hawido
SWISS MADE

Hydraulic regulating valves

Hawido regulating valves

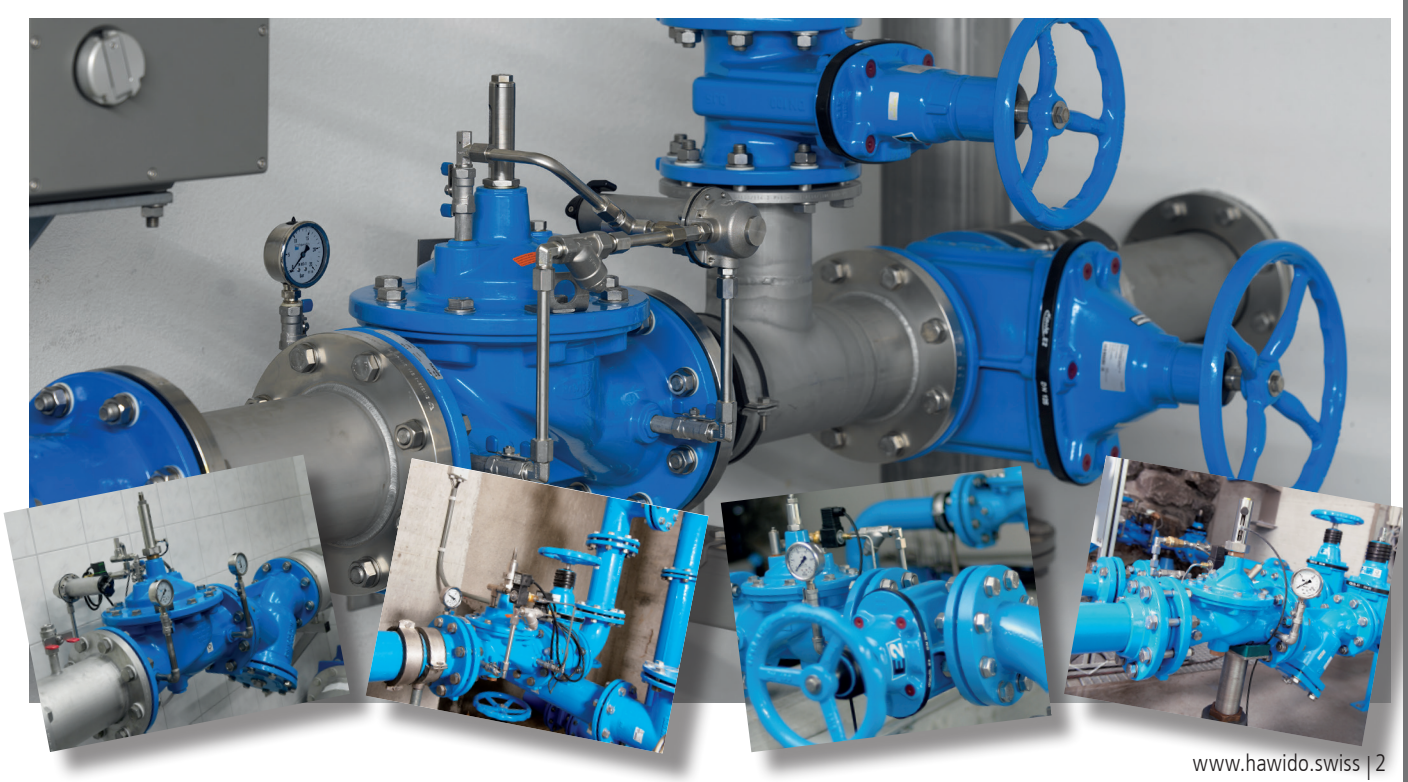
Hawido has been developing and producing self-medium controlled control valves for more than 35 years. As a Swiss manufacturer, we attach great importance to reliability, functionality, safety and quality. Hawido customers around the world value our careful attention to the customer, with our service readiness, competent advice, and prompt delivery.

The Hawido valve is own medium-controlled. It regulates purely hydraulically with the existing pressure and medium, without any additional energy, and can therefore be used anywhere without a problem. The flow-optimised design and the robust construction ensure very precise regulation and maximum reliability. Corrosion protection is guaranteed by the stainless steel threaded inserts and the epoxy coating.

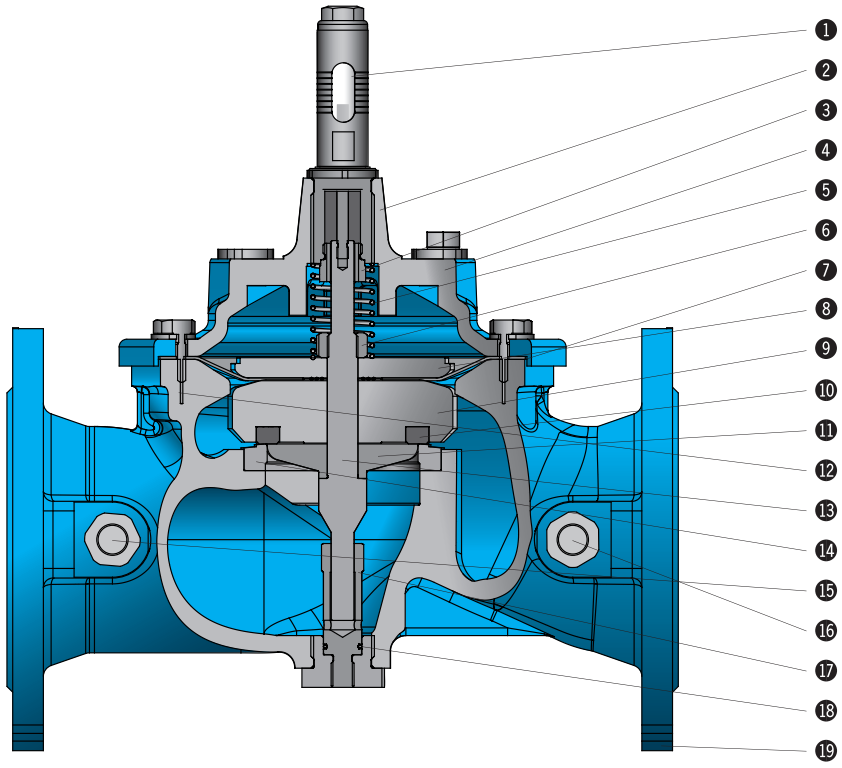
Thanks to our extensive range, we are able to specifically respond to the customer's needs. The pressure reducing valve can be used to protect your downstream pipeline network. With the pressure relief valve you prevent a preset pressure is not exceeded, or vice versa, the pressure does not fall below the preset pressure – thus securing the pipeline network or the supply of upstream consumers. Hawdio valves are also used for filling basins or as protection for a burst pipe, to name just a couple of applications. Individual functions can also be combined for an almost limitless range of variants. Various solutions are also available for the automation and integration into remotely controlled water supply systems. Experienced specialists are available for tailor-made solutions. The durability of our valves is guaranteed with regular maintenance.

With guarantee - safe regulating valves for every application
Municipal and urban drinking water supply, irrigation systems in agriculture, regulation of the extinguishing water area, reservoir management, control of simple, regular as well as complex, demand-dependent systems and protection for incorrect manipulations or breaks in the pipework: Hawido regulating valves take over a wide range of control tasks and safety functions in the water network and pipeline construction. We control every system in the water area. We are happy to check solutions for control processes with other media on request.

Reducing the pressure This function is used to create an economical network pressure. By reducing the pressure, you can protect your pipeline system or make sure, in the field of agriculture, that the pressure is not excessively high in your irrigation system. With a two-stage pressure reducing valve, you can set an increased extinguishing pressure to the normal network pressure. The reduction separates the pressure zones or secures the network supply in cases of emergency. Controlled reductions in pressure provide different pressures in the network: Reductions in pressure at night, flow-dependent pressures or time-limited extinguishing pressure. The reduction in pressure is needed for bypass lines in turbine plants. The bypass is commissioned in the event of a turbine overhaul.
Pressure retention This function allows you to control the upstream network and thus obtain sufficient pressure in higher zones. If the pressure retention valves are fitted with a T-piece in the pipes, they take on the function of a safety fitting for relieving overpressures – actively protecting your network.
Water level control in the basin This regulation can be carried out by using of a simple, purely hydraulic control with a float, as well as with electrical, step-by-step working valves, which are equipped with a controller.
Water flow in filter systems Hawido regulating valves control the water, so your filter system can perform to it's optimal efficiency.
Pump protection valves The starting aid for pumps: The Hawido regulating valve temporarily closes the pipework system so that the pump can build up the pressure.
Burst pipe safety valves The Hawido safety valves reliably protect the environment or prevent the reservoir from emptying in the event of an unwanted pipe fatigue or an unforeseen burst in the pipe.



Regulating valves – Valve assembly

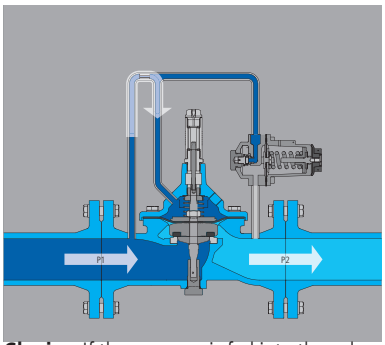


Components

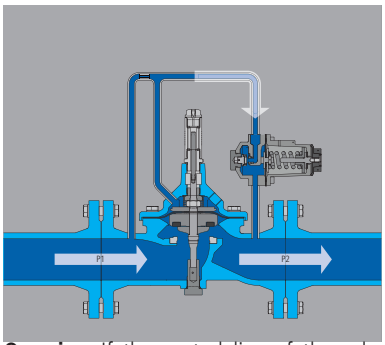
1 Optical position indicator
2 Cover
3 Spindle guide, cover
4 Control line connection, cover
5 Spring
6 Nut
7 Diaphragm
8 Pressure disc
9 Seal support
10 Seat of the seal
11 Counter seat
12 Hexagonal screw
13 Spindle
14 Seat
15 Control line connection, housing (inlet)
16 Control line connection, housing (outlet)
17 Spindle guide, housing
18 O-ring
19 Housing

Hawido regulates everything - without external energy

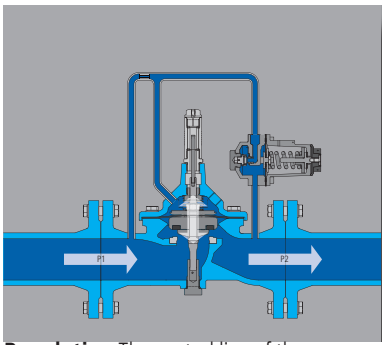
Hawido AG is the specialist for regulating valves in water management. We offer a huge range of products and top service. Our production site in Sirnach stands for Swiss quality. Only corrosion-free materials are used to produce Hawido regulating valves. The already large number of regulating valves in our catalogues represent only the basic types. We combine the individual functions for you to suit your project and thereby fulfil virtually any application. Particularly advantageous: Hawido regulating valves carry out their basic function purely hydraulically. No power, such as electricity, is needed for opening and closing the valves. Their own medium and the existing pressure perform these tasks. It is possible to have variants with an electric control. Hawido regulating valves fulfil these and much more basic functions year after year, simply, safely and reliably:



Closing If the pressure is fed into the valve chamber from the inlet side and the control line of the valve chamber is blocked at the same time, the base valve closes.

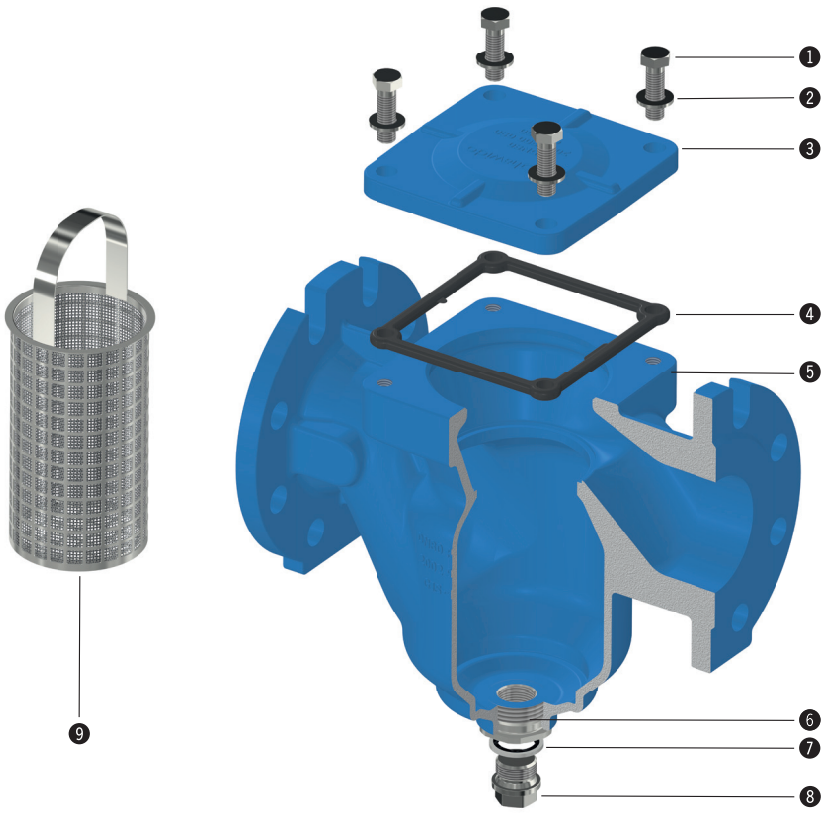


Opening If the control line of the valve chamber is opened to the outlet side, the pressure relief is released from the chamber's cover. The base valve opens.



Regulating The control line of the connection from the valve chamber to the outlet side is opened or closed via the pilot valve. This also opens or closes the base valve and the target value is regulated.

Dirt trap 2002



Components

1 Hexagonal screw M12 x 40
2 Washer M12
3 Cover
4 Cover seal
5 Housing
6 Overcut
7 Seal ring 3/4"
8 Drain plug 3/4"
9 Filter screen

Advantages at a glance

- Dirt trap optimally matched to the Hawido valves
- Can be used up to pressure rating PN 40
- Very flexible mounting installation due to further developed design
- Housing with optimised inflow, thus best cleaning effect
- Corrosion-free overcut technology on flushing plugs
- Differential pressure measurement possible in upstream and downstream pressure via optionally available pressure gauge connections
- Sturdy double screen made of stainless steel with coarse-meshed bottom for easy cleaning
- Filter screens available with different mesh sizes
- Cover seal with integrated screw locking function
- Low tightening torque of the cover screws
- Service-friendly inspection and cleaning due to access from top
- Coating according to GSK guidelines
- SVGW certificate

Count on us - during the development, planning and valve selection phases

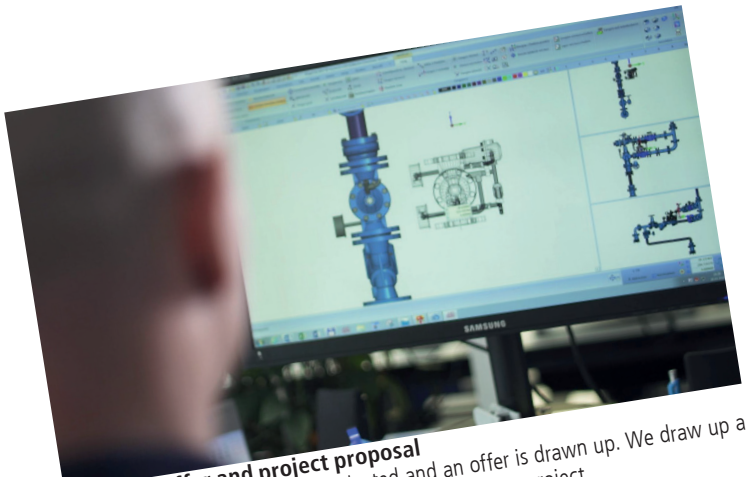
Which is the right Hawido product in terms of functions? Is a purely hydraulic operation sufficient or do the valve positions also have to be forwarded to a control centre? Should the performance be triggered by an electrically controlled solenoid valve? Which dimensions should be chosen? Hawido is known for its range of valves that offers a solution for every application, with the best quality and operational safety. Hawido also stands for comprehensive advice for project development, planning and valve selection. Whether it is a renovation or new construction – we manage every project to a successful conclusion. It is important that we understand your system early on in the process, so that we can suggest the technically most reliable and best solution as well as the most financially effective.

