

Industrial water technology

FESTO





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

**→ WE ARE THE ENGINEERS
OF PRODUCTIVITY.**

**Your objective: producing high performance water treatment systems at cost effectively.
Our contribution: integrated, low-cost and individual automation solutions –
with comprehensive, global support in all project phases.**

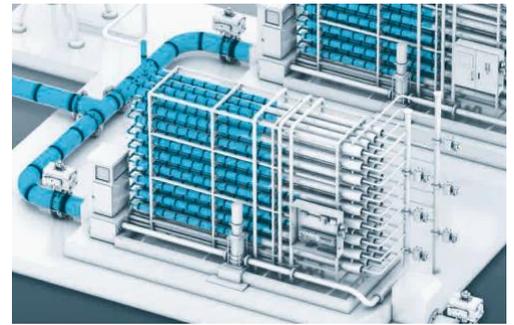
Improve system performance, and save time and money. How? It's easy: just involve us in system engineering right from the very start. By working together, we can help you create integrated and customised automation solutions with a sophisticated automation concept designed precisely for your requirements. These solutions increase your productivity and give you a decisive competitive edge. Festo is your partner for process automation in industrial water technology.

For more information:
www.festo.com/water

Added value for you – throughout the entire product development process

Take advantage of the added value provided by Festo.

From the start of your project to the entire lifecycle of the solution at the end customer.



We automate water treatment systems ...

Automation at operating and control level



Visualisation and operation

The control panel CDPX makes control and graphic visualisation of processes and information possible. It facilitates remote access, has an Ethernet interface for external components and can be programmed in line with your requirements.



Decentralised/modular control

An integrated control system, e.g. CPX-CEC, can be used to program and control every water treatment module autonomously – without complex process control systems. It offers programming with CODESYS, communication via Ethernet/fieldbus, and process visualisation with CDPX.



Automation platform

With the modular electrical terminal CPX, pneumatic and electrical control chains, e.g. for pumps and sensors, can be easily connected to all automation concepts. It can be used as a valve terminal partner or as a remote I/O. Universal communication is via fieldbus/Ethernet. Remote access is also possible.



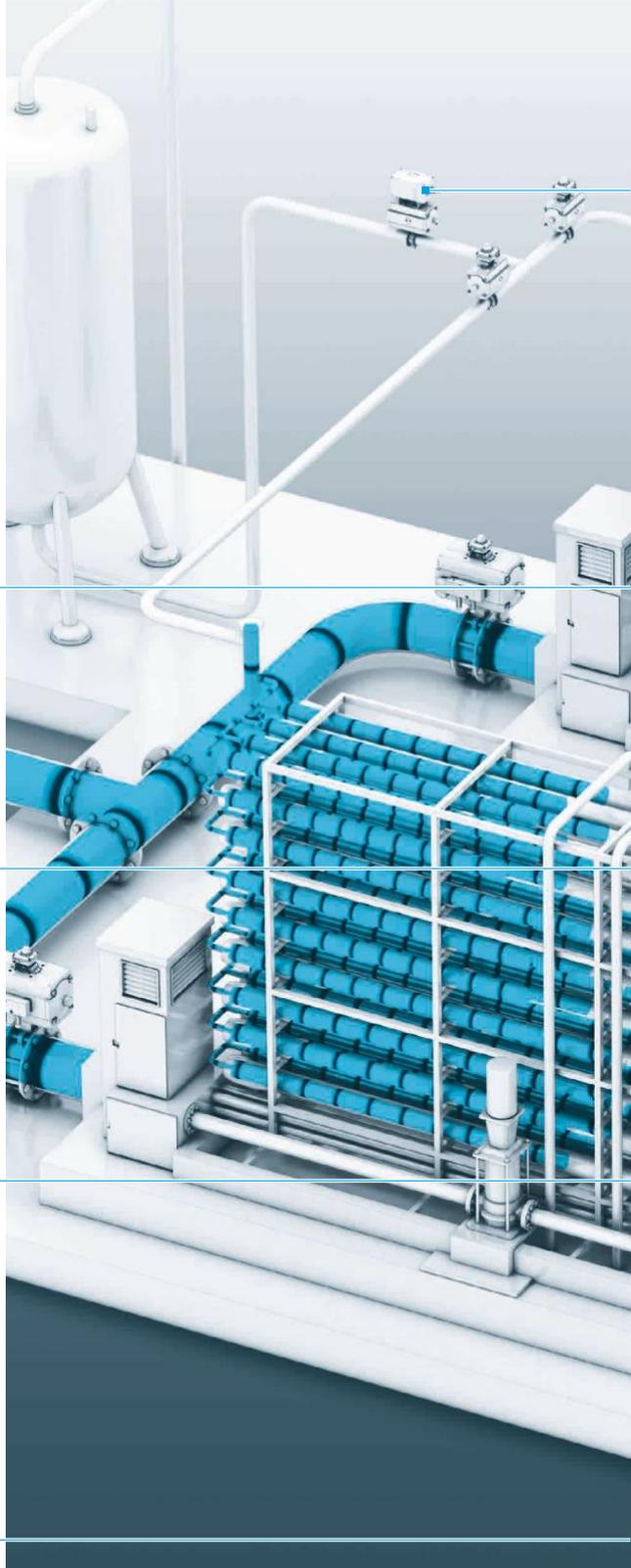
Pneumatic and electrical function integration

