Integrated control cabinet solutions with CPX-E and VTUG

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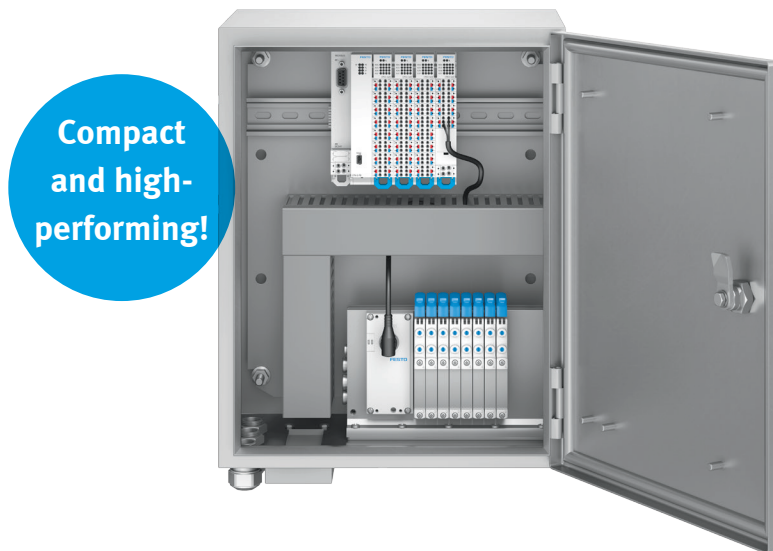
Compact and high-performing!

Smart combination!

An ideal combination that is much more compact than before: the automation system CPX-E and the valve terminal VTUG together in a control cabinet. This is a complete solution that is easy to install and keeps tubing installation to a minimum.

Highlights

Automation system CPX-E
- High signal processing performance
- Complies with NE21 requirements
- UL/CSA, C-Tick certifications
- Extremely compact and easy to assemble

Valve terminal VTUG
- Hot-swap function
- Check valves
- Flexible control cabinet installation
- IO-Link®
- Explosion protection included

Optimised for control cabinet installation
The automation platform CPX-E with the particularly narrow remote I/O modules is extremely compact and easy to install. The valve terminal VTUG with new manifold rails, check valves with high flow rates and fixed flow restrictors is a real all-rounder. The LED display and inscription label holder are clearly visible and all manual overrides are easily accessible.

Simple installation
Installed directly in the control cabinet wall, the valve terminal does away with the need to install tubing in the control cabinet. This saves time, money and engineering effort.

For use in the process industry
The CPX-E modules meet the requirements for applications in the process industry in accordance with NE21 interference immunity requirements for process and laboratory control equipment. The hot-swap function of the VTUG also enables it to be used in the process industry as individual valve slices can be replaced during operation without the valve terminal having to be depressurised.

Components and advantages at a glance

Modular automation system CPX-E

The high-performance automation system for factory and process automation consists of individual function modules that enable a very flexible, modular design. Depending on how the modules are combined, the end result can be a dedicated remote I/O system with bus module or a control system with control unit.

- Modular system
- High I/O component density
- Easy mounting on an H-rail

Bus modules

PROFINET

PROFIBUS

EtherNet/IP

Modbus®/TCP

EtherCAT

Input and output modules
- Digital input modules (16 DI)
- Digital output modules (8 DO/0.5 A)
- Analogue input module (4 AI current/voltage)
- Analogue output module (4 AO current/voltage)
- IO-Link® master modules (4 channels)
- Counter module (single-channel)

