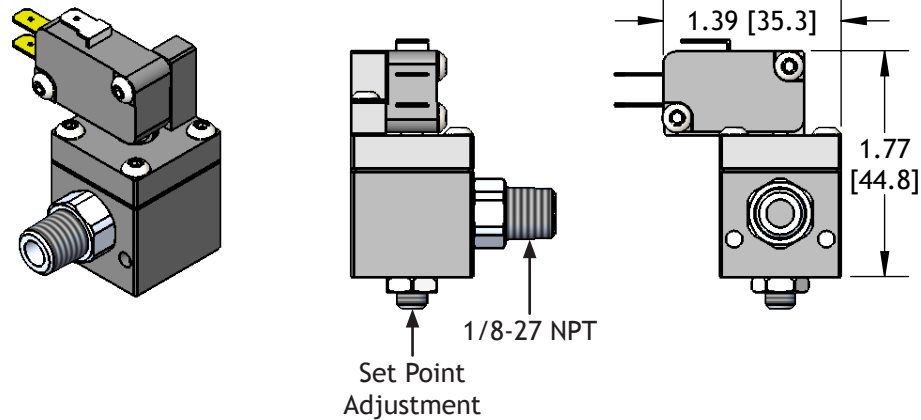
Vacuum Adjustment Range:	10 to 140 psi [0.69 to 9.65 bar]
Temperature Range:	-20°F to 140°F [-29°C to 60°C]
Electrical:	5 Amp @ 125 V AC, 250 V AC Max
Air Valve:	20 to 115 psi [1.4 to 7.9 bar]; Cv = 0.06; 2.5 SCFM [71 NI/m]
Weight:	3.20 oz [90.7 g]

Mechanical Vacuum Switches

VSA18-E - Electrical Output

Electrical Vacuum Sensors come with UL and CSA snap action, silver contact, SPDT (Single Pole Double Throw) switch with 0.187 in (4.75 mm) spade terminals. Triple terminal electrical connector and insulator kit for attaching wires is included.

Construction: aluminum housing, stainless steel spring and fasteners, nylon reinforced Nitrile diaphragm

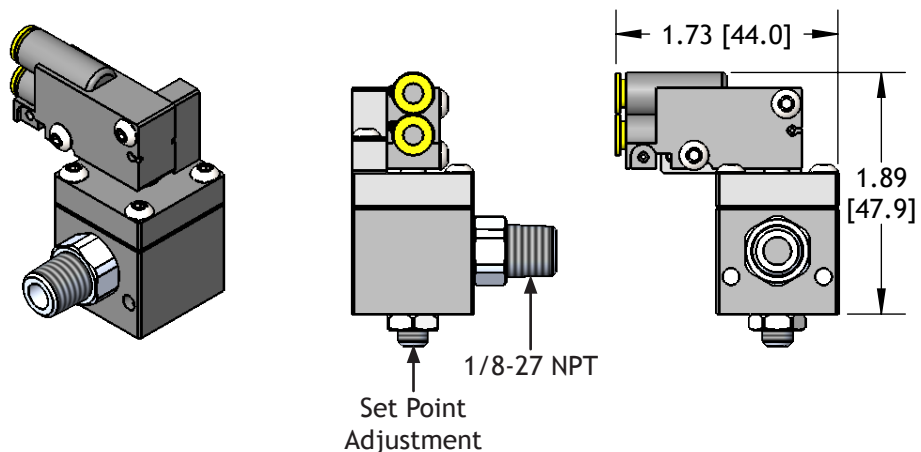


VSA18-NOP / VSA18-NCL - Pneumatic Output

Pneumatic Vacuum Sensors are available in normally-closed (NCL) and normally-open (NOP) versions. NCL sensors are open to pass air when the desired set point is achieved. NCL sensors close to block air when the desired set point is achieved. Both versions have integral 5/32 in (4 mm) tube connectors.

Construction: aluminum housing, stainless steel spring and fasteners, nylon reinforced Nitrile diaphragm

Port 1 - Air Supply
Port 2 - Output Signal

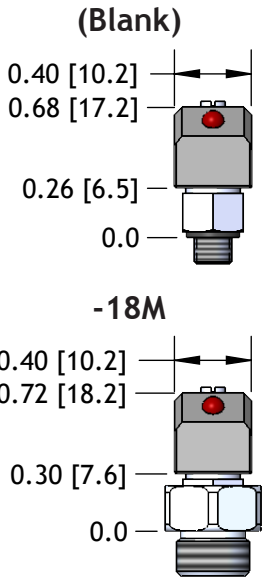
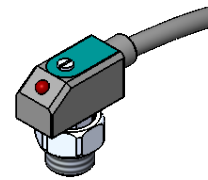


