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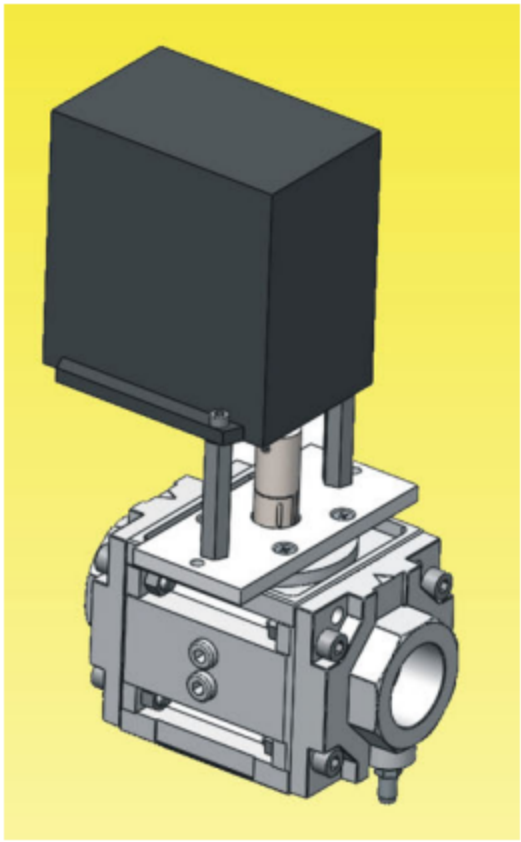
AFC
Linear Valve



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AFC Linear Valve

Overview

The linear flow control valve AFC is used to regulate the flow of fuel and cold air on various equipment. It regulates the control of Prida 25: 1. It is equipped with our company's AT31, AT50 and other actuators, which is suitable for remote flow regulation or stage control of combustion process.

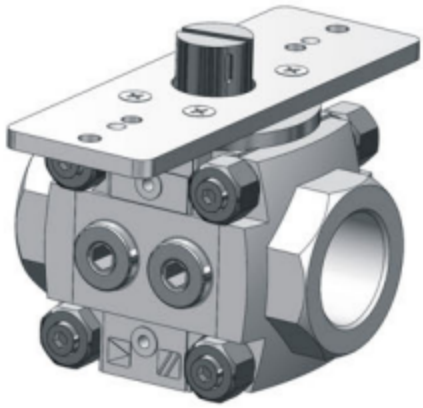


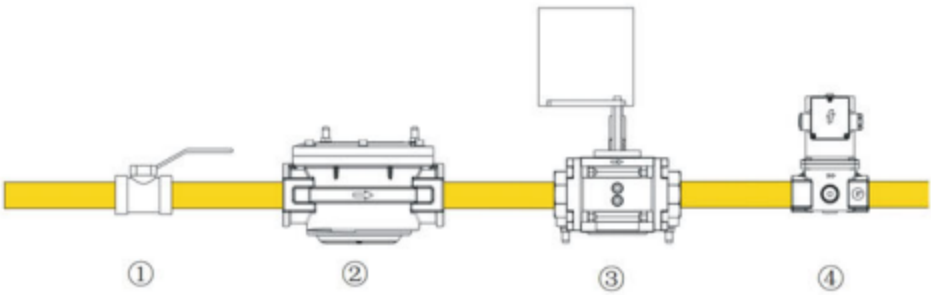
Fig. 1 **AFC Linear Valve**

Features

- There is a linear relationship between the regulating angle of AFC linear valve and gas flow rate.
- The adjustment range can be up to 25:1.
- Threaded linear valve can be used in all kinds of gas and room temperature air.
- It adopts automatic control mode and can be customized according to the needs of users.
- Flanged linear valves can be used for cold or hot air.

Functions and Applications

- AFC linear valves are mostly used for manual regulation of air, gas or smoke or for automatic regulation with actuators.
- The design of the AFC linear valve is based on the free flow principle, which releases the cross section of the flowing medium according to the rotational motion between 0 and 90 °.
- The action of the AFC linear valve is very simple, so the actuator only needs low torque.



① Gas manual shutoff valve　② Filter
③ Automatic Linear Regulating Valve　④ Gas manual shutoff valve

Fig. 2 Applications of AFC Linear Valve

Installation dimensions and specifications

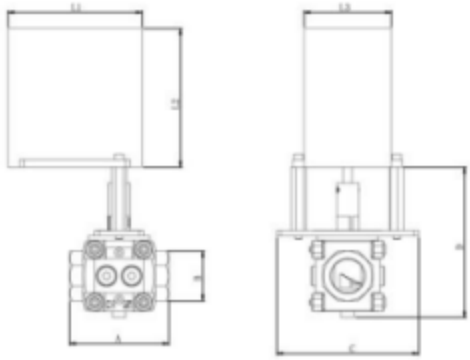


Fig. 3 Structure diagram of Thread connection +AT31 Actuator

No.	Model	A	B	C	D	L1	L2	L3
1	AFC-15+AT31	75	32	130	132	123	127	80
2	AFC-20+AT31	91	45.5		132			
3	AFC-25+AT31	91	45.5		132			
4	AFC-32+AT31	164	59		170			
5	AFC-40+AT31	164	59		170			

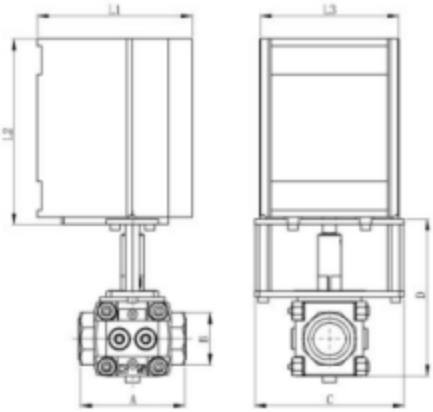


Fig. 4 Structure diagram of Thread connection +AT50 Actuator

No.	Model	A	B	C	D	L1	L2	L3
1	AFC-15+AT50	75	32	130	137	135	161.5	120.5
2	AFC-20+AT50	91	45.5		137			
3	AFC-25+AT50	91	45.5		137			
4	AFC-32+AT50	164	59		175			
5	AFC-40+AT50	164	59		175			

Installation dimensions and specifications

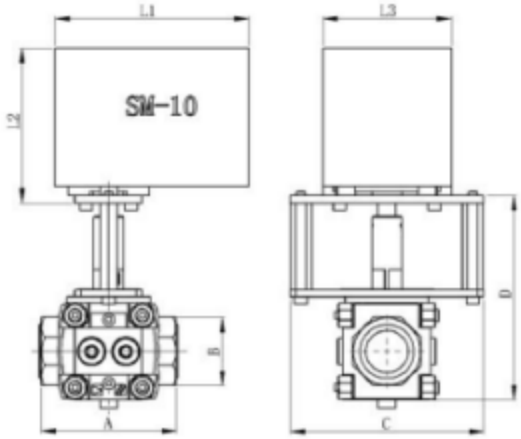


Fig. 5 Structure diagram of Thread connection +SM-10 Actuator

No.	Model	A	B	C	D	L1	L2	L3
1	AFC-15+SM10	75	32	130	137	130	93	86
2	AFC-20+SM10	91	45.5		137			
3	AFC-25+SM10	91	45.5		137			
4	AFC-32+SM10	164	59		175			
5	AFC-40+SM10	164	59		175			

