

FESTO

Product Overview
Process Automation



Industries....



Paper



Food and Beverage



Water



Electronics



Chemical



Mining



Biotech/Pharma



Oil/Gas

You are looking for a partner who understands your objectives.
 You require more efficient production facilities.
 We are your solution for automation.

→ WE ARE THE ENGINEERS OF PRODUCTIVITY.

Festo - the industry segment partner

For years, Festo has been developing process automation solutions for a broad range of industry sectors. By transferring our experience from one industry to another, we take advantage of valuable synergies and create economies of scale.

You too can benefit from our worldwide network of know-how, because it enables us to develop and implement customised concepts for your system quickly and economically.

Product range for process automation

Festo process automation products offer all the individual levels of the automation pyramid, from the operating level to the field level.

Customers worldwide receive all their components from a single source: control technology and remote I/Os, valve terminals, pilot valves, sensors and positioners, actuators, process and media valves, compressed air preparation and pneumatic connection technology.

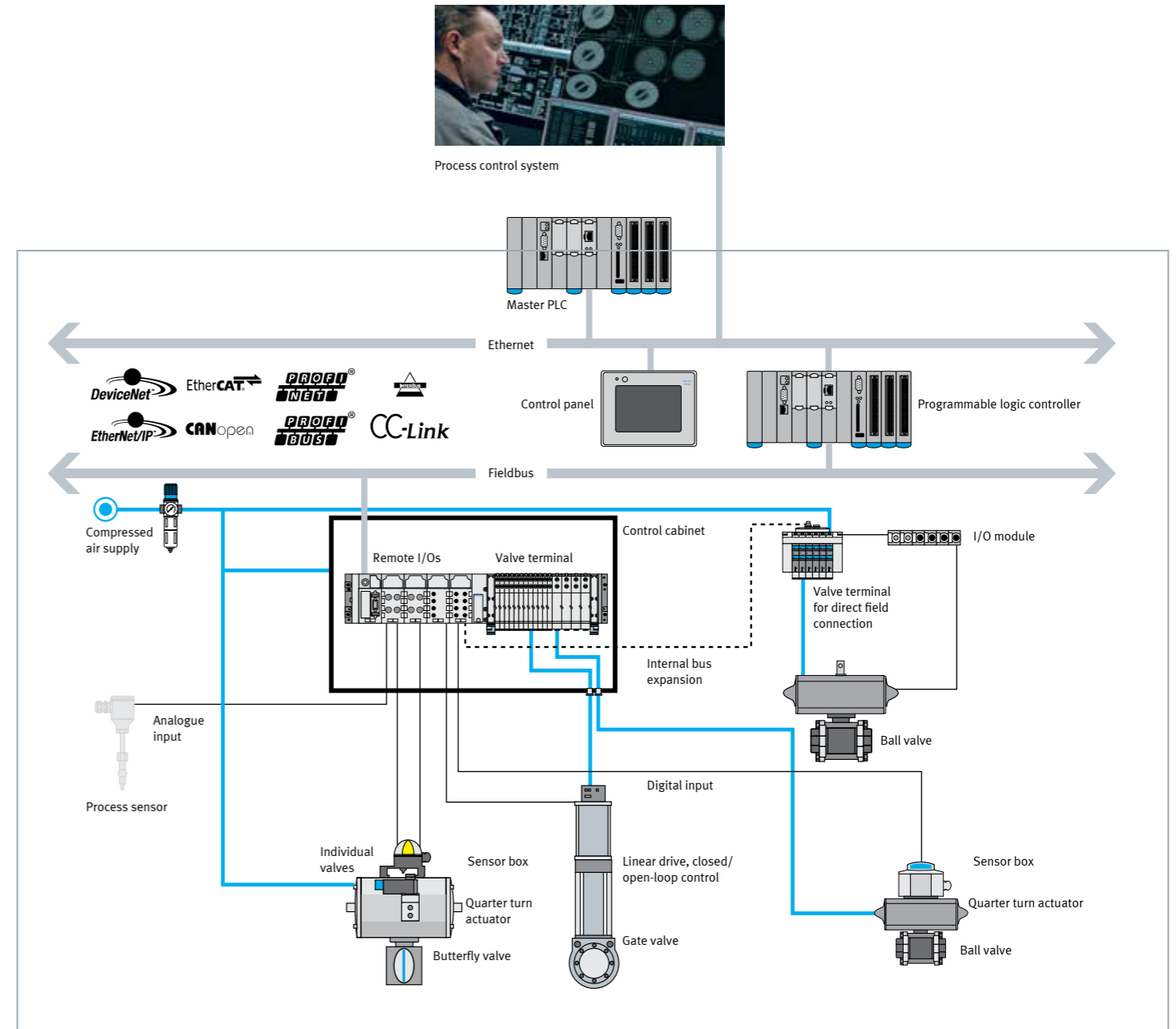
Each year we are keeping abreast with the fast pace of technological progress by continually expanding the range of products for each industry segment. In addition, the functionality of products has been adapted to particular functions of the process technology and process engineering such as explosion protection, corrosion resistant, etc.

Maximum productivity – this is our mission

Our know-how, our holistic approach and our love of detail have made us a global leader in automation technology. With over 50 years' experience in factory and process automation, we are the right partner for you. We are always able to provide an appropriate solution which is characterised by security, simplicity, efficiency and competency.



Giving you a head start: Complete Automation Systems from a Single Source...



Actuated Ball Valve Assemblies

Fully automated ball valves from a single source make planning, procurement and commissioning significantly easier and more cost effective. It eliminates a considerable amount of product configuration, reduces warehousing costs for spare parts, and speeds up service and maintenance.

Suitable for a wide range of applications in various industries including...



