

# 膜片式气动管道阀

Diaphragm Pneumatic Line Valve



上海齐宇机电设备有限公司

Shanghai Qiyu Mechatronic Equipment Co.Ltd.

# LV80型气动管道阀

## LV80 Pneumatic Line Valve



上海齐宇机电设备有限公司  
Shanghai Qiyu Mechatronic Equipment Co., Ltd.

LV系列管道阀是一款高效气动控制截止阀门。其独特之处在于阀芯与阀座之间的膜片密封结构，通过膜片的翻转动作，实现阀芯与阀座之间的相对运动，进而控制阀门的开关。在阀门开关过程中，膜片与阀芯、阀座之间不会发生摩擦，是一种无磨损的动密封性能结构。该阀门的气动控制单元被集成在阀门内部，这不仅简化了安装和操作，还提高了阀门的密封可靠性、使用寿命和响应速度。同时，由于集成了气动控制单元，阀门的体积得以优化，更为紧凑。阀门的关闭过程独特，首先通过导向座上的弹簧力实现快速关闭，随后通过滚动膜片上的液体压力进一步增强密封效果。这种控制方式确保阀门能够快速关闭、实现可靠密封并降低管路冲击。即使在低压力下，阀座的唇形密封圈也能确保完全密封。在阀门的出口处设置有信号接口，该接口可用于检测阀门的工作状态，便于用户进行实时监控和故障排查，提高了阀门的可维护性和易用性。

The LV series Line valve is a high-efficiency pneumatically controlled globe valve. Its unique feature lies in the diaphragm sealing structure between the valve core and the valve seat. Through the flipping action of the diaphragm, relative movement between the valve core and the valve seat is realized, thereby controlling the opening and closing of the valve. During valve operation, there is no friction between the diaphragm, the valve core and the valve seat, forming a wear-free dynamic sealing structure.

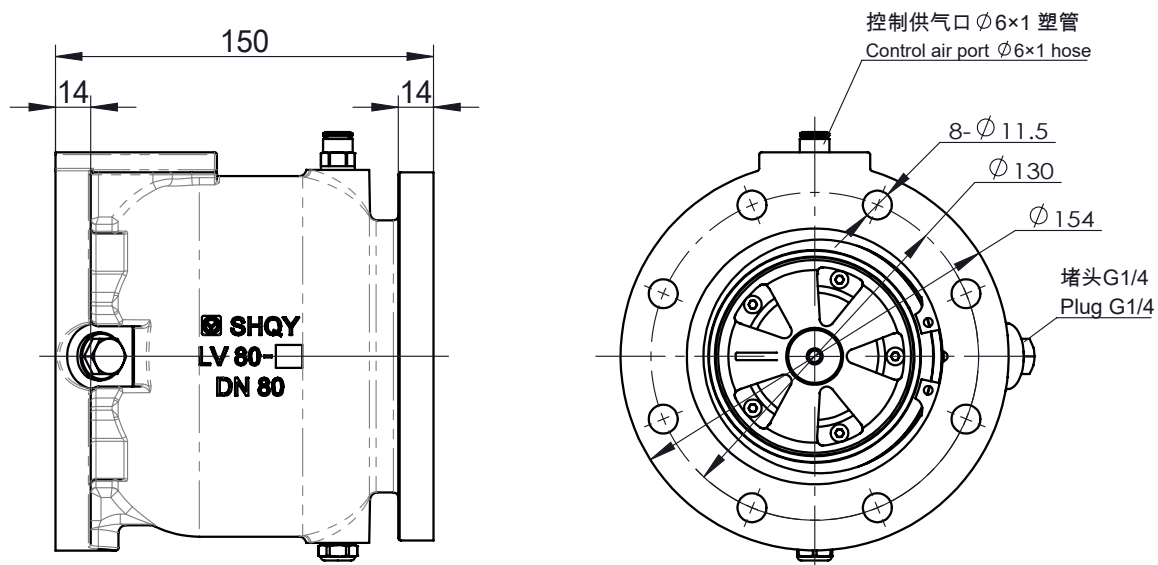
The pneumatic control unit of the valve is integrated inside the valve body, which not only simplifies installation and operation but also improves the sealing reliability, service life and response speed of the valve. At the same time, the integration of the pneumatic control unit optimizes the valve size for a more compact design.

The valve features a unique closing process: it first achieves rapid closing by the spring force on the guide seat, and then further enhances the sealing effect through the fluid pressure acting on the rolling diaphragm. This control method ensures fast closing, reliable sealing and reduced pipeline shock. Even at low pressure, the lip seal on the valve seat guarantees complete sealing.

A signal port is provided at the valve outlet, which can be used to detect the working status of the valve, facilitating real-time monitoring and troubleshooting, thus improving the maintainability and usability of the valve.