What function should the valve carry out?
Our cooperation begins by defining the valve function. Depending on the desired control, some or all of the following information is required - pressure, flow, water level.

Which medium is regulated?
Hawido regulating valves are fundamentally designed for use in the drinking water network. However, related applications can also be covered – cooling circuits with brine, irrigation, extinguishing water supply and much more. It is important that the nature of the medium is known in the planning phase, so that the necessary measures for selecting the correct valve can be included in advance.

In which system is the valve used?
How high are the containers positioned? Where are consumers connected? How much water should be left in the containers? When can you open the valve? How long are the lines? Does the system have high points? Can the water inflow be interrupted when valve is being serviced? Even a simple hydraulic schematic diagram can provide information and make the overall system comprehensible. We help you calculate the dynamic pressures, thereby ensuring the valve functions correctly during operation.

Production and assembly
High quality materials and precise machining centres are used for the valves. The control lines – Fittings, ball valves, pipe bends, filters, throttle non-return valves, optical position indicators and so on – are made from corrosion-free material. The necessary manometer including ball valve for the shut-off as well as optical position indicator are installed on the valves as standard. The following can also be installed on request: ball valves on the outlet side for taking samples of water or analogue position indicators for the electrical signalling of the valve position and much more. Hawido valves are coated in the same way as ground-mounted sliders. The high-quality top layer is at least 250 µm and provides perfect corrosion protection for the base valve.



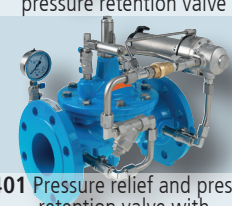
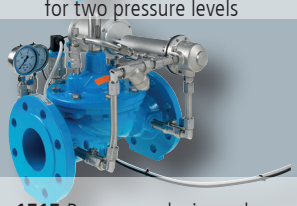
Planning, offer and project proposal
The optimum valve function is selected and an offer is drawn up. We draw up a hydraulic schematic diagram and a piping plan for the project.

Assembly of the valves
The special versions of the Hawido regulating valves are assembled according to the order.

Total flexibility - regulating valves adapt to your system

The main group of Hawido valves takes over the regulation of the pressure: Outlet pressure (Type 1500) or inlet pressure (Type 1400), individually or in combination. The valve functions depend on the configuration of the control line and the choice of the pilot valve. All functions can be configured according to the respective needs. This is either purely hydraulically or electrically controlled. Your projected undertaking is decisive. Because Hawido regulating valves adapt to your project – not the other way around.

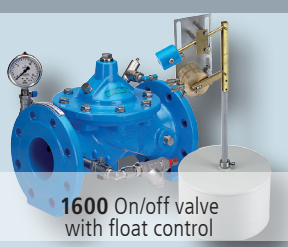
Standard valve or combinations Hawido already offers a huge range of standard products. Many regulating valves are also available in combination. Example 1: Pressure reduction (Type 1500) and pressure retention (Type 1400): Your drinking water system serves different high-altitude reference levels. If a