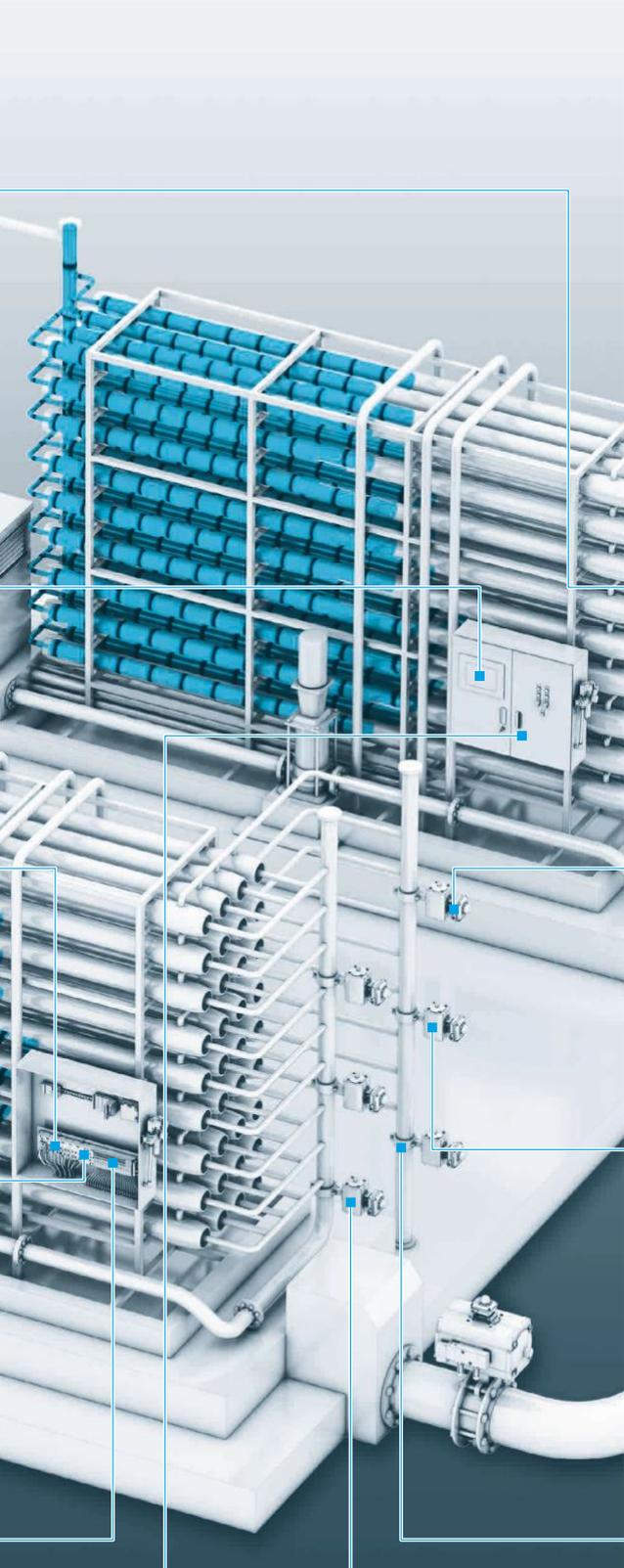
Our valve terminals combine maximum modularity with maximum pneumatic power. A wide range of functions can be combined in a modular design and connected to the automation platform CPX, all customised to your requirements – discover the CPX/MPA, CPX/VTSA and CPV for yourself. Optionally with the hot-swap function.



Protected from external influences at all times

Control cabinets protect key electric and pneumatic components and ensure that your systems comply with directives and industry-specific requirements, even if you require a customer-specific solution.





Automation at field-level

Reliable position control

The positioner CMSX controls pneumatic valve actuators in closed-loop operation. For simple positioning tasks, you can choose from many solenoid valves, e.g. the standard NAMUR valve VSNC.



Monitoring positions

Our analogue SRAP or digital sensor boxes SRBC make this easy. And the easy-to-install proximity sensors SME or SMT show you that our linear actuators are working properly.



Pneumatic motion

Whether quarter turn actuators (DAPS, DFPB, DFPD) or linear actuators (DLP, DFPI), whether integrated displacement measurement and position control or external positioners – our range of pneumatic actuators offers you a wide range of variants. Air preparation units (MS), tubing (PEN, PUN-H, PLN) and connection technology (QS, GRLA) ensure optimal connections to the compressed air supply network.



Reliably control media

Process valves are in direct contact with a range of media, at varying flow rates and pressure conditions. We offer you a wide range of ball valves (VAPB), butterfly valves (VZAS, VZAF, VZAB) as well as knife gate valves (VZKA), angle seat valves (VZXF) and pinch valves (VZQA).



Pre-assembled and ready-to-use

Pre-assembled process valve units ensure that the components optimally match one another, make installation easier and give you planning security – even for customer-specific solutions.



... with innovative automation concepts ...

Maximum flexibility with modular automation

Numbering-up instead of scaling-up: this concept of platform-based, modular automation guarantees maximum flexibility combined with reproducibility and excellent system efficiency.

Modern process engineering plants can be designed modularly, especially in water treatment. Every module has fully automated functionality and can be connected to the management system via Festo plug & work. The characteristics of this type of automation are: small, adaptable and autonomous. Autonomous functions and a high degree of reliability are also important requirements for the modules.

Other features include:

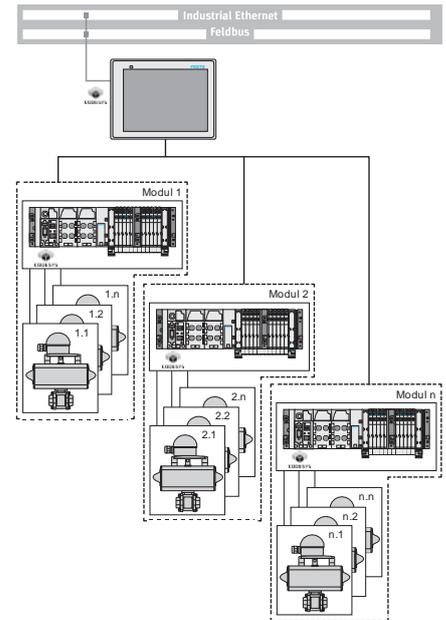
- Quick commissioning
- Compensation for defective production units
- Easy capacity adaptation
- Balancing the workload in a production network

Expansion or reduction based on the Lego principle

Adapting to market requirements via gradual, demand-based reduction or expansion of production avoids defects or waste. The risks of new systems can also be minimised, and bad investments in large-scale plants can be avoided. Not least, the time to market is significantly reduced. Other advantages, especially for end customers, include the lower investment costs, increased productivity and faster service in the event of faults thanks to standardised modules.

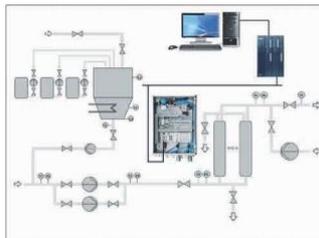
Ideal automation platform: CPX

The Festo automation platform CPX is the key element of a modular automation system. Not only can it be equipped with pneumatic components to IP65/67, it can also accommodate different controllers and remote IO on its platform, such as for pressure monitoring, or level, flow and temperature measurement. All on a modular basis.



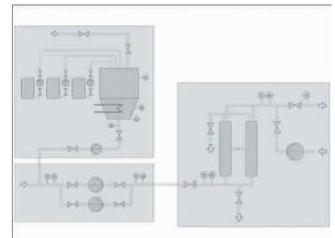
Your route to modular automation

1.



Conventional design of a process engineering plant (water filtration)

2.



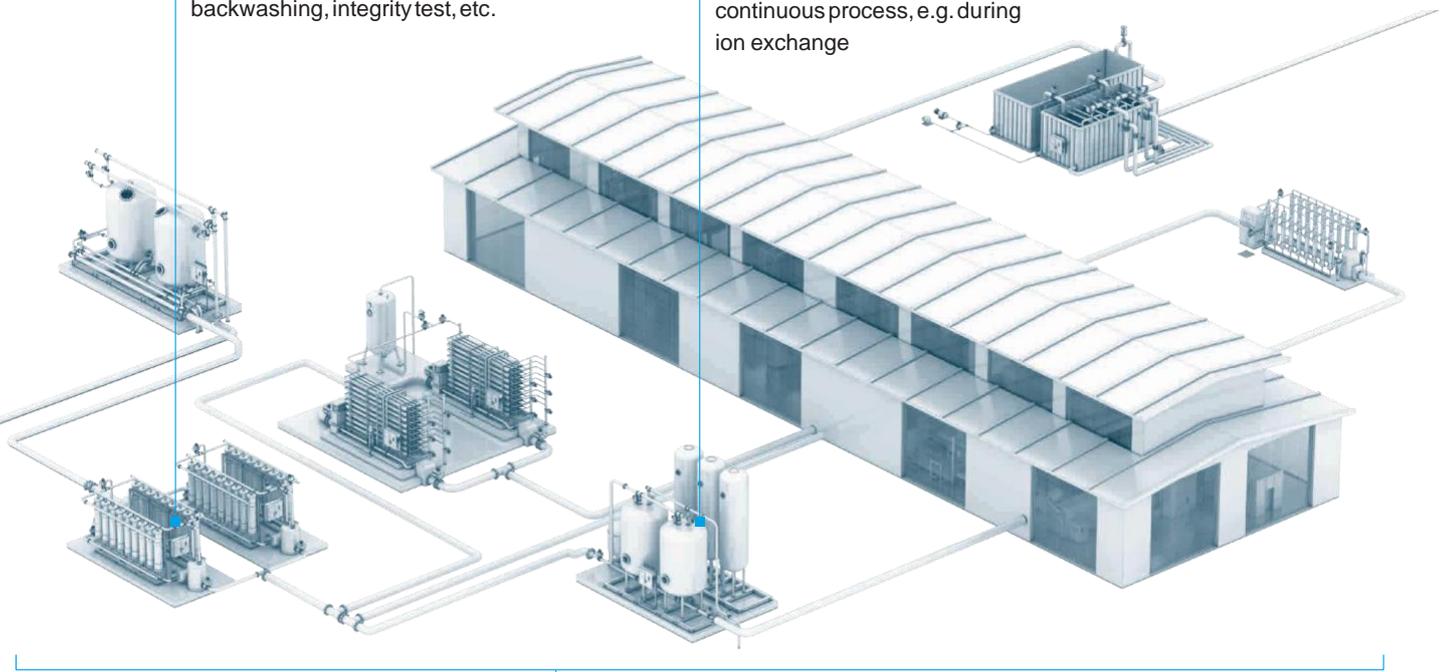
Mechanical and functional modularisation: the process is broken down into subprocesses and for every subprocess there is a specific module.

... and integrated automation solutions

As required: our solutions are tailored to your needs

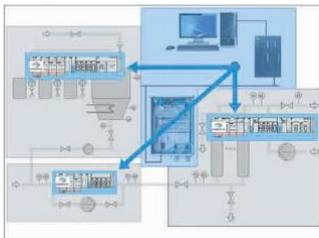
Automated control
of the different operating modes
within a module: filtration,
backwashing, integrity test, etc.

Automated reciprocating motion
of several modules within the
same processing phase for a
continuous process, e.g. during
ion exchange



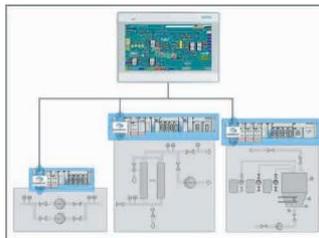
Controlling complete systems:
The interaction between the modules from the
different processing phases is also automated.

3.



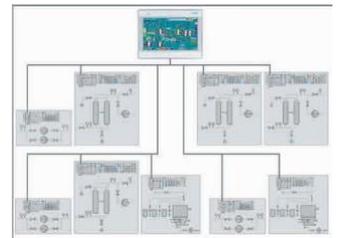
Modular automation means that every module is equipped with a dedicated terminal CPX together with a valve terminal and controller.

4.