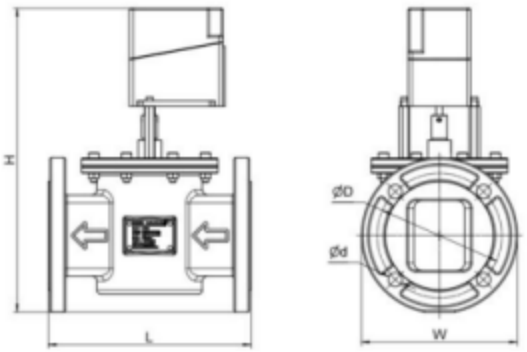
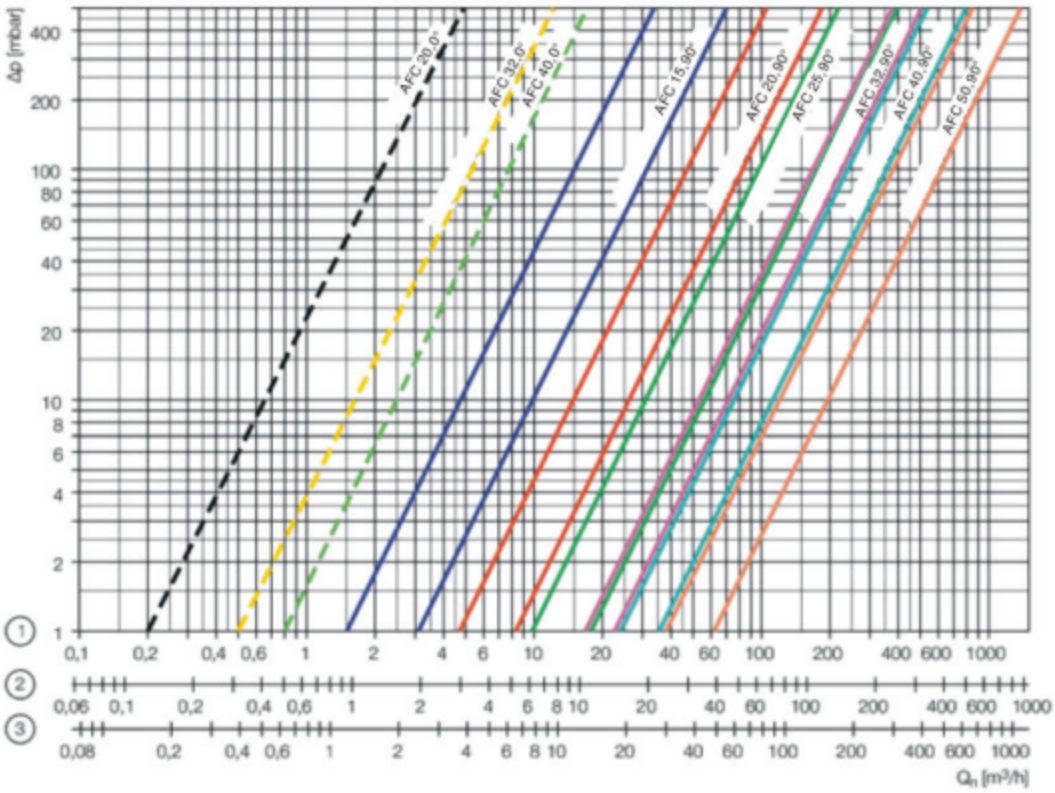


Fig. 6 Structure diagram of Flanged connection

No.	Model	Nominal	H	L	W	D	d
1	AFC 80	DN80	390	260	200	160	18
2	AFC 100	DN 100	390	260	220	180	18

Technical Parameters of AFC Linear Valve

- Product Structure: Internal thread connection, Flanged connection ;
- Working medium: air, gas, liquefied petroleum gas, Natural gas and other non-corrosive gases (Flanged linear valve only adapts to air);
- Operating temperature: Internal thread connection: -15℃~60℃; Flanged connection : -15℃~300℃
- Maximum inlet pressure: 500mbar;