Vacuum Adjustment Range:	-8 to -28 inHG [-27.1 to 94.8 kPa]
Temperature Range:	-20°F to 140°F [-29°C to 60°C]
Electrical:	5 Amp @ 125 V AC, 250 V AC Max
Air Valve:	20 to 100 psi [1.4 to 6.9 bar]; Cv = 0.06; 2.5 SCFM [71 NI/m]
Weight:	2.10 oz [59.0 g]

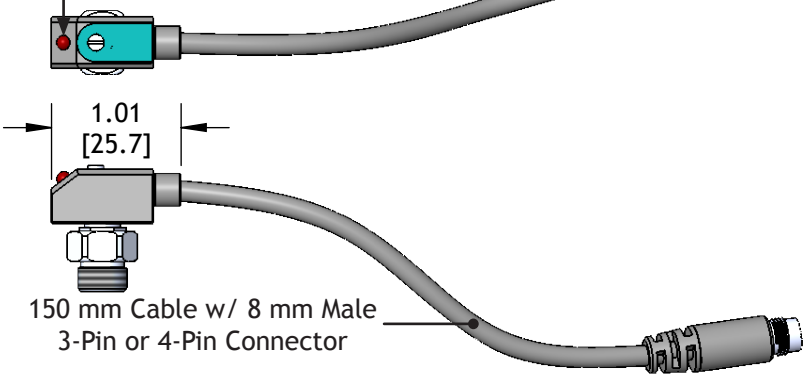
Electronic Sensors

Output		Connector	Mounting Thread
V	P	- 4	-18M
A ¹	Analog	3 3-Pin	(Blank) M5X0.8 Male (10-32)
N	NPN	4 4-Pin	-18M G 1/8-27 NPSF Male
P	PNP		

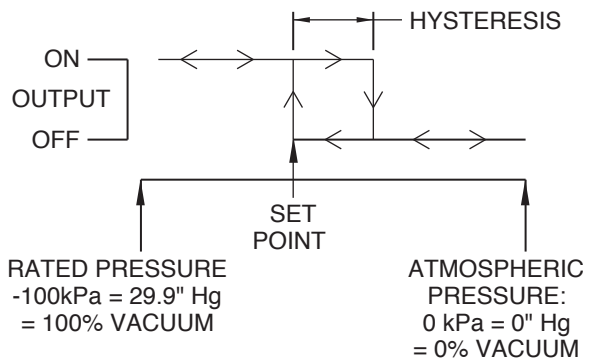
¹3-Pin Only



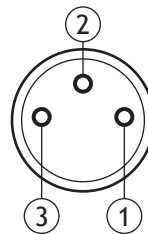
Output LED



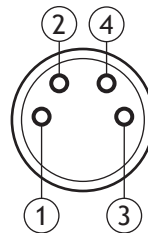
150 mm Cable w/ 8 mm Male 3-Pin or 4-Pin Connector



Media:	Non-Lubricated Air, Non-Corrosive Gas
Maximum Pressure:	29 psi [200 kPa]
Rated Pressure Range:	0 to -29.5 inHG [0 to 100 kPa]
Operating Pressure:	14°F to 122°F [-10°C to 60°C]
Storage Temperature:	-4°F to 158°F [-20°C to 70°C]
Humidity:	35% to 85% RH
Electrical Connection:	-3 = 3-Pin Pico 8 mm Connector -4 = 4-Pin Pico 8 mm Connector
Operating Voltage:	10.8 to 30 V DC (including ripple)
Current Consumption:	20 mA Max
Display:	Red LED
Circuit:	Analog, NPN, PNP
Setting Accuracy:	±3% F.S. Max
Hysteresis:	Fixed, 2% F.S. Max
Switching Capacity:	30 V DC, 80 mA Max
Response Time:	Approximately 1 ms
Vibration:	10 to 55 Hz 1.5 mm Max, XYZ for 2 hours
Shock:	1,000 m/s ² , XYZ
Insulation Resistance:	100 M Ω Min
Dielectric Strength:	500 V AC for 1 Minute
Analog Output Voltage:	0 inHG [0 kPa] = 1 ± 0.04 V DC -29.5 inHG [-100 kPa] = 5 ± 0.04 V DC
NPN Output Voltage	0.8 V DC Max
PNP Output Voltage:	1.8 V DC Max



- 1. Brown (+)
- 2. Black (OUT)
- 3. Blue (-)



