YASKAWA

2017/18

System Summary

for specialists in automation and control technology

www.vipa.com

VIPA CONTROLS

Welcome to VIPA Controls

250 EMPLOYEES

40,000,000 EUR TURNOVER

over **30** YEARS OF EXPERIENCE

800 DIFFERENT ARTICLES

250,000 INSTALLED CPUs

Preamble

VIPA Controls has traditionally been amongst the most innovative suppliers of memory-programmable controllers (PLCs) in the market and is growing worldwide, with double-digit growth rates. Therefore, VIPA belongs to the still young, but also exceptionally successful companies in the Automation market.

Our success is based on five pillars:

- High rate of innovation and quick decision making
- Various unique features
- A convincing cost-performance ratio
- Commitment and competence of our employees
- Cooperation with powerful partners

Our aspiration:

- Constantly continue to improve existing technologies, but also to introduce new and innovative trends in the market.
- Continuous flexible adaptation of our products to current market needs and to further increase our market acceptance.
- Continue to develop our personnel resources in sales, development, quality assurance and service in accordance with our revenue growth.
- Enter into cooperation agreements with powerful partners and to increase our market share through joint market cultivation.

To meet this aspiration, we consider it as our aim, also in the future, to improve what is established, to question, revise or develop completely from new.

Furthermore we want to make available to our partners and customers also in the future through continuous innovation and smart system maintenance unique technological features with which together we can gain new and satisfied system users.

With our highly motivated employees, we're working hard on improving our quality, service and the satisfaction of our customers and partners. Convince yourself of the possibilities that our automation solutions and systems offer, and discover how with us you can sustainable increase your competitiveness.

Strengthened by above-average growth, we are determined to continue our successful path in the future.

We look forward to cooperating with you!

Management
Bob Linkenbach | Manfred Stern

We speak your language …

DeviceNet · PROFINET · EtherCAT · PROFIBUS

SPEED7 ensures your lead

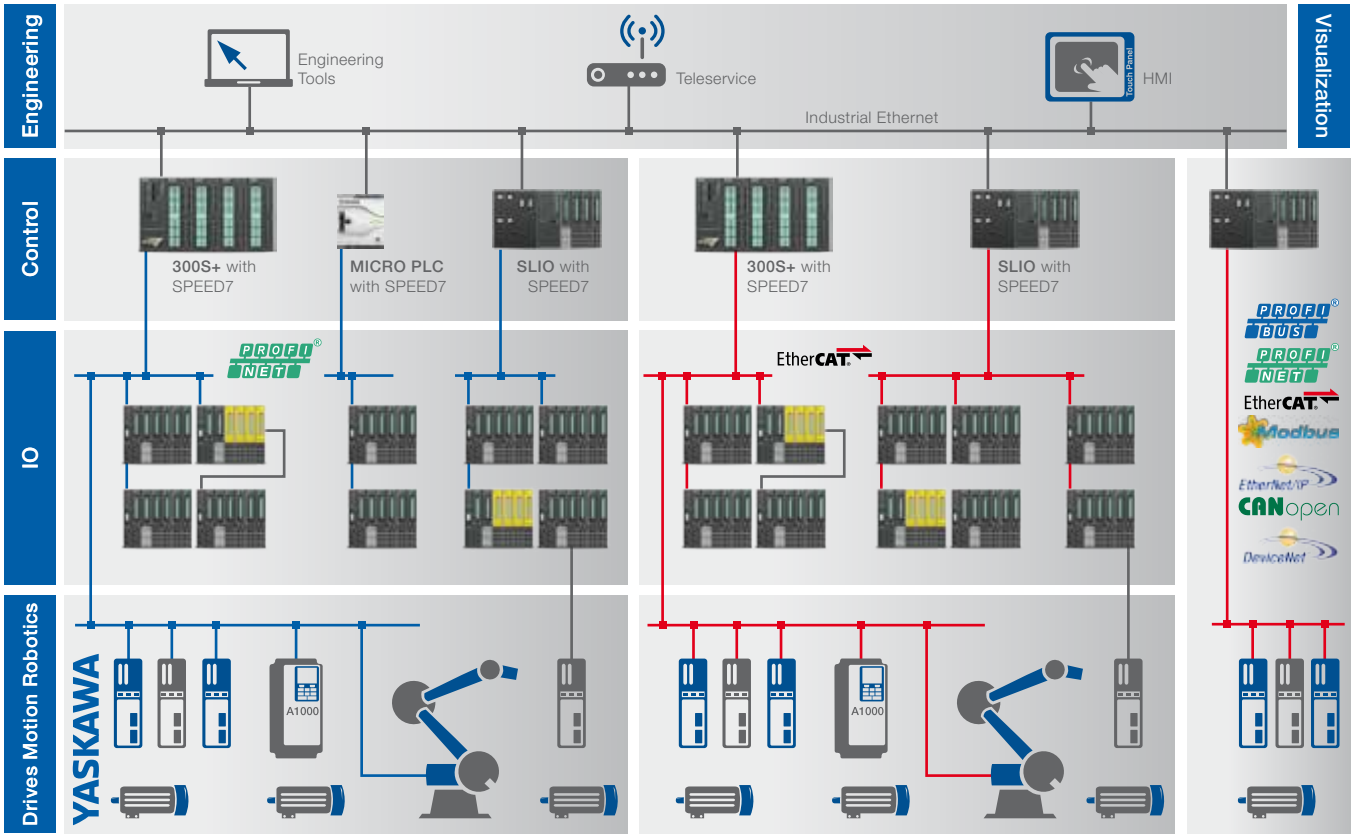
- a flexible automation platform
- and one of the fastest STEP7 PLC processors in the world!

