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THE PEAK OF QUALITY

Self–Operated Control Valve

REOWO®

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我们一直致力于控制阀的研发与制造
为您提供更好的服务和最佳的产品

We have always been devoted to research and development
of control valves,providing you with better
service and the best products.

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Brief Introduction REOWO

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About us

Jinfeng Fluid Control Technology Co., Ltd.(REOWO) is a professional manufacturer of multi–types control valve for industrial automation located in China,which has nearly 16 years of control valve manufacturing experience. REOWO is committed to design, development, manufacturing and sales of high–grade control valve,and occupies more than 10000 square meters. It has about 120 staffs, 20 senior professional titles employees and more than 100 workers. REOWO has excellent equipment, strong technical power, and first–class inspect means.Comprehensive quality control system, keep the production in reasonable structure and reliable performance. It include chemical analysis, mechanical tests, ultrasonic thickness testing, MT, PT and RT etc. We implement advanced ERP computerized management system and 5S management system, and qualified with API,CE,TS,EAC,SIL,ISO certification.

The main products of the REOWO contain pneumatic control valve, electric control valve, self–operated regulator, pneumatic actuator, pneumatic accessories. The material of the valves covers covers WCB, Stainless Steel ,Special materials and etc. The nominal diameter is from 1/2" to 24" (15mm~600mm) . The nominal pressure is from 2.0Mpa to 42.0Mpa (150LB~2500LB). Working temperature is between –196℃~600℃。 REOWO keep every products in the guarantee period of 18 months after use, implement "three guarantees" quality solution. In quality service of products, we will reply within 24 hours and to make appropriate treatment advice after receiving your fax or Email.

REOWO carry out technological innovation,managing innovation, and service innovation, to lead the market. Improvement of the sales network, and quality tracking service of product, earned the unanimous endorsement of customers. High aspirations, forge ahead , REOWO is willing to cooperate with friends all walks of life sincerely ,and seek common development, as well as quality ,fast and comprehensive service return to customers, working together to write a new chapter in the national industry !


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Advanced Manufacturing Technology REOWO

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Advanced equipment

The latest machining equipment, which is widely applied to manufacturing reowo valves, includes a large batch of CNC machining tools (such as machining centers, CNC horizontal lathes, vertical lathes and drilling lathes) and ERP manufacturing resources integration management systems. In addition, the data between all machining workshops in reowo are mutually shared in the Intranet through optical cables, which has facilitated us to effectively centralize manufacturing resources, enhance production efficiency and efficiently improve our machining quality and process control.

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Desing and development

The technical R&D center of reowo makes use of the most advanced computer technology to enhance the quality of the existing products and develop new valve products. The design concept of reowo is to develop a kind of safe valves with cost advantage. During the new product design period, we introduce the latest engineering software such as Auto CAD and Solidworks and adopt the advanced FEA technology to verify if the design of new products is feasible before they are put into batch production, so that their design and development time is greatly shortened and the safety of final products and their optimal cost structure are ensured.

Strong Research And Development REOWO

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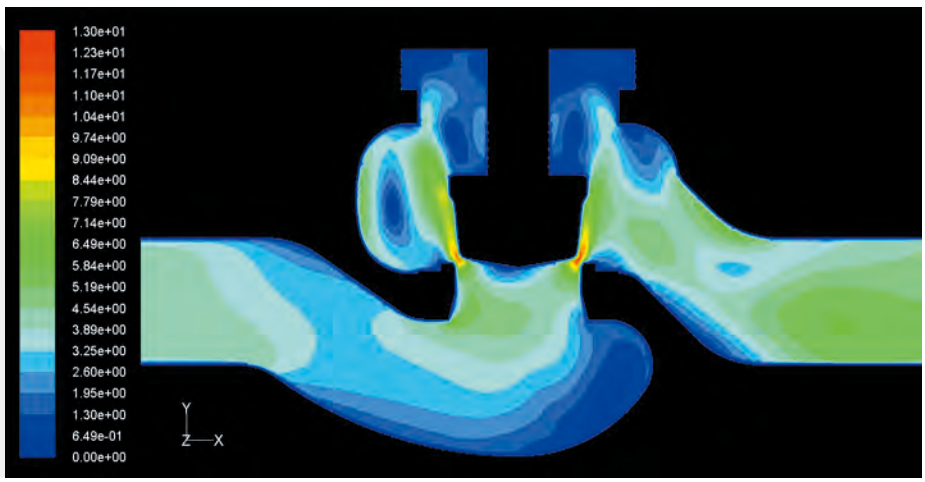

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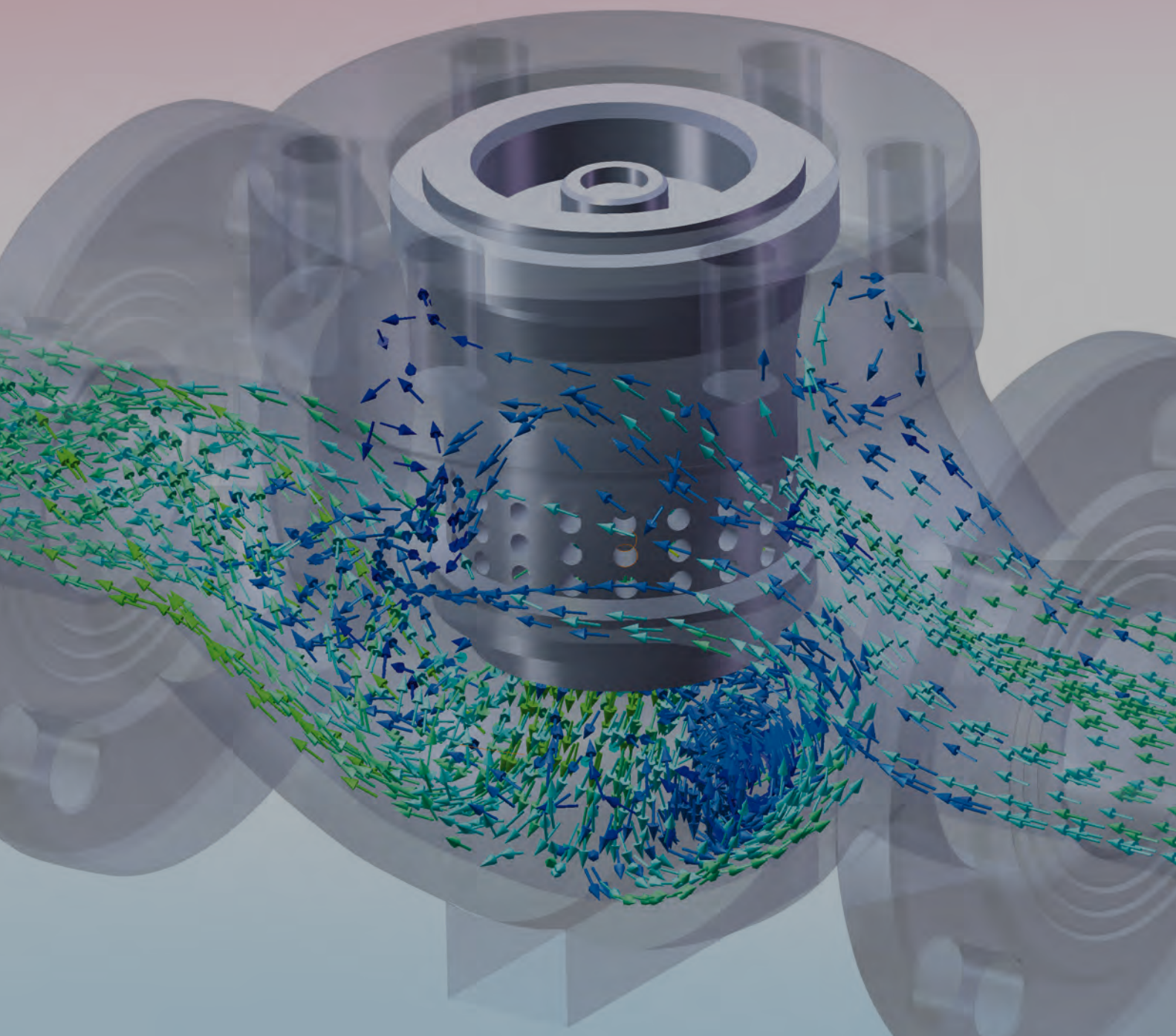

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CONTROL TECHNOLOGY CO.,LTD.

REOWO
Fluid Control Technology

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▶ 30D01Y、30D01R self–operated (after–valve) pressure control valve

▲ Summary

The 30D01Y/30D01R self–operated (after–valve) pressure control valve is composed of the control valve, actuator and a spring used for pressure setting. It is suitable for controlling after–valve pressure in the pipes of non–corrosive liquids, gases and steams. When the after–valve pressure rises, the control valve is closed.

The main features are as follows:

1.It has the pressure balancing function with high sensitivity.
2.Low noise, reliable performance, free of maintenance
3.The standard modular design is adopted.
4.Various combined controls can be carried out through the assemblies.

Technical parameters andperformances

Body		
DN		DN15、20、25、32、40、50、65、80、100、125、200、250mm
PN		PN1.6、4.0MPa
Flange standard		ANSI、JIS、DIN、GB、JB(special standards can be offered according to user requirements)
Body material		Cast iron, cast steel, cast stainless steel
Plug material	Hard seal	Stainless steel
	Soft seal	Stainless steel embedded with rubber ring
Pressure balancing		Stainless steel bellows (DN15~125), balanced diaphragm (DN150~250)

Actuator					
Effective area		32※	80	250	630
Pressure setting range		0.8~1.6 0.3~1.2	0.1~0.6 0.05~0.3	0.015~0.15 0.01~0.07	0.005~0.035
Minimum differential pressure that ensures normal work of thepressure valve		⩾0.05	⩾0.04	⩾0.01	⩾0.005
Allowable maximum differential pressure between the upper and lower diaphragm chambers		2.0	1.25	0.4	0.15
Material		Diaphragm cover: galvanized steel sheet; diaphragm: EPDM or FKM with fiber			
Control pipeline, connection		Copper pipe or steel pipe Φ10X1(mm); ferrule connection: R1/4"			

Note: ※ The pressure setting range corresponding to the effective area does not apply to valves with DN150–250.

Performance					
Set value error		±8%			
Allowable leakage (under stipulated testing conditions)	Hard seal	4x0.01% valve rated capacity			
	Soft seal	DN15~50	DN65~125	DN150~250	
		10 bubbles/min	20 bubbles/min	40 bubbles/min	

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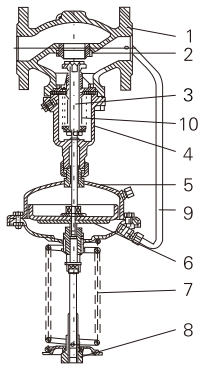
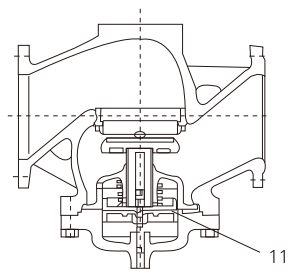
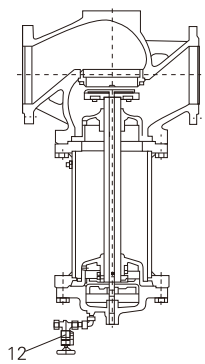
▶ 30D01Y、30D01R self–operated (after–valve) pressure control valve



DN15~125



DN150~250



DN150~250
(with body extension)

Structural figure

1	Body	2	Seat	3	Valve shaft	4	Bonnet	5	Diaphragm cover	6	Diaphragm
7	Spring	8	Adjusting nut	9	Pressure pipe	10	Bellows	11	Balanced diaphragm	12	Charging valve

Allowable working temperature

DN		15~125mm	150~250mm
Seal type	Hard seal	⩽150℃	⩽140℃
		Cooling tank⩽200℃	Cooling tank and extension⩽200℃
		Cooling tank and heat sink⩽350℃※	Cooling tank and extension⩽300℃※
	Soft seal	⩽150℃	

Note: ※ It indicates the allowable working temperature is valid only when the medium is steam and the bodywith PN40 shall be adopted when the temperature resistance is 350℃.

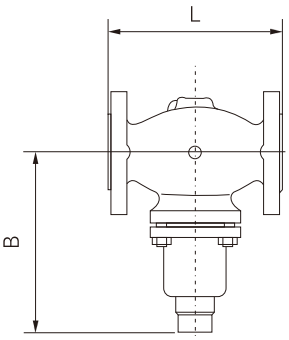
Rated flow coefficient, noise measuring coefficient, allowable differential pressure

DN		15	20	25	32	40	50	65	80	100	125	150	200	250
Rated flow coefficient		4	6.3	8	16	20	32	50	80	125	160	280	320	450
Noise measuring coefficient Z value		0.6	0.6	0.6	0.55	0.55	0.5	0.5	0.45	0.4	0.35	0.3	0.2	0.2
Allowable differential pressure(Mpa)	PN16	1.6									1.5	1.2	1.0	
	PN40	2.0												

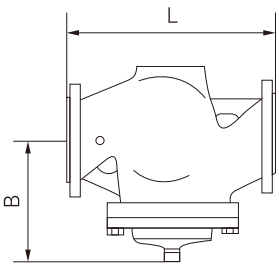
Working principle

After throttling by the plug and seat, the before–valve pressure P1 of the process medium is changed into the after–valve pressure P2. Through the control pipeline, P2 is input to the lower diaphragm chamber of the actuator and acts on the topdisc. The acting force produced balances the reacting force of the spring, determining relative positions of the plug andseat and controlling the after–valve pressure. When the after–valve pressure P2 increases, the acting force of P2 that actson the top disc will increase accordingly. At the time, the acting force on the top disc is higher than the reacting force ofthe spring to make the plug close towards the seat, until the acting force on the top disc balances the reacting force of thespring. At the time, the flow area between the plug and seat is reduced, the flow resistance becomes higher and P2 isreduced to the set value. Likewise, when the after–valve pressure P2 decreases, the acting direction is reverse to theabove. This is the working principle during the control of after–valve pressure.
When it is necessary to change the set value of after–valve pressure P2, please adjust the adjusting nut.