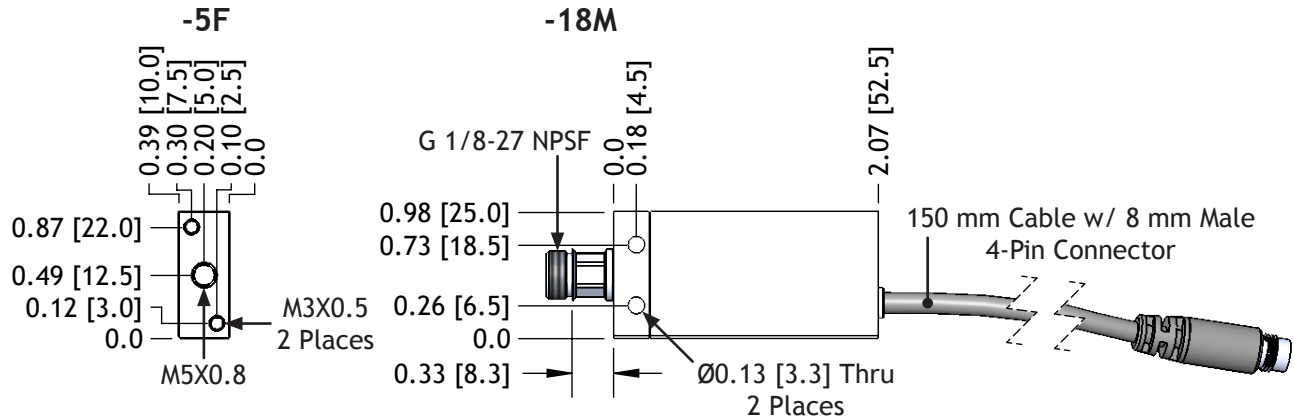
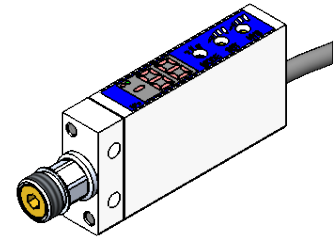
- 1. Brown (+)
- 2. White (not used)
- 3. Blue (-)
- 4. Black (OUT)

Order Cables Separately

Part Number	Description
3QD2	3-Pin Quick Disconnect, 2 M
3QD5	3-Pin Quick Disconnect, 5 M
4QD2	4-Pin Quick Disconnect, 2 M
4QD5	4-Pin Quick Disconnect, 5 M

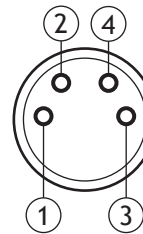
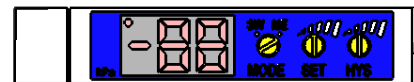
Digital Sensors

Output		Output		Mounting Thread	
DV	P	-	61	-	18M
N	NPN	61	1 Output + Analog	5F	M5X0.8 Female (10-32)
P	PNP			18M	G 1/8-27 NPSF Male



Media:	non-lubricated air, non-corrosive gas
Maximum Pressure:	29 psi [200 kPa]
Rated Pressure Range:	0 to -29.5 inHG [0 to 100 kPa]
Operating Pressure:	14°F to 140°F [-10°C to 60°C]
Storage Temperature:	-4°F to 158°F [-20°C to 70°C]
Humidity:	35% to 85% RH
Electrical Connection:	4-Pin Pico 8 mm Male Connector
Operating Voltage:	10.8 to 26.4 V DC (including ripple)
Current Consumption:	35 mA Max
Display:	2 Digit, 7 Segment Red LED
Rated Display:	0 to 99
Units:	Percent Vacuum [kPa]
Output Display:	Set (1) - Red LED; Set 2 - Green LED
Display Cycle:	4 Hz
Resolution:	±1 Count
Setting Accuracy:	±3% F.S. Max
Hysteresis:	61 - Adjustable Approx 0% to 15% F.S. 62 - Fixed 2% F.S. Max
Switching Capacity:	30 V DC, 80 mA Max
Response Time:	Approximately 2 ms
Vibration:	10 to 55 Hz 1.5 mm Max, XYZ for 2 hours
Shock:	196 m/s ² , XYZ
Insulation Resistance:	100 M Ω Min
Dielectric Strength:	500 V AC for 1 Minute
Analog Output Voltage:	0 inHG [0 kPa] = 1 ± 0.1 V DC -29.5 inHG [-100 kPa] = 5 ± 0.2 V DC
Analog Output Current:	1 mA Max
Analog Hysteresis / Linearity:	±0.5% F.S.
NPN Output Voltage:	0.8 V DC Max
PNP Output Voltage:	1.2 V DC Max
Thermal Error:	±0.1% F.S. / °C Max in range of 32°F to 122°F [0°C to 50°C]

