controls news 2

saia-burgess
Smart solutions for comfort and safety

Fit for Euro(pe) ?

Think of a company in which, every year, more than 400 European customers demonstrate their confidence with orders exceeding 10'000 Euros in volume; and in whose overall sales of 30 million Euros all the core countries of Europe have a major stake.

Imagine an organization where central tasks like marketing, applications and customer support are geared to Europe; one whose dynamic development is influenced by combined talent and know-how from 6 European countries.

All this is reality to Saia-Burgess Controls today. It is based on the business culture of a country that, for centuries, has united four different languages and cultures in a common identity. It is an international company where staff are generally fluent in three languages, and where a command of four languages is not uncommon.

In 2001, despite the mood of crisis, Saia-Burgess Controls managed to achieve good growth with healthy profitability in the Eurozone countries.
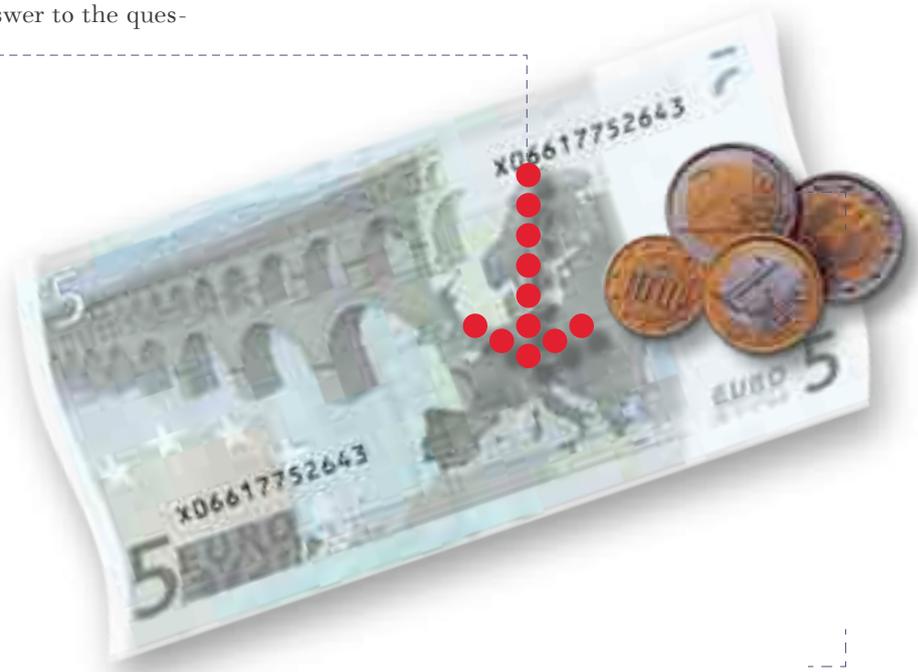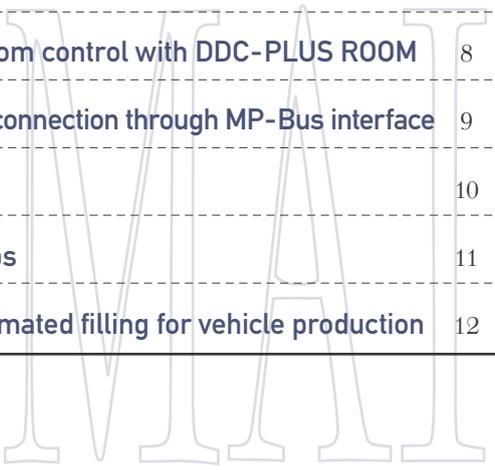
For 2002, Saia-Burgess Controls expects further growth of 8%, despite a general recessionary tendency. This is because long ago our answer to the question in this title was: yes ●

Saia-Burgess Controls…..
　　　　Fit for Euro(pe)
　　　　　　Fit for You

Jürgen Lauber, Divisional Manager

Contents

SAIA® PCD received the GOST R certification for Russia

Saia-Burgess Controls has been present on the Russian market since 1999. Contacts with customers and authorities already showed the necessity to apply for the Russian well-known GOST R quality and safety certification.

In June 2001, Saia-Burgess Controls was awarded to the GOST R quality and safety certificate for the whole PCD family. SAIA®PCDs now belong to the exclusive circle of certified PLC products for the Russian market.