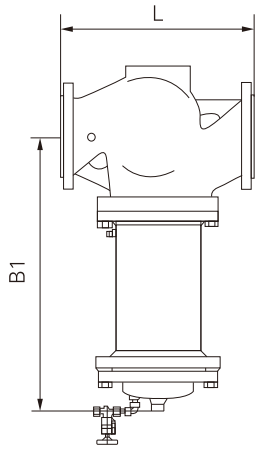
▶ 30D01Y、30D01R self-operated (after-valve) pressure control valve



DN15~125



DN150~250



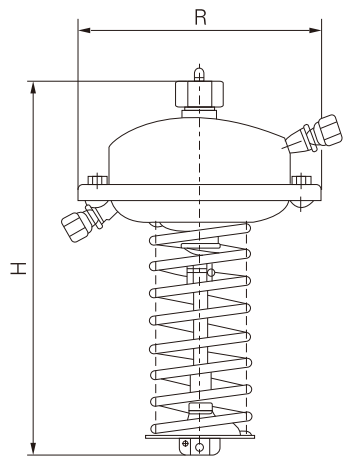
DN150~250
(With body extension)

I. Dimensions and weight of control valve

DN (mm)	15	20	25	32	40	50	65	80	100	125	150	200	250
L (mm)	130	150	160	180	200	230	290	310	350	400	480	600	730
B (mm)	212	212	238	238	240	240	275	275	380	380	326	354	404
Weight (Kg)	6.2	6.7	9.7	13	14	17	29	33	60	70	80	140	220
B1 (mm)	--	--	--	--	--	--	--	--	--	--	630	855	1205
Weight (Kg)	--	--	--	--	--	--	--	--	--	--	140	210	300

II. Dimensions and weight of actuator

Effective area(cm^2)	32	80	250	630
R (mm)	172	172	263	380
H (mm)	435	430	470	520
Weight(Kg)	7.5	7.5	13	28



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▶ 30D02Y、30D02R self–operated (before–valve) pressure control valve

▲ Summary

The 30D02Y、30D02Rself–operated (before–valve) pressure control valve is composed of the control valve, actuator and a spring used for pressure setting.
It is suitable for controlling before–valve pressure in the pipes of non–corrosive liquids, gases and steams. When the before–valve pressure rises, the control valve is opened.

The main features are as follows:

1.It has the pressure balancing function with high sensitivity.
2.Low noise, reliable performance, free of maintenance
3.The standard modular design is adopted.
4.Various combined controls can be carried out through the assemblies.

Technical parameters andperformances

Body

DN		DN15、20、25、32、40、50、65、80、100、125、200、250mm
PN		PN1.6、4.0MPa
Flange standard		ANSI、JIS、DIN、GB、JB(special standards can be offered according to user requirements)
Body material		Cast iron, cast steel, cast stainless steel
Plug material	Hard seal	Stainless steel
	Soft seal	Stainless steel embedded with rubber ring
Pressure balancing		Stainless steel bellows (DN15~125), balanced diaphragm (DN150~250)

Actuator

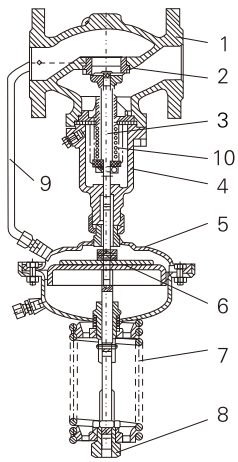
Effective area	32※	80	250	630
Pressure setting range	1.0~1.6 0.3~1.1	0.1~0.5 0.05~0.25	0.015~0.12 0.01~0.06	0.005~0.035
Minimum differential pressure that ensures normal work of thepressure valve	⩾0.05	⩾0.04	⩾0.01	⩾0.005
Allowable maximum differential pressure between the upper and lower diaphragm chambers	2.0	1.25	0.4	0.15
Material	Diaphragm cover: galvanized steel sheet; diaphragm: EPDM or FKM with fiber			
Control pipeline, connection	Copper pipe or steel pipe Φ10X1(mm); ferrule connection: R1/4"			

Note: ※ The pressure setting range corresponding to the effective area does not apply to valves with DN150–250.

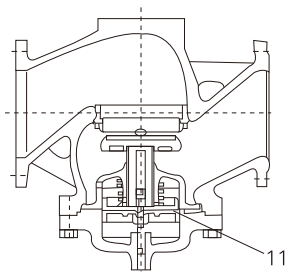
Performance

Set value error		±8%		
Allowable leakage (under stipulated testing conditions)	Hard seal	4x0.01% valve rated capacity		
	Soft seal	DN15~50	DN65~125	DN150~250
		10 bubbles/min	20 bubbles/min	40 bubbles/min

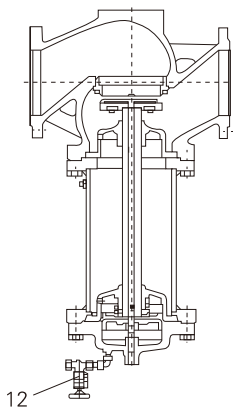
▶ 30D02Y、30D02R self-operated (before-valve) pressure control valve



DN15~125



DN150~250



DN150~250
(with body extension)

Structural figure

1	Body	2	Seat	3	Valve shaft	4	Bonnet	5	Diaphragm cover	6	Diaphragm
7	Spring	8	Adjusting nut	9	Pressure pipe	10	Bellows	11	Balanced diaphragm	12	Charging valve

Allowable working temperature

DN		15~125mm	150~250mm
Seal type	Hard seal	≤150℃	≤140℃
		Cooling tank≤200℃	Cooling tank and extension≤200℃
		Cooling tank and heat sink≤350℃※	Cooling tank and extension≤300℃※
	Soft seal	≤150℃	

Note: ※ It indicates the allowable working temperature is valid only when the medium is steam and the bodywith PN40 shall be adopted when the temperature resistance is 350℃.

Rated flow coefficient, noise measuring coefficient, allowable differential pressure

DN		15	20	25	32	40	50	65	80	100	125	150	200	250
Rated flow coefficient		4	6.3	8	16	20	32	50	80	125	160	280	320	450
Noise measuring coefficient	Z value	0.6	0.6	0.6	0.55	0.55	0.5	0.5	0.45	0.4	0.35	0.3	0.2	0.2
Allowable differential pressure	PN16	1.6								1.5		1.2	1.0	
	PN40	2.0												

Working principle

After throttling by the plug and seat, the before-valve pressure P1 of the process medium is changed into the after-valve pressure P2. Through the control pipeline, P1 is input to the upper diaphragm chamber of the actuator and acts on the top disc.
The acting force produced balances the reacting force of the spring, determining relative positions of the plug and seat and controlling the before-valve pressure. When the before-valve pressure P1 increases, the acting force of P1 that acts on the top disc will increase accordingly. At the time, the acting force on the top disc is higher than the reacting force of the spring to make the plug move away from the seat, until the acting force on the top disc balances the reacting force of the spring. At the time, the flow area between the plug and seat is increased, the flow resistance becomes lower and P1 is reduced to the set value. Likewise, when the before-valve pressure P1 decreases, the acting direction is reverse to the above. This is the working principle during the control of before-valve pressure.
When it is necessary to change the set value of before-valve pressure P1, please adjust the adjusting nut.

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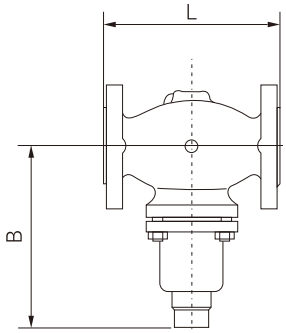
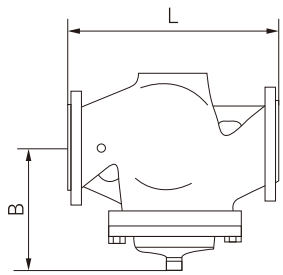
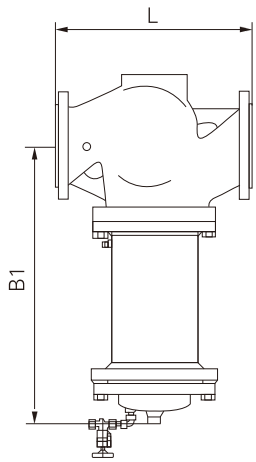
▶ 30D02Y、30D02R self-operated (before-valve) pressure control valve



DN15~125



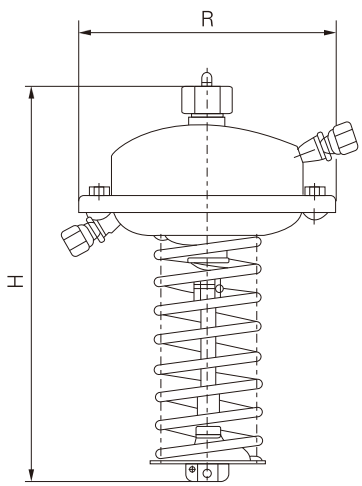
DN150~250



DN150~250
(with body extension)

I.Dimensions and weight of control valve

DN (mm)	15	20	25	32	40	50	65	80	100	125	150	200	250
L (mm)	130	150	160	180	200	230	290	310	350	400	480	600	730
B (mm)	212	212	238	238	240	240	275	275	380	380	326	354	404
B1(mm)	--	--	--	--	--	--	--	--	--	--	630	855	1205
Weight(Kg)	--	--	--	--	--	--	--	--	--	--	140	210	300



II. Dimensions and weight of actuator

Effective area(cm^2)	32	80	250	630
R (mm)	172	172	263	380
H (mm)	435	430	470	520
Weight(Kg)	7.5	7.5	13	28

The 30D03Y/30D03R self–operated differential pressure control

Summary

The 30D03Y/30D03R self–operated differential pressure control valve is composed of the control valve, actuator and a spring used forpressure setting。
It is suitable for controling differential pressure in the pipes of non–crrosive liquids,gases and steams.when the diferential pressure rises,the control valve is closed

The main features are as follows:

1.It has the pressure balancing function with high sensitivity.
2.Low noise, reliable performance, free of maintenance
3.The standard modular design is adopted.
4.Various combined controls can be carried out through the assemblies.

Technical parameters andperformances

Body

DN		DN15、20、25、32、40、50、65、80、100、125、200、250mm
PN		PN1.6、4.0MPa
Flange standard		ANSI、JIS、DIN、GB、JB(special standards can be offered according to user requirements)
Body material		Cast iron, cast steel, cast stainless steel
Plug material	Hard seal	Stainless steel
	Soft seal	Stainless steel embedded with rubber ring
Pressure balancing		Stainless steel bellows (DN15~125), balanced diaphragm (DN150~250)

Actuator

Effective area	80	250	630
Pressure setting range	0.1~0.6 0.05~0.3	0.015~0.15 0.01~0.07	0.005~0.035
Minimum differential pressure that ensures normal work of thepressure valve	⩾0.04	⩾0.01	⩾0.005
Allowable maximum differential pressure between the upper and lower diaphragm chambers	1.25	0.4	0.15
Material	Diaphragm cover: galvanized steel sheet; diaphragm: EPDM or FKM with fiber		
Control pipeline, connection	Copper pipe or steel pipe Φ10X1(mm); ferrule connection: R1/4"		

Note: ※ The pressure setting range corresponding to the effective area does not apply to valves with Dn150~250.

Performance

Set value error	±8%			
Allowable leakage (under stipulated testing conditions)	Hard seal	4x0.01% valve rated capacity		
	Soft seal	DN15~50	DN65~125	DN150~250
		10 bubbles/min	20 bubbles/min	40 bubbles/min

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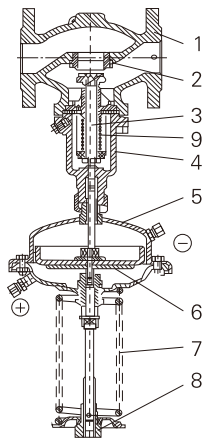
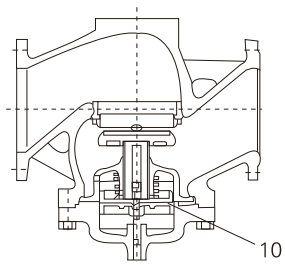
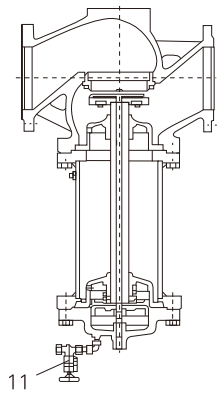
▶ The 30D03Y/30D03R self–operated differential pressure control



DN15~125



DN150~250



DN150~250
(With a valve body and a long body)

Structural figure

1	Body	2	Seat	3	Valve shaft	4	Bonnet	5	Diaphragm cover	6	Diaphragm
7	Spring	8	Adjusting nut	9	Bellows	10	Balanced diaphragm	11	Charging valve		

Allowable working temperature

DN		15~125mm	150~250mm
Seal type	Hard seal	≤150℃	≤140℃
		Cooling tank≤200℃	Cooling tank and extension≤200℃
		Cooling tank and heat sink≤350℃※	Cooling tank and extension≤300℃※
	Soft seal	≤150℃	

Note: ※ It indicates the allowable working temperature is valid only when the medium is steam and the bodywith PN40 shall be adopted when the temperature resistance is 350℃.

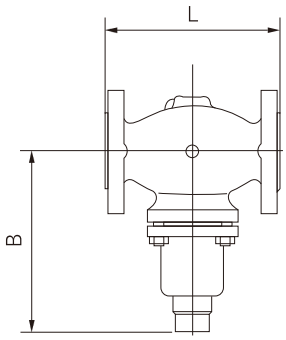
Rated flow coefficient, noise measuring coefficient, allowable differential pressure

DN		15	20	25	32	40	50	65	80	100	125	150	200	250
Rated flow coefficient		4	6.3	8	16	20	32	50	80	125	160	280	320	450
Noise measuring coefficient Z value		0.6	0.6	0.6	0.55	0.55	0.5	0.5	0.45	0.4	0.35	0.3	0.2	0.2
Allowable differential pressure	PN16	1.6							1.5	1.2		1.0		
	PN40	2.0												

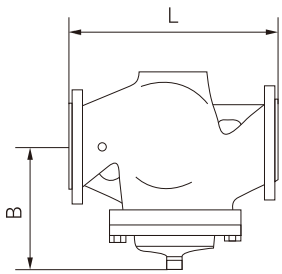
Working principle

After throttling by the valve, the process medium enters the controlled equipment. The differential pressure of the controlled equipment is introduced into the upper and lower diaphragm chambers and produces thrust in the upper and lower diaphragm chambers that balances the reacting force of the spring, so as to determine relative positions of the plug and seat, which determine the differential pressure value △P. When the differential pressure changes, the balance of forces is destroyed and the plug is driven to move, and the movement of the plug changes flow coefficient of the valve, i.e., the differential pressure is controlled to be the set value. This is the working principle of differential pressure control.
When it is necessary to change the set value of differential pressure, please adjust the adjusting nut.

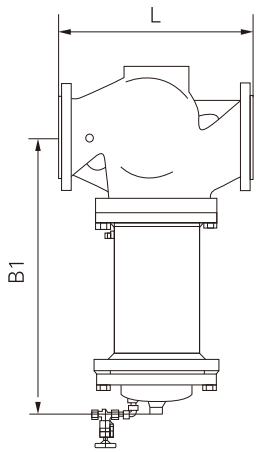
The 30D03Y/30D03R self–operated differential pressure control



DN15~125



DN150~250



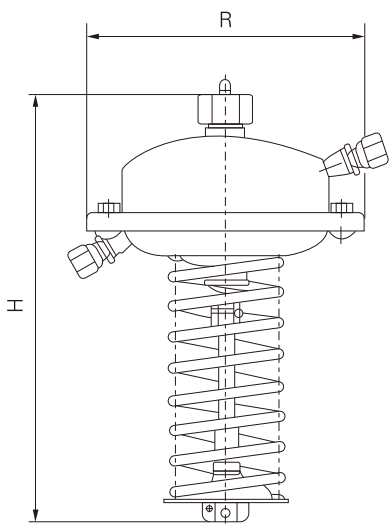
DN150~250
(with body extension)

I. Dimensions and weight of control valve

DN (mm)	15	20	25	32	40	50	65	80	100	125	150	200	250
L (mm)	130	150	160	180	200	230	290	310	350	400	480	600	730
B (mm)	212	212	238	238	240	240	275	275	380	380	326	354	404
B1(mm)	--	--	--	--	--	--	--	--	--	--	630	855	1205
Weight(Kg)	--	--	--	--	--	--	--	--	--	--	140	210	300

II. Dimensions and weight of actuator

Effective area(cm^2)	32	80	250	630
R (mm)	172	172	263	380
H (mm)	435	430	470	520
Weight(Kg)	7.5	7.5	13	28



REOWO
Fluid Control Technology

▶ The 30D04Y、30D04R self-operated differential pressure control valve

▲ Summary

The 30D04Y/30D04R self-operated differential pressure control valve is composed of the control valve, actuator and a spring used for pressure setting。
It is suitable for controling differential pressure in the pipes of non-crrosive liquids,gases and steams.when the diferential pressure rises,the control valve is opened

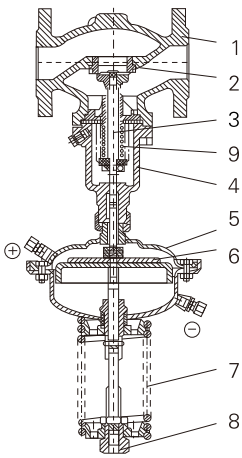
The main features are as follows:

1.It has the pressure balancing functionwith high sensitivity.
2.Low noise, reliable performance, free of maintenance
3.The standard modular design is adopted.
4.Various combined controls can be carried out through the assemblies.

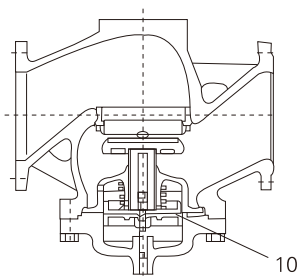
Technical parameters andperformances				
Body				
DN		DN15、20、25、32、40、50、65、80、100、125、200、250mm		
PN		PN1.6、4.0MPa		
Flange standard		ANSI、JIS、DIN、GB、JB(special standards can be offered according to user requirements)		
Body material		Cast iron, cast steel, cast stainless steel		
Plug material	Hard seal	Stainless steel		
	Soft seal	Stainless steel embedded with rubber ring		
Pressure balancing		Stainless steel bellows (DN15~125), balanced diaphragm (DN150~250)		
Actuator				
Effective area		80	250	630
Pressure setting range		0.1~0.5 0.05~0.3	0.015~0.12 0.01~0.07	0.005~0.035
Minimum differential pressure that ensures normal work of thepressure valve		⩾0.04	⩾0.01	⩾0.005
Allowable maximum differential pressure between the upper and lower diaphragm chambers		1.25	0.4	0.15
Material		Diaphragm cover: galvanized steel sheet; diaphragm: EPDM or FKM with fiber		
Control pipeline, connection		Copper pipe or steel pipe Φ10X1(mm); ferrule connection: R1/4"		

Performance				
Set value error		± 8%		
Allowable leakage (under stipulated testing conditions)	Hard seal	4x0.01% valve rated capacity		
	Soft seal	DN15~50	DN65~125	DN150~250
		10 bubbles/min	20 bubbles/min	40 bubbles/min

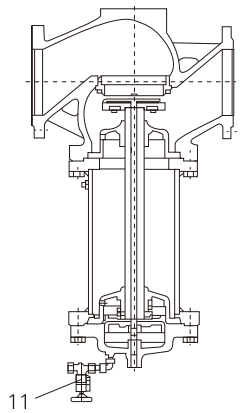
The 30D04Y、30D04R self–operated differential pressure control valve



DN15~125



DN150~250



DN150~250
(with body extension)

Structural figure

1	Body	2	Seat	3	Valve shaft	4	Bonnet	5	Diaphragm cover	6	Diaphragm
7	Spring	8	Adjusting nut	9	Bellows	10	Balanced diaphragm	11	Charging valve		

Allowable working temperature

DN		15~125mm	150~250mm
Seal type	Hard seal	⩽150℃	⩽140℃
		Cooling tank⩽200℃	Cooling tank and extension⩽200℃
		Cooling tank and heat sink⩽350℃※	Cooling tank and extension⩽300℃※
	Soft seal	⩽150℃	

Note: ※ It indicates the allowable working temperature is valid only when the medium is steam and the bodywith PN40 shall be adopted when the temperature resistance is 350℃.

Rated flow coefficient, noise measuring coefficient, allowable differential pressure

DN		15	20	25	32	40	50	65	80	100	125	150	200	250
Rated flow coefficient		4	6.3	8	16	20	32	50	80	125	160	280	320	450
Noise measuring coefficient	Z value	0.6	0.6	0.6	0.55	0.55	0.5	0.5	0.45	0.4	0.35	0.3	0.2	0.2
Allowable differential pressure	PN16	1.6								1.5		1.2	1.0	
	PN40	2.0												

Working principle

After throttling by the plug and seat, the before–valve pressure P1 of the process medium is changed into the after–valve pressure P2. Through the control pipeline, P1 is input to the upper diaphragm chamber of the actuator and acts on the top disc.
The acting force produced balances the reacting force of the spring, determining relative positions of the plug and seat and controlling the before–valve pressure. When the before–valve pressure P1 increases, the acting force of P1 that acts on the top disc will increase accordingly. At the time, the acting force on the top disc is higher than the reacting force of the spring to make the plug move away from the seat, until the acting force on the top disc balances the reacting force of the spring. At the time, the flow area between the plug and seat is increased, the flow resistance becomes lower and P1 is reduced to the set value. Likewise, when the before–valve pressure P1 decreases, the acting direction is reverse to the above. This is the working principle during the control of before–valve pressure.
When it is necessary to change the set value of before–valve pressure P1, please adjust the adjusting nut.

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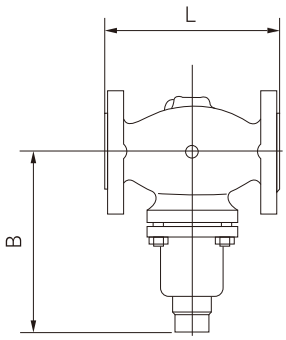
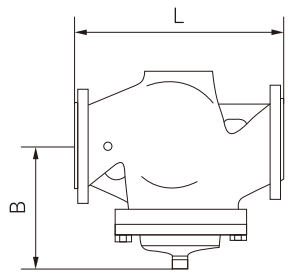
Fluid Control Technology

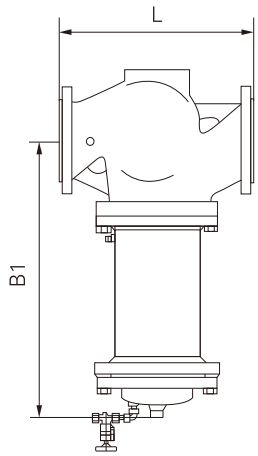
▶ The 30D04Y、30D04R self-operated differential pressure control valve



DN15~125



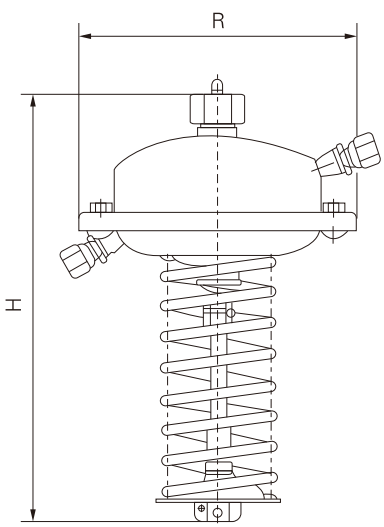
DN150~250



DN150~250
(with body extension)

I. Dimensions and weight of control valve

DN (mm)	15	20	25	32	40	50	65	80	100	125	150	200	250
L (mm)	130	150	160	180	200	230	290	310	350	400	480	600	730
B (mm)	212	212	238	238	240	240	275	275	380	380	326	354	404
B1(mm)	--	--	--	--	--	--	--	--	--	--	630	855	1205
Weight(Kg)	--	--	--	--	--	--	--	--	--	--	140	210	300



II. Dimensions and weight of actuator

Effective area(cm^2)	32	80	250	630
R (mm)	172	172	263	380
H (mm)	435	430	470	520
Weight(Kg)	7.5	7.5	13	28

▶ The 30D12Y、30D12R pilot-operated (after valve) pressure control valve

▲ Summary

The 30D12Y/30D12R pilot-operated (after valve) pressure control valve is composed of the control valve, pilot and actuator.
It is suitable for controling differential pressure in the pipes of non-crrosive liquids,gases and steams.when the diferential pressure rises,the control valve is closed

The main features are as follows:

1.It has the pressure balancing function with high sensitivity.
2.Low noise, reliable performance, free of maintenance
3.The standard modular design is adopted.
4.High control precision

Technical parameters andperformances

Body		
DN		DN15、20、25、32、40、50、65、80、100、125、200、250mm
PN		PN1.6、4.0MPa
Flange standard		ANSI、JIS、DIN、GB、JB(special standards can be offered according to user requirements)
Body material		Cast iron, cast steel, cast stainless steel
Plug material	Hard seal	Stainless steel
	Soft seal	Stainless steel embedded with rubber ring
Pressure balancing		Stainless steel bellows (DN15~125), balanced diaphragm (DN150~250)

Actuator	
Effective area	250
Pressure setting range	0.01~0.12 0.08~0.25 0.2~0.5 0.45~1 0.6~2.0
Minimum differential pressure that ensures normal work of thepressure valve	DN15~125≥0.08 DN150~250≥0.1
Allowable maximum differential pressure between the upper and lower diaphragm chambers	0.4
Material	Diaphragm cover: galvanized steel sheet; diaphragm: EPDM or FKM with fiber
Control pipeline, connection	Copper pipe or steel pipe Φ10X1(mm); ferrule connection: R1/4"

Note: ※ The pressure setting range corresponding to the effective area does not apply to valves with DN150-250.

Performance					
Set value error		±4%			
Allowable leakage (under stipulated testing conditions)	Hard seal	4x0.01% valve rated capacity			
	Soft seal	DN15~50	DN65~125	DN150~250	
		10 bubbles/min	20 bubbles/min	40 bubbles/min	

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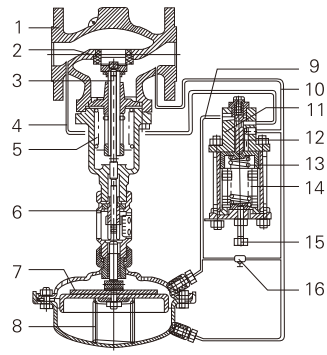
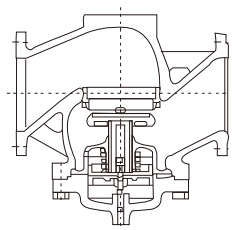
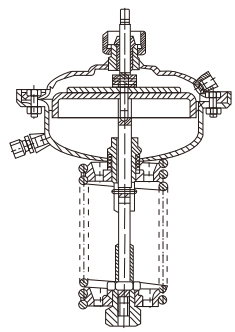
Fluid Control Technology

▶ The 30D12Y、30D12R pilot-operated (after valve) pressure control valve



DN15~125





DN150~250

Structural figure

1	Body	5	Seat	3	Stem	4	Before-valve pressure P1 pipe
5	Balanced bellows	6	Travel indicator	7	Diaphragm	8	Spring
9	Operating pressure Ps pipe	10	After-valve pressure P2 pipe	11	Pilot	12	Pilot plug
13	Spring	14	Bellows	15	Adjusting screw	16	Adjustable needle valve

Allowable working temperature

DN		15~125mm	150~250mm
Seal type	Hard seal	≤150℃	≤140℃
		Cooling tank≤200℃	Cooling tank and extension≤200℃
		Cooling tank and heat sink≤350℃※	Cooling tank and extension≤300℃※
	Soft seal	≤150℃	

Note: ※ It indicates the allowable working temperature is valid only when the medium is steam

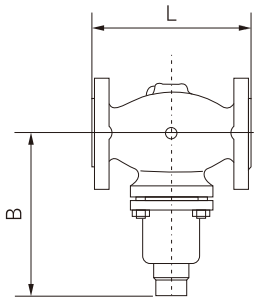
Rated flow coefficient, noise measuring coefficient, allowable differential pressure

DN		15	20	25	32	40	50	65	80	100	125	150	200	250
Rated flow coefficient		4	6.3	8	16	20	32	50	80	125	160	280	320	450
Noise measuring coefficient	Z value	0.6	0.6	0.6	0.55	0.55	0.5	0.5	0.45	0.4	0.35	0.3	0.2	0.2
Allowable differential pressure	PN16	1.6												
	PN40	2.0							1.5			1.2	1.0	

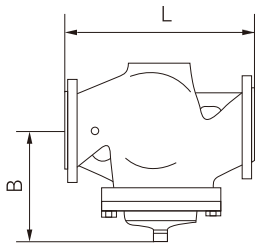
Working principle

The service medium passes through the pressure control valve along the direction indicated by the arrow, and transfers the before-valve pressure P1 to the pilot through the pressure pipe (4). Through adjustment by the adjusting screw (15) at the setting point, the corresponding operating Ps is generated in the pilot. The operating force Ps acts on the upper diaphragm chamber of the actuator, the set pressure (after-valve pressure) P2 acts on the lower diaphragm chamber and is connected with the feedback signal port of the pilot. When the set pressure P2 rises, the compression of the spring (13) in the pilot increases to make the pilot plug (12) move towards the closing direction (downwards) and Ps decreases. Thus, P2 in the lower diaphragm chamber of the actuator increases and Ps in the upper diaphragm chamber decreases to make the plug of the control valve move towards the closing direction, so as to reduce P2 until it returns to the set value. When P2 decreases, the acting direction is reverse to the above.
When setting the after-valve (or before-valve) pressure at the site, please set the pressure through the adjusting screw (15) and needle valve (16).

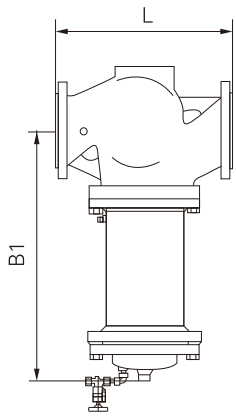
▶ The 30D12Y、30D12R pilot-operated (after valve) pressure control valve



DN15~125



DN150~250

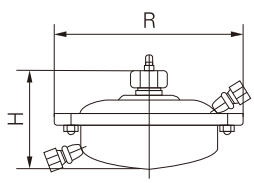


DN150~250
(with body extension)

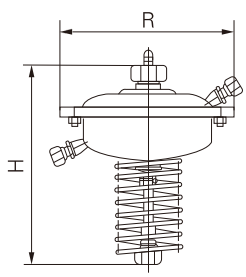
I. Dimensions and weight of control valve

DN (mm)	15	20	25	32	40	50	65	80	100	125	150	200	250
L (mm)	130	150	160	180	200	230	290	310	350	400	480	600	730
B (mm)	212	212	238	238	240	240	275	275	380	380	326	354	404
Weight(Kg)	6.2	6.7	9.7	13	14	17	29	33	60	70	80	140	220
B1(mm)	--	--	--	--	--	--	--	--	--	--	630	855	1205
Weight(Kg)	--	--	--	--	--	--	--	--	--	--	140	210	300

II. Dimensions and weight of actuator



DN15~125



DN150~250

Effective area(cm^2)		250		
R (mm)		263		
H (mm)	DN15~125	150	DN150~250	440
Weight(Kg)		18		22

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Fluid Control Technology

▶ The 30D13Y、30D13R pilot-operated (befor valve) pressure control valve

▲ Summary

The 30D13Y/30D13R pilot-operated (before valve) pressure control valve is composed of the control valve， pilot and actuator. It is suitable for controling differential pressure in the pipes of non-crrosive liquids,gases and steams.when the diferential pressure rises,the control valve is opened

The main features are as follows:

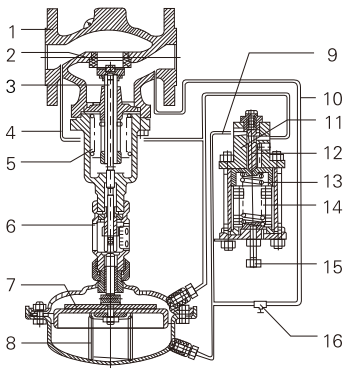
1.It has the pressure balancing function with high sensitivity.
2.Low noise, reliable performance, free of maintenance
3.The standard modular design is adopted.
4.High control precision

Technical parameters andperformances		
Body		
DN		DN15、20、25、32、40、50、65、80、100、125、200、250mm
PN		PN1.6、4.0MPa
Flange standard		ANSI、JIS、DIN、GB、JB(special standards can be offered according to user requirements)
Body material		Cast iron, cast steel, cast stainless steel
Plug material	Hard seal	Stainless steel
	Soft seal	Stainless steel embedded with rubber ring
Pressure balancing		Stainless steel bellows (DN15~125), balanced diaphragm (DN150~250)
Actuator		
Effective area		250
Pressure setting range		0.01~0.12 0.08~0.25 0.2~0.5 0.45~1 0.6~2.0
Minimum differential pressure that ensures normal work of thepressure valve		DN15~125≥0.08 DN150~250≥0.1
Allowable maximum differential pressure between the upper and lower diaphragm chambers		0.4
Material		Diaphragm cover: galvanized steel sheet; diaphragm: EPDM or FKM with fiber
Control pipeline, connection		Copper pipe or steel pipe Φ10X1(mm); ferrule connection: R1/4"

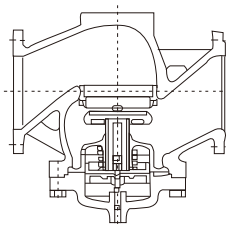
Note: ※ The pressure setting range corresponding to the effective area does not apply to valves with DN150-250.

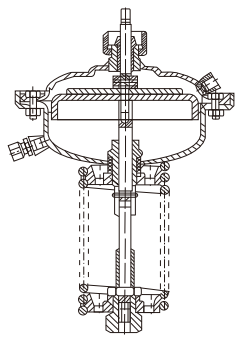
Performance					
Set value error			±4%		
Allowable leakage (under stipulated testing conditions)	Hard seal		4x0.01% valve rated capacity		
	Soft seal	DN15~50	DN65~125	DN150~250	
		10 bubbles/min	20 bubbles/min	40 bubbles/min	

▶ The 30D13Y、30D13R pilot–operated (befor valve) pressure control valve



DN15~125





DN150~250

Structural figure

1	Body	5	Seat	3	Stem	4	Before–valve pressure P1 pipe
5	Balanced bellows	6	Travel indicator	7	Diaphragm	8	Spring
9	Operating pressure Ps pipe	10	After–valve pressure P2 pipe	11	Pilot	12	Pilot plug
13	Spring	14	Bellows	15	Adjusting screw	16	Adjustable needle valve

Allowable working temperature

DN		15~125mm	150~250mm
Seal type	Hard seal	≤150℃	≤140℃
		Cooling tank≤200℃	Cooling tank and extension≤200℃
		Cooling tank and heat sink≤350℃※	Cooling tank and extension≤300℃※
	Soft seal	≤150℃	

Note: ※ It indicates the allowable working temperature is valid only when the medium is steam

Rated flow coefficient, noise measuring coefficient, allowable differential pressure

DN		15	20	25	32	40	50	65	80	100	125	150	200	250
Rated flow coefficient		4	6.3	8	16	20	32	50	80	125	160	280	320	450
Noise measuring coefficient	Z value	0.6	0.6	0.6	0.55	0.55	0.5	0.5	0.45	0.4	0.35	0.3	0.2	0.2
Allowable differential pressure	PN16	1.6												
	PN40	2.0								1.5		1.2	1.0	

Working principle

The service medium passes through the pressure control valve along the direction indicated by the arrow, and transfers the before–valve pressure P1 to the pilot through the pressure pipe (4). Through adjustment by the adjusting screw (15) at the setting point, the corresponding operating Ps is generated in the pilot. The operating force Ps acts on the upper diaphragm chamber of the actuator, the set pressure (after–valve pressure) P2 acts on the lower diaphragm chamber and is connected with the feedback signal port of the pilot. When the set pressure P2 rises, the compression of the spring (13) in the pilot increases to make the pilot plug (12) move towards the closing direction (downwards) and Ps decreases. Thus, P2 in the lower diaphragm chamber of the actuator increases and Ps in the upper diaphragm chamber decreases to make the plug of the control valve move towards the closing direction, so as to reduce P2 until it returns to the set value. When P2 decreases, the acting direction is reverse to the above.
When setting the after–valve (or before–valve) pressure at the site, please set the pressure through the adjusting screw (15) and needle valve (16).

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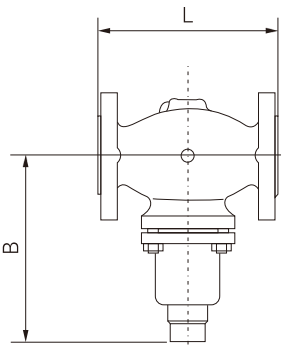
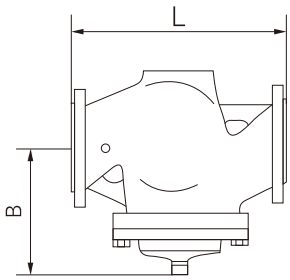
Fluid Control Technology

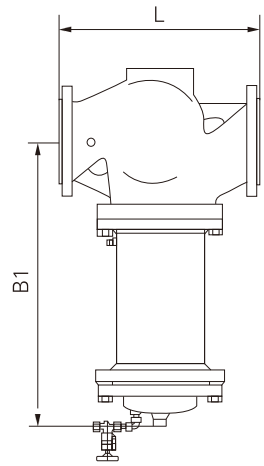
▶ The 30D13Y、30D13R pilot-operated (befor valve) pressure control valve



DN15~125



DN150~250

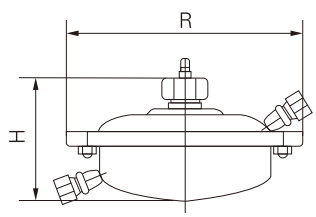


DN150~250
(with body extension)

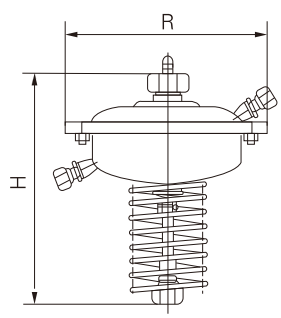
I. Dimensions and weight of control valve

DN (mm)	15	20	25	32	40	50	65	80	100	125	150	200	250
L (mm)	130	150	160	180	200	230	290	310	350	400	480	600	730
B (mm)	212	212	238	238	240	240	275	275	380	380	326	354	404
Weight(Kg)	6.2	6.7	9.7	13	14	17	29	33	60	70	80	140	220
B1(mm)	--	--	--	--	--	--	--	--	--	--	630	855	1205
Weight(Kg)	--	--	--	--	--	--	--	--	--	--	140	210	300

II. Dimensions and weight of actuator



DN15~125



DN150~250

Effective area(cm^2)		250		
R (mm)		263		
H (mm)	DN15~125	150	DN150~250	440
Weight(Kg)		18		22

▶ The 30T01Y、30T01R self-operated temperature (heating type) control valve

▲ Summary

The 30T01Y/30T01R self-operated temperature（heating type） control valve is composed of the control valve anda temperature controller provided with fixed point control.
It is suitable for controling differential pressure in the pipes of non-crrosive liquids,gases and steams.when the temperature of the controlled mediums rises,the control valve is closed

The main features are as follows:

1.It has the pressure balancingfuncti on with high sensitivity.
2.Low noise, reliable performance, free of maintenance
3.The standard modular design is adopted.
4.It adopts the imported fixed point controller, which has the over temperature protection function withreliablequality.
5.Various combined controls can be carried out through the assemblies.

Technical parameters andperformances

Body

DN		DN15、20、25、32、40、50、65、80、100、125、150mm
PN		PN1.6、4.0MPa
Flange standard		ANSI、JIS、DIN、GB、JB(special standards can be offered according to user requirements)
Body material		Cast iron, cast steel, cast stainless steel
Plug material	Hard seal	Stainless steel
	Soft seal	Stainless steel embedded with rubber ring
Pressure balancing		Stainless steel bellows (DN15~125), balanced diaphragm (Dn150)

Actuator

Actuator mode	T06		T17
Temperature setting range(℃)	-20~50 20~90 40~110 60~120		
Special temperature setting(℃)	110~180 180~250		
Temperature protection	Exceeding the set value 100℃		
Time constant(S)	120		20
Temperature sensor material	Nickel-coated copper		
Capillary tube length	5, 10, 15m		

Performance

Set value error		± 1.5℃		
Allowable leakage (under stipulated testingconditions)	Hard seal	4x0.01% valve rated capacity		
	Soft seal	DN15~50	DN65~125	DN150~250
		10 bubbles/min	20 bubbles/min	40 bubbles/min

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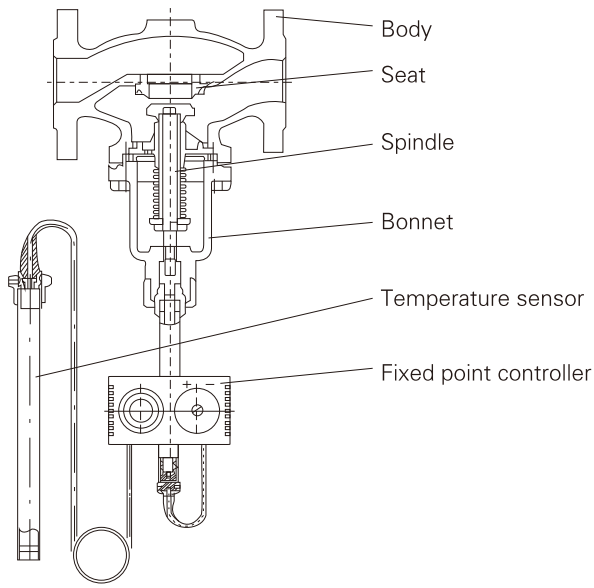
Fluid Control Technology

▶ The 30T01Y、30T01R self–operated temperature (heating type)control valve



Allowable working temperature

DN		15~125mm
Seal type	Hard seal	≤150℃ Cooling tank≤200℃ Cooling tank and heat sink≤350℃※
	Soft seal	≤150℃

Rated flow coefficient, noise measuring coefficient, allowable differential pressure

DN		15	20	25	32	40	40	65	80	100	125	150
Rated flow coefficient		4	6.3	8	16	20	32	50	80	125	160	280
Noise measuring coefficient Z value		0.6	0.6	0.6	0.55	0.55	0.5	0.5	0.45	0.4	0.35	0.3
Allowable differential pressure	PN16	1.6							1.5		1.2	
	PN40	2.0										

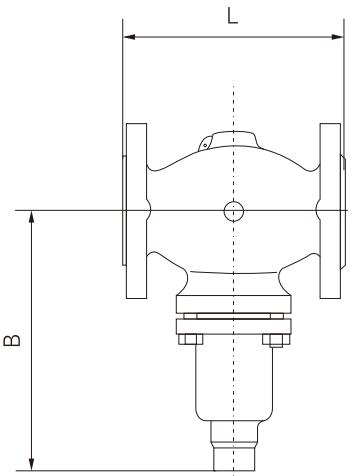
Working principle

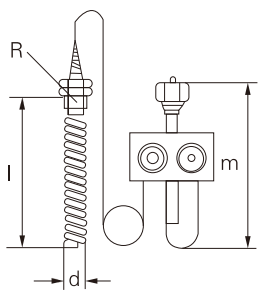
When the temperature of the controlled object is lower than the set temperature, the liquid in the temperature sensor will contract, the force acted on the push rod of the actuator decreases, and the plug makes the valve open under the action of the spring force. The flow of steam, hot oil and other heating media is enhanced, so that the temperature of the controlled object rises. The valve will be closed when the temperature of the controlled object rises to the set value. After the valve is closed, the temperature of the controlled object falls and the valve is opened again. The heating media enter the heat exchanger and the temperature rises again, so as to make the temperature of the controlled object be a constant. The opening of the valve is related to the difference between the actual temperature of the controlled object and the set temperature.

The 30T01Y、30T01R self–operated temperature (heating type) control valve

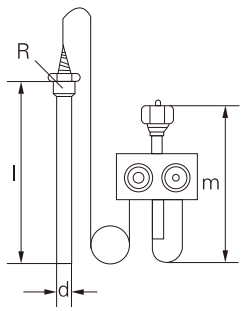
I. Dimensions and weight of control valve

DN	15	20	25	32	40	50	65	80	100	125	150
L(mm)	130	150	16	180	200	230	290	310	350	400	480
B(mm)	212	212	238	238	240	240	275	275	380	380	295
Weight(kg)	6.2	6.7	9.7	13	14	17	29	33	60	70	80





T06



T17

II. Dimensions and weight of actuator

Model	l(mm)	d(mm)	R(mm)	m	Weight(kg)
T06	380	24	1”	280	3.0
T17	500	30	1”	280	3.5

Difference between actuator T06 and T17:

The T06 model temperature sensor is isolated from the controlled medium through the temperature sensor sleeve, i.e., it does not contact the medium and it is easy to maintain. But the response is slow. It is suitable for controlling liquid media.

The T17 model temperature sensor directly contacts the controlled medium, and the temperature sensing area is large. Therefore the response is fast. But it is not easy to maintain. It is suitable for controlling gas temperature and liquid temperature.

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Fluid Control Technology

▶ The 30T02Y、30T02R self–operated temperature (cooling type) control valve

▲ Summary

The 30T02Y/30T02R self–operated temperature（cooling type） control valve is composed of the control valve anda temperature controller provided with fixed point control.
It is suitable for controling differential pressure in the pipes of non–crrosive liquids,gases and steams.when the temperature of the controlled mediums rises,the control valve is opened

The main features are asfollows:

1.It has the pressure balancing function with high sensitivity.
2.Low noise, reliable performance, free of maintenance
3.The standard modular design is adopted.
4.It adopts the imported fixed point controller, which has the over temperature protection function withreliablequality.
5.Various combined controls can be carried out through the assemblies.

Technical parameters andperformances

Body

DN		DN15、20、25、32、40、50、65、80、100、125、200、250mm
PN		PN1.6、4.0MPa
Flange standard		ANSI、JIS、DIN、GB、JB(special standards can be offered according to user requirements)
Body material		Cast iron, cast steel, cast stainless steel
Plug material	Hard seal	Stainless steel
	Soft seal	Stainless steel embedded with rubber ring
Pressure balancing		Stainless steel bellows (DN15~125), balanced diaphragm (Dn150)

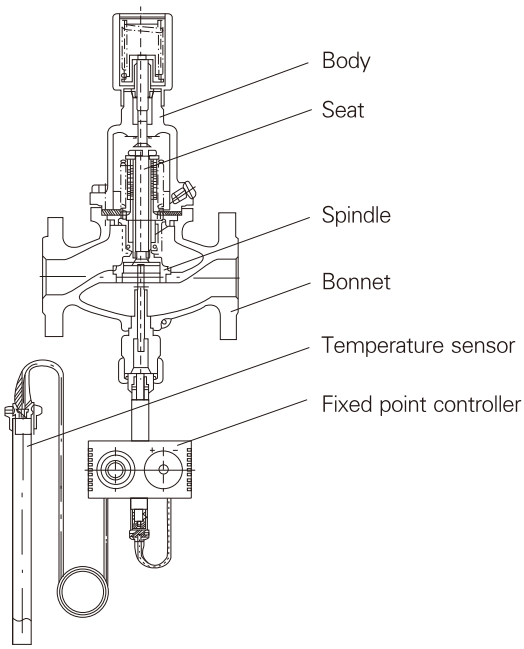
Actuator

Actuator mode	T06		T17
Temperature setting range(℃)	–20~50 20~90 40~110 60~120		
Special temperature setting(℃)	110~180 180~250		
Temperature protection	Exceeding the set value 100℃		
Time constant(S)	120		20
Temperature sensor material	Nickel–coated copper		
Capillary tube length	5, 10, 15m		

Performance

Set value error	± 1.5%			
Allowable leakage (under stipulated testingconditions)	Hard seal	4x0.01% valve rated capacity		
	Soft seal	DN15~50	DN65~125	DN150~250
		10 bubbles/min	20 bubbles/min	40 bubbles/min

▶ The 30T02Y、30T02R self-operated temperature (cooling type) control valve



Allowable working temperature

DN		15~150mm
Seal type	Hard seal	≤200℃
	Soft seal	≤150℃

Rated flow coefficient, noise measuring coefficient, allowable differential pressure

DN		15	20	25	32	40	40	65	80	100	125	150
Rated flow coefficient		4	6.3	8	16	20	32	50	80	125	160	280
Noise measuring coefficient Z value		0.6	0.6	0.6	0.55	0.55	0.5	0.5	0.45	0.4	0.35	0.3
Allowable differential pressure	PN16	1.6							1.5		1.2	
	PN40	2.0										

Working principle

when the temperature of the controlled object is higher than the set temperature，the liquid in the temperature controller will swell，the force on the push of the actuator increases ，and the pulg makes the valve open under the action of the temperature controller，the flow of water，or other cooling media is enhanced，so that the temperature of the controlled object decreases，the valve will be closedwhen the temperature of the controlled object decrease to the set value。after the valve is closed，the temperature of the controlled objectedrises and the valve is opened again。the cooling media enter the heat exchanger and the temperature decreased again，so as to make the temperatureof the controlled object be a constant。 the opening of the valve is related to the difference between the actual temperature of thecontrolled objectand the set temperature。

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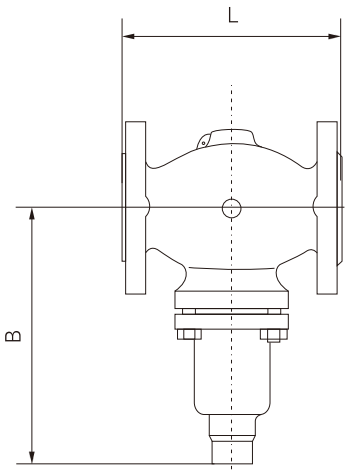
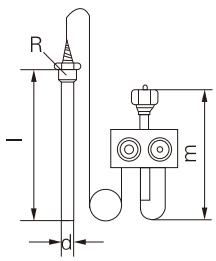
Fluid Control Technology

▶ The 30T02Y、30T02R self–operated temperature (cooling type) control valve

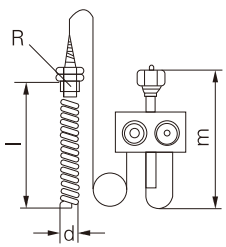


I. Dimensions and weight of control valve

DN	15	20	25	32	40	50	65	80	100	125	150
L(mm)	130	150	16	180	200	230	290	310	350	400	480
B(mm)	212	212	238	238	240	240	275	275	380	380	295
Weight(kg)	6.2	6.7	9.7	13	14	17	29	33	60	70	80



T06



T17

II. Dimensions and weight of actuator

Model	l(mm)	D(mm)	R(mm)	M	Weight(kg)
T06	380	24	1"	280	3.0
T17	500	30	1"	280	3.5

Difference between actuator T06 and T17:

The T06 model temperature sensor is isolated from the controlled medium through the temperature sensor sleeve, i.e., it does not contact the medium and it is easy to maintain. But the response is slow. It is suitable for controlling liquid media.
The T17 model temperature sensor directly contacts the controlled medium, and the temperature sensing area is large. Therefore the response is fast. But it is not easy to maintain. It is suitable for controlling gas temperature and liquid temperature.

▶ The 30L01Y、30L01R self-operated flow control valve

▲ Summary

The 30L01Y、30L01R self-operated flow control valve is composed of the control valve provided with flow setting and actuator.

The main features are as follows:

1.It has the pressure balancing function with high sensitivity.
2.Low noise, reliable performance,free of maintenance
3.The standard modular design is a dopted.
4.The flow is adjusted according to the standard figure by the throttle valve, which is convenient and fast.
5.Various combined controls can be carried out through the assemblies.

Technical parameters andperformances

Body

DN		DN15、20、25、32、40、50、65、80、100、125、200、250mm
PN		PN1.6、4.0MPa
Flange standard		ANSI、JIS、DIN、GB、JB(special standards can be offered according to user requirements)
Body material		Cast iron, cast steel, cast stainless steel
Plug material	Hard seal	Stainless steel
	Soft seal	Stainless steel embedded with rubber ring
Pressure balancing		Stainless steel bellows (DN15~125), balanced diaphragm (DN150~250)

Actuator

Effective area	250		630
Differential pressure of throttle	0.02;0.05		
Allowable maximum differential pressure between the upper and lower diaphragm chambers	0.4		0.15
Material	Diaphragm cover: galvanized steel sheet; diaphragm: EPDM or FKM with fiber		
Control pipeline, connection	Copper pipe or steel pipe Φ10X1(mm); ferrule connection: R1/4"		

Performance

Set value error		±8%		
Allowable leakage (understipulated testingconditions)	Hard seal	4x0.01% valve rated capacity		
	Soft seal	DN15~50	DN65~125	DN150~250
		10 bubbles/min	20 bubbles/min	40 bubbles/min

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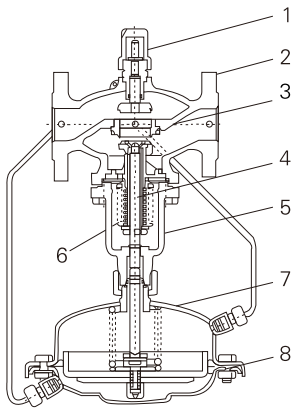
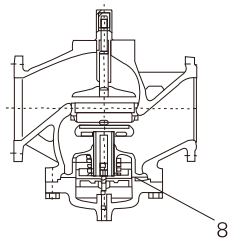
Fluid Control Technology

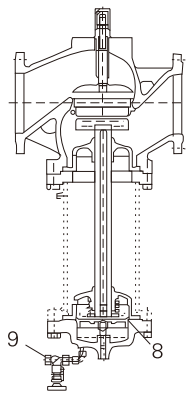
▶ The 30L01Y、30L01R self-operated flow control valve



DN15~125



DN150~250



DN150~250
(with body extension)

Structural figure

1	Flow restrictor	2	Body	3	Seat	4	Valve shaft	5	Bonnet
6	Bellows	7	Diaphragm Cover	8	Diaphragm	9	Charging valve		

Allowable working temperature

DN		15~125mm	150~250mm
Seal type	Hard seal	⩽150℃	⩽140℃
		Two cooling tanks⩽200℃	Two cooling tanks and extension⩽200℃
	Soft seal	⩽150℃	

Note: The differential pressure of throttle in the flow valve includes two types such as 0.02MPa and 0.05MPa, which shall be selected according to the actual situations. The differential pressure before and after the valve shall be higher than that of the throttle.