Red LED Output

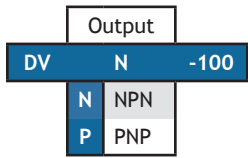


1. Brown (+)
2. White (OUT ANALOG)
3. Blue (-)
4. Black (OUT1)

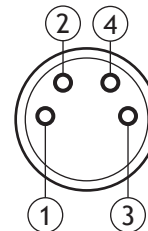
Order Cables Separately

Part Number	Description
4QD2	4-Pin Quick Disconnect, 2 M
4QD5	4-Pin Quick Disconnect, 5 M

Digital Sensors



		DVN-100	DVP-100
Rated Pressure Range:		-29.5 - 29.5 inHG	
Setting Pressure Range:		-29.5 - 29.5 inHG	
Withstand Pressure:		88.6 inHG	
Fluid:		filtered air, non-corrosive / non-flammable gases	
Set Pressure Resolution:	kPa	0.1	
	kgf/cm ²	0.001	
	bar	0.001	
	psi	0.01	
	inHg	0.1	
	mmHg	1	
	mmH ₂ O	0.1	
Power Supply Voltage:		12 to 24 V DC ± 10%, ripple (P-P) 10% or less	
Current Consumption:		≤ 55mA	
Switch Output:		NPN: open collector 2 outputs max. load current: 100mA max. supply voltage: 30 V DC residual voltage: ≤ 1V	PNP: open collector 2 outputs max. load current: 100mA max. supply voltage: 24 V DC residual voltage: ≤ 1V
Repeatability (Switch Output):		± 0.2% F.S. ± 1 digit	
Hysteresis:	Hysteresis Mode:	adjustable	
	Window Comparator Mode:	fixed (3 digits)	
Response Time:		≤ 2.5 ms (chattering-proof function: 24 ms, 192 ms and 768ms selections)	
Output Short Circuit Protection:		yes	
7 Segment LED Display:		3 1/2 digit LED display (sampling rate: 5 times / 1 sec)	
Indicator Accuracy:		± 2% F.S. ± 1 digit (ambient temperature 25 ± 3° C)	
Indicator:		OUT 1 = green, OUT 2 = red	
Environment:	Enclosure:	IP40	
	Ambient Temp. Range:	operation: 0 - 50° C, storage: -20 - 60° C (no condensation or freezing)	
	Ambient Humidity Range:	operation / storage: 35 - 85% RH (no condensation)	
	Withstand Voltage:	1,000 V AC in 1-min (between case and lead wire)	
	Insulation Resistance:	50 MΩ (at 500 v DC, between case and lead wire)	
	Vibration:	total amplitude 1.5mm, 10 Hz scan for 1 minute, 2 hours each direction of x, y, and z	
Shock:		980m/s ² (100 G), 3 times each in direction of x, y, and z	
Temperature Characteristic:		± 2% F.S. of detected pressure (25° C) at temp. rang of 0 - 50° C	
Port Size:		G 1/8-27 NPS male, M5 female	
Lead Wire:		oil-resistant cable (0.15mm ²)	
Weight:		approximately 35g (with M8, 4-pin male connector)	



