

# Process Automation Solutions



## Butterfly valves VZAB



### Butterfly valve series

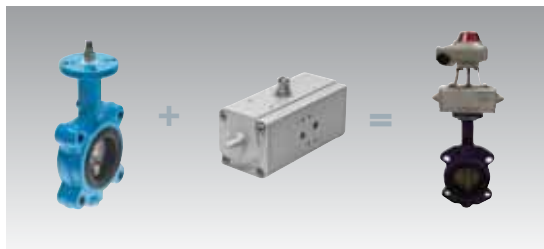
Manufactured with the strongest durable materials for high performance in applications ideal for Water, Sewage, Air, Odour and Mining. Available with manual lever or complete with actuator.

### Benefits

- Precision profile disc and polished disc edge provides bubble tight shut off and ensures minimum torque values and longer seal life
- Square drive as standard. Round with key above 300mm
- The edge boot seat feature slower torque and eliminates the need for flange gaskets

### Technical data

- Wafer configuration (Lugged pattern optional)
- Cast iron body (Epoxy Coated)
- Manufactured to AS4795
- Face to face dimension to AS4795/ISO5752-20 Series
- Top flange to ISO 5211 Precision profile disc with polished edge Resilient seat / linear EPDM / Viton / NBR & PTFE
- Nominal Pressure 16 Bar
- Maximum working temperature -20° C to +110° C
- Size: 2" (50mm) to 12" (300mm) standard, larger sizes available on request



Durable design with high torques

## Knife gate valves VZKA



**Knife gate valve series** is a uni-directional lug type valve designed for non-clogging shut off on suspended solids. Suitable for diverse applications in Chemical plant, Wastewater, Pulp and paper, Power plants and Food & Beverage industries.

### Benefits

- One piece integrally cast stainless steel body
- Internal cast gate wedges and guides allow for tighter shut off. Internal design avoids any build up of solids that would prevent valve from closing
- Standard S/S stem offers long corrosion resistant life
- Unique design that mechanically locks the seat in the internal of the valve body with S/S ring
- In accordance with EU Safety Standards, gate guards prevents any object from being caught accidentally

### Technical data

- Sizes 2" (50mm) to 12" (300mm) standard, larger sizes on request.
- Cast iron body or stainless steel (lugged) mounting.
- To suit flanges to following standards, Table 'D' (PN10/ANSI to order).
- Mounting to pneumatic cylinders.
- Hand wheel fitted as standard.



Hand wheel or complete with pneumatic actuator (DLP)

## Ball valve series VAPB



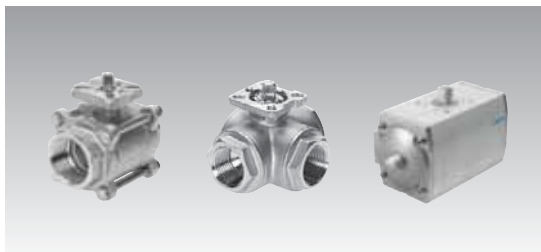
**Ball valve series: systematic safety for the process industry.** Explosion-proof, overload-proof and long-lasting valve control-even under the toughest conditions. Festo can supply everything from the valves themselves to pneumatic actuators and complete pneumatic and electrical control systems compatible with over 30 fieldbus protocols.

### Benefits

- Offers high quality ball valve solutions with full-flow cross-sections in brass and for enhanced corrosion resistance in stainless steel for industrial use
- Mounting flange in accordance with DIN ISO 5211 specifically designed for automating via pneumatic or electrical drives
- O-ring seal for vacuum applications

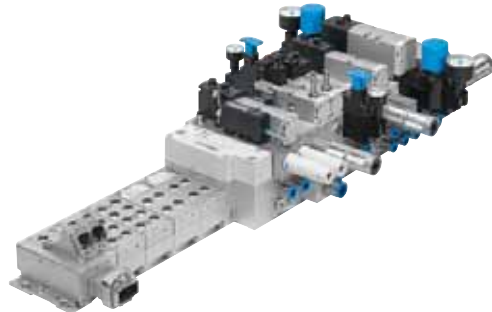
### Technical data

- 2-way ball valves in brass and stainless steel
- 3-way ball valves with female thread in stainless steel, ball with L or T connections
- For smooth and simple control of aggressive media or gases in piping systems
- Suitable for compressed air, water and neutral media
- Sizes 1/4" up to 2 1/2" (2-way)
- Sizes 1/4" up to 2" (3-way)



Individual valves or pneumatically actuated for a complete solution!

## Control Solutions



### Control solutions

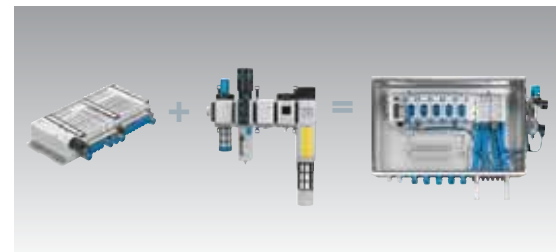
Festo offers a comprehensive package of products, systems and services. We provide customer specific product solutions tailored to suit your requirements. From a range of cabinets incorporating both PLC's and products from factory and process automation it meets a wide range of automation requirements providing a fast solution to complex tasks.