SPEED7 technology offers developers a modular building block, with which a high-performance automation system can be developed in the shortest time on an open STEP7 architecture.

- SPEED7 ensures maximum speed with all applications and, for example, the highest clock rates.
- SPEED7 upgrades also older systems to a modern standard.
- SPEED7 processes vast amounts of data in real time.

CANopen enocean EtherNet/IP SPEED Studio Modbus INTERBUS

… and in future also that of almost all systems



System solutions

Professional benefits for professional applications

- **Consistent standardization**
  All systems are programmable with VIPA WinPLC7 programming tool and/or with STEP7 from Siemens and in the future with the new engineering framework SPEED7 Studio.
- **Increase of productivity**
  Significant reduction in cycle times of user programs by SPEED7 technology with reduced power dissipation.
- **High efficiency**
  Above average basic features of the systems, integrated RJ45 Ethernet interface for PG/OP communication, optional integrated SPEED-Bus.
- **Absolute flexibility**
  Mixed operation for example with VIPA CPUs and Siemens assemblies possible.
- **Open communication possibilities**
  Supports internationally established communication standards like Ethernet, PROFIBUS, CANopen, EtherCAT, Modbus, EtherNet/IP, DeviceNet, Interbus, PROFINET and ASi.

Industries

Automotive:

An industry that needs solutions like on an assembly line. Ever increasing range of models, more and more complex technology, ever faster product cycles. Whoever wants to survive here, must be able to refine, expand, and accelerate his technology.

Renewable energy:

In principle every installation of a VIPA control system has its own energy policy - on starting up the efficiency increases right away, often the consumption of raw materials sinks and his conscience is eased.

Building automation:

Low energy is the goal, high performance is our way… Here our control systems are more intelligent than some specifications.

Food & Beverage:

Multi-purpose demands: Flash-freezing and autoclaving, vaccum packing and pressurized filling go on here. The whole thing under the toughest hygene conditions and always under time pressure.

Handling and storage technology:

In order that the delivery rate never stands still, not only are tailor-made PLC systems designed at VIPA, but also precise, effective time schedules for their installation.

Environment:

Regardless of whether it‘s a question of renewable energy or water/sewage: The very strict requirements in terms of robustness, compact design and of energy consumption of the controllers can be excellently implemented with our automation technology.

Packaging:

The most important factor in this industry: Speed. Because many commodities are perishable, deliveries must arrive just in time and demand simply fluctuates.

Water/Sewage:

That a manufacturer of control engineering knows how a sewage plant works seems unusual. But this is typical VIPA. At VIPA no one turns his nose up when it comes to dealing with anaerobic digestion tanks, activated sludge and denitrification.

„From a producer of components to a supplier of systems“

1985

Foundation of **VIPA GmbH** by Wolfgang Seel

worldwide **first Inrack-PC**

Foundation of **profichip GmbH**

VIPA 200V Modular control system for central and decentral applications

VIPA 300S One of the fastest control systems programmable with STEP7

Move to the **new headquarters** of VIPA and profichip in Herzogenaurach

VIPA 500S PC control system for complex tasks. And also one of the fastest control systems programmable with STEP7

VIPA SLIO one of the most effecient and most modern decentral I/O systems in the world

Winner of the innovation prize **„Initiative Mittelstand 2007“** for the SPEED7 technology

Milestones

Operating / monitoring devices
From two-line displays
to touch panels

Software for convenient
programming and
parameterization

Accessories
enhanceing, linking,
optimizing

VIPA SLIO Motion Controller with integrated Motion Control, Sigma-7 servo drives

VIPA SLIO 013C
the new super class of
compact CPUs

VIPA MICRO
the smart and modular
control system

2017

INDUSTRIE PREIS 2008

Winner of the industry prize
„Industrie Preis 2008“ for
the SPEED7 technology

awarded with the **Jobstar** of
Metropolitan Region Nuremberg

TOP 100

Honoured as top
innovator by **Top100**

YASKAWA

Majority shareholding of
YASKAWA Europe GmbH
at the VIPA GmbH

European further education award in gold

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System description VIPA MICRO
MICRO

VIPA MICRO

System description VIPA MICRO

Design revolution

The design of the MICRO PLC contains a new display and operating concept that enables the user to see the essential control information of the system at a glance. For this, display and operating elements deliberately concentrate on the essentials that are required in practice. The result is an up-to-date and functional design which is unique in the world of automation.

The new MICRO PLC – as the name suggests – is extremely compact. New solutions are therefore offered with regard to performance and space requirements and the optimization of size and the total costs. With a width of less than 72 millimeters the VIPA MICRO PLC is up to 50% smaller than typical micro controllers.

Fast, faster, MICRO

In combination with this compactness the uniqueness of the new MICRO PLC is based on SPEED7 technology for the highest clock rates and fast program processing. With this, it makes fast processing possible, e.g. for precise positioning and diverse control tasks. Additional speed benefits allow a fast backplane bus transmission of 48 Mbit/s. With the CPU performance of a "large" CPU, the MICRO PLC is the fastest MICRO controller on the current controller market.

High channel density

An additional plus factor is the high channel density of the MICRO PLC. With 30 integrated digital and analog I/O channels on board it offers multifarious usage options as a stand-alone CPU too, and can be expanded with up to eight modules. For the product launch there will be digital modules (16 DI, 16 DO, 16 DIO and 8 DO relