AUTOMATION | Components and systems

Inhalt
9 kaliert
7% Breite s

AUTOMATION

Components and systems

Control technology

Services

Page 11

Embedded controllers

ILC ...

Page 24

PC-based control systems

S-MAX ...

Page 32

Automation software

Page 35

I/O systems in the IP65 field

Industrial PCs

Page 132

Touch panels

TP ...

Page 138

Web panels

WP ...

Page 149

Control cabinet PC

VALUELINE ...

Page 150

Panel PCs

PPC ...

Page 186

Modular managed switches

FL SWITCH MM ...

Page 184

Managed switches

FL SWITCH SMCS ...

Page 192

Standard switches Narrow

FL SWITCH SFN ...

Page 198

Standard switches

FL SWITCH SF ...

Page 313

Inline Block IO

ILB ...

Page 329

INTERBUS-ST

IB ST ...

Page 345

Fieldline Stand-Alone

FLS ...

Page 361

Fieldline Modular

FLM ...

Page 361
**nanoLine® controller range**

Page 79

**Automation system of the 100 series class**

Page 95

**Safety**

Page 101

**Operator terminals**

Page 130

**PROFINET**

**Industrial network solutions**

**Industrial PCs in IP65**

Page 152

**PROFINET automation solution**

Page 155

**Security**

Page 174

**Lean managed switches**

Page 180

**I/O systems in the IP20 control cabinet**

**Wireless IO**

Page 210

**Factory Line Bluetooth**

Page 214

**Wireless Ethernet**

Page 219

**Inline Modular**

Page 227

**Drives**

**Fieldline Extension AS-Interface**

Page 385

**Rugged Line**

Page 401

**Motion control**

Page 424

**Distributed drives**

Page 426

Courtesy of Steven Engineering, Inc.-230 Ryan Way, South San Francisco, CA 94080-6370
Main Office: (650) 588-9200-Outside Local Area: (800) 258-9200-www.stevenengineering.com
Requirements for modern automation solutions

The requirements for the economic viability of machines and systems are continuously increasing. The modularization of mechanics, electronics, and automation calls for high-performance, flexible, and communicative automation solutions.

The communication and integration capability of the automation components in a system are increasingly becoming the key factors for tapping the potential of cost cutting.

Cutting costs through communication

Continuous and uniform communication between SAP and the field level makes it possible to make quick and well-founded decisions, which in turn reduce costs and provide competitive advantages. Phoenix Contact uses technologies from the IT environment for this.

These technologies are constantly developed further into industrial solutions. IT-powered automation from Phoenix Contact makes reliable technology industrially applicable, thus seamlessly connecting the Office world to production.

Cutting costs by analyzing energy data

The constant rise in the prices of raw materials calls for acquisition and analysis of the secondary production costs. This is especially true of energy costs.

A considerable increase in energy costs is now challenging industrial plants to develop energy-saving strategies and measures.

To do this, it is important to know the energy use and to analyze it in order to identify hidden loads or leaks in the system. Hardware and software products will have to support these requirements in future.
IT-powered automation – more communication for more productivity

Mainstream technologies from the IT field are used in many of our components and systems in order to avoid technology barriers and to ensure sustainability of the automation solution.

Standard Ethernet protocols such as TPC/IP, SNMP and FTP have been successfully used in a multitude of applications.

As a communication expert, PHOENIX CONTACT ensures that your investments are safeguarded and can be easily adapted to new developments.

Acquisition and analysis of energy data leads to cost transparency

The first step towards saving energy is an analysis of the individual energy consumers in a system. For this, Inline controllers record consumption values via distributed media meters.

The acquired data is directly transmitted to a database management system and is available there for future evaluations.

Owners or users thus attain cost transparency and can assign energy consumption, credit it and react to it in line with the causation principle.
Smart entry into the field of automation

With our automation system for compact controllers of the 100 class, we enable economical and easy entry into the field of automation.

The smart controllers can be extended with numerous Inline I/O modules. A GSM/GPRS module enables communication even in the remotest of installation areas.

PC Worx Express makes controller programming effortless. Programs can therefore be created as ladder diagrams using easy-to-understand symbols within no time.