Rated flow coefficient, noise measuring coefficient, allowable differential pressure

DN	15	20	25	32	40	50	65	80	100	125	150	200	250
Rated flow coefficientKvS	4	6.3	8	16	20	32	50	80	125	160	280	320	400
Throttle pressure difference Flow range(m^3/h) 0.02MPa	0.1–2	0.2–3	0.2–4	0.4–7	0.6–11	0.8–16	3–28	4–40	6–63	8–80	12–125	15–150	18–180
Throttle pressure difference Flow range(m^3/h) 0.05MPa	0.2–3	0.3–4.5	0.3–6	0.5–10	0.8–16	1.1–24	4–40	6–58	9–90	12–120	18–180	22–220	25–250
Noise measuring coefficient Z value	0.6	0.6	0.6	0.55	0.55	0.5	0.5	0.45	0.4	0.35	0.3	0.2	0.2
Allowable differential pressure(Mpa) PN16	1.6								1.5		1.2	1.0	
Allowable differential pressure(Mpa) PN40	2.0												

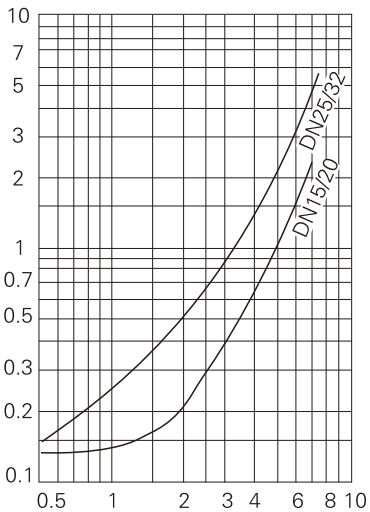
Note: The differential pressure of throttle in the flow valve includes two types such as 0.02MPa and 0.05MPa, which shallbe selected according to the actual situations. The differential pressure before and after the valve shall be higher than thatof the throttle.

Working principle

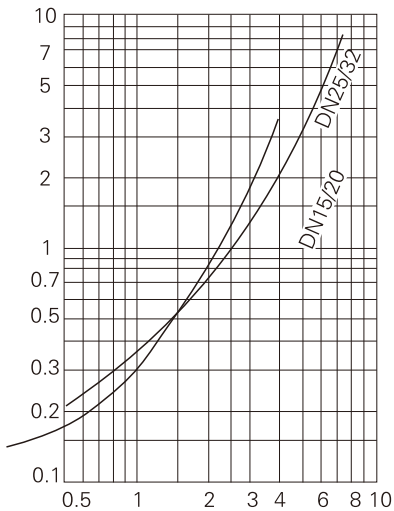
After the controlled medium enters the valve, the before-valve pressure P1 is input into the lower diaphragm chamber through the control pipeline, and the pressure Ps after throttling by the throttle valve is input into the upper diaphragmchamber. The difference between P1 and Ps △Ps=P1-Ps is called effective pressure. The difference between the thrust producedon the diaphragm by P1 andthe thrust produced on the diaphragm by Ps determines relative positions of the plug andseat and determines the flow that passes through the valve. When the flow that passes through the valve increases, i.e. △Ps increases, P1 and Ps respectively acts on the lower diaphragm chamber and upper diaphragm chamber to make the plug move towards the seat, so that the flow area between the plug and seat is changed and Ps is increased. The thrustacted on the diaphragm by the increased Ps, the reacting force of the spring and the thrust acted on the diaphragm by P1reaches balance at the new position to realize the purpose of controlling flow, and vice versa. The flow of the controlled medium is determined through adjusting relative positions of the throttle valve and seat.

▶ The 30L01Y、30L01R self–operated flow control valve

Effective pressure 0.02MPa

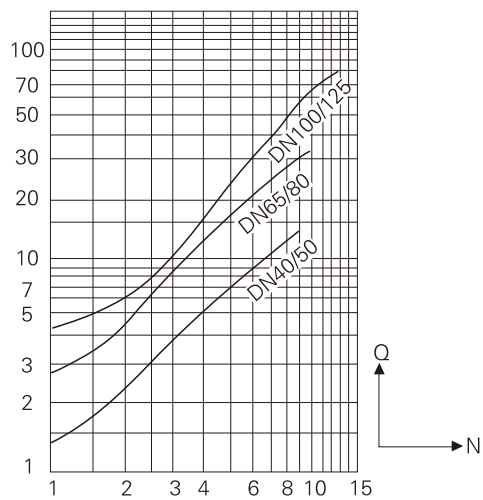


Effective pressure 0.05MPa

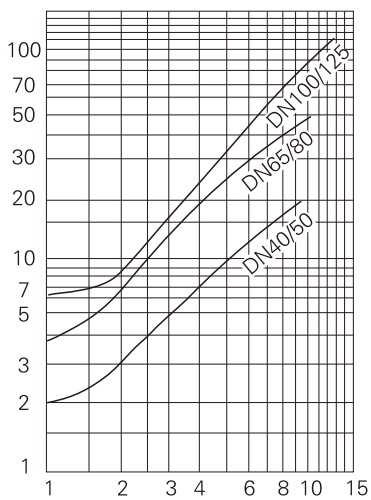


Calibration chart: To set the flow more accurately and quickly, the following calibration charts are offered for you reference (please measure the flow with a flowmeter if you need to set the flow more precisely or set the flow for valves with Dn150~250).
The calibration chart is only applicable to water, and serves as a reference for other media, whose flow shall beproperly adjusted in the actual process.

Effective pressure 0.02MPa



Effective pressure 0.05MPa



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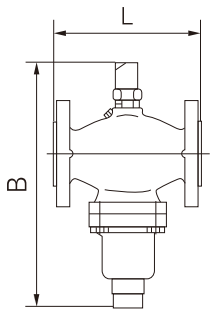
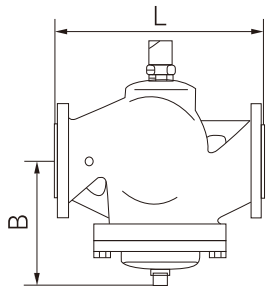
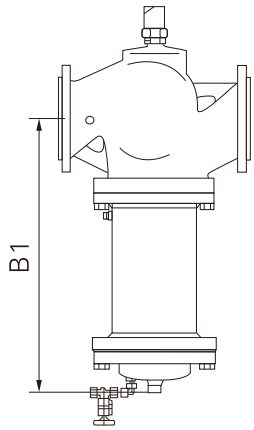
▶ The 30L01Y、30L01R self-operated flow control valve



DN15~125



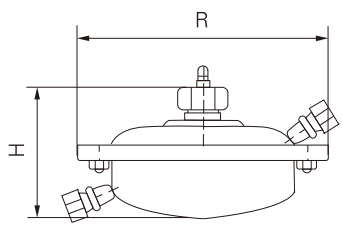
DN150~250



DN150~250
(with body extension)

I. Dimensions and weight of control valve

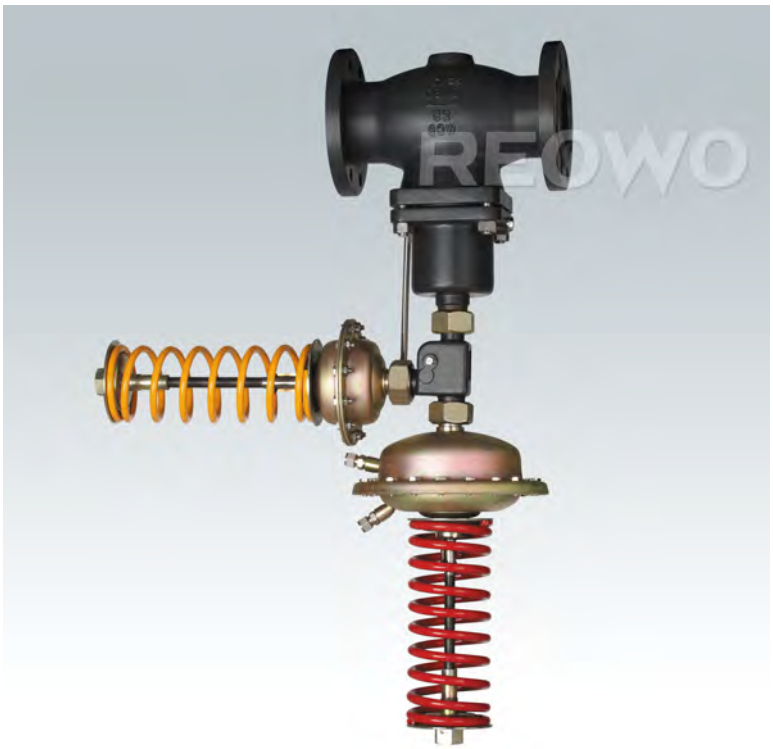
DN (mm)	15	20	25	32	40	50	65	80	100	125	150	200	250
L (mm)	130	150	160	180	200	230	290	310	350	400	480	600	730
B (mm)	212	212	238	238	240	240	275	275	380	380	326	354	404
Weight(Kg)	6.2	6.7	9.7	13	14	17	29	33	60	70	80	140	220
B1(mm)	--	--	--	--	--	--	--	--	--	--	630	855	1205
Weight(Kg)	--	--	--	--	--	--	--	--	--	--	140	210	300



II. Dimensions and weight of actuator

Effective area(cm^2)	250
R (mm)	263
H (mm)	150
Weight(Kg)	9

▶ 30D01D03Y、30D01D03R self-operated pressure and differential pressure control valve



▲ Summary

The 30D01D03Y/30D01D03R self-operated pressure and differential pressure control valve iscomposed of the control valve,two actuators and two springs for pressure setting.
It is suitable for controling differential pressure in the pipes of non-crrosive liquids,gases and steams.It works according to the priority action principle and two parameters can not be simultaneously controlled

The main features are as follows:

1.It has the pressure balancing function with high sensitivity.
2.Low noise, reliable performance, free of maintenance
3.The standard modular design is adopted.
4.Various combined controls can be carried out through the assemblies.

Technical parameters andperformances

Body

DN		DN15、20、25、32、40、50、65、80、100、125、150mm
PN		PN1.6、4.0MPa
Flange standard		ANSI、JIS、DIN、GB、JB(special standards can be offered according to user requirements)
Body material		Cast iron, cast steel, cast stainless steel
Plug material	Hard seal	Stainless steel
	Soft seal	Stainless steel embedded with rubber ring
Pressure balancing		Stainless steel bellows (DN15~125), balanced diaphragm (DN150~250)

Actuator

Effective area (cm^2)	32※	80	250	630
Pressure setting range(MPa)	0.8~1.6	0.1~0.6	0.015~0.15	0.005~0.035
Minimum differential pressure thatensures normal work of the pressure valve	0.3~1.2 ⩾0.05	0.05~0.3 ⩾0.04	0.01~0.07 ⩾0.01	⩾0.005
Allowable maximum differential pressure between the upper and lower diaphragm chambers	2.0	1.25	0.4	0.15

Material	Diaphragm cover: galvanized steel sheet; diaphragm: EPDM or FKM with fiber
Control pipeline, connection	Copper pipe or steel pipe Φ10X1(mm); ferrule connection: R1/4"

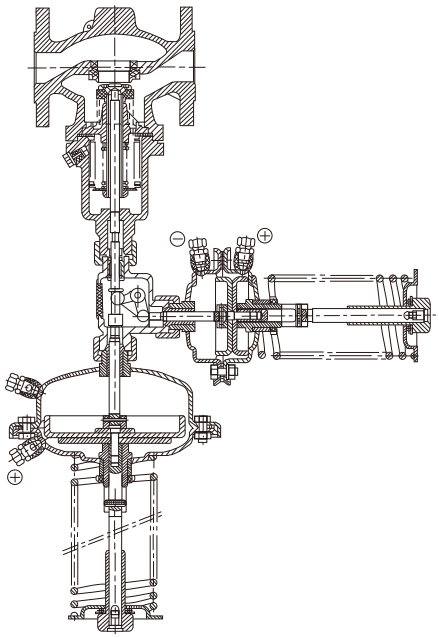
Note: ※ The pressure setting range corresponding to the effective area does not apply to valves with Dn150

Performance

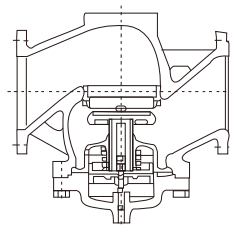
Set value error		±8%		
Allowable leakage (understipulated testingconditions)	Hard seal	4x0.01% valve rated capacity		
	Soft seal	DN15~50 10 bubbles/min	DN65~125 20 bubbles/min	DN150~250 40 bubbles/min

REOWO
Fluid Control Technology

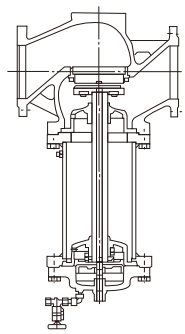
▶ 30D01D03Y、30D01D03R self–operated pressure and differential pressure control valve



DN15~125



DN150



DN150
(WITH BODY EXTENSION)

Allowable working temperature

DN		15~125mm	150~250mm
Seal type	Hard seal	⩽150℃	⩽140℃
		Cooling tank⩽200℃	Cooling tank and extension⩽200℃
		Cooling tank and heat sink⩽350℃※	Cooling tank and extension⩽300℃※
	Soft seal	⩽150℃	

Note: ※ It indicates the allowable working temperature is valid only when the medium is steam.