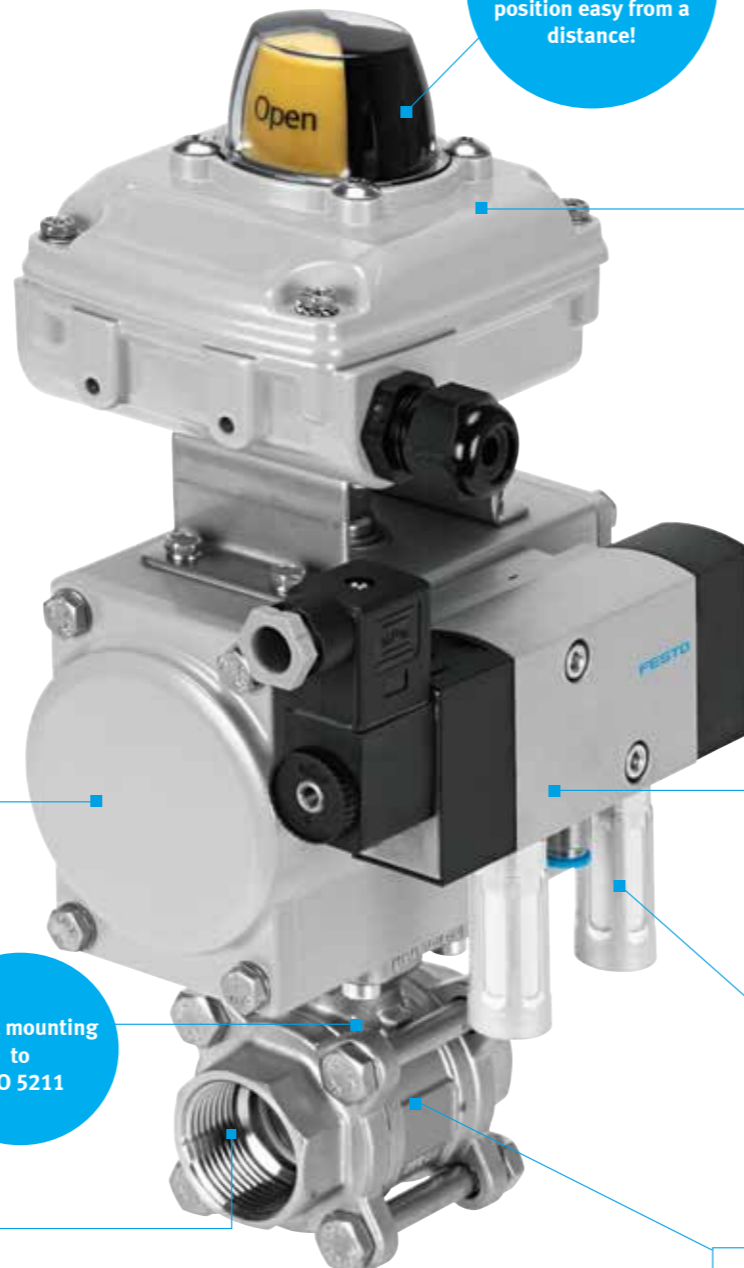
Actuated polymer valves for chemical applications



Sanitary and hygienic options for food processes



Ex approved accessories for hazardous areas



High visibility indication makes identifying the valve position easy from a distance!

Direct mounting to ISO 5211

Pre-assembled with silencers and fittings to reduce installation time!

Quarter turn actuator DFPD

- Compact
- Single or double-acting variants
- End-position adjustment at both ends
- Optimised spring setting design



Options

- Corrosion resistant version with epoxy coating and high grade stainless steel shaft
- Extreme temperature versions
- 180° swivel angle



Alternatives

Quarter turn actuator DAPS-CR

- All stainless steel design for corrosive environments



Quarter turn actuator DAPS-MW

- Direct hand wheel actuation for manual override



Ball valves

A wide range of 2-way and 3-way ball valves for the control of liquids and gaseous media. Can be Normally closed (NC) or Normally open (NO).

VZBA/VZBE

- 2-way
- CF8M body and ball material
- PTFE seals
- Standard BSP or NPT connection



Standard NAMUR valve VSNC-...F8

- Rotatable seal for 3/2 or 5/2-way function
- Multiple coil voltage options
- Excellent price/performance ratio

Single solenoid 3/2 or 5/2



Double solenoid 5/2 or 5/3



Options

NAMUR valve VSNC-...FN

- Ex solenoid options for hazardous areas
- Aluminium alloy cover material for outdoor applications



Alternatives

Pilot valves VOFC and VOFD

- Reliable and safe switching
- 3/2-, 5/2-way valves with ports G1/4", G1/2" and NAMUR
- SS or Ematel body for corrosive environments
- SIL 3 certified
- Ex solenoid options for hazardous areas



Dual valve option for redundant safety requirements



Manual versions also available



Hygienic



- Suitable for food
- EPDM, FPM, or silicone seat

VZBM



- 2-way
- Nickel plated brass
- Low cost

VZBA/VZBE



- 2-way and 3-way
- Stainless steel
- L or T port

VZBF



- Fire safe
- Stainless steel
- ANSI flange

VZBD



- 3A Sanitary
- Cavity filled
- Weld or tri-clamp

Actuated Butterfly Valve Assemblies

Fully automated butterfly valves from a single source make planning, procurement and commissioning significantly easier and more cost effective. It eliminates a considerable amount of product configuration, reduces warehousing costs for spare parts, and speeds up service and maintenance.

Suitable for a wide range of applications in various industries including...



Food grade options for powder handling



Valve positioning solutions for flow control



Abrasion resistant options for powders and solids

Quarter turn actuator DFPD

- Compact
- Single or double-acting variants
- End-position adjustment at both ends
- Optimised spring setting design

Options

- Corrosion resistant with epoxy coating and high grade stainless steel shaft
- Extreme temperature versions

Alternatives

Quarter turn actuator DAPS-CR

- All stainless steel design for corrosive environments

Quarter turn actuator DAPS-MW

- Direct hand wheel actuation for manual override

Quarter turn actuator DFPD-HD

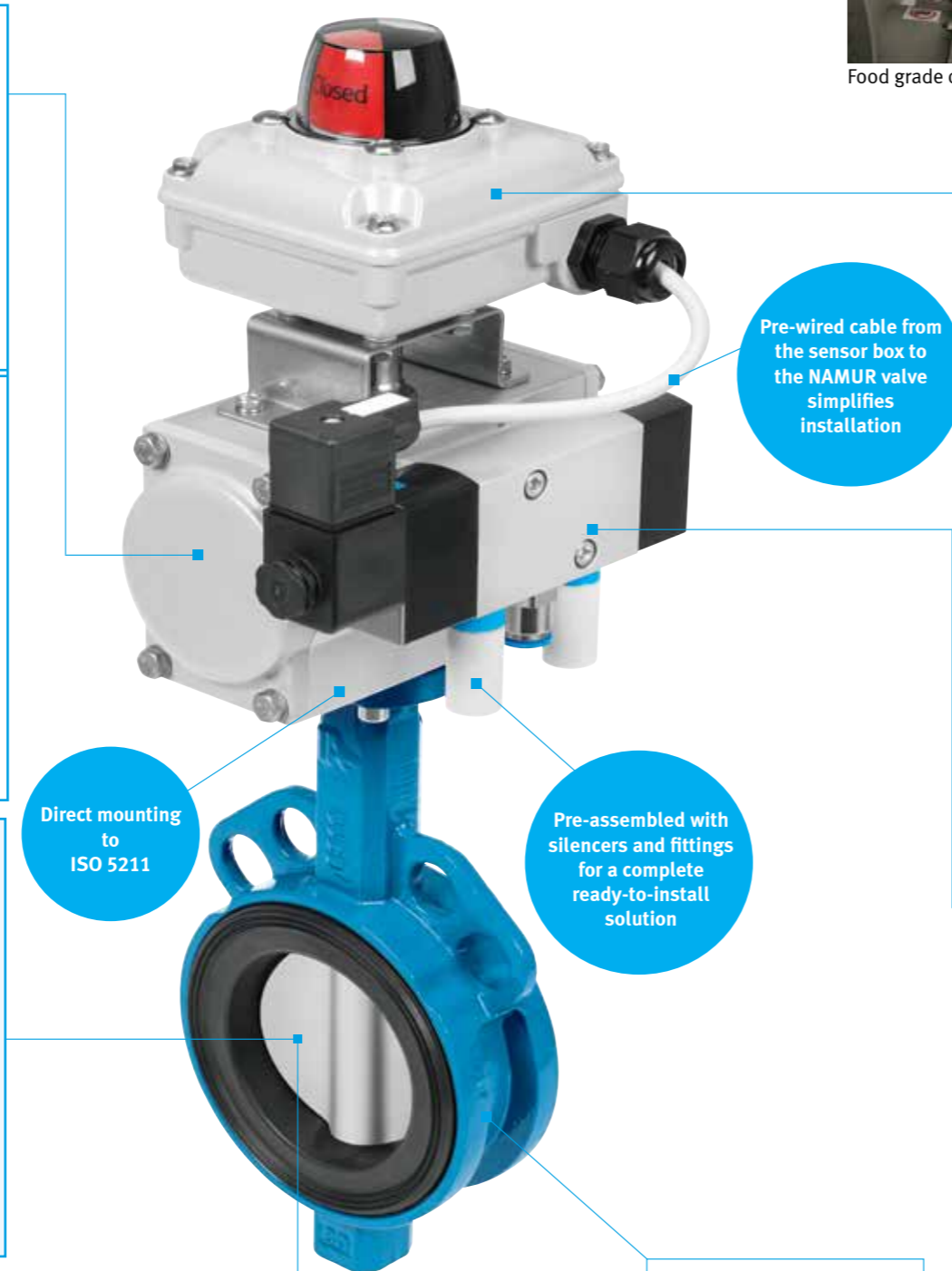
- For high torque applications

Butterfly valves

Ideal for liquids, gases and solids in applications that are corrosive, abrasive, water based or require food-grade materials. Can be Normally closed (NC) or Normally open (NO).

VZAV

- Wide range of resilient seat options to suit different applications
- Epoxy or polyurethane coated cast iron body
- Various food grade options (FDA approved materials)
- Wafer, lugged and ANSI U-Section connections
- DN25 to DN1600



Sensor box SRBC

- Weather-tight aluminium housing for outdoor applications
- Mechanical, inductive or magnetic switch variants
- Two cable inputs for common power supply to the sensor box and solenoid valve

Alternatives

Sensor box SRBE

- Mechanical, inductive or magnetic switch variants
- Ex approved for hazardous area installations

Sensor box SRBG

- Compact design
- Inductive dual sensor
- Direct mounting to VDI/VDE 3845
- M12 or terminal port connection
- ASI interface compatible

For positioning and control - CMSX

- Excellent price/performance ratio
- Energy-efficient
- 4-20mA feedback as standard
- Pre-definable safety position for emergency stop

Standard NAMUR valve VSNC-...F8

- Rotatable seal for 3/2 or 5/2-way function
- Multiple coil voltage options
- Excellent price/performance ratio

Options

NAMUR valve VSNC-...FN

- Ex solenoid options for hazardous areas
- Aluminium alloy cover material for outdoor applications

