ENVALVE VK SERIES

motor-driven single and double butterfly valves

For automated shut-off and control processes in irrigation and water treatment, Van der Ende Group offers the Envalve product line: a complete range of motorized butterfly valves and ball valves. Developed in response to current market demands, the Envalve product line combines smart functionality, reliable performance, and a sleek, compact design. With various valve configurations, functionality levels, and options, the product line is suitable for a wide range of applications and installations. Backed by the expert advice and service of Van der Ende Group.

PRODUCT LINE STRUCTURE

Valve Configuration (VK11, VK21, VK22)

- **VK11** : single butterfly valve with one actuator, suitable for shutting off and regulating fluid flows
- **VK21** : double butterfly valve with mechanical coupling, suitable for mixing and control
- **VK22** : double butterfly valve with independent control, suitable for precise and linear control

Functionality level (Basic, Digital, Smart)

- **Basic** : 3-point control, on-off control, robust and simple
- **Digital** : analog control (4-20 mA / 0-10 V) with feedback, suitable for precise control and manual operation via open and close buttons
- **Smart** : intelligent control with linear control characteristic, adjustable run time, and maximum control over flow and mixing

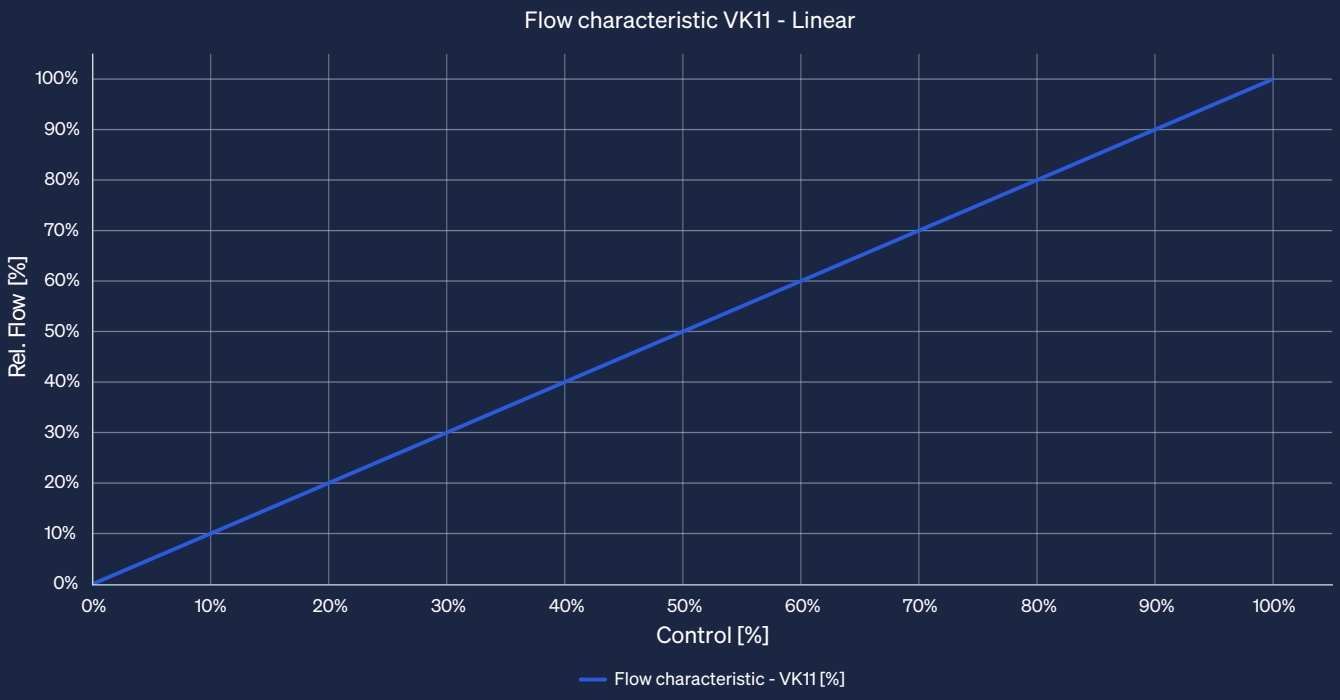
ENVALVE VK11

Envalve VK11 Basic & Digital

The VK11 is available in versions including Basic and Digital. The Basic version is available with short or long run time, depending on the desired control or application. The short run time is ideal for quickly switching or shutting off a fluid flow, while the long run time enables smooth and controlled regulation based on capacity or mixing ratio. The Digital version offers additional control over flow and valve position due to analog control and valve position feedback. The valve can also be manually adjusted via the digital display with control buttons.

Envalve VK11 Smart NEW

The Envalve VK11 Smart offers additional flexibility in terms of control. This version is suitable for both 3-point control and analog control via 4-20 mA. Thanks to the smart PCB and adjustable run time, the control can be tailored to your needs. The intelligent control ensures linear control behavior, allowing the valve to be used more accurately and efficiently in water treatment processes. In addition, the VK11 Smart features a feedback signal for position indication and full open/close control.



ENVALVE VK21

Envalve VK21 Basic & Digital

The Envalve VK21 is available in Basic and Digital versions for controlling and mixing two fluid streams. The Basic version is primarily used with a long run time, ensuring smooth and consistent control of the mixing ratio. The Digital version has a short run time and offertes additional insight and control in mixing applications, due to analog control via 4-20 mA and a feedback signal for the valve position. The valve can be easily set and monitored via the digital display.

ENVALVE VK22 NEW

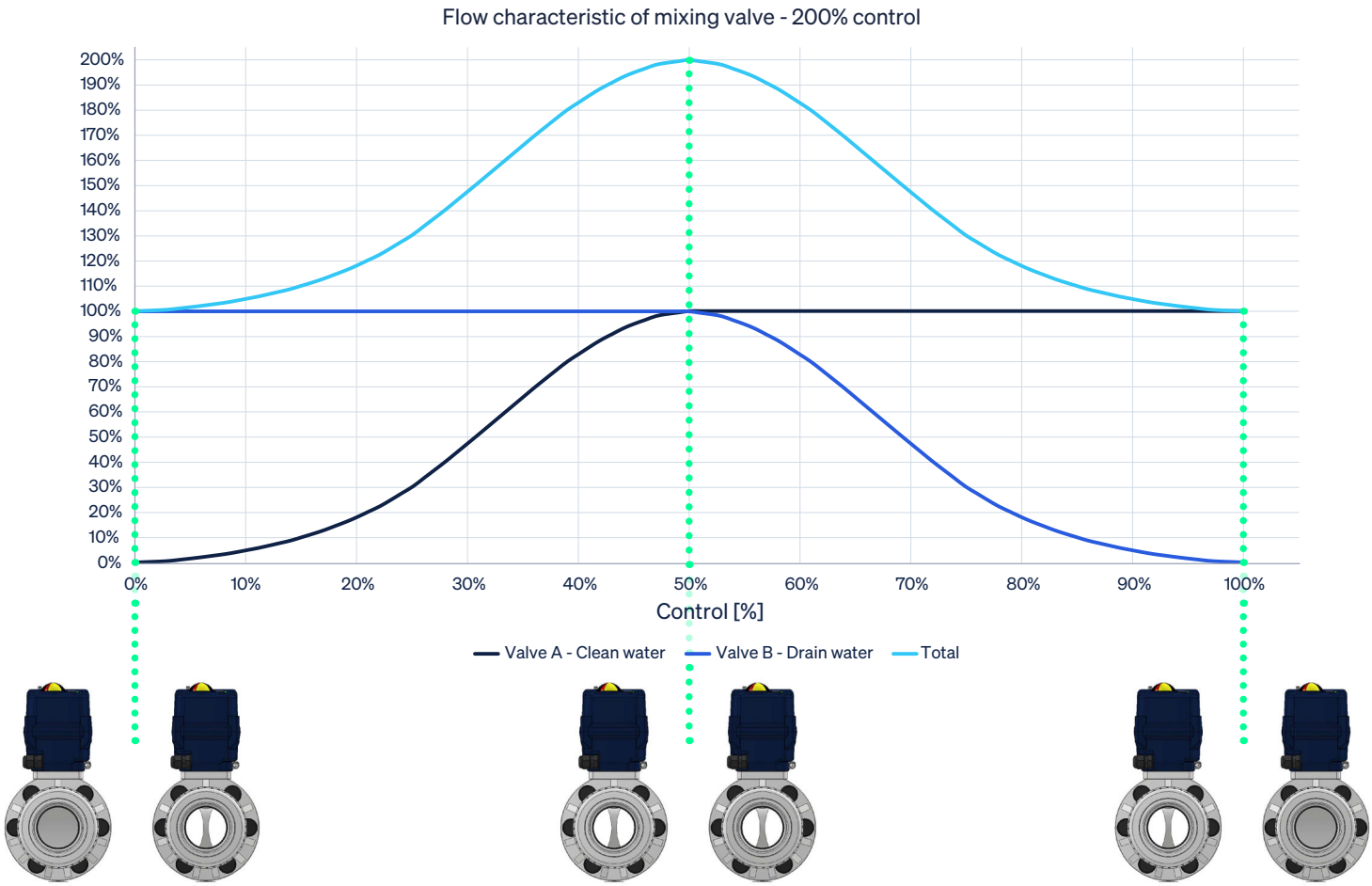
Envalve VK22 Smart

The VK22 Smart consists of two independently controlled butterfly valves regulated via an intelligent PCB. This results in a linear and highly accurate control characteristic. This version is suitable for applications requiring maximum control over flow and mixing ratio, such as in precise EC control.

Thanks to the independent control and the absence of a mechanical coupling, the VK22 Smart offers maximum flexibility in design and installation. It is also possible to utilize the full Kv value of the mixing valves, thereby optimizing flow.

Envalve Smart PCB

- Control: 3-point / 4-20mA / 0-10V
- Position-based feedback
- Two types of highly accurate control:
  - 100% Linear capacity control
  - 200% Full Kv value available
- Emergency operation: fully open / fully closed
- Adjustable via DIP switches
  - Signal types
  - Valve configuration
  - Run time 15 / 36 / 90 / 130 seconds