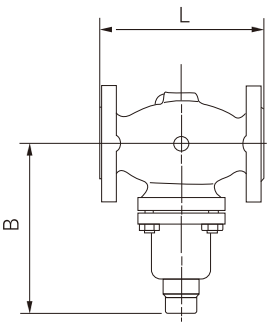
Rated flow coefficient, noise measuring coefficient, allowable differential pressure

DN		15	20	25	32	40	50	65	80	100	125	150	200	250
Rated flow coefficient		4	6.3	8	16	20	32	50	80	125	160	280	320	450
Noise measuring coefficient Z value		0.6	0.6	0.6	0.55	0.55	0.5	0.5	0.45	0.4	0.35	0.3	0.2	0.2
Allowable differential pressure	PN16	1.6								1.5		1.2	1.0	
	PN40	2.0												

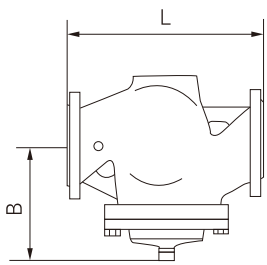
Working principle

According to different combinations, refer to the working principle of the self–operated (before/after–valve) pressure control valve and self–operated differential pressure control valve (valve closed/opened when pressure rises). (working according to the priority action principle)

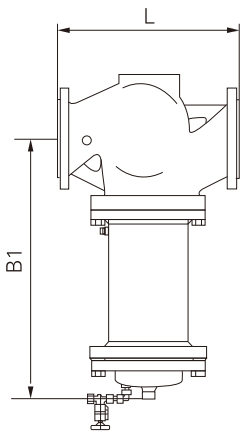
▶ 30D01D03Y、30D01D03R self-operated pressure and differential pressure control valve



DN15~125



DN150~250



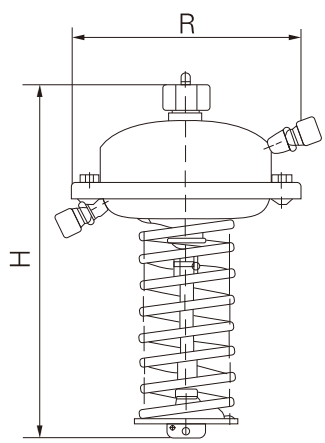
DN150~250
(with body extension)

I. Dimensions and weight of control valve

DN (mm)	15	20	25	32	40	50	65	80	100	125	150
L (mm)	130	150	160	180	200	230	290	310	350	400	480
B (mm)	212	212	238	238	240	240	275	275	380	380	326
B1(mm)	--	--	--	--	--	--	--	--	--	--	630
Weight (Kg)	--	--	--	--	--	--	--	--	--	--	140

II. Dimensions and weight of actuator

Effective area (cm^2)	32	80	250	630
R (mm)	172	172	263	380
H (mm)	435	430	470	520
Weight(Kg)	7.5	7.5	13	28



REOWO
Fluid Control Technology

▶ 30L01T01Y/30L01T01R、30L01T02Y/30L01T02R self-operated flow and temperature control valve

▲ Summary

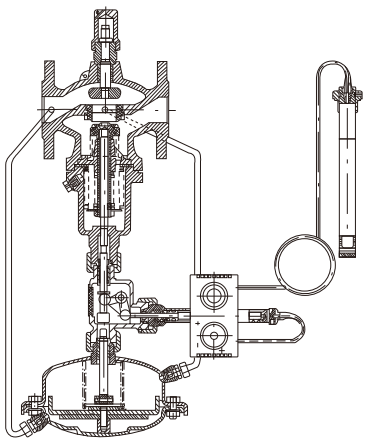
The 30L01T01Y/30L01T01R、30L01T02Y /30L01Y02Rself-operated temperature control valve (cooling type) is composed of the control valve and a temperature controller provided with fixed point control. It is suitable for controlling temperature of non-corrosive liquids, gases and steams in various cooling systems.
When the temperature of the controlled medium rises, the control valve is opened.

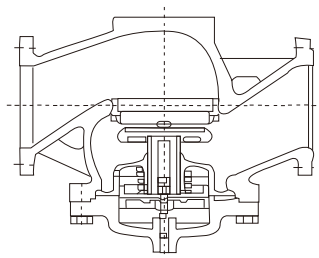
The main features are as follows:

1.It has the pressure balancing function with high sensitivity.
2.Low noise, reliable performance, free of maintenance
3.The standard modular design is adopted.
4.The flow is adjusted according to the standard figure by the throttle valve,which is convenient and fast.
5.It adopts the imported fixed point controller,which has the over temperaturep rotectionfunction with reliable quality.
6.Various combined controls can be carried out through the assemblies.

Technical parameters andperformances			
Body			
DN		DN15、20、25、32、40、50、65、80、100、125、150mm	
PN		PN1.6、4.0MPa	
Flange standard		ANSI、JIS、DIN、GB、JB(special standards can be offered according to user requirements)	
Body material		Cast iron, cast steel, cast stainless steel	
Plug material	Hard seal	Stainless steel	
	Soft seal	Stainless steel embedded with rubber ring	
Pressure balancing		Stainless steel bellows (DN15~125), balanced diaphragm (DN150~250)	
D05 actuator			
Effective area		250	630
Differential pressure of throttle		0.02;0.05	
Allowable maximum differential pressure between the upper and lower diaphragm chambers		0.4	0.15
Material		Diaphragm cover: galvanized steel sheet; diaphragm: EPDM or FKM with fiber	
Control pipeline, connection		Copper pipe or steel pipe Φ10X1(mm); ferrule connection: R1/4"	
Actuator			
Effective area		250	
Pressure setting range		0.01~0.12 0.08~0.25 0.2~0.5 0.45~0.1 0.6~2.0	
Minimum differential pressure tha ensures normal work of the pressure valve		DN15~125≥0.08 DN150~250≥0.1	
Allowable maximum differential pressure between the upper and lower diaphragm chambers		0.4	
Material		Diaphragm cover: galvanized steel sheet; diaphragm: EPDM or FKM with fiber	
Control pipeline, connection		Copper pipe or steel pipe Φ10X1(mm); ferrule connection: R1/4"	

▶ 30L01T01Y/30L01T01R、30L01T02Y/30L01T02R self–operated flow and temperature control valve





Performance

Set value error		30L01Y ±5℃	30T01Y 30T01R ±1.5℃	
Allowable leakage (under stipulated testing conditions)	Soft seal	4x0.01% valve rated capacity		
	Hard seal	DN15 ~ 50	DN65 ~ 125	DN150 ~ 250
		10 bubbles/min	20 bubbles/min	40 bubbles/min

Allowable working temperature

DN		15 ~ 125mm	150~250mm
Seal type	Hard seal	⩽150℃	⩽140℃
		Cooling tank⩽200℃	Cooling tank and extension⩽200℃
	Soft seal	⩽150℃	

Rated flow coefficient, noise measuring coefficient, allowable differential pressure

DN		15	20	25	32	40	50	65	80	100	125	150
Rated flow coefficient		4	6.3	8	16	20	32	50	80	125	160	280
Differential pressure flow range of throttle	0.02MPa	0.1–2	0.2–3	0.2–4	0.4–7	0.6–11	0.8–16	3–28	4–40	6–63	8–80	12–125
	0.05MPa	0.2–3	0.3–4.5	0.3–6	0.5–10	0.8–16	1.1–24	4–40	6–58	9–90	12–120	18–180
Noise measuring coefficient Z value		0.6	0.6	0.6	0.55	0.55	0.5	0.5	0.45	0.4	0.35	0.3
Allowable differential pressure	PN16	1.6								1.5		1.2
	PN40	2.0										

Working principle

According to different combinations, refer to the working principle of the self–operated flow control valve and self–operated temperature control valve (cooling type/heating type). (Working according to the priority action principle)

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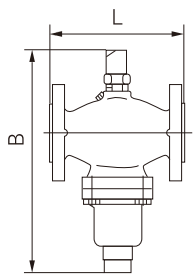
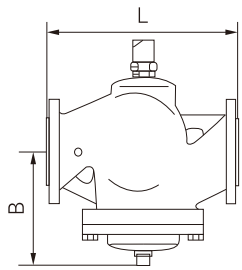
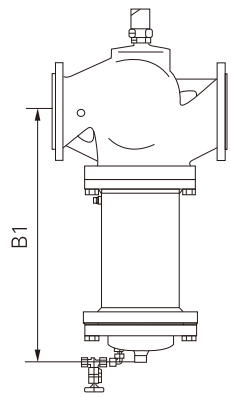
Fluid Control Technology

▶ 30L01T01Y/30L01T01R、30L01T02Y/30L01T02R self-operated flow and temperature control valve



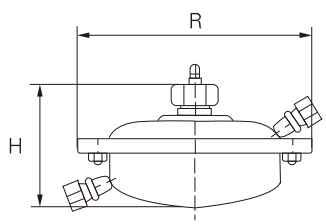




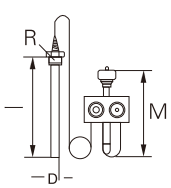
I. Dimensions and weight of control valve

DN (mm)	15	20	25	32	40	50	65	80	100	125	150
L (mm)	130	150	160	180	200	230	290	310	350	400	480
B (mm)	212	212	238	238	240	240	275	275	380	380	326
B1(mm)	--	--	--	--	--	--	--	--	--	--	630
Weight(Kg)	--	--	--	--	--	--	--	--	--	--	140

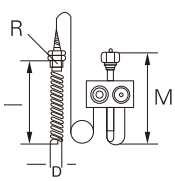
II. Dimensions and weight of actuator



Effective area(cm^2)	250
R (mm)	263
H (mm)	150
Weight (Kg)	9



T06



T17

Model	l(mm)	D(mm)	R(mm)	M	Weight (Kg)
T06	380	24	1″	280	3.0
T17	500	30	1″	280	3.5

30P/N/M self–operated pressure control valve

Summary

The 30P/N/M self–operated pressure control valve is composed of the control valve, actuator and a spring used for pressure setting.
It is suitable for controlling before–valve pressure (when the before–valve pressure rises, the control valve is opened) or after–valve pressure (when the after–valve pressure rises,the control valve is closed) in the pipes of non–corrosive liquids, gases and steams.
It is widely used in such industries as petroleum, chemical industry, electric power, metallurgy, medicine,food, textile, machinery, heating & ventilating, etc.

Technical parameters andperformances

Body

DN		DN20、25、32、40、50、65、80、100、125、150、200、250、300mm
PN		PN1.6、4.0、6.4MPa
Flange standard		JB/T79.1–94、79.2–94
Body material		Cast iron, cast steel, cast stainless steel
Plug type		Single–seat (P), double–seat (N), sleeve (M)
Plug material	Hard seal	Stainless steel
	Soft seal	Stainless steel embedded with rubber ring
Stem material		Stainless steel
Pressure balancing		Stainless steel bellows
Flow characteristic		Quick open
Working temperature		–20–80℃ –20～350℃

Actuator

Pressure setting range	15～50； 40～80； 60～100； 80～140； 120～180； 160～220； 200～260； 240～300； 280～350； 300～400； 380～450； 430～500； 480～560； 540～620； 600～700； 680～800； 780～900； 880～1000； 950～1500； 1000～2500
Diaphragm cover material	Teflon coated A3, A4 steel sheet
Diaphragm material	NBR, EPR, fluorine rubber, oil resistant rubber

Performance

Set value error		±5%			
Allowable leakage (under stipulated testing conditions)	Hard seal	Single–seat: ≤10–4 valve rated capacity; double–seat, sleeve: 5x10–3 valve rated capacity			
	Soft seal	DN15～50	DN65～125	DN150～250	DN300
		10 bubbles/min	20 bubbles/min	40 bubbles/min	60 bubbles/min

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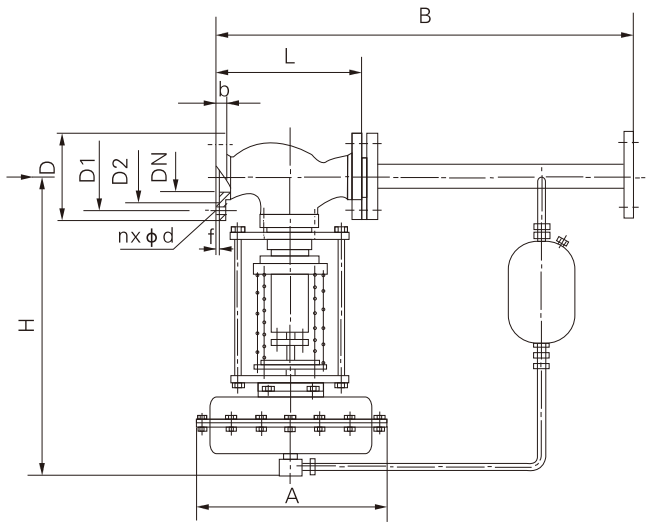
Fluid Control Technology

▶ 30P/N/M self-operated pressure control valve

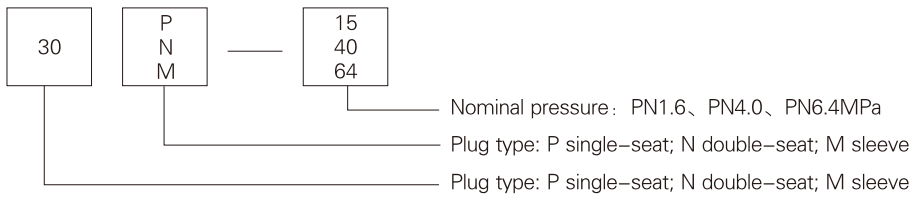


Rated flow coefficient, rated travel, pressure reducing ratio

DN		20	25	32	40	50	65	80	100	125	150	200	250	300
Rated flow coefficient		7	11	20	30	48	75	120	190	300	480	760	1100	1750
Rated travel(mm)		8		10		14	20		25	40		50	60	70
Pressure reducing ratio	Max.	10:1												
	Min.	10:8												

DN		20	20	32	40	50	65	80	100	125	150	200	250	300
Pressure pipe connection thread		383		512		603	862		1023	1380		1800	2000	2200
Flange pipe size		150	160	180	200	230	290	310	350	400	480	600	730	850
Flange face-to-face dimensions Kpa	15-140 H	475		520		540	710		780	840	880	915	940	1000
	15-140 A	580		308										
	130-300 H	455		500		520	690		760	800	870	880	900	950
	130-300 A	230												
	280-500 H	450		490		510	680		750	790	860	870	890	940
	280-500 A	176					194					280		
	480-1000 H	445		480			670		740	780	850	860	880	930
	480-1000 A	176					194					280		
	600-1500 H	445		570		600	820		890	950		1000	1100	1200
	600-1500 A	85					96							
	1000-2500 H	445		570		600	820		890	950		100	1100	1200
	1000-2500 A	85					96							
Pressure control range(kg)		26		37		42	72	90	114	130	144	180	200	250
Mass		M16×1.5												

Model description



▶ 30W02 nitrogen sealing device

▲ Summary

The30W02 nitrogen sealing device is composed of the control valve, actuator, pressure spring, pilot, pulse pipe and other parts.
It is mainly used for maintaining the pressure of gas (generally nitrogen) at the top of the vessel constant so as to prevent the materials in the vessel from contacting the air, volatizing and being oxidized and ensure vessel safety.
It is especially suitable for gas sealing protection systems of various large-sized storage tanks. The product has such features as energy saving, agile action, reliable running, convenient operation and maintenance, etc. It is widely used in petroleum, chemical industry, etc.