Single solenoid 3/2 or 5/2 Double solenoid 5/2 or 5/3

Alternative hygienic solution

Vertical style actuator with Festo manufactured control top also available

Hygienic

- Food applications
- EDPM, FPM or Silicone seat
- DN25 to DN100

VZAF

- Corrosive/high purity application
- Stainless steel optional
- DN32 to DN900

Manual operators also available

Alternatives

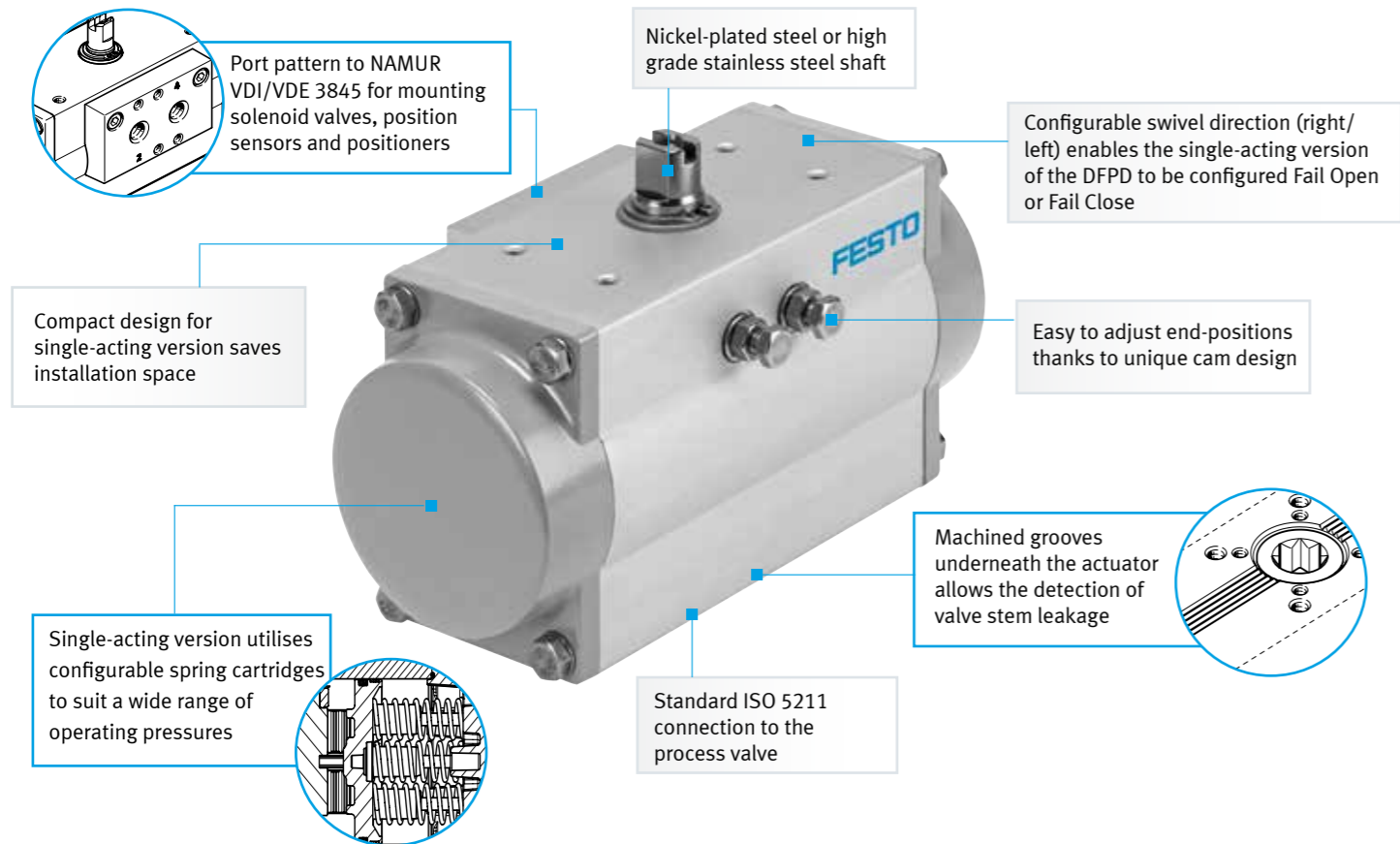
Pilot valves VOFC and VOFD

- Reliable and safe switching
- 3/2-, 5/2-way valves with ports G1/4", G1/2" and NAMUR
- SS or Ematel body for corrosive environments
- SIL 3 certified
- Ex solenoid options for hazardous areas

Dual valve option for redundant safety requirements

Quarter-Turn Actuator - DFPD

DFPD is the new benchmark for quarter turn actuators. It can be supplied as an individual actuator or as part of a complete automated process valve system from Festo.



Quarter turn actuator DFPD - Double and single acting Variants

- Corrosion resistant version with epoxy coating and high grade stainless steel shaft
- Low and high temperature versions from -50 °C to +150 °C for extreme operating conditions
- 180° swivel angle available for double acting version



Completely automated process valves from a single supplier

When combined with a sensor box, a pilot valve or positioner, the quarter turn actuator DFPD forms part of a complete automated process valve assembly.



Extreme temperature environments



High corrosion resistance in harsh operating environments



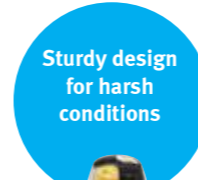
Compact design for tight installation spaces

Find out more:
→ www.festo.com/dfpd

Sensor Boxes to VDI/VDE 3845

Sensor boxes are used for electrical feedback and control of the position of process actuated valves with pneumatic quarter turn actuators. No matter which sensor box you choose, they are all designed for quick and easy mounting to reduce installation effort.

Sensor box SRBC



- Weather-tight housing for outdoor applications
- Mechanical, inductive or magnetic switch variants
- Clearly visible position indicator for detection of current position
- IP67
- SIL2

Sensor box SRBE



- Flameproof enclosure enables installation without safety barriers
- Ex approved for hazardous area installations
- IP67
- SIL2

Sensor box SRBG



- Direct mounting with minimal space required
- Inductive dual sensor
- Ex version for hazardous areas
- M12 or terminal port connection
- ASI interface compatible
- IP67

Limit switch DAPZ...AR

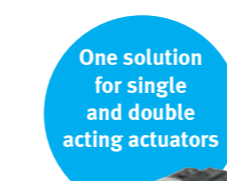


- Micro switch or inductive sensor for position sensing
- Integrated solenoid valve actuation
- IP67

Namur Valves

NAMUR valves are pilot valves for single and double acting quarter turn and linear actuators. They are designed to automate and control process valves and actuators safely and reliably.

Namur valve - VSNC



- Rotatable seal for 3/2 or 5/2-way function
- Multiple coil voltage options
- Capable of high flow rates
- Extended temperature ranges
- Air-recycling feature for 3/2 configuration to eliminate internal actuator corrosion

Namur valve - VSNC-Ex



- Application optimised for IP65 and Ex coils with protective cap for armature tube exhaust
- Ex approved
- Air-recycling feature for 3/2 configuration to eliminate internal actuator corrosion
- Cover material for outdoor applications

Pilot valve - VOFD



- 3/2-way single, closed, single solenoid
- For outdoor use under harsh ambient conditions
- Extremely reliable for direct actuated valves, in particular for emergency shut-down functions