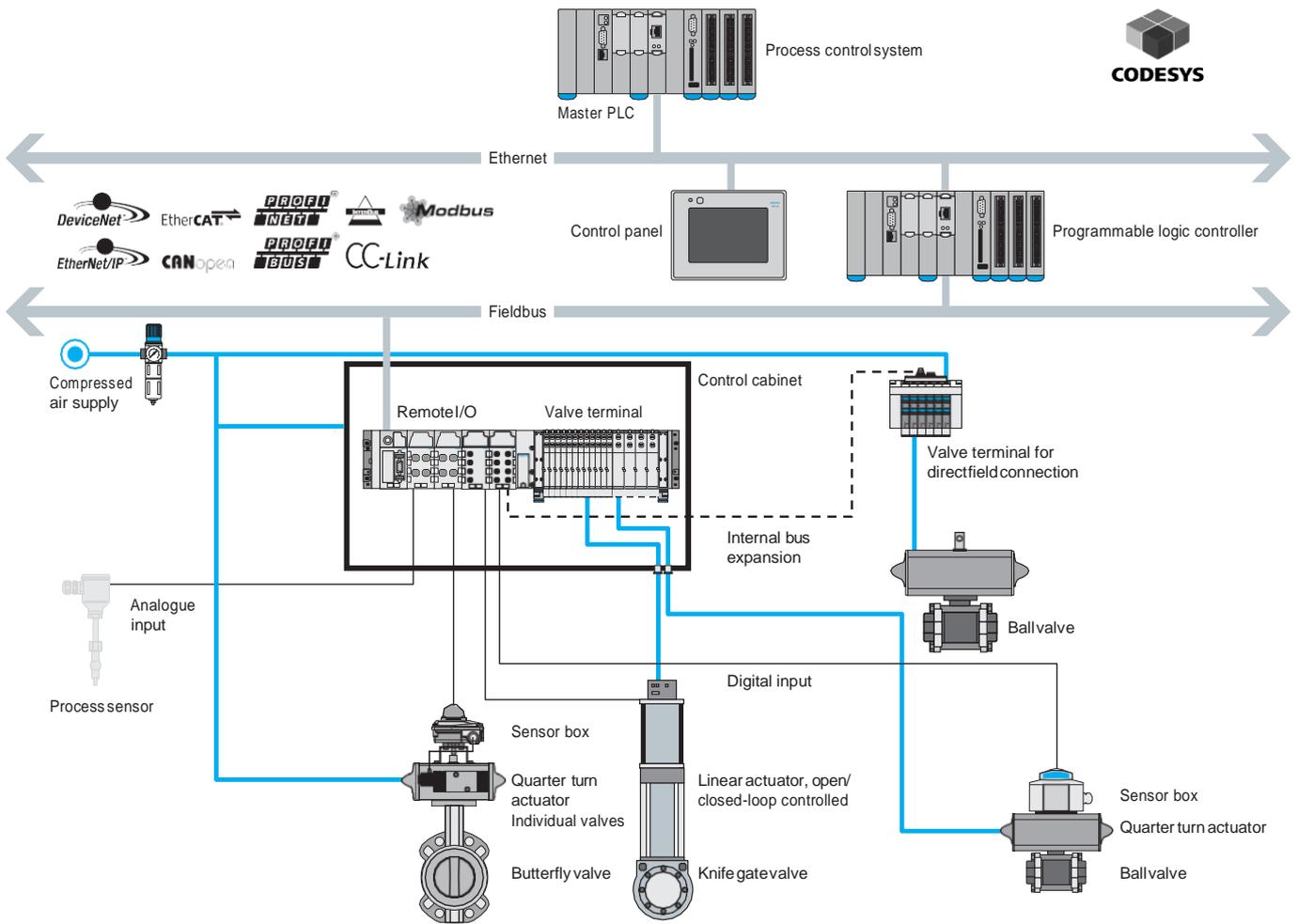
Modularised water filtration: process-relevant control functions are implemented autonomously in the modules and coordinated by a management system.

5.



Plant expansion via numbering-up: additional modules are simply connected to the management system via plug & work.

Giving you a head start: complete automation systems from a single source...



→ A complete overview of the product range can be found at: www.festo.com/water

... and innovation through synergies



Biotech/pharmaceuticals and cosmetics



Water technology



Chemicals



Food and beverage

For years, Festo has been developing factory and process automation solutions for a broad range of industry sectors. By transferring our experience and innovations 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 expertise, because it enables us to develop and implement customised concepts for your system quickly and cost effectively.

Maximum productivity is a question of ambition
Do you share this attitude? We will be glad to help you achieve this goal – through our four outstanding qualities:
• Security • Efficiency • Simplicity • Competency

We are the engineers of productivity.

Discover new dimensions for your company:
→ www.festo.com/whymfesto