Modular: the electrical terminal block is converted in no time at all. Even at a later date.
- Multi-pin Sub-D
- Multi-pin flat cable
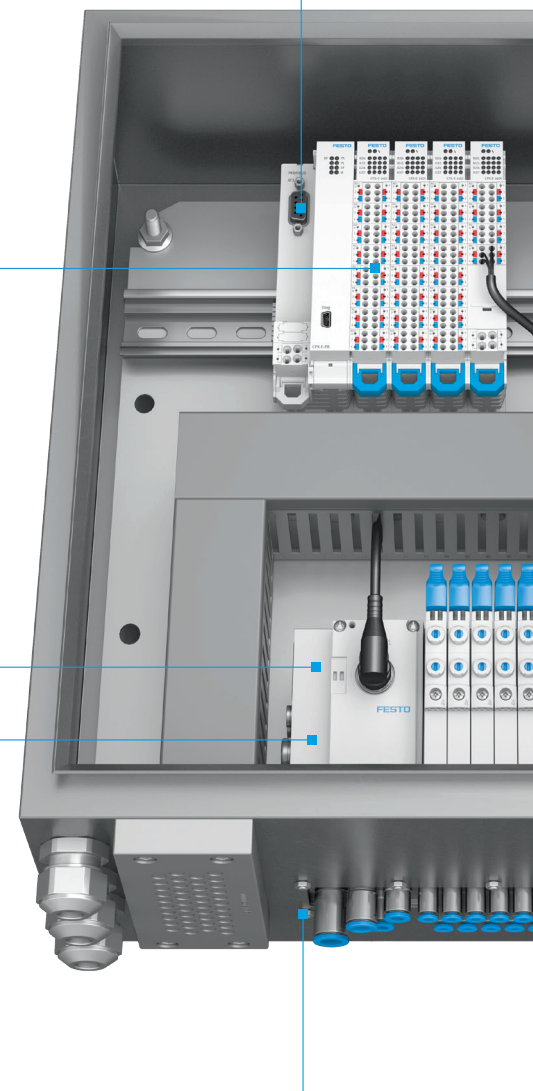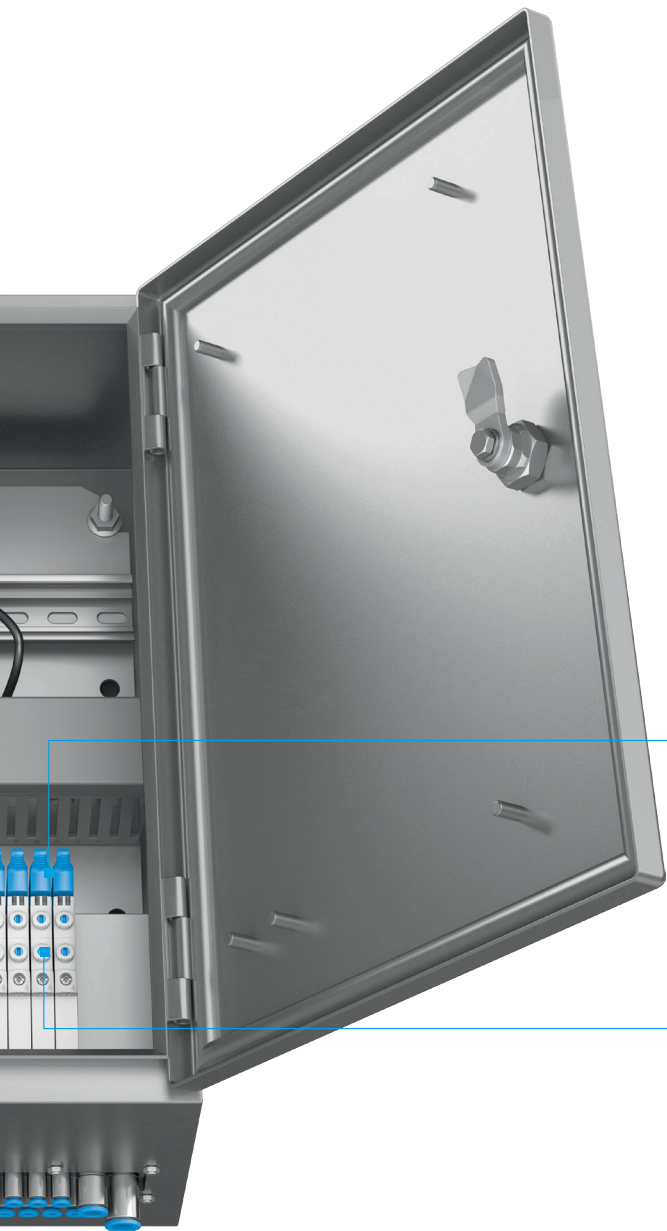- All standard fieldbuses
- IO-Link®-compatible