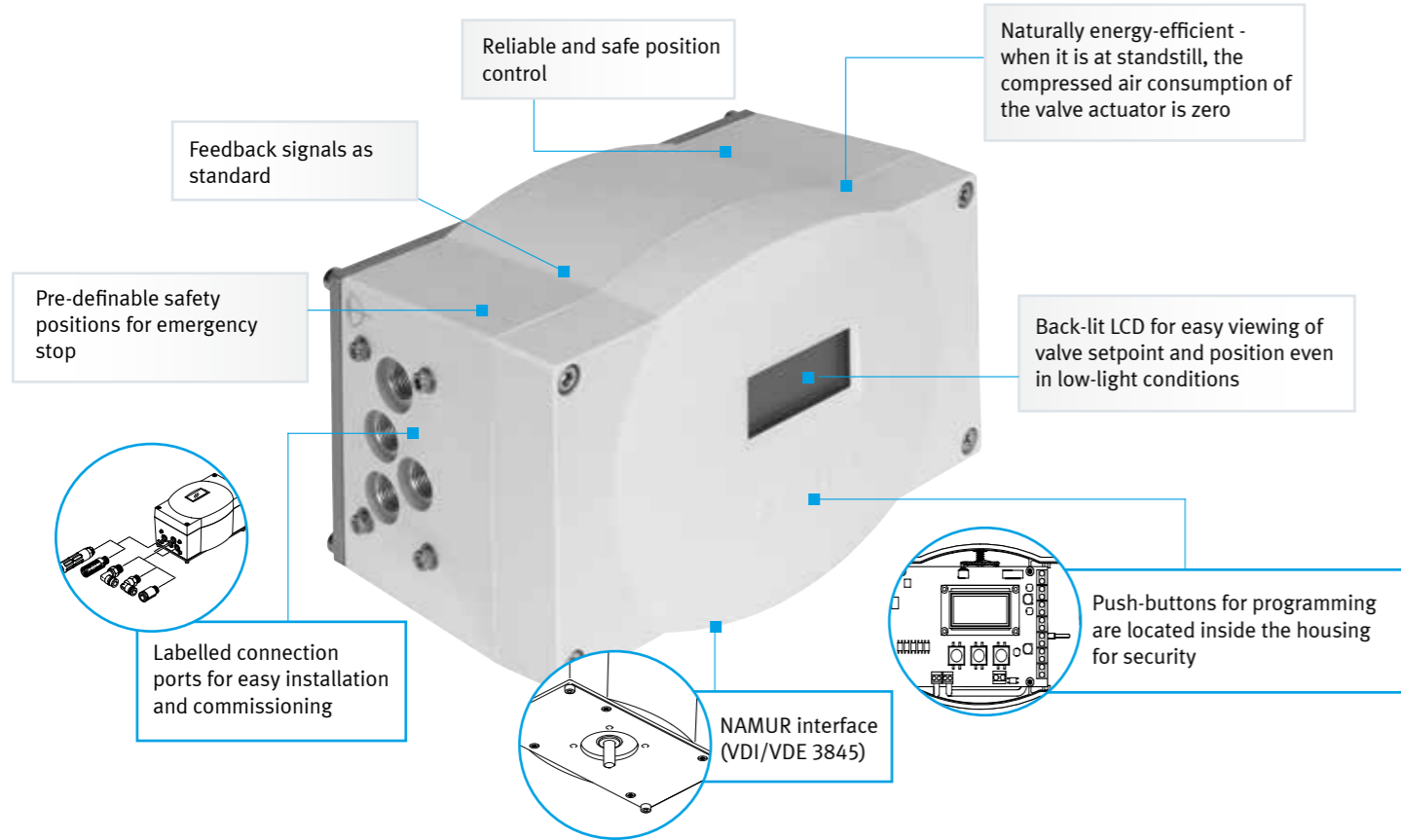
Pilot valve - VOFC



- 3/2-way, 5/2-way single and double solenoid
- Ematal surface treatment offers long lasting protection against wear and corrosion
- For safety-orientated systems up to Safety Integrity SIL 3

Positioner - CMSX

The newly optimised positioner CMSX for single and double-acting linear and quarter turn actuators is as economical as it is reliable and a top performer in its class for non-explosive areas.



Positioner for linear and quarter turn actuators - CMSX

- Reliable position control
- Analogue feedback as standard
- Safety positions for opening, closing and holding in the event of a breakdown
- Set-point value configurable to 0-10V, 0-20mA or 4-20mA

Variants

- Linear input for use with DFPI on applications where the positioner is required to be remote mounted or accessible for programming/calibration
- Higher flow rate [130 litres/minute] to allow faster response time for large actuators

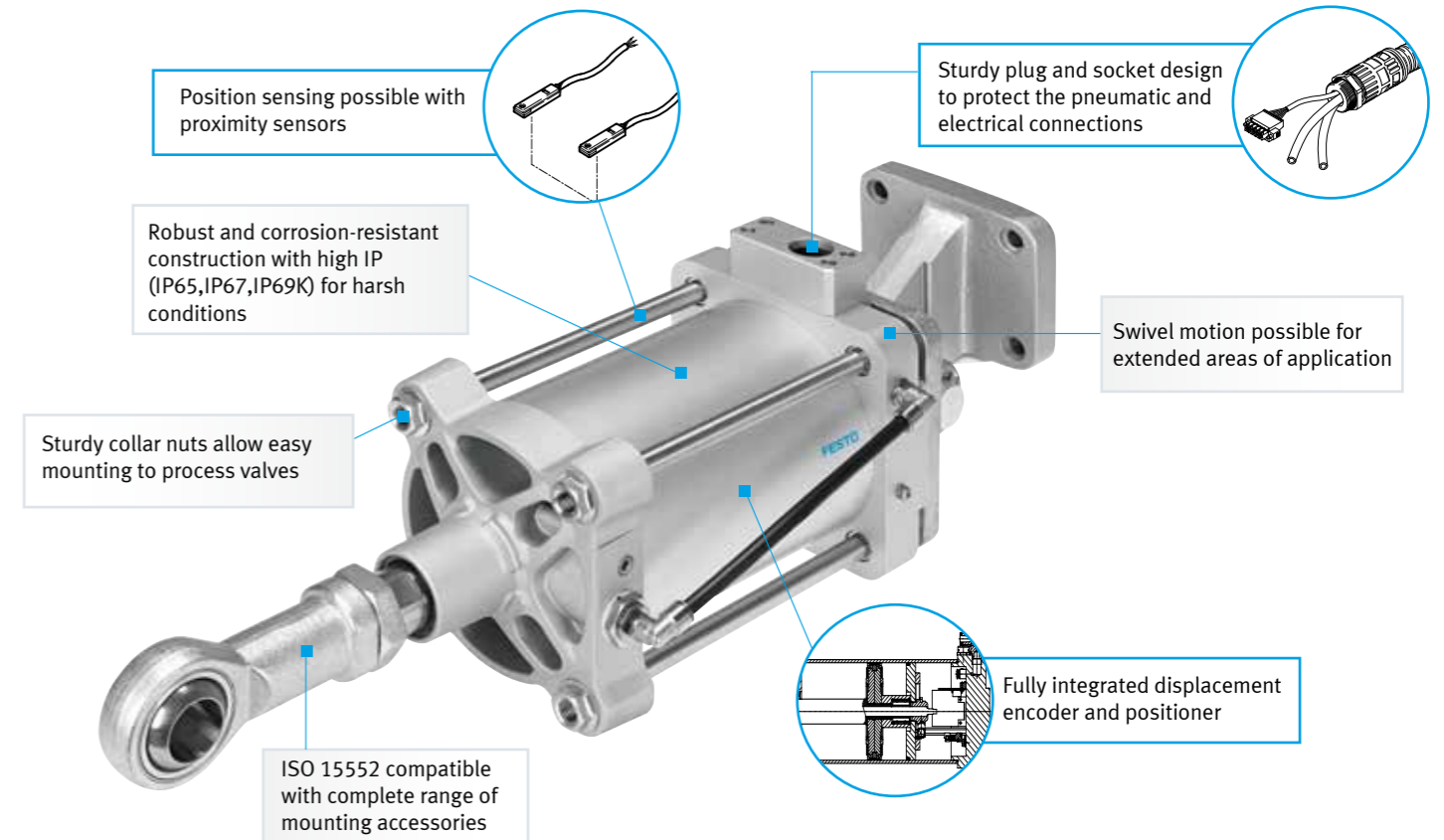
Complete solutions from a single supplier

When combined with linear or quarter-turn actuators, the CMSX forms part of a complete automated solution.



Linear Positioning Cylinder - DFPI

The linear actuator DFPI is suitable for a wide range of applications due to the optional integrated positioner or an integrated displacement encoder for use with an external positioner and an optimised guide rod for swivel motions. It is suitable for regulating air dampers and processing bulk materials as well as for regulating flow and fill levels.



Linear positioning cylinders - DFPI

- Double-acting
- ISO 15552 sturdy tie rod design
- Suitable for applications requiring closed-loop control

Alternatives

- Linear actuator with external positioner CMSX
- Fully integrated actuator with positioner to DIN 338



Actuated process valves with linear positioner

The DFPI is highly suitable for the control of slides, knife gate valves, pinch valves, dart valves, penstocks and more. As a solution supplier, we can offer a complete assembly for easy installation.