1= Natural gas 0.80 kg/m3b　　2= Liquefied gas 2.01 kg/m3　　3= air 1.29 kg/m3

Fig. 7 Flow and pressure correspondence chart of linear valve

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AFC Linear Valve

Order code and Model of AFC Linear Valve

No.	Order code	Model	Product Description
1	109010151501	Linear Valve AFC15(15PPPP)	Thread connection Rp 1/2 DN15 linear valve is used with AT31 Actuator
2	109010151502	Linear Valve AFC15(15PPPP)	Thread connection Rp1/2DN15 linear valve is used with AT50 Actuator
3	109010151503	Linear Valve AFC15(15PPPP)	Thread connection Rp 1/2DN15 linear valve is used with SM-10 Actuator
4	109010152001	Linear Valve AFC15(20PPPP)	Thread connection Rp1/2DN15 linear valve is used with AT31 Actuator
5	109010152002	Linear Valve AFC15(20PPPP)	Thread connection Rp 1/2DN15 linear valve is used with AT50 Actuator
6	109010152003	Linear Valve AFC15(20PPPP)	Thread connection Rp1/2 DN15 linear valve is used with SM-10 Actuator
7	109010201501	Linear Valve AFC20(15PPPP)	Thread connection Rp3/4DN20 linear valve is used with AT31 Actuator
8	109010201502	Linear Valve AFC20(15PPPP)	Thread connection Rp 3/4 DN20 linear valve is used with AT50 Actuator
9	109010201503	Linear Valve AFC20(15PPPP)	Thread connection Rp3/4DN20 linear valve is used with SM-10 Actuator
10	109010202001	Linear Valve AFC20(20PPPP)	Thread connection Rp3/4DN20 linear valve is used with AT31 Actuator
11	109010202002	Linear Valve AFC20(20PPPP)	Thread connection Rp3/4DN20 linear valve is used with AT50 Actuator
12	109010202003	Linear Valve AFC20(20PPPP)	Thread connection Rp3/4DN20 linear valve is used with SM-10 Actuator
13	109010251501	Linear Valve AFC25(15PPPP)	Thread connection Rp1 DN25 linear valve is used with AT31 Actuator
14	109010251502	Linear Valve AFC25(15PPPP)	Thread connection Rp1 DN25 linear valve is used with AT50 Actuator
15	109010251503	Linear Valve AFC25(15PPPP)	Thread connection Rp1 DN25 linear valve is used with SM-10 Actuator
16	109010252001	Linear Valve AFC25(20PPPP)	Thread connection Rp1 DN25 linear valve is used with AT31 Actuator
17	109010252002	Linear Valve AFC25(20PPPP)	Thread connection Rp1 DN25 linear valve is used with AT50 Actuator
18	109010252003	Linear Valve AFC25(20PPPP)	Thread connection Rp1 DN25 linear valve is used with SM-10 Actuator
19	109010323201	Linear Valve AFC32(32PPPP)	Thread connection Rp1 1/4DN32 linear valve is used with AT31 Actuator(is used with pressure measuring nozzle)
20	109010323202	Linear Valve AFC32(32PPPP)	Thread connection Rp1 1/4DN32 linear valve is used with AT50 Actuator(is used with pressure measuring nozzle)
21	109010323203	Linear Valve AFC32(32PPPP)	Thread connection Rp1 1/4DN32 linear valve is used with SM-10 Actuator(is used with pressure measuring nozzle)
22	109010403201	Linear Valve AFC40(32PPPP)	Thread connection Rp1 1/2 DN40 linear valve is used with AT31 Actuator(is used with pressure measuring nozzle)
23	109010403202	Linear Valve AFC40(32PPPP)	Thread connection Rp1 1/2DN40 linear valve is used with AT50 Actuator(is used with pressure measuring nozzle)
24	109010403203	Linear Valve AFC40(32PPPP)	Thread connection Rp1 1/2 DN40 linear valve is used with SM-10 Actuator(is used with pressure measuring nozzle)
25	109010800001	Linear Valve AFC80	The temperature of flanged connection DN80 is -15°C-200°C. It is used with AT31 Actuator
26	109011000001	Linear Valve AFC 100	The temperature of flanged connection DN100 is -15°C-200°C. It is used with AT31 Actuator

Precautions for Installation and maintenance of AFC Linear Valve

- To ensure the normal and safe operation of the valve and a long service life, consider the following recommendations when designing the combustion system:
- Ensure that all functions of the system comply with valve specifications (gas type, working pressure, flow rate, ambient temperature, voltage, etc.).
- According to the required installation position, it should be in the vertical position or tilted upward to the horizontal position with the actuator, and shall not be inverted.
- In the case of vertical pipes, the flow direction should be from bottom to top.
- After removing the end cover, make sure that no foreign body enters the valve (such as chips or excessive sealants) during handling or installation.
- A gas filter should always be installed upstream of the valve.
- It should be ensured that the installation area is protected from Rain Water and water splashing or falling.
- Perform leak and functional tests after installation (maximum test pressure is 1.5 Pmax).
- For corrosive gases, maintenance must be carried out at least once a year.
- It should be ensured that all work is carried out only by qualified technical personnel and complies with local and national regulations.
- In order to prevent product damage and dangerous conditions, please read the instructions provided with the product carefully before installation.
- The maintenance cycle is once a year, and the number of maintenance is increased as appropriate.