1. Brown (+)
2. White (OUT2)
3. Blue (-)
4. Black (OUT1)

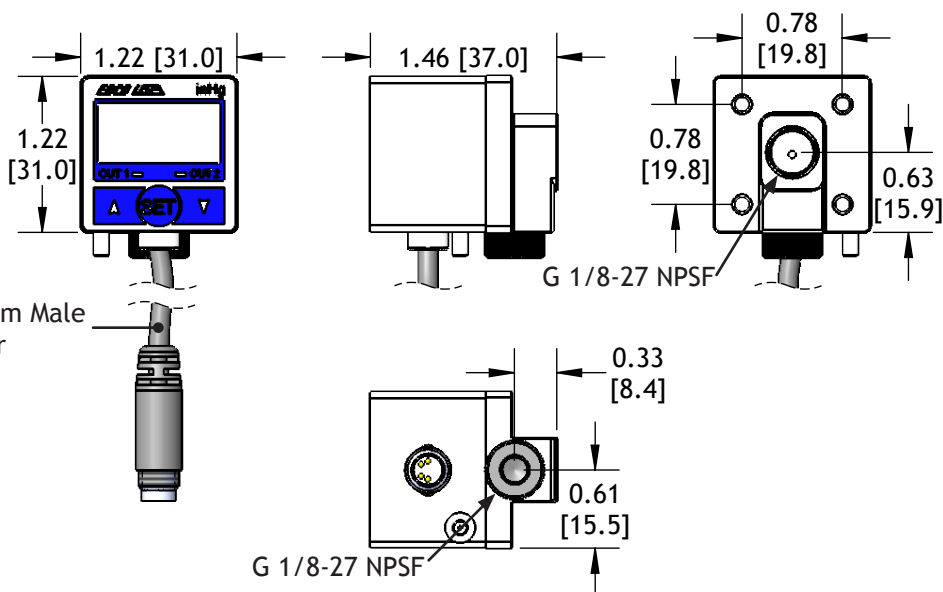
Order Cables Separately

Part Number	Description
4QD2	4-Pin Quick Disconnect, 2 M
4QD5	4-Pin Quick Disconnect, 5 M

Full data sheet with specs, wiring diagram, and operation procedures available at www.edcousa.net.

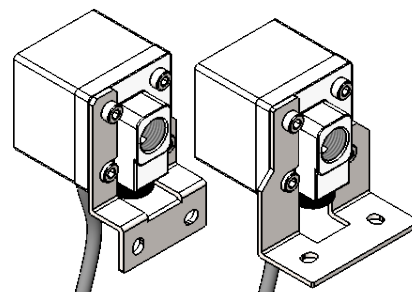
Digital Sensors

Style	Output
D V N -200	
V Vacuum N NPN	
P Pressure P PNP	

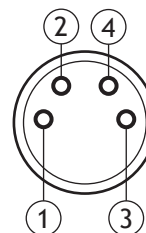


150 mm Cable w/ 8 mm Male 4-Pin Connector

	DV_-200	DP_-200
Rated Pressure Range:	0 - 29.5 inHg	0 - 145.0 psi
Setting Pressure Range:	3.0 - 29.9 inHg	-14.5 - 145.0 psi
Withstand Pressure:	29.0 psi	200.0 psi
Fluid:	filtered air, non-corrosive / non-flammable gases	
Set Pressure Resolution:	kPa	0.1
	mPa	-
	kgf/cm ²	0.001
	bar	0.001
	psi	0.01
	inHg	0.1
	mmHg	1
	mmH ₂ O	0.1
Power Supply Voltage:	12 to 24 V DC ± 10%, ripple (P-P) 10% or less	
Current Consumption:	≤ 55mA	
Switch Output:	NPN: open collector 2 outputs max. load current: 80mA max. supply voltage: 30 V DC residual voltage: ≤ 1V	PNP: open collector 2 outputs max. load current: 80mA max. supply voltage: 24 V DC residual voltage: ≤ 1V
Repeatability (Switch Output):	± 0.2% F.S. ± 1 digit	
Hysteresis:	Hysteresis Mode:	adjustable
	Window Comparator Mode:	fixed (3 digits)
Response Time:	≤ 2.5 ms (chattering-proof function: 24 ms, 192 ms and 768ms selections)	
Output Short Circuit Protection:	yes	
7 Segment LED Display:	3 1/2 digit LED display (sampling rate: 5 times / 1 sec)	
Indicator Accuracy:	± 2% F.S. ± 1 digit (ambient temperature 25 ± 3° C)	
Indicator:	OUT 1 = green, OUT 2 = red	
Environment:	Enclosure:	IP65
	Ambient Temp. Range:	operation: 0 - 50°C, storage: -20 - 60°C (no condensation or freezing)
	Ambient Humidity Range:	operation / storage: 35 - 85% RH (no condensation)
	Withstand Voltage:	1,000 V AC in 1-min (between case and lead wire)
	Insulation Resistance:	50 MΩ (at 500 V DC, between case and lead wire)
	Vibration:	total amplitude 1.5mm, 10 Hz - 55 Hz - 10 Hz scan for 1 minute, 2 hours each direction of x, y, and z
Shock:	980m/s ² (100 G), 3 times each in direction of x, y, and z	
Temperature Characteristic:	± 2% F.S. of detected pressure (25° C) at temp. rang of 0 - 50° C	
Port Size:	G 1/8-27 NPS female	
Lead Wire:	oil-resistant cable (0.15mm ²)	
Weight:	approximately 71 g (with M8, 4-pin male connector)	