This certificate allows all our Russian customers to integrate SAIA®PCD with the certainty that their solutions will be easily accepted by any end-user in Russia.

Knowing that renewed structures of the Russian authorities handle more strictly all logistics, tax and sales regulations, the GOST R can noticeably simplify the administration hassle for all our customers' exporting goods or spares to Russia ●

New partner for Saia-Burgess Controls in India

MICROVERSE Automation in Pune, India has track records over more than 100 projects in various fields like chemical, water distribution, water treatment etc. MICROVERSE Automation, comprises of a strong, well-organised team of about 45 professionals, including 25 Engineers plus several well-developed vendors and sub-contractors.

We are looking forward working together successfully ●

For three years, SAIA VARIO-PLUS has been controlling several combined heat and power plants (CHPs) in Germany. Now this system is starting to be used internationally. The Swiss company, ENTEC, is using VARIO-PLUS for the first time in Java, Indonesia: supplying a tea factory and a village with power. The entire control of two small hydro plants, with an electrical output of 18 kVA, is achieved with the PCD2 and integral VARIO-PLUS. The special point here is that these two small hydro plants are the sole suppliers of electricity in the region ●

SAIA® VARIO-PLUS system goes international

Malthe Winje, Norway, is using SAIA VARIO-PLUS for the first time to control and regulate the power supply for a large freighter. The ship has 7 electric drives that are supplied with power by means of CHP installations. The individual CHPs are synchronized on busbars, which form the on-board electricity network. A PCD2 looks after the overriding load management.

The use of VARIO-PLUS in these two challenging installations shows the varied capabilities of the system developed by Saia-Burgess Controls ●

You can take this statement quite literally. For not only is the new controller from Saia-Burgess Controls a design success, it is also unbeatable in functional scope. Whatever the task, this control chameleon smoothly adapts to your requirements for heating, ventilation or even district heating technology.

Through its distinctive data point level, it is also ideal for control and regulation tasks in compact air-conditioning equipment. Even when the automation tasks become more complex and comprehensive, there is almost no limit to the expansion of the DDC-COMPACT, due to its well developed network capabilities. Whether you wish to link remote data points via standard network connections (such as LON, EIB, Modbus, M-Bus) or use more economical solutions (such as S-Bus or Belimo MP Bus) the expandability of this controller offers many possibilities. An integrated or external graphics display with single-knob control allows simple, clear user prompting for the operator. The manual/emergency controls make process intervention possible at all times in case of an emergency, or for service. The DDC-COMPACT is even equipped for installation in the field, as the optional cover for the plug-in spring terminals and the standard assembly kit for C rails and wall mounting eliminate all installation problems.

Every DDC-COMPACT can be equipped optionally with an analogue, ISDN or even GSM modem. Then you just plug the telephone cable or GSM aerial into the controller itself. This gives access not only to all the important telecommunications services (such as telemaintenance, remote diagnosis or the transmission of error messages via SMS) but also to remote programming. The integral main memory allows large volumes of history data to be processed and archived. Since this data can be read via network or telecommunications connections, higher ranking systems are also able to archive the data, evaluate it, represent it graphically and carry out energy management.

The DDC-COMPACT, as a product within the DDC-PLUS family, is of course fully compatible with the PG5 programming environment. This means that all basic libraries (such as the HEAVAC library for building automation applications and the modem library for telecommunications services) are also fully functional on the DDC-COMPACT. Connection to SAIA's own ViSi-PLUS building management technology is via the company's own SAIA S-Bus network ●

DDC-COMPACT
The most attractive alternative …
… for intelligent building automation

Summary of highlights

Fields of application:

- Heating installations
- Ventilation installations
- Compact air-conditioning equipment
- District heating transfer stations

Device construction:

- Integrated or remote graphics display with single-knob control
- Integrated manual/emergency control and coupling level
- Large main memory for archiving history data
- Plug-in spring terminals with cover
- 44 data points in base unit; expandable via network

Communications interfaces:

- BACnet via PCD2.M250 BACnet server
- LON WORKS®
- EIB
- M-Bus
- Modbus (RTU and ASCII)
- SBUS (room control systems or remote data points)
- MP-BUS (MFT Belimo drives)
- Telecommunication via analogue, ISDN or GSM

Modem with functions:

- Telemaintenance and remote diagnosis
- Error messages via SMS
- Remote programming

Technology

A programmable logic controller where personally programmed functions are securely integrated within the operating system? No problem, with the new OEM-CPUs! This new functionality for operating system extensions blends special applications know-how with the proven technology of a PLC producer.

Know-how protection through operating system extensions

Program blocks that have been written, as usual, in Siemens STEP®7 can be integrated into the operating system of OEM CPUs: PCD2.M127OEM, PCD2.M157OEM and PCD2.M177OEM. Once incorporated in the operating system, such function blocks cannot be modified, read or copied. This results in an individualized operating system (private OS), which can only be purchased together with the PCD controllers through the originator.

- Protection against copying and reading for programs that contain valuable know-how
- Protection from unauthorized modification for critical parts of a program or parts that have relevance for safety requirements
- Ensuring maintenance and support services by eliminating unauthorized access
- More secure copying and manipulation protection for chargeable machine options

An ingenious code system guarantees the protection of integrated functions. Both, the individual operating system and the CPU hardware itself are provided with a code, which has been personally defined by the originator. Know-how protection is therefore guaranteed, even for software updates. The OS-Builder software tool is used to generate the extended operating system and define the code. In addition, a special CPU module (PCD2.M177DEV-OEM) is required for integrating the protected functions ●

This is what you do:

1. Program and test the program blocks as usual with Siemens STEP®7 programming software in a PCD2.M177DEV-OEM.
2. Upload the program blocks into the OS-Builder software tool.
3. Generate an operating system extension
   - Define information about the originator
   - Define code
   - Select and configure program blocks
   - Generate new FW module and link to the PLC operating system
4. Download the new operating system to target system: PCD2.M177DEV-OEM

STEP is a registered trademark of Siemens AG.

Intranet

Software updates with PCD7.R400 memory module

Is there a PLC programmer who does not recognize this situation? The controller is with the customer and changes have to be made to the program. Even though the modifications could be quickly made in one's own office – at the customer's location nobody is able to sort out the program. With the new PCD7.R400 memory module, program updates can now be carried out even by untrained staff. Thanks to its compact size, the module can even be sent by letter post. Once on site and simply plugged into the CPU, the program can be loaded into the PLC merely by pressing a microswitch with the tip of a ballpoint pen. Job done! ●

- Non-volatile storage of user programs (backup)
- Can be written in the CPU by means of programming software (PG5, Siemens STEP7)
- Can be used in: PCD2.M170, PCD2.M177, PCD4.M170
- Memory capacity: 1 Mbyte
- Technology: flash EPROM
- Dimensions: 40 x 32 x 8 mm

Now available, Webserver for PCD classic

The web server technology familiar with the xx7 series is now also available with CPU modules PCD2.M150 and PCD2.M170. This modern method for controlling and monitoring machines and equipment enables control and monitoring interfaces to be produced at a touch.

The user interfaces are constructed with web pages in HTML format and additional pictures or JAVA applications, which are then stored in the CPU module. No special editing tools are needed – any HTML generating program (such as Microsoft Word, Excel or Frontpage) is suitable. PLC data can, of course, also be displayed on the HTML pages.

The web pages are called up from a PC with any standard browser (MS Internet Explorer, Netscape Navigator, etc.). Communication for this is via an economical serial connection.

This innovative technology is particularly impressive in the context of telemaintenance across large distances:

- Web pages also accessible via modem
- Several networked PCs can access the web server simultaneously via just one modem line ●

Industry

Single-room control with
DDC-PLUS ROOM

The new single-room controllers allow users to adapt room climates individually to their requirements. Depending on the version, control of regulating equipment includes internal and/or external temperature data acquisition, a setpoint adjuster and an occupancy button with LED display.

Device highlights:

- Single-room controller for S-Bus slave operation or autonomous use
- Preconfigured for immediate operation
- Device available in 5 different versions
- Individual setting of parameters via extensive function boxes
- Very simple commissioning with the PG5 tool

The „Room" product family offers customers a choice between devices with a thermal triac output or 0-10 VDC voltage output for heating and/or cooling. Top-of-the-range DDC-PLUS room devices also have the ability to control a 3-stage fan, which means they offer the ideal scope of function for fan-coil applications.