### 技术参数 / Technical Parameters

- 主体材料 / Primary Materials: 铝合金, NBR/FKM, 不锈钢, POM / Aluminum alloy, NBR/FKM, Stainless Steel, POM;
- 公称通径 / Nominal Diameter: DN80;
- 工作压力 / Working Pressure: 1.0 MPa;
- 温度范围 / Temperature Range: -30°C ~ 60°C;
- 控制气压 / Control Air Pressure: 0.25~0.75 MPa.

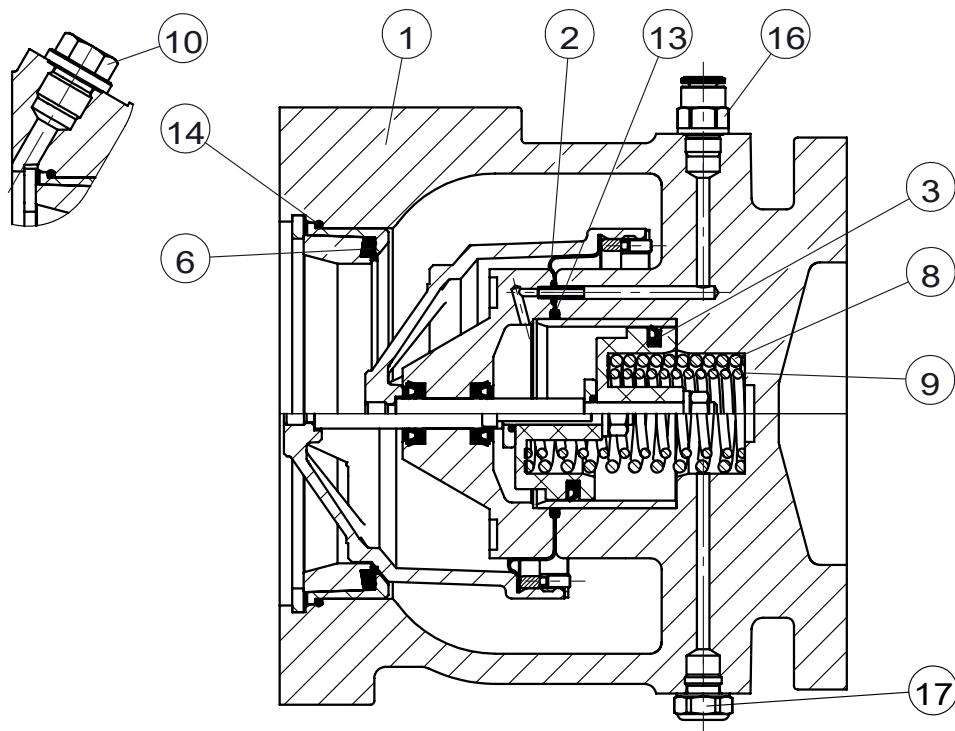


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序号 Item	代号 Part No.	名称	Description	数量 Qty.	备注 Remarks
1	LV80-01	阀体	Valve Body	1	
2	LV80-108	膜片	Diaphragm	1	
3	LV80-109	唇形密封圈	Lip Seal		
6	LV80-04	唇形密封圈	Lip Seal	1	
8	LV80-06	弹簧	Spring	1	
9	LV80-07	弹簧	Spring	1	
10	G02ED-SS	堵头	Plug	1	
13	45.7X2.62	O形密封圈	O-ring	1	
14	90X2	O形密封圈	O-ring	1	
16	6512 6-1/8	快插接头	Push-in Fitting	1	
17	2901 1/8	消声器	Muffler	1	