BT200-A
Optional Mounting Brackets



1. Brown (+)
2. White (OUT2)
3. Blue (-)
4. Black (OUT1)

Order Cables Separately

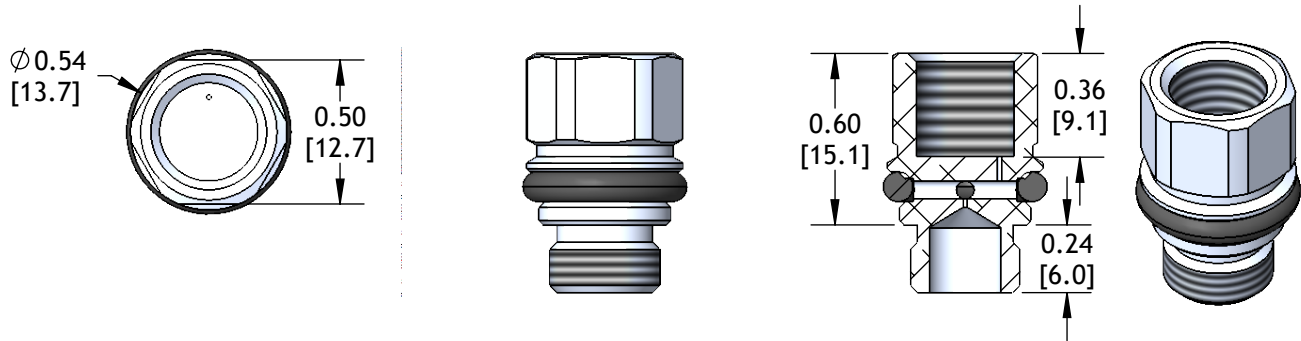
Part Number	Description
4QD2	4-Pin Quick Disconnect, 2 M
4QD5	4-Pin Quick Disconnect, 5 M

Full data sheet with specs, wiring diagram, and operation procedures available at www.edcousa.net.

VSP-18 - Vacuum Switch Protector

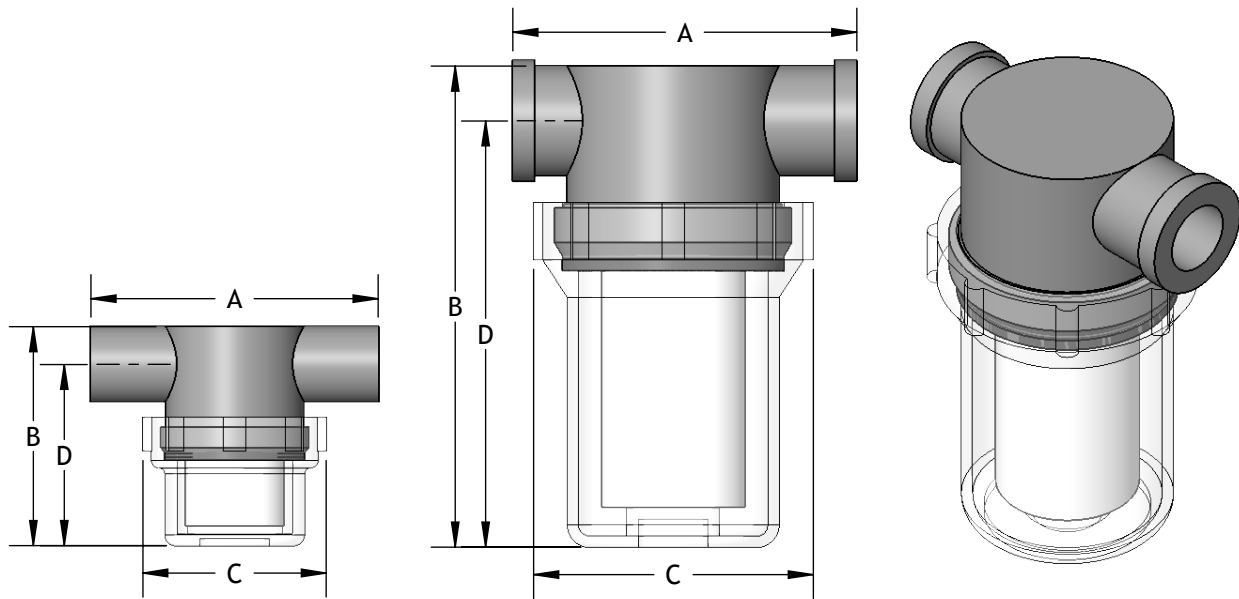
Bi-directional VSP-18 protects vacuum switches or gauges from positive pressure spikes by relieving pressure in excess of 10 psi [0.7 bar] to atmosphere.

Connects to 1/8-27 NPSF or G 1/8-28 threads.



T-Style Vacuum Filters

Our T-Style Vacuum Filters are made of rugged nylon 6/6 body with a transparent bowl for checking the condition of the filter at a glance. HDPE filter elements can be easily and quickly replaced without disturbing the system plumbing. T-Style Vacuum Filters are rated for full vacuum or pressure up to 150 psi.



