

# PND Series

## Switching solenoid dump valve

### FEATURES

- 2-way Normally Open exhaust valve in a small package size
- Works well in miniature applications such as in Non-Invasive Blood Pressure (NIBP) devices
- Provides small size and low cost
- Offers low holding voltage



### MEDIA COMPATIBILITY

Non-corrosive gases

### WETTED MATERIALS

Elastomer:  
Silicon; nickel-plated steel

Frame:  
SPCC (treatment: MFZn2-c)

All other:  
Polybutylene Terephthalate (PBT);  
304 series stainless steel

### ELECTRICAL

Power 0.5 W or less

Voltage 3, 6 or 12 V<sub>DC</sub>

### PHYSICAL PROPERTIES

Operating environment 0 to 45 °C

Storage temperature -25 to 70 °C

Length 25.6 mm (1.01 in)

Width 10 mm (0.394 in)

Height 12 mm (0.472 in)

Porting 1 port, 0.118 in (3 mm) O.D., suitable for 0.078 in I.D., Urethane tubing

Weight 7.7 g (0.27 oz)

Internal volume 0.026 cm<sup>3</sup>

Filtration None required

Lubrication None required

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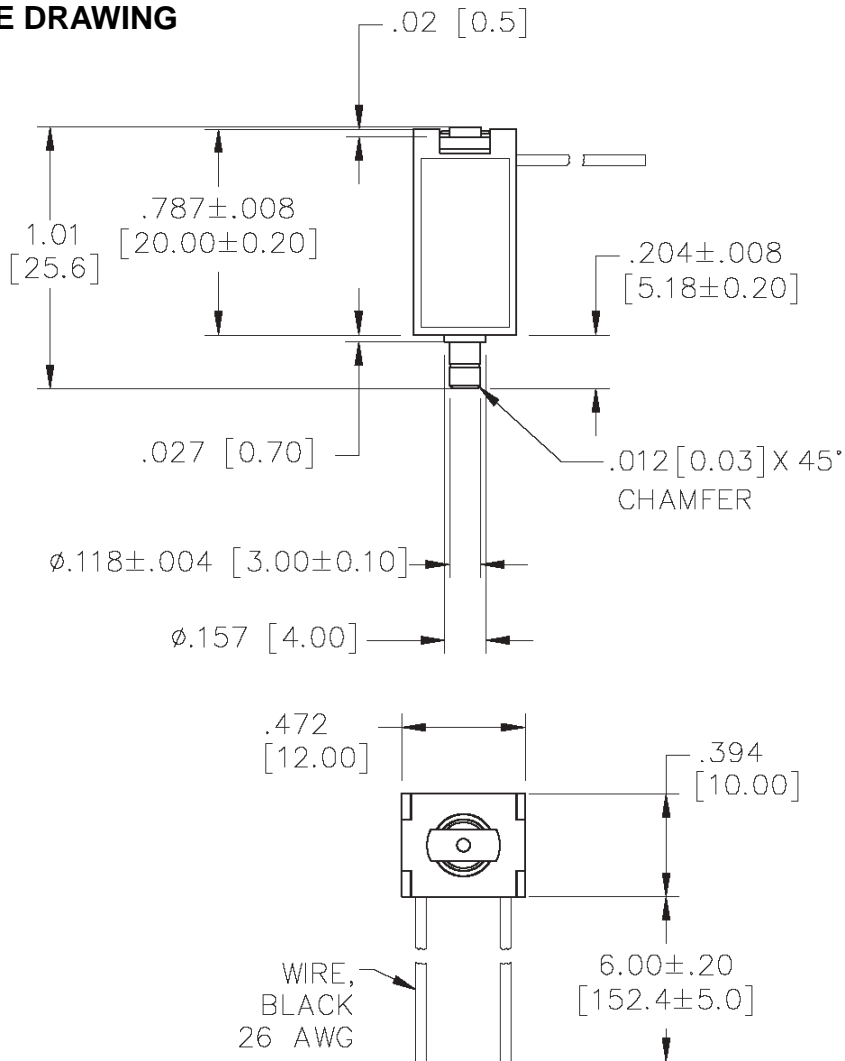
### PERFORMANCE CHARACTERISTICS

Part no.	Pressure	Vacuum	Orifice sizes/ Equivalent $C_v$ <sup>1</sup>	Leak rate <sup>2</sup>	Response
PND-05D-...	0...6 psig holding	0...27 "Hg (0...13 psi)	0.030" (0.510 mm)/ 0.017 $C_v$	0.016 sccm (bubble tight)	<100 msec cycling
PND-05A-...*			0.050" (1.270 mm)/ 0.035 $C_v$		

**Notes:**

- <sup>1</sup> The  $C_v$  value is the volume flow in US gallons/min under specific flow conditions and describes the relative flow capacity of a valve. If several valves with the same nominal diameter are compared, the valve with the highest  $C_v$  value has the best flow dynamics design. The equivalent european measure is the  $k_v$  value expressed in  $m^3/h$  ( $k_v = 0.86 C_v$ ).
- <sup>2</sup> sccm denotes Standard Cubic Centimeters per Minute. It is a unit for the flow rate at standard conditions of temperature and pressure.

### OUTLINE DRAWING



dimensions in inches (mm)

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### ORDERING INFORMATION

	Series	Watts (rated power at 20 °C)		Orifice size		Voltage	
Options	PND	05:	0.5 W	D :	0.030" (0.762 mm)	3:	3 V <sub>DC</sub>
				A*:	0.050" (1.270 mm)	6:	6 V <sub>DC</sub>
						12:	12 V <sub>DC</sub>

\* Frame width and height increases to 13 x 15 mm

<b>Sample order no:</b>	PND	05	A	12
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**Note:** Not all combinations might be available.  
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