Designed for controlling process valves such as a butterfly valve across a wide range of industry sectors

Valve positioning solutions for flow control

High flow version for large actuators

Find out more:
→ www.festo.com/cmsx



Controlled sluice gate for flowrate of return sludge at a wastewater treatment plant



Control of dart valve for level regulation in mineral processing

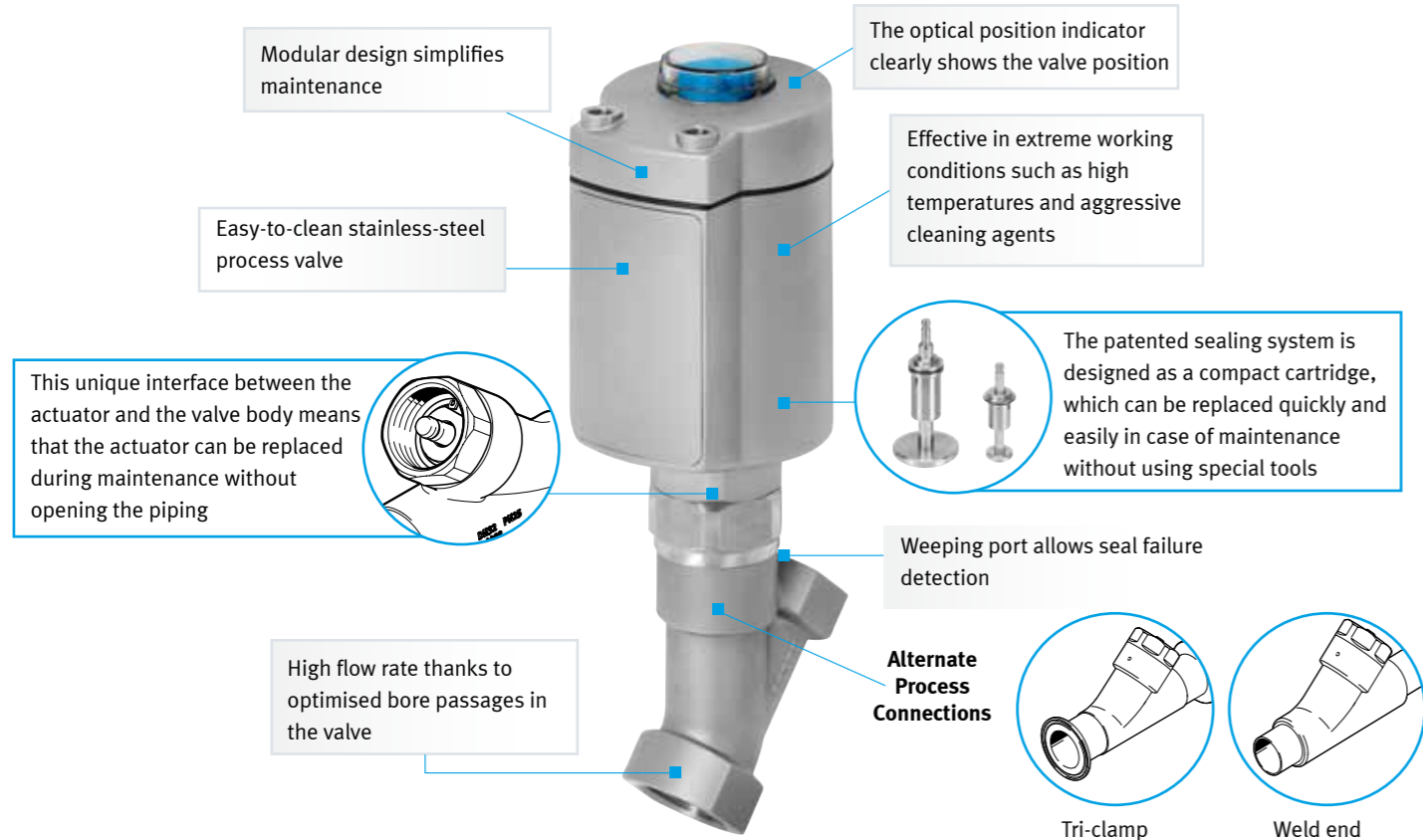


Control of silo discharge in fertiliser processing

Find out more:
→ www.festo.com/dfpi

Angle Seat Valve - VZXA

The VZXA angle seat valve offers long service life, a robust design and high flow rate making it ideal for the control of liquids, gaseous, viscous, contaminated or aggressive media flows.



Angle seat valves VZXA

- 2/2-way valves
- Stainless steel
- Piston style actuator
- Normally open (NO), Normally closed (NC) and Double acting (DA) versions
- Standard temperature -10 to 180° C (optional -30 to 200° C)

Variants

- Diaphragm style actuator
- Normally open (NO) and Normally closed (NC) versions