Part Number	Ports	A in [mm]	B in [mm]	C in [mm]	D in [mm]	Weight lb [g]	Filter Element (3 Pack)
PPSF125X10	1/8 NPT Female	3.06 [77.7]	2.42 [61.5]	1.86 [47.2]	1.98 [50.3]	0.13 [59.0]	PPX10RE3
PPSF250X10	1/4 NPT Female	3.06 [77.7]	2.42 [61.5]	1.86 [47.2]	1.98 [50.3]	0.11 [49.9]	PPX10RE3
PPSF250MX10	1/4 NPT Male	3.06 [77.7]	2.42 [61.5]	1.86 [47.2]	1.98 [50.3]	0.11 [49.9]	PPX10RE3
PPSF375X10	3/8 NPT Female	3.06 [77.7]	2.42 [61.5]	1.86 [47.2]	1.98 [50.3]	0.16 [72.6]	PPX10RE3
PPSF500X35	1/2 NPT Female	3.64 [92.5]	5.35 [136.0]	2.95 [74.9]	4.80 [122.0]	0.37 [168.0]	PPX35RE3
PPSF750X35 ¹	3/4 NPT Female	3.60 [91.4]	5.40 [137.2]	2.93 [74.4]	4.68 [118.7]	0.40 [181.0]	PPX35RE3
PPSF100X50 ¹	1 NPT Female	4.62 [117.0]	6.36 [162.0]	4.00 [102.0]	5.60 [146.0]	0.94 [426.0]	PPX50RE3
PPSF150X75	1-1/2 NPT Female	5.16 [131.0]	8.10 [206.0]	4.00 [102.0]	6.93 [176.0]	1.18 [535.0]	PPX75RE3

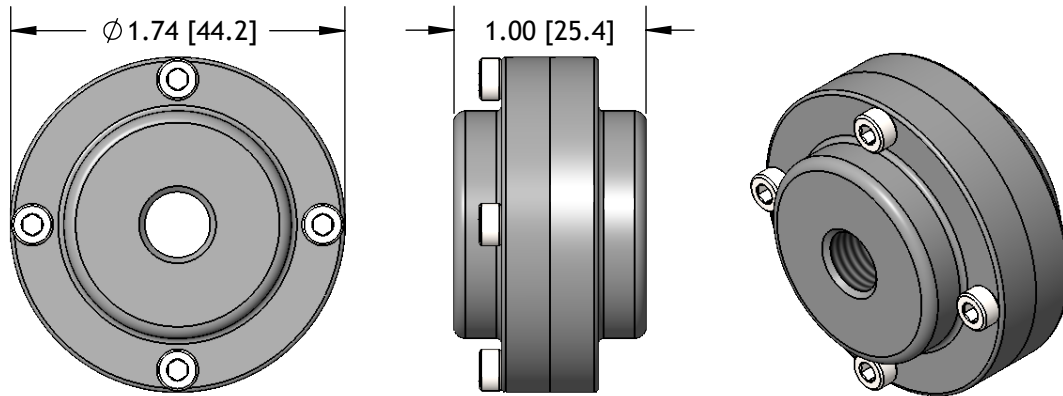
¹These sizes are available in polypropylene. Add suffix -PP for polypropylene body and bowl. Bowl will be opaque, NOT transparent.

F10-18F - In-line Filter

The rugged F10-18F in-line filter is designed to carry the full load of 50 mm and smaller vacuum cups. The in-line filter is ideal for use with Flow Sensor or Tri-Flow Valves in extremely dusty environments such as woodworking shops. The F10-18F provides more than 10 times the surface area of a standard FSV filter disk, providing a longer life. A quick-release (blow-off) may be used to momentarily back-flow the filters to help keep them clean.

Construction: anodized aluminum body, polyethylene element, and stainless steel fasteners

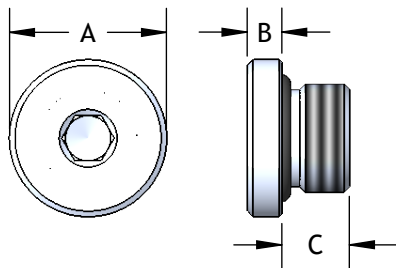
Replacement Filter Disk: FD-116



Weight: 0.14 lb [61.3 g]

Pipe Plugs

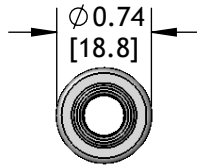
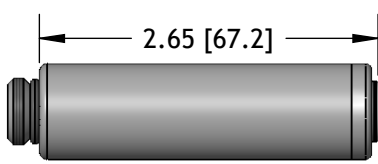
All pipe plugs are nickel plated aluminum with a Nitrile o-ring seal except for the P12 which is nickel plated brass.