VTUG with outlet direction to the front
- For compact control cabinets
- Optimum view of LED display and inscription label holder

Different connection variants

Valve terminal VTUG

The compact variants of the universal valve terminal are optimised for applications in the process industry thanks to greater flexibility in the control cabinet. This all-rounder in the control cabinet is compact, has high flow rates and can be used universally. The manifold rails, check valves and fixed flow restrictors are new features. The VTUG with outlet direction to the front or underneath greatly reduces the effort involved in installing tubing.

- Up to 24 valve positions (48 solenoid coils) on a single valve terminal
- Suitable for a control cabinet and environment up to IP69K
- Increased corrosion protection with stainless steel coating for manifold rail
- Simple valve replacement using hot-swap function
- Compressed air supply and exhaust at one end, at both ends from the outside or within the control cabinet

Hot-swap function
For channel 1 or channel 2+4.
The hot-swap function for the new VTUG control cabinet profile lets you replace the valves during operation.
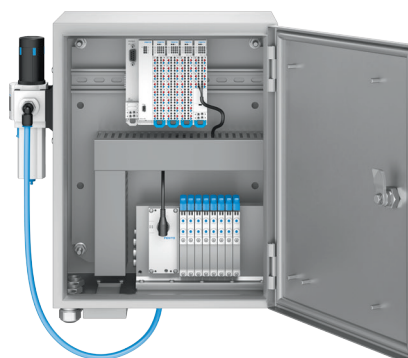
Manual override
Choose between non-detenting, non-detenting/detenting, covered.

Integrated control cabinet solutions with automation platform CPX-E and valve terminal VTUG

Ideal for the requirements in the process industry

Ready-to-install control cabinets are ideally suited for the chemical and pharmaceutical industry, in water management as well as in many other industries. The new control cabinet solution from Festo establishes the perfect link between the pneumatically actuated process valves and the limit switches, the measuring equipment and the process control level.

Technical data

Valve terminal VTUG with plug-in

Width [mm]	10	14
Valve function	5/2-way, single solenoid 5/2-way, double solenoid 5/3-way 2 x 3/2-way	
Design	Sub-base valve	
Flow rate [l/min]	220/330	630
Pneumatic connection	M5 (QS 3/4/6) M7 (QS 4/6)	G1/8 (QS 4/6/8)
Max. valve positions/ max. solenoid coils	24/48	
Control	Multi-pin Sub-D Multi-pin flat cable All standard fieldbuses IO-Link®	
Degree of protection	IP40, IP67/IP65	
Accessories	Stainless steel-coated manifold rails	
Certification	IEC-Ex	
Additional function	Hot-swap function Check valves Fixed flow restrictors	

Modular system CPX-E

Bus modules	• PROFINET* • PROFIBUS* • EtherNet/IP* (the module also supports the Modbus®/TCP protocol) • EtherCAT®*
Input/output modules	• Digital input modules (16 DI)* • Digital output modules (8 DO/0.5 A)* • Analogue input modules (4 AI current/ voltage) • Analogue output modules (4 AO current/ voltage) • IO-Link® master modules (4 channels)* • Counter module (single-channel)
Degree of protection	IP20
Certifications	UL/CSA, C-Tick
Control units	C1 variant CODESYS V3 M1 variant CODESYS V3 SoftMotion
CPU data	Dual Core 766 MHz, 512 MB RAM
Bus interface, master interface to variant C1/M1	EtherCAT® master Modbus®/TCP
Bus interface, slave interface to variant C1/M1	PROFINET device EtherNet/IP Modbus®/TCP OPC-UA Server

* These modules meet the requirements for process automation applications in accordance with NE21 interference immunity requirements for process and laboratory control equipment.

Delivery directly to the shop floor

Save time, money and installation effort by having the ready-to-install control cabinets delivered directly to the shop floor. For more information, just contact your sales consultant at Festo.