Cabling and Weipu Connector

For smaller Envalve butterfly valves, the actuator comes standard with a short cable equipped with a Weipu connector. Since these actuators must not be opened for internal wiring, the connection via the connector remains secure and the actuator retains its protection class. The IP67 plug connection ensures a reliable connection between the actuator and the control cabinet or unit. Depending on the application, the female Weipu connector can be supplied separately, mounted directly on the cable from the control cabinet, or provided as a complete cable set at the desired length. For valve sizes > 110 (DN100), the actuator can be connected inside the housing itself.

VARIOUS VARIANTS

Mixed-size valves for customized flow control

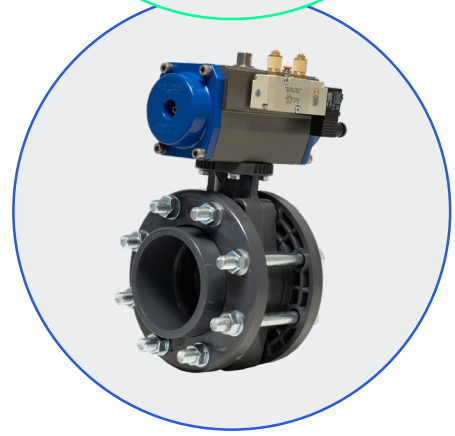
The Envalve series also includes models with unequal valve sizes. These combine two different valve diameters, for example, to achieve specific mixing ratios or meet installation requirements. This solution is used when standard valves of equal size do not optimally match the desired mixing ratio, capacity, or piping configuration. Thanks to custom alignment and configuration, the valves can be seamlessly integrated into new or existing systems.

Ball valves with the same actuator line

In addition to Envalve butterfly valves, ball valves can also be equipped with the same actuator line. This creates a uniform appearance and control system within the installation. The ball valve is particularly suitable for simple on/off applications, where the flow is fully opened or closed. Thus, the Envalve series also offers a suitable motorized solution for these applications.

Envalve PVK

The Envalve PVK butterfly valves consist of 1 valve and 1 pneumatic actuator. They have a high flow capacity and bidirectional flow capability. With a pneumatic actuator, the valves can be controlled remotely. The actuator is rotated clockwise or counterclockwise using compressed air.



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