Part Number	Fits Threads	A in [mm]	B in [mm]	C in [mm]	Hex Wrench	Weight oz [g]
P10	M5X0.8 10-32 UNF	0.31 [7.9]	0.07 [1.8]	0.12 [3.0]	2 mm	0.01 [0.3]
P18	1/8-27 NPSF G 1/8-28	0.47 [12.0]	0.12 [3.0]	0.24 [6.0]	4 mm	0.07 [2.0]
P14	1/4-18 NPT G 1/4-19	0.56 [14.0]	0.08 [2.0]	0.26 [6.6]	6 mm	0.10 [2.9]
P38	3/8-18 NPSF G 3/8-19	0.71 [18.0]	0.12 [3.0]	0.27 [6.9]	5 mm	0.18 [5.2]
P12	1/2-14 NPSF G 1/2-14	0.95 [24.0]	0.12 [3.0]	0.43 [11.0]	10 mm	0.98 [28.0]

Silencers

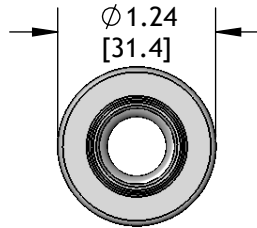
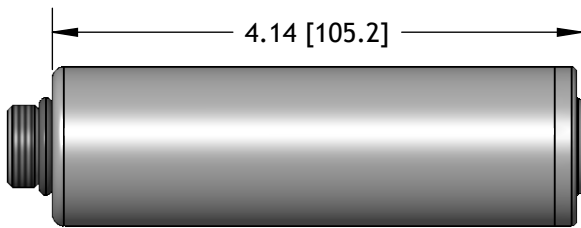
STA - Straight Thru Silencers - Ø 0.74 [18.8]



Part Number	Threads
STA18M	G 1/8 NPS
STA14M	G 1/4 NPT

Weight: 0.56 oz [15.8 g]

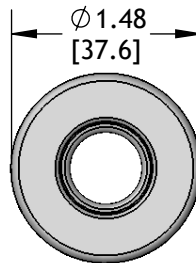
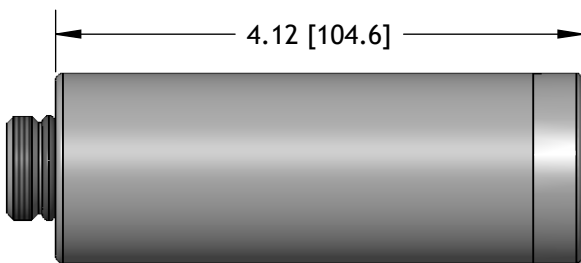
STB - Straight Thru Silencers - Ø 1.24 [31.5]



Part Number	Threads
STB38M	G 3/8 NPT
STA12M	G 1/2 NPS

Weight: 2.11 oz [59.9 g]

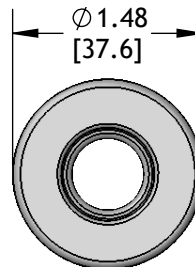
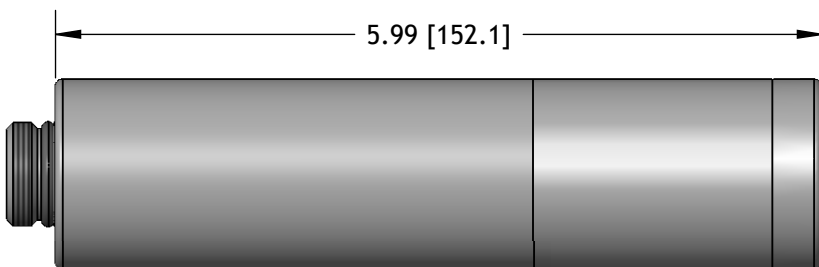
STC - Straight Thru Silencers - Ø 1.48 [37.6]



Part Number	Threads
STC12M	G 1/2 NPS
STC34M	G 3/4 NPT
STC10M	G 1 NPT

Weight: 1.18 oz [33.6 g]
STC10M - 1.35 oz [38.3 g]

STC-6 - Straight Thru Silencers - Ø 1.48 [37.6], Extended Length



Part Number	Threads
STC12M-6	G 1/2 NPS
STC34M-6	G 3/4 NPT
STC10M-6	G 1 NPT

Weight: 1.65 oz [46.76 g]
STC10M - 1.82 oz [51.5 g]