Alternative

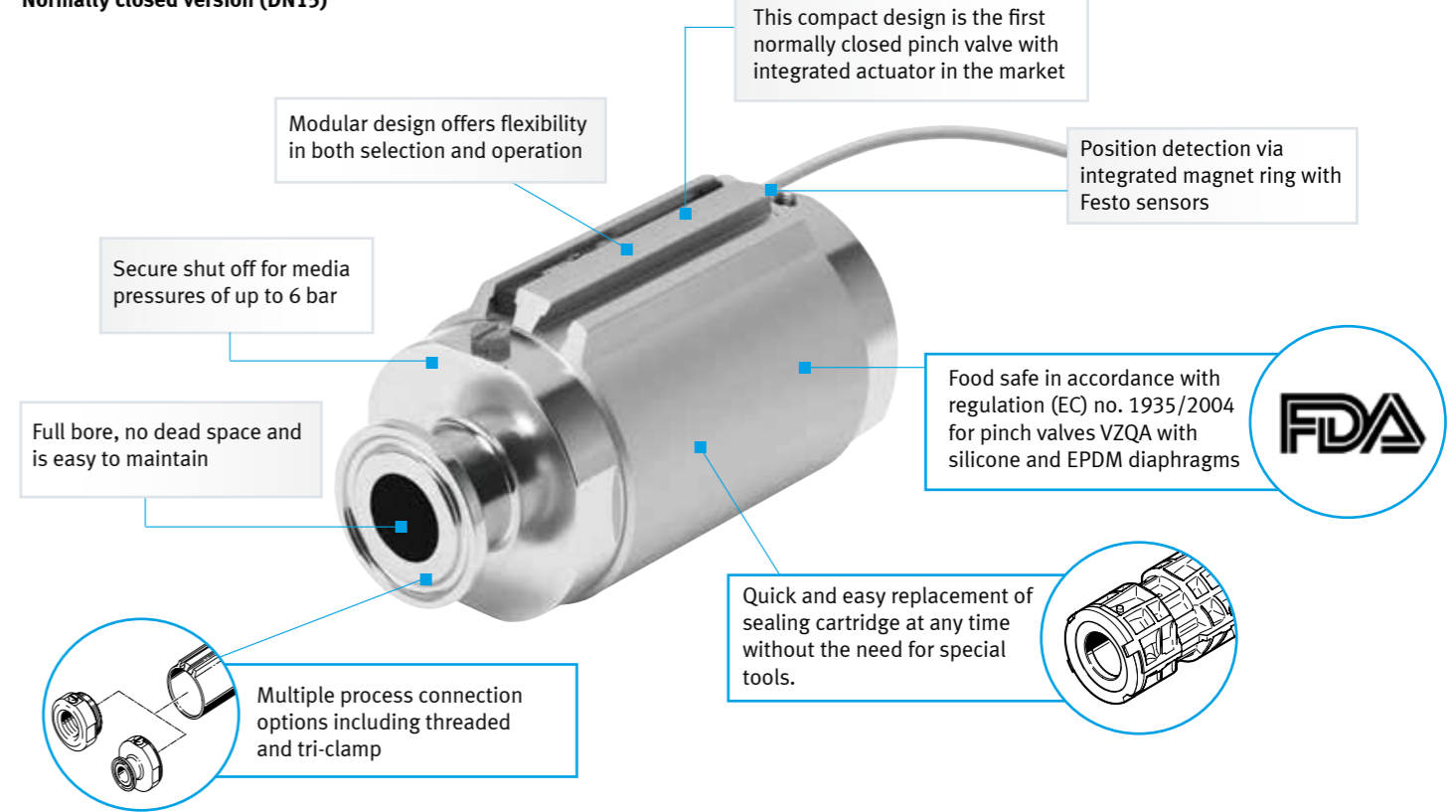
Angle Seat Valve VZXF

- Brass body
- Piston style actuator with optical indicator
- Normally closed (NC) with threaded connection
- High temperature version for steam
- Vacuum rated

Pinch Valve - VZQA

The VZQA pneumatic pinch valve is a versatile solution for a wide range of media such as gases, granulates, liquids, syrups and media with entrained solids, regardless of whether they are abrasive, corrosive or highly viscous.

Normally closed version (DN15)



Pinch valves VZQA

- 2/2-way valves
- Easy-to-clean housing (clean design)

Variants

Normally open version

- Media pressures up to 4 bar
- Threaded and tri-clamp connections
- Sizes DN6, DN15 and DN25

Materials

- Housing material**
- Aluminium
 - Stainless steel

- End cap material**
- Aluminium
 - Stainless steel
 - POM (Acetal)

- Shut-off element**
- EPDM
 - NBR
 - Silicone



KEG washing and filling



Water cooling systems



Shut-off control for glycol used in food production

Find out more:
→ www.festo.com/vzxa



Filling applications



Dispensing



...even as a gripper!

Find out more:
→ www.festo.com/vzqa

Solenoid Valves

The 2/2-way solenoid media valves are suitable for neutral gases and liquid media for both factory and process automation. At Festo, you can find the right valve for your fluid control requirements thanks to our range of solenoid valve options.

Servo controlled - VZWP

Large operating pressure range



- For all applications with a differential pressure at least 0.5 bar
- For use in open media circuits
- High pressure up to 40 bar
- Media with viscosity up to 22 mm²/s

Forced pilot - VZWF

Ideal for applications in closed media circuits



- Possible to control high pressures with large nominal diameters
- Zero differential pressure required
- Generally suitable for use in all cases where the medium can be vented downstream of the valve

Direct acting - VZWD

High pressures with low flow rates



- Operates without differential pressure at up to 90 bar, even in closed media circuits
- Valve will switch at any pressure from 0 bar
- N/C function
- 3/2-way version available for piloting process valves

Diaphragm valve - VZWM

Normally open



- Diaphragm valve
- Brass or stainless steel casting design
- Wide range of coils with a variety of different voltages available. Add new point "NC and NO versions available
- Variety of different voltages available

Air Preparation, Tubing and Fittings

A pneumatic system is not complete unless you have considered the right air preparation and accessories such as fittings and tubing. These components are part of the core range from Festo and are readily available in a range of different variants.

Air preparation - MS

Modular product series



- Simple or complex applications
- Individual or pre-assembled units
- Integrated functions such as safety, energy efficiency
- Sturdy housing
- Easily expandable
- Size range from 1/8" up to 2"

Air preparation - D

Air prep for standard applications



- Basic functions for standard applications
- Individual or combination units for complete solution
- Sizes from 1/8" up to 1"
- Aluminium housing and metal bowl guards
- 3 grid sizes MINI, MIDI and MAXI
- Accessories available

Tubing

Application specific tubing



- Wide selection of tubing materials
- Pressure resistant, heat resistant, antistatic, resistant to cleaning agents, media resistant, flame retardant, welding splatter resistant, food industry approved
- Different colour options

Fittings

Fittings for all purposes



- More than 300 connectors and numerous connections
- Mini, standard, metal, polymer and corrosion resistant fittings
- Push in, threaded, barbed, couplings
- Flow controls, shut-off and non-return valve fittings

Valve Terminals

Festo offers the largest and most flexible range of Valve Terminals. Valve Terminals are completely pre-assembled modules consisting of pneumatic valves, electrical connection technology and communication network capabilities.

Valve terminal - VTUG

Compact and cost-effective



- Multi-pin, fieldbus, IO-Link
- Up to 24 valve positions
- Degree of protection IP40, IP65, IP67
- Multiple different pressure zones on one valve terminal
- Control cabinet optimised version available

Valve terminal - MPA

High performing and expandable series



- High performance valves in sturdy metal housing
- With multi-pin plug, AS-interface, CPI, fieldbus connection and control block
- Up to 16 2/2-way or 3/2-way valves thanks to two valve function in each valve slide

Valve terminal - CPX-P

Modular with remote I/O for NAMUR signals



- Extremely modular with up to 9 modules per terminal
- Compatible with PROFIBUS DP, PROFINET, Modbus TCP, DeviceNet and Ethernet/IP
- Integration of valve terminal and remote I/O on a single platform saves installation space

Valve terminal - CPV10-Ex

Ideal for explosive areas



- Intrinsically safe design for use in potentially explosive atmospheres
- Ideal for very high flow rates in small spaces
- Up to 16 x 3/2 way valves per valve terminal
- Extremely robust thanks to the metal valve design
- Optimised for control cabinets

Sensors

Festo caters for all your sensing needs. Our comprehensive portfolio of sensors combines optimum performance and maximum reliability to ensure smooth and efficient production sequences.

