



Atomic Layer Deposition Pilot Valve

The atomic layer deposition pilot valve was a two-position, three-way valve that was designed for the extremely fast cycle rates of ALD (atomic layer deposition) applications. Its response time was less than 6 milliseconds, and it was able to operate in temperatures as high as 200°C.

Features & Benefits

- + Two-position, three-way valve pilot valve
- + Ultrafast response
- + High operating temperature
- + Compact design
- + Customizable to application power requirements

Applications

- + Atomic layer deposition
- + High speed
- + High temperature
- + Pressure control

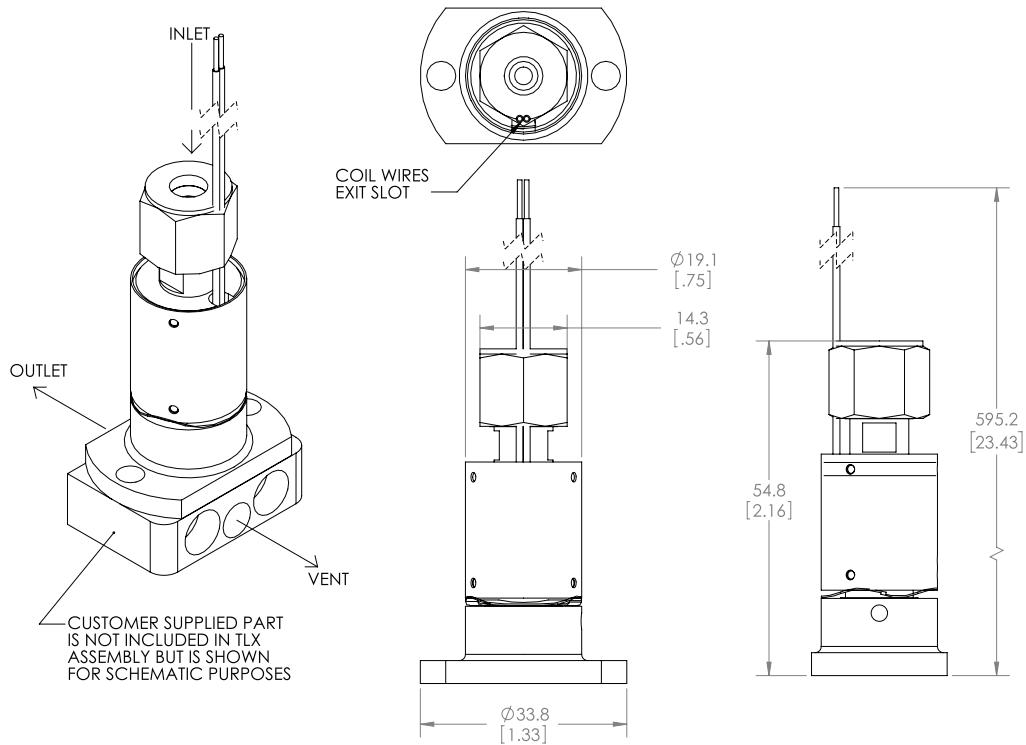
Technical Data (custom configurations available)

- + Operating voltage: 12 to 30 Vdc
- + Operating pressure range: 0 to 500 kPa
- + Operating temperature range: -40°C to 200°C (-40°F to 392°F)
- + Operating frequency: 100 to 300 Hz
- + Resistance at 20°C: $48 \Omega \pm 4.8 \Omega$
- + Inductance: 68.6 mH
- + Flow rate: 35 L/min
- + Leak rate: < 2 cc/min

- + PWM pressure control: 10 to 90% duty cycle
- + PWM vacuum control: 10 to 90% duty cycle
- + Response time: < 6 ms
- + Burst pressure: 5000 kPa
- + Vibration: 20 G

All TLX components are customized to fit system requirements, meaning technical specifications are unique to each customer and design. Examples given are for illustration purposes only.

Dimensional Drawings (dimensions in millimeters [inches])



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