And if you integrate operation and monitoring devices, each HMI device comes with its own homepage thanks to the integrated web server. WebVisit generates detailed pages on machine operation for your use.

Ethernet infrastructure components that are suitable for industrial applications provide complete flexibility for your application. It does not matter whether the controller has to send e-mails, wants to get a new application program from a central server, has to log data in realtime or has to read and write databases without stress. All these functions can be realized quickly and easily.
High-performance automation with PROFINET

Competitive and future-oriented PROFINET solutions can be realized within the framework of the AUTOMATIONWORX system from Phoenix Contact.

Our network technology functions reliably and safely in any environment. It offers performance, smooth interaction of all components and protection against unauthorized access. Components that are movable or difficult to access can be integrated using wireless technologies such as Bluetooth.

DIN rail mountable and PC-based controllers of different performance classes which can be uniformly programmed and parameterized with the PC Worx engineering software provide maximum performance and uniformity because of the standards used, such as PROFINET and INTERBUS.

You can optimally operate and control your system with the help of compact operator terminals that are operated using keys and a touch panel with variable display sizes, as well as via fully developed industrial PCs of different performance classes.

For I/O communication in the control cabinet and in the field, you can safely rely on our comprehensive range of bus couplers as well as the compact, modular and expandable standard and special function modules with the IP20 and IP65/67 degrees of protection.

Safe and simple control technology including programming software as well as I/O components for INTERBUS Safety and PROFIsafe provide the protection that your system requires.

IO-Link modules for connecting sensors and actuators to higher-level communication systems such as PROFINET, INTERBUS or PROFIBUS ensure communication and parameterization of all sensors.
AUTOMATION – Components for modern automation solutions

Being one of the leading automation experts in the world, Phoenix Contact provides you with a complete range of hardware and software components and accessories for creating automation solutions.

The components, which have been optimally adapted to each other, are easy to operate and help to increase the economic viability of your machines and systems when used with other Phoenix Contact products.

Having a single supplier accelerates and simplifies the ordering process. Our comprehensive range of services for all project phases helps you save time and money!

You can find more detailed information about our products and services in this catalog as well as in the online catalog (www.phoenixcontact.net/catalog) or on our service website (www.phoenixcontact.net/service).

Services

Regardless of your immediate task or the reason for which you are looking for a technology solution, and no matter which products you want to use: Our specialists at the AUTOMATIONWORX Competence Center are always at your disposal to answer any questions that you may have.

Control technology

Regardless of whether you want central or distributed control over a small machine or a large system: We provide just the right device for your requirements.

You can choose between embedded controllers and PC-based solutions of different performance classes.

Industrial network solutions

Our network technology, which is suitable for industrial applications, enables seamless communication between all components and provides protection against unauthorized access.

Bluetooth and WLAN-based innovative wireless products provide additional flexibility and convenience.

I/O systems in the IP20 control cabinet

Due to their highly modular structure, the required automation functions can be developed into compact solutions for a wide range of applications when used in conjunction with the current standard fieldbus systems and industrial Ethernet networks.
Operation & monitoring
Operator terminals (OT) and touch panels (TP) from Phoenix Contact are extremely compact operation and monitoring devices and are easy to integrate into the AUTOMATIONWORX system via OPC.

Industrial PCs
The industrial PC solutions from Phoenix Contact offer excellent performance for your automation solutions in industrial environments. Innovative and sustainable products with the latest technology safeguard your productivity and investment.

PROFINET
PROFINET from Phoenix Contact comes with all controller components, starting from the infrastructure right up to the I/O systems. PROFINET is thus deeply integrated in the PC Worx engineering system and the controllers.

I/O systems in the IP65 field
Sensors and actuators can be directly connected on site with the M12 and M8 connection methods by simply mounting devices in the field. This makes it possible to minimize cable lengths, reduce the service time using integrated diagnostics, and to save on installation costs.

Drives
Programmable logic controllers (PLCs) are commonly used for controlling movements in machines or systems. PC Worx enables optimum and complete integration of motion functions into the PLC world.