

Series9 质谱、分子束、团簇用脉冲阀

高性能、超低泄漏率



脉冲阀为真空法兰安装、轴向流路、2通常闭版本。结构采用耐腐蚀材料，已经被证明的高性能，高重复性，高速度达160微秒。操作压力达到85个大气压，速度达到120赫兹。85 atmospheres and speeds of 120 Hz。超声分子束气体脉冲可以到高重复性。

特点

- 超高速达到 160 微秒
- 传递高重复性脉冲，和高重复性速度为小容量气体控制。
- 无需压力或者真空的直动设计
- 坚固的不锈钢结构
- 室温下连续运行

物理性能

阀类型:
法兰安装,轴向流路, 2-通常闭
适用介质:
液体或者气体
操作温度:
4 到105°C (40 到 221°F)
尺寸:
Configuration and fitting dependent (Contact factory for details)
重量:
2.8 oz (9-181-900)
接口:
A-Lok
Internal Volume:
(Contact factory for details)

电气性能

功耗:	电压:	电流:	电阻:
			(Ω +5% @ 70°F)
12瓦	20 VDC	594 ma	33 Ω
11.2 瓦	28 VDC	400 ma	70 Ω
12" 标准导线			

与介质接触材料

Poppet 材料:
Series 9 PTFE, PEEK, PCTFE, PI (Vespel®*), CTFE (Kel-F®*) <i>Two spare poppets ship with valve assembly</i>
O-Ring:
Series 9 FFKM (Kalrez®*)
<i>*NOTE: Vespel and Kalrez are trademarks of Dupont. Kel-F is a trademark of 3M Company.</i>

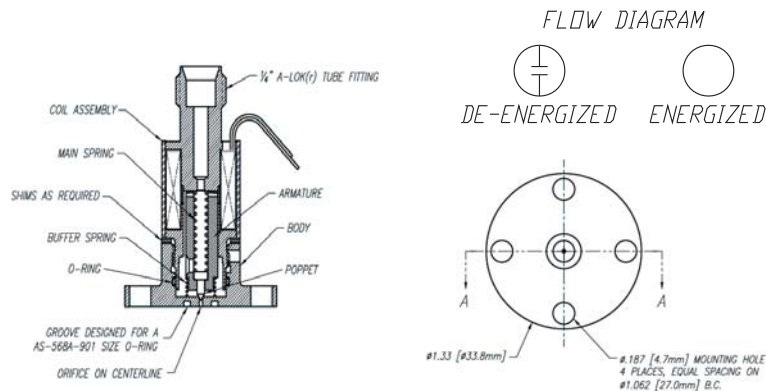
性能

操作压力:
24"Hg -1250 psig (0.004", 0.020", 0.031" orifice) 24"Hg - 750 psig (0.039" orifice)
通径尺寸:
0.004" (0.10 mm) 0.020" (0.51 mm) 0.031" (0.79 mm) 0.039" (1.00 mm)
响应设计:
160 uS to < 5ms
泄漏率:
1×10^{-7} cc/sec/atm Helium

Series 9 脉冲阀

尺寸

Series 9



应用案例和文献:

1. 脉冲阀在离子阱质谱、时间飞行质谱/色谱上的应用
 - Pulsed valve interface for gas chromatography/Fourier transform mass spectrometry
 - A pulsed-leak valve for use with ion trapping mass spectrometers
 - Novel experimental setup for time-of-flight mass spectrometry ion detection in collisions of anionic species with neutral gas-phase molecular targets
 - Internal pulsed valve sample introduction on a quadrupole ion trap mass spectrometer
 - A versatile, pulsed anion source utilizing plasma-entrainment: Characterization and applications
 - A pulsed uniform Laval expansion coupled with single photon ionization and mass spectrometric detection for the study of large molecular aggregates
 - All-solid-state deep ultraviolet laser for single-photon ionization mass spectrometry
2. 脉冲阀在超声分子束上/激光气体实验/团簇上的应用:
 - Design and characterization of a late-mixing pulsed nozzle
 - Flash pyrolysis nozzle for generation of radicals in a supersonic jet expansion
 - chopper system for shortening the duration of pulsed supersonic beams seeded with NO or Br₂ down to 13 μs
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 - Structure and energetics of the anisole - Ar_n (n = 1, 2, 3) complexes: high-resolution resonant two-photon and threshold ionization experiments, and quantum chemical calculations
 - Femtosecond laser detection of Stark-decelerated and trapped methylfluoride molecules

脉冲阀选型表

型号	009-1668-900	009-0582-900	009-0381-900	009-1669-900	009-0442-900	009-0181-900
通径尺寸 (英寸)	0.004	0.020	0.031	0.039	0.020	0.031
电压	28VDC	28VDC	28VDC	28VDC	28VDC	28VDC
喷嘴形式	直通	直通	直通	直通	带锥角	带锥角
型号	009-1670-900	009-1421-900	009-1671-900	009-1643-900	009-0347-900	009-0279-900
通径尺寸 (英寸)	0.004	0.020	0.031	0.039	0.020	0.031
电压	20VDC	20VDC	20VDC	20VDC	20VDC	20VDC
喷嘴形式	直通	直通	直通	直通	直通	直通

Parker脉冲阀 中国区授权代理
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