Technical parameters andperformances

Body		
DN		DN20、25、32、40、50、65、80、100mm
PN		PN1.6、4.0、6.4MPa
Flange standard		JB/T79.1-94、79.2-94
Body material		Cast iron, cast steel, cast stainless steel
Plug type		Single-seat (P), double-seat (N), sleeve (M)
Plug material	Hard seal	Stainless steel
	Soft seal	Stainless steel embedded with rubber ring
Stem material		Stainless steel
Pressure balancing		Stainless steel bellows
Flow characteristic		Quick open
Working temperature		≤80℃

Actuator	
Pressure setting range	0.4~0.5 5~10 9~14 13~19 18~ 24 22~28 27~33 36~44 42~51 49~58 56~66
Diaphragm cover material	Teflon coated A3, A4 steel sheet
Diaphragm material	NBR, EPR, fluorine rubber, oil resistant rubber

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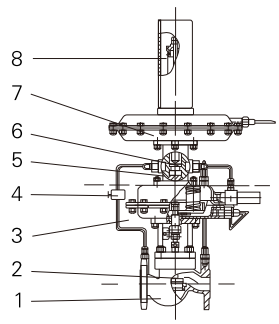
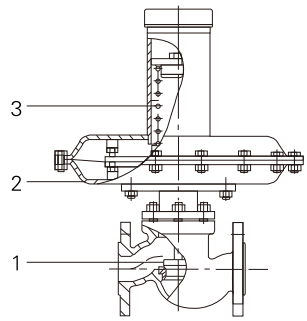
Fluid Control Technology

▶ 30W02 nitrogen sealing device

1.Main valve
2.Detection mechanism
3.Spring



30W02–01 nitrogen supply device



30W02–02 nitrogen discharge device

1. Main valve	2. Main valve plug	3. Main valve actuator
4. Pressure reducing valve	5. Throttle valve	6. Pilot plug
7. Detection mechanism	8. Preset spring	

Performance

Set value error		± 5%
Allowable leakage	**Standard type**	Class IV (conforming to GB/T4312–92)
	Tight type	Class VI (conforming to GB/T4312–92)

Rated flow coefficient, rated travel, performance

30W02–01 nitrogen supply device

DN	25									32	40	50	65	80	100
Seat size	5	6	7	8	10	12	15	20	25	32	40	50	65	80	100
Flowcoefficient	0.2	0.32	0.5	0.8	1.8	2.8	4.4	6.9	11	20	30	48	75	120	190
Rated travel	8									10		14	20		25

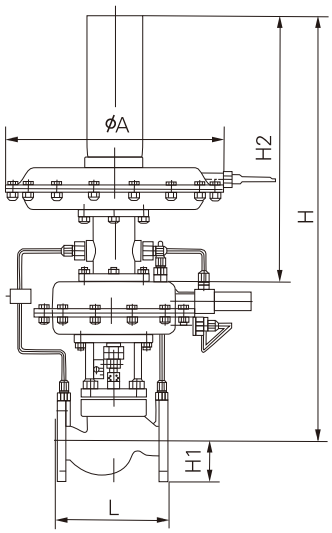
30W02–02 nitrogen discharge device

DN	20	25	32	40	50	65	80	100
Seat size	20	25	32	40	50	65	80	100
Flowcoefficient	6.9	11	20	30	48	75	120	190
Rated travel	8		10		14	20		25

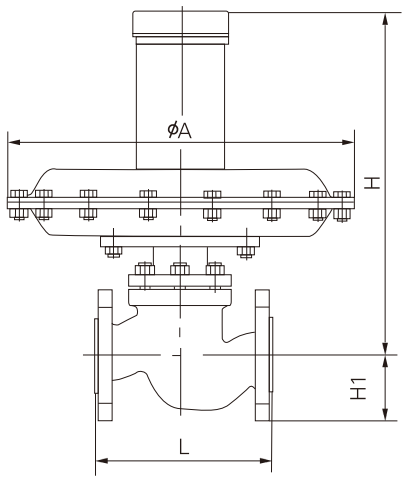
Working principle

In the nitrogen supply device (see figure 1), the medium at the pressure point at the top of the tank is introduced to the detection mechanism (7) through the pressure pipe. The medium produces an acting force on the detection element, which balances the pre–tightening force of the preset spring (8). When the pressure in the tank drops to be lower than the pressure set point of the nitrogen supply device, the balance is destroyed, so that the pilot plug (6) is opened, and the before–valve gas enters the upper and lower diaphragm chambers of the main valve actuator (3) after passing through the pressure reducing valve (4) and throttle valve (5). The main valve plug (2) is opened and nitrogen is filled into the tank. When the pressure in the tank rises to the pressure set point of the nitrogen supply device, the pilot plug (6) is closed by the preset spring force. Due to the spring action in the main valve actuator, the main valve is closed and nitrogen supply is stopped.
The nitrogen discharge device (see figure 2) is an internal feedback mechanism. The medium enters the detection mechanism (2) after passing through the bonnet. The medium produces an acting force on the detection element, which balances the pre–tightening force of the spring (3). When the pressure in the tank rises to be higher than the pressure set point of the nitrogen discharge device, the balance is destroyed, so that the plug (1) moves upward to open the valve and discharge nitrogen to the outside. When the pressure in the tank falls to the pressure set point of the nitrogen discharge device, the valve is closed by the preset spring force.

▶ 30W02 nitrogen sealing device



Outline dimensions figure of nitrogen supply device



Outline dimensions figure of nitrogen discharge device

1. Outline dimensions and weight of nitrogen supply device

DN(mm)	25	32	40	50	65	80	100
L	160	180	200	230	290	310	350
A	308	308	308	308	394	394	394
H2	415	415	415	115	415	415	415
H1	60	75	80	85	95	105	120
H	720	730	730	750	790	840	890
Weight (kg)	32	35	40	50	90	115	280

1. Outline dimensions and weight of nitrogen supply device

DN(mm)	25	32	40	50	65	80	100
L	160	180	200	230	290	310	350
A	308	308	308	308	394	394	394
H1	60	75	80	85	95	105	120
H	380	400	420	430	550	560	570
Weight(kg)	12	13	15	17	20	28	38

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Fluid Control Technology

The 30W01 self–operated micro–pressure control valve

Summary

The 30W01 self–operated micro–pressure control valve It iswidely used for controlling after–valve pressure (mmH2O) of noncorrosive gas or air with pressure no higher than1.4MPa, working temperature no higherthan 120℃ (or 150℃) and pressure control range of 0.14 – 7.2KPa. It iswidely applied in gas sealing pressurecontrol devices of various oil products,chemicals and liquid storage tanks.

Pressure balancing part

Body

DN15~100mm
PN1.6 4.0Mpa
MaterialWCB Cf8 CF8M

Diaphragm

NBR:	–40 – 120℃
Fluorine rubber:	–20 – 150℃
EPR:	–50 – 150℃

Bonnet

MaterialWCB Cf8 CF8M
Pressure balancing part: diaphragm + spring
Material: spring 304

ZA7 Actuator (pilot)

Diaphragm box Punch forming with A3 steel sheet
Diaphragm NBR, fluorine rubber, EPR
Spring304
Plug304
Sea304t
Stem304
*The actuator with five kinds of pressure control ranges and one model
*Easy assembly and disassembly, convenient control

The 30W01 self-operated micro-pressure control valve

The 30W01 micro-pressure control valve

DN	DN	15	20	25	32	40	50	65	80	100
Rated flow coefficient	Kv	4	6.3	8	16	20	32	50	80	25
Flow characteristic							Quick open			
PN	PN						1.6Mpa			
Pressure balancing part	Spring						1Cr18Ni9			
	Bellows diaphragm	NBR		Fluorine rubber					EPR	
	Working temperature	-40~120℃		-20~150℃					-50~150℃	
Allowable leakage (input 0.1MPa pressure before the valve)		1 bubble/min		2 bubbles/min	3 bubbles/min		4 bubbles/min	6 bubbles/min		11 bubbles/min

Main technical parameters of ZA7 actuator (pilot)

Effective area(cm^2)		430	
After-valve pressure control range (Kpa)	0.14~0.36	0.32~1.00	0.90~2.50
	2.10~4.50	3.90~7.20	
Maximum output force Mpa		≤1.4	
Minimum output force Mpa		≥0.2	
Diaphragm material	NBR	Fluorine rubber	EPR
Working temperature ℃	-40~120℃	-20~150℃	-50~150℃
Adjusting precision		±15%	
Control pipeline, connection	Copper pipe or steel pipe Φ10X1(mm); ferrule connection: R1/4"		

Product features:

* Simple structure, convenient installation and commissioning, low maintenance cost
* Wide adjusting range: Adjustment of five levels can be carried out within the range of 14~720mmH2O.
* Fast response and high adjusting precision
* Playing the safety protection function when being used in the storage tank nitrogen sealing system.

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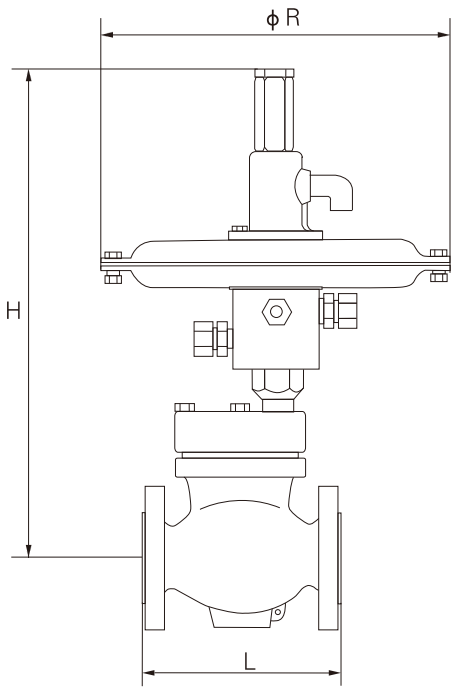
▶ 30W01Main outline dimensions and weight of self–operatemicro pressurecontroller

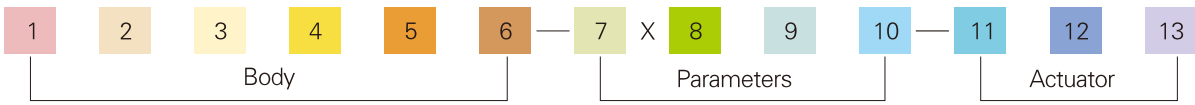


I. Normal temperature type

A ϕR \ DN		15	20	25	32	40	50	65	80	100
ZA7	Hmm	320	370	390	400	410	438	460	500	520
ϕ280mm	Kg	18	21	26	32	40	47	60	65	71
L		160	160	160	230	230	230	290	310	350

▸ Model establishment descriptions

Model establishment descriptions



Body descriptions

1Code	Control valve
3	Self-operated control valve

2Code	Body type
0	Straight- through
1	Angle type

4Code	Seal type
Y	Hard seal
R	Soft seal

3Code	Control type
D01	After-valve pressure controlin pressure reducing valve
D02	Before-valve pressure controlin bypass valve
D03	Valve closed if differentialpressure rises
D04	Valve opened if differentialpressure rises
D12	After-valve pressure in pilot-operated valve
D13	Before-valve pressure inpilot-operated valve
L01	Flow
T01	Temperature (heating type)
T02	Temperature (cooling type)
W01	Micro pressure (pressureReducing)
W02	Double-diaphragm micropressure (pressure reducing)
X01	Pilot-operated (pressurereducing)

Parameters

5Code	Accessories
0	No
1	With pilot
2	With cooling tank
3	With heat sink
4	With cooling tank + heat sink
5	With extension
6	Assemblies
7	With travel indicator

6Code	Connection type
1	Flange
2	Socket welding
3	Butt welding
4	Thread

9Code	10Code	7Code	8Code
PN	Flow characteristic	DN	Plug size
	D Equal percentage Z Linear K Quick open	Filled according to the actual parameters	

Actuator descriptions

11Code	Actuator type
Z	Self-operated pressure
AF	Self-operated temperature

12Code	Actuator specification
32	32
80	80
250	250
630	630
T06	T06
T17	T17

13Code	Actiontype
ZA3	After-valvepressure control inpressure reducingvalve
ZA4	Before-valvepressure control inbypass valve
ZA3	Valve closedifdifferential pressurerises
ZA4	Valve opened ifdifferential pressurerises
ZA5	Flow
ZA6	Pilot-operated
ZA7	Micro pressure

THE PEAK OF QUALITY

REOWO®

JINFENG FLUID
CONTROL TECHNOLOGY CO.,LTD.

Factory: Puxi Industrial Zone, Oubei, Wenzhou, Zhejiang, China 325102

Tel : +86–577–67379084
Fax: +86–577–66997700
E–mail: reowocv@gmail.com
Http://www.reowocv.com