



## 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
- + Configured for customer's power requirements

### Applications

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

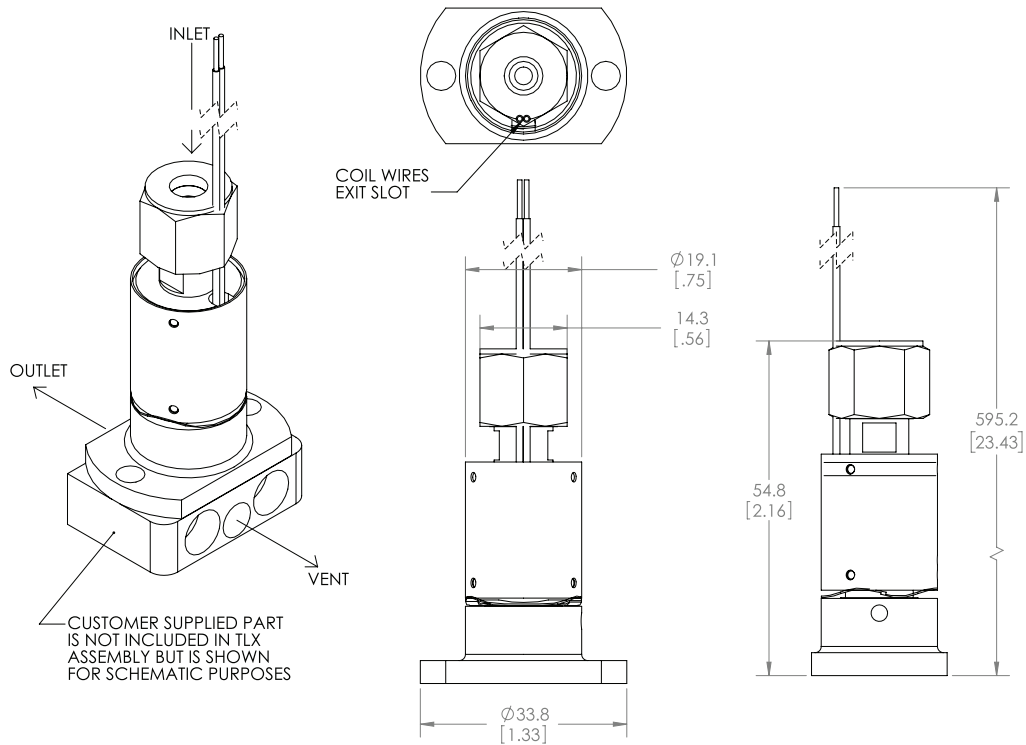
### Technical Data (custom configurations available)

- + 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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