Pressure sensor - SPTW

Ideal for pressure and vacuum sensing



- Pressure and vacuum sensing for gaseous and liquid media
- High media resistance
- Pneumatic connection G1/4 female thread
- Electrical connection via M12, 4-Pin
- Accuracy ± 1% FS
- Repeatability ± 0.1% FS

Pressure transmitter - SPAW

Perfect for measuring media pressures



- For liquid and gaseous media, pressure and vacuum
- 4-digit LED display, with display options - Bar, MPA, kPa, Psi, Kg/cm²
- Electrical connection 4-pin Plug M12x1 or 5 pin Plug M12x1
- Accuracy ± 1% FS
- Repeatability ± 0.1% FS

Flow sensor - SFAW

The easy way to monitor fluids



- Measures flow rate, consumption and temperature of neutral liquid media
- Highly visible display
- The display and the housing can be freely rotated
- IO-Link support
- Easy to replace the sensor and fittings

Cylinder sensor - CRSMT

Cylinder sensors for outdoor use



- Suitable for outdoor use and washdown applications
- Resistant to oils, acids and alkalis
- Recommended for use with Festo cylinders DFPI and DSBG

Control Cabinets

Control cabinets from Festo are individually designed and adapted to requirements in process automation. Cabinets provide protection for all pneumatic and electrical system components across all industry segments.

Save time and costs with ready-to-install cabinets

Just one order number for the entire control cabinet

Integration of pneumatic and electrical system completely designed and assembled

Stainless Steel cabinets also available for use in corrosive environments

Technology mix from one single source

Provides protection against harsh elements

Labelling of the connections in the control cabinet and in the documentation

Quick and easy maintenance thanks to clearly arranged, neat and compact tubing

Options

For hazardous areas with intrinsically safe valve terminals CPV10-Ex

Protection from dust or liquids as per protection class IP66, especially in the mining industry

Integrated control cabinet solution for outdoor use, ideal for the water/wastewater industry

Stainless steel cabinets for hygienic purposes and mounting in clean rooms

Extremely compact design to protect valve terminal controls with connections underneath

Control cabinets made to measure

- Individually configured
- Adapted to specific requirements in process automation
- Design and sizing included
- Fully tested system
- You receive detailed system documentation:
 - Assembly drawings
 - Parts list
 - Circuit diagrams
 - Operating instructions for components



Services and Support

Our goal is to increase your productivity. Our software tools play an integral part in achieving this goal and are constantly being refined. They help you tap into productivity reserves and generate additional productivity along the entire value chain. In every phase of your project, from the initial contact to the modernisation of your machine, you will come across a number of different tools which will be of use to you.

Quick Search Plus Application



The Quick Search Application is a must have for your desktop. It helps you find the right product and gives you quick access to the online catalogue.

It's time to take advantage of the tools that save you valuable time

- Find the right products easily with built in type code search
- Select multiple products for comparison of data
- Direct connection to engineering tools and online shop
- Add products to basket or create your own parts list to export
- Direct connection to selection and dimensioning tools
- Easy to find suitable accessories and even spare part products

→ www.festo.com/quicksearch

Online Shop 24h



Online is the most convenient way to purchase products. It is faster than ever before, more reliable and allows customer's to select from a vast range of products, over 30,000 of them.

It's time to enjoy the benefits of online ordering

- Quick and easy selection of products
- Create, save and share product baskets and parts lists
- Check net prices for all products in your product basket
- Check delivery times and track orders to your door
- View and accept quotations online
- Import parts lists using copy and paste functions

→ www.festo.com/ols

Support Portal



The support portal packs as much information as possible into one location. It is home to all Festo's documents, whether they relate to product information, user documentation, certificates, software, expert knowledge and even training content.

It's time to enjoy the benefits of our support services

- Access to product information and technical documentation
- Full product catalogues and brochures
- Operating instructions
- Audio visual media
- Manuals

→ www.festo.com/sp

Circuit Diagrams and 2D/3D CAD



Many solutions can only be envisioned if they can be seen. Whether pneumatic or electrical, we create a circuit diagram for your solution using our simulation tools.

It's time to enjoy the benefits of accessing CAD data

- 2D/3D CAD interfaces for: AutoCAD®, Autodesk® Inventor™, CATIA® V5; Creo®; Pro/ENGINEER®; NX™; SOLID EDGE®; SolidWorks®
- EPLAN macros simplify and speed up electrical design
- FluidDraw for quickly creating electrical and pneumatic circuit diagrams

Process Automation Solutions - Complete Portfolio

	Field automation components	Process valve units (selected examples)	Customised systems	Automation concepts	Application solutions
Operator level		 Festo Designer Studio engineering design software for visualisation CODESYS PLC development environment PROFIBUS PROFINET EtherNet/IP DeviceNet CC-Link CANopen EtherCAT INTERBUS Modbus	 Quarter turn actuator DFPD, ball valve VZBE, pilot valve VSNC, sensor box SRBC Customised control cabinet solution, also for ex zones Pneumatic operator panel Valve control unit for controlling disc and double-seated valves	 Modular automation Hybrid installation (centralised/decentralised) Centralised installation Automation with pneumatic operator panel	 Control of dart valve for level regulation in mineral processing Bottle filling applications Abrasion resistant options for powders and solids Shut-off control for glycol used in food production High corrosion resistance in extremely dusty and contaminated environments
Control level					
Remote I/O					
Valve terminals					
Field level					
Sensors and positioners					
Actuators					
Process and media valves					
Accessories					

Festo - The Company

Festo is a leading provider of pneumatic and electrical drive technology for factory and process automation.

As a global, independent family-owned company, Festo has become the performance leader in its industry thanks to its innovations and problem-solving competency in all areas of pneumatics as well as its unique range of industrial training equipment and education programs.

Festo has continuously elevated the state of manufacturing with new automation technologies and processes, resulting in innovative solutions, systems and services that deliver high performing and more profitable automated and processing equipment for our customers.

Around the world, 61 Festo national companies and 250 regional offices in 176 countries ensure that advice, service, delivery quality and reliability precisely meets customer needs.

Today, we are located in each capital city with numerous service distributors. Our highly trained Automation Consultants provide expert advice and solutions for all your automation needs. This service is supported by our contact centre agents, technical department and production facility located at our Melbourne office.

Find out more here:

→ www.festo.com/corp

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Richmond SA

Perth

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Belmont WA

Auckland

20 Fisher Crescent
Mt. Wellington NZ

Christchurch

Unit 5
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Riccarton NZ

Hamilton

25 Devon Road
Frankton NZ

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