Outlet-pressure control	Outlet and inlet-pressure control	Inlet-pressure control	Inlet-pressure and water level control
 **1500** Pressure reducing valve	 **1502** Pressure reducing valve with inlet pressure control	 **1400** Pressure relief and pressure retention valve	 **1406** Pressure retention and safety valve with float control
 **1501** Pressure reducing valve with backflow prevention	 **1505** Pressure reducing valve with inlet pressure control and backflow prevention	 **1401** Pressure relief and pressure retention valve with backflow prevention	
		 **1405** Pressure relief and pressure retention valve with external control	
Outlet-pressure control electrically controlled	**Outlet and inlet-pressure control electrically controlled**	**Inlet-pressure control electrically controlled**	**Inlet-pressure and water level control electrically controlled**
 **1503** Pressure reducing valve		 **1403** Pressure relief and pressure retention valve	
 **1593** Pressure reducing valve for two pressure levels			
 **1515** Pressure reducing valve with motorised pilot valve			

lot of water is used in the lower water network, the pressure drops in the upper part of the area. The two functions required – pressure reduction and pressure retention for the upper quarters – can be obtained in combination. Example 2: Pressure retention (Type 1400) and float control (Type 1600): For filling a reservoir, you can use the on/off valve with float control. Pressure retention may be required for the supply in the higher supply network. A single Hawido valve type 1406 reliably fulfils both functions for you.

Hydraulic or electric control Hawido regulating valves can perform any physically logical function purely hydraulically. This applies to the standard as well as to the combined valves. An electrical control adapted to the valve characteristics extends the use of the valves and permits the incorporation of the valves into a control centre.

Water level control and on/off regulating valves



1600 On/off valve with float control

1601 Float valve with progressive control valve

Volume control valves

1300 Volume control valve

1301 Volume control valve with backflow prevention

1302 Volume control valve with pressure reduction

Special valves

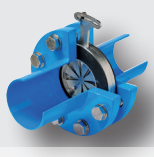
1707 Backflow prevention valve

1709 Burst pipe safety valve

Accessories

1699 Float protection pipe PE

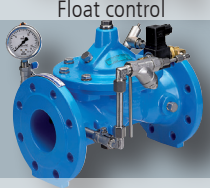
1951 Opening limiter



1090 Adjustable orifice plate

Water level control and on/off regulating valves electrically controlled

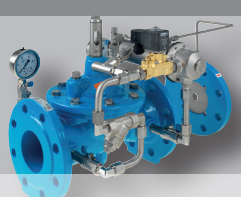
1603 On/off valve for electric Float control



1703 On/off valve for electric control

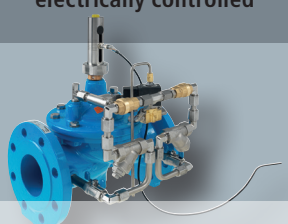
1795 On/off valve Step-by-step action

Volume control electrically controlled



1303 Volume control valve electrically controlled

Special valves electrically controlled



1705 Pump protection valve

Accessories

1980 Electrical control

1998 Electric position indicator with sensor

1960 Analog position indicator 4 to 20 mA

With certainty - functional checks retain the value

Hawido regulating valves reflect a high level of workmanship and are technically well-engineered. This guarantees the reliability of your supply system. Regular servicing is necessary to ensure safety at all times and for the long term, as well as to preserve the value of the valves.

Maintenance

In order to guarantee a trouble-free operation for years to come, the valves must be regularly serviced. These measures to preserve the quality of the valve ensure its trouble-free operation and consequently, the reliable supply of drinking water for your customers. Functional checks should be carried out once a year, including cleaning the filter screens in the dirt trap and the fine filter in the control line. The Hawido regulating valves is due for an inspection every four to six years. In this process, the main valve and the regulating valve are completely opened and all the small parts – diaphragm as well as the seals – are replaced. The inside of the valve must be visually inspected and cleaned. Once it has been commissioned again, the valve will again continue to perform its tasks for years.

hawido
SWISS MADE

Hawido AG
Hawlestrasse 1
CH – 8370 Sirnach

T +41 71 969 44 22
marketing@hawido.swiss
www.hawido.swiss

06.2021