Building

Through the S-Bus network connection, all devices allow efficient energy management to be achieved and running costs therefore minimized ●

Networking SAIA DDC-PLUS control components with Belimo actuating drives provides an ideal digital network solution for OEM and field requirements. The Saia-Burgess interface solutions that connect Belimo MFT/MFT2 drives not only make a contribution towards lower project costs and more economical operation, but enhance functionality as well. The interface modules are available in two different versions:
- PCD7.T500 datapoint slot-in module for PCD1/PCD2 control devices
- PCD7.F180 direct serial data port

Application examples of interface modules

OEM application:

- Up to 16 drives can be connected via simple, 3-core cable technology for the bus and power supply to an interface module
- Air conditioning probes and sensors can be connected directly to the drives

Field application:

- Very different drives for air, water, VAV or fire prevention applications in a single bus
- Direct integration of field information, such as temperature, humidity or pressure

This field bus technology, which is extremely interesting from an economical and functional viewpoint, allows the system engineer great flexibility in incorporating actuators and sensors within intelligent building or room automation ●

Field bus connection through MP-Bus interface
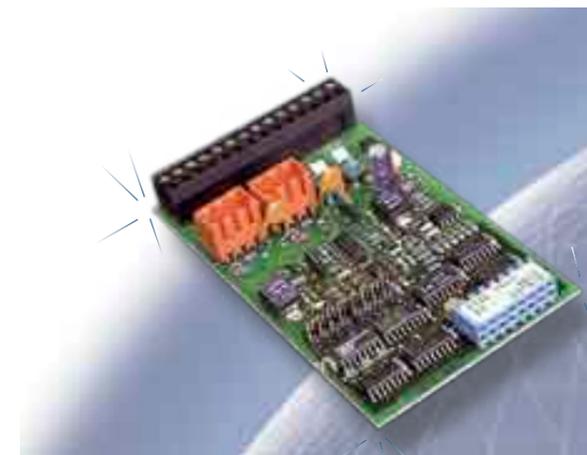
Agenda 2002:

21.05.2002-24.05.2002, 09:00-17:00

BALT TECHNIKA
Vilnius, Litauen
International exhibition of industrial electronics

http://www.litexpo.lt/inside.phtml?core=fairs&ln=en&id=36

21.05.2002-25.05.2002, 09:00-17:00

SIAMS
Moutier, Switzerland
Meeting point for micro technologies
Hall 2, stand B10

http://www.siams.ch/

10.06.2002-14.06.2002, 09:00-17:00

Elektro 2002
Moscow, Russia
The 11th International Exhibition of Automation and Electronics

http://www.expocentr.ru/Inforec/Engl/Electro02/index.html

03.09.2002-06.09.2002, 09:00-17:00

Go automation days
Basel, Switzerland

http://www.go-automation.ch

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Saia-Burgess is present in 47 countries all over the world. If you have any questions, please visit our official homepage where you will find your representative next to you: **www.saia-burgess.com** or all our up-to-date technical information on our support homepage: **www.sbc-support.ch** ●

Workshops:

Holland:

4-5 juni 2002
SAIA® PCD basis

11-12 juni 2002
SAIA® PCD PG5 programming

18 juni 2002
Ethernet-TPC/IP meets SAIA PCD

9 april 2002
Profibus DP/FMS

19 juni 2002
Telecommunication meets modem

23 april 2002
Motion Control PCD2.H320

H ow does the brake fluid get into a car? One is often unaware of the technology behind such mundane things as, for example, braking when driving a car. It is well known that, in a motor vehicle, braking relies on a hydraulic system filled with a special oil – brake fluid. To enable brake fluid to transmit full braking power to the brake cylinder,

Fully automated liquids
filling for vehicle production

it must not be compressible. Unlike the oil, any bubbles of air or water vapour that it includes are very compressible and should therefore be prevented as far as possible. Impurities must be avoided, especially during initial filling at the factory. NKE, a company based in Turin (Italy), has focussed on filling motor vehicles for the automotive industry, acquiring as a result specialized knowledge in this sensitive technology. For example, at Saab in Sweden SAIA PCD controllers from the xx7 series are used. Fully automated filling stations remove any air and dehydrate the oil; the vehicles are then filled.

This know-how, built up over the years and reflected in PLC programs, is protected by NKE using operating system extensions. These exclude the competition from copying or reading any sensitive parts of the program ●

References