### Benefits

- Guaranteed solution from a cost and delivery time aspect
- Completely assembled, ready-to-install control cabinets for a time-saving, efficient installation
- Control cabinets completely pretested - electrically and pneumatically
- Fast, smooth and fault-free commissioning

### Advantages

- Compact design for a large number of valve functions
- Integration of pneumatic and electrical signals saves space and costs since only one fieldbus interface is required
- Use of suitable control cabinet materials: easy to clean, even when hygiene requirements are stringent
- Safe product design
- Valve terminals - with and without integrated remote I/Os



Individual components to complete systems!

## Angle seat valve VZXF



### Angle seat valve

The externally controlled angle seat valve VZXF works above 0 bar and can be used with slightly contaminated media and is suitable for applications involving steam.

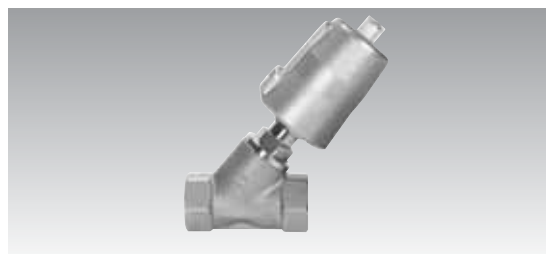
Valves of this design are switched by means of an additional pilot medium. The valve is closed by spring force when at rest. It is opened when pilot pressure is applied to the drive.

### Benefits

- Can also be used with slightly contaminated media
- Can be used for applications involving steam
- Direct pilot air supply
- No pressure differential required between the inlet and outlet
- Low flow resistance

### Technical data

- 2/2 way, single solenoid, closed
- Available sizes G1/2" to G2" pneumatic connection



Stainless steel series!

## Hygienic valves VZBB, VZFA



### Hygienic ball and butterfly valves

Stainless steel valves suitable for use in specific industry segments and for applications in the food, pharma and chemical industries. For the attachment of pneumatic or electric actuators and switch box.

### Technical data for VZBB

- Connecting thread (VZBB-C/D): DIN11851, BS4825
- Connecting thread: (VZBB-S): SMS 1145
- Nominal diameter DN25-DN100 1" - 4" sizes
- Connection possibilities via clamp, welding, male, nut
- Operating mediums neutral liquid, water
- Seal (Ball) is EPDM: FPM
- Reversible flow
- FDA approval

### Technical data for VZFA

- Connecting thread (VZFA-C/D): DIN11851, BS4825
- Connecting thread: (VZFA-S): SMS 1145
- Nominal diameter DN25-DN100 1" - 4" sizes
- EPDM seals
- Temperature medium -10°C ... +130°C
- FDA approval
- Disc to AISI 316L (1.4404) standard



Complete hygienic solution

## Namur valve VSNB



### Namur valve series

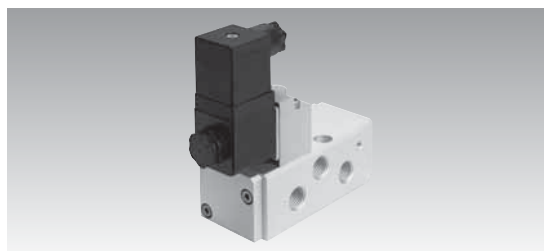
VSNB valves are designed for all areas of process engineering and are ideal for use in areas where a robust NAMUR valve is going to be used for the control of rotary drives and linear drives.

### Benefits

- VSNB valves have CNOMO size 30 interface for pilot solenoid valve
- Quick, easy and safe installation or conversion thanks to modularity
- With or without pilot solenoid valve
- Durable and robust valves as a result of the venting air holder
- Pneumatic control in critical explosion zones

### Technical data

- Valve functions:
  - 3/2 way valve single solenoid
  - 5/2-way valve single solenoid
  - 5/2-way valve, double pilot valve
- Operating voltage 24 VDC, 110 VAC, 230 VAC  
Ambient temperature -10 ... 60 °C
- IP 65 solenoid coil with port pattern, type A
- Manual override: non-detenting/detenting



Optional electrical connection

## Sensor Box SRBF



### Process reliability in focus:

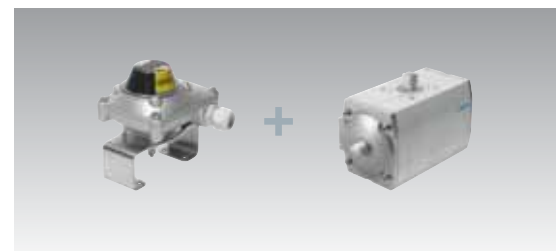
The sensor box SRBF senses and visualises the end positions of quarter-turn actuators. When the end position is reached, two separately adjustable cams activate micro switches so that an electrical signal can indicate via the connected cables that the end position has been reached. This is also indicated visually via a plastic hood.

### Benefits

- Four sensor boxes with preassembled mounting adapters are available for quarter-turn actuators with interface to VDI/VDE 3845 (Namur interface)
- Quick and easy adjustment of the actuating cams in the sensor box without using an additional tool
- Extremely good value for money

### Technical data

- IP67 – can be used in harsh environments
- 8-pin terminal block and yellow/red indicator
- 4 types with different hole patterns and shaft heights



SRBF perfect supplement to DFPB-rotary drive

## Quarter turn actuator DFPB



**Controlling process valves:** the quarter turn actuator DFPB controls process valves in contact with media. Its sturdy design and torque gradation make it ideal for use in drinking water and waste water treatment processes.

### Benefits

- Highly corrosion-resistant (CRC 3), sturdy and compact, ideal for outdoor use
- Long service life thanks to lip seal
- Self-lubricating and optimum emergency operating characteristics thanks to slip bands impregnated with carbon (30% carbon)
- Clean design without any countersunk holes or edges for easy cleaning in splash zones
- One housing for double-acting and single-acting drives
- Both clockwise and anti-clockwise rotation thanks to process valve connection to ISO 5211 at both ends

### Technical data

- Rotation angle and adjustment up to 94°
- Shaft made from anodised aluminium
- End-position adjustment with all sizes using externally and internally sealed and encapsulated lock nuts



Reliable and maintenance free closed-loop control of inlet and discharge in reliable processes

## Regulated linear drive DFPI



**Sturdy and reliable:** the regulated drive DFPI with integrated displacement encoder, valve block and positioner. This linear drive is perfect for controlled positioning.

### Benefits

- Sturdy and compact housing – ideal for outdoor use
- Quick and easy integration in existing control architectures: actuation via PLC
- Speed of the forward and return motion to both end positions individually adjustable thanks to flow control function
- With fully integrated (ATEX II 2D) or external positioner (ATEX II 3D)
- High IP protection (IP65 and IP68)

### Technical data

- Displacement encoder via linear potentiometric displacement sensor
- Series with 100, 160, 200, 250 and 320 mm diameters available
- X length up to 1,000 mm possible



Sturdy and reliable measuring distances and controlling knife gate valves and penstock valves

# Your partner for process industry automation

	Components	Systems	Customised systems
<b>Operating level</b>	Front end display FED (View) Front end display FED (Touch)		
<b>Control level</b>	Integrated controller CP9-CEC Modular controller CECK Integrated controller FED-CEC		
<b>Remote I/O</b>	Electrical terminal CP1 Modular electrical terminal CP6 Handheld MW1 Modular valve terminal CP6/MVA		
<b>Valve terminals</b>	Valve terminal CPV Valve terminal MVA/MVA-F Valve terminal VTSA/VTSA-F Valve terminal CQV Valve terminal CPV Ex-I for explosive areas	Quarter-turn actuator DAPS with ball valve V2BC	Units for high and low temperature applications
<b>Field level</b>	Pilot valve VQFD (Nema) Pilot valve VQFC (Nema) Solenoid valve VSAB (Nema) Standard valve NVV (Nema) Solenoid valve MFI Directional control valve CPE	Quarter turn actuator DAPS with ball valve V2B	Compact performance valve terminal CPV with stainless steel cover
<b>Accessories</b>	Service units Dryers Couplings Push-in fittings Plastic tubing Pressure booster DPA Local controller DLP-VSE Positioner GEM3	Quarter turn actuator DAPS with ball valve V2B Quarter turn actuator DAPS with ball valve V2B	Customised control cabinet solution, also for explosive areas
<b>Sensors</b>	Sensor boxes DAP1 Sensor box SBF Sensor box QH-DR-E Proximity sensor OXMED Proximity sensor SMI/SMT Displacement encoder MLO-PC1	Quarter turn actuator DAPS with ball valve V2A	Customised control cabinet solution, also for explosive areas
<b>Actuators</b>	Semi rotary actuator DPE Quarter turn actuator DRD/DRE Quarter turn actuator DAPS Linear actuator DLP Controlled linear actuator DPL Stainless steel round cylinder CRND	Quarter turn actuator DAPS with ball valve V2A Linear actuator DLP with knife gate valve VXX	Quarter turn actuator DAPS with ball valve and sensor box
<b>Valves/ process valves</b>	Diaphragm valve VEX Diaphragm valve VEXM Ball valve VAPB Ball valve V2BA Hygienic ball valve V2DB Ball valve V2BC Hygienic butterfly valve V2YA Butterfly valve V2AB	Linear actuator DLP with knife gate valve VXX	Quarter turn actuator DAPS with ball valve and sensor box

## Solutions for process in your industry...



Water / Waste Water

### Areas of application:

- Sewage treatment plants
- Pump stations
- Desalination plants
- Irrigation
- Sludge treatment
- Biowaste treatment



Mining Industry

### What we offer:

- Corrosion resistance
- Outdoor use
- High IP protection
- Pneumatic Category 4
- Extended temperature changes
- Customer specific solutions



Food & Packaging

### Areas of application:

- Water treatment
- Dosing, mixing
- Transport of cleaning chemicals
- Filling
- Sorting and packaging
- Waste water disposal



Chemical & Petrochemical

### What we offer:

- High corrosion resistance
- High level of safety
- Product quality and reliability
- Explosion protection

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