# LV100型气动管道阀

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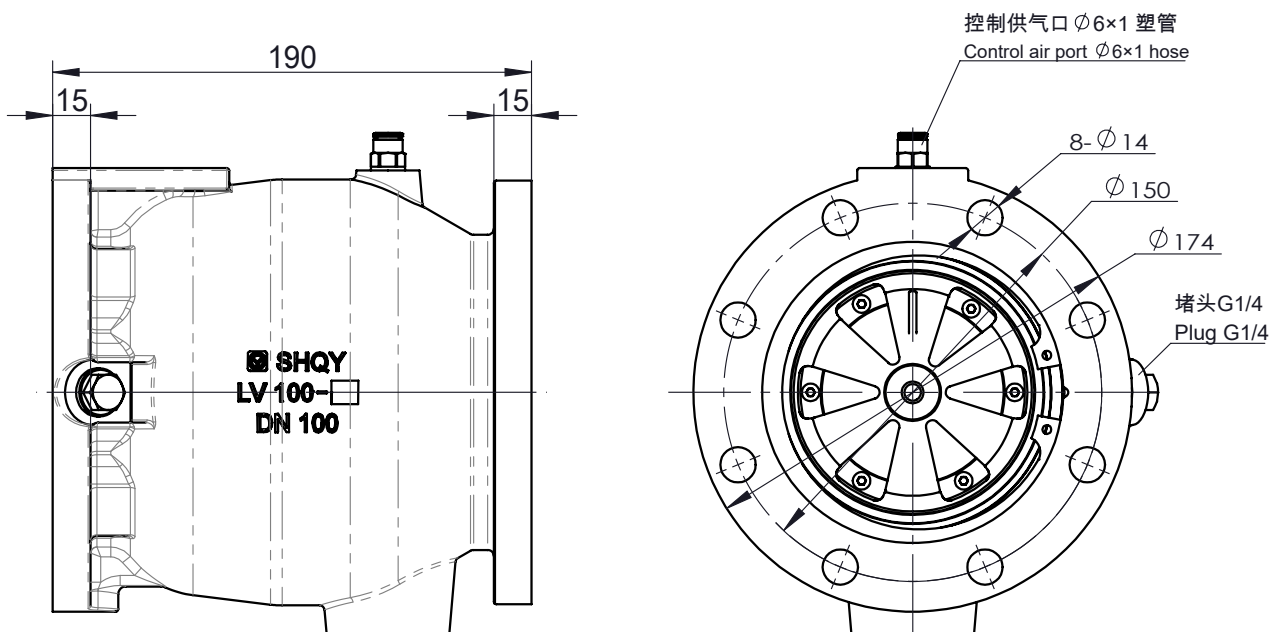
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- 公称通径 / Nominal Diameter: DN100;
- 工作压力 / Working Pressure: 1.0 MPa;
- 温度范围 / Temperature Range: -30°C ~ 60°C;
- 控制气压 / Control Air Pressure: 0.25~0.75 MPa.

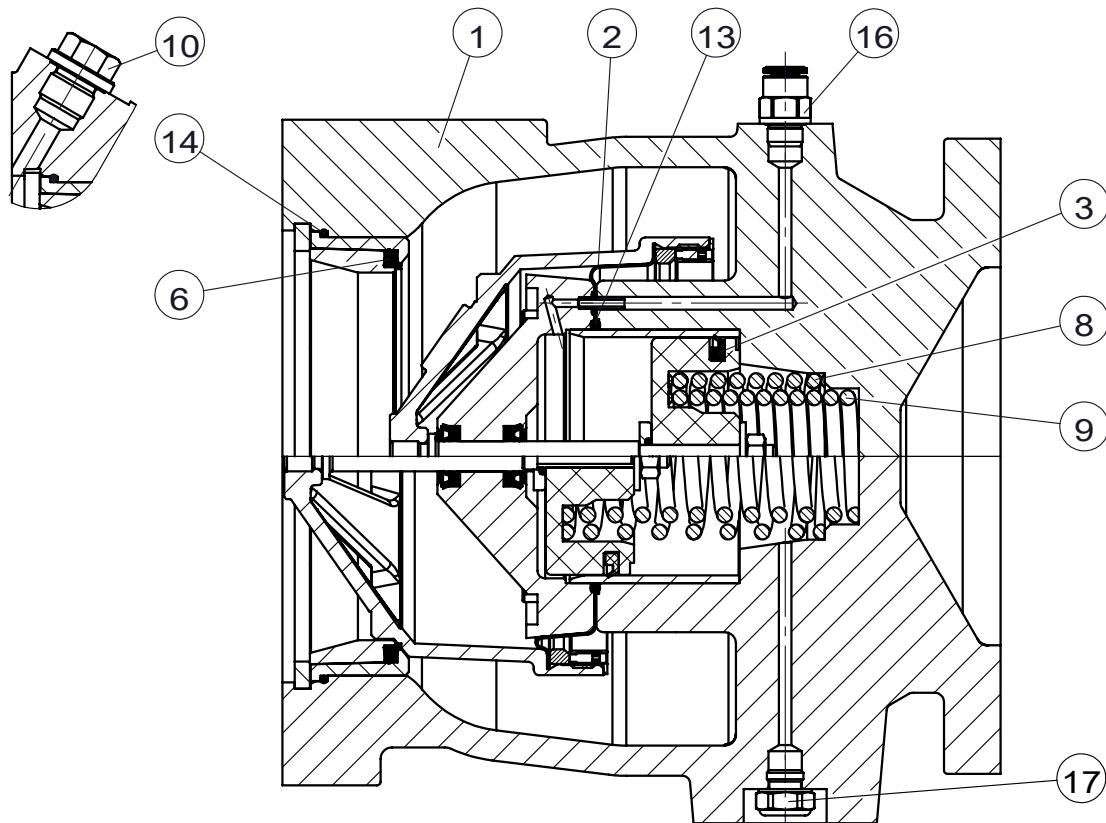


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10	G02ED-SS	堵头	Plug	1	
13	65X2.5	O形密封圈	O-ring	1	
14	110X2	O形密封圈	O-ring	1	
16	6512 6-1/8	快插接头	Push-in Fitting	1	
17	2901 1/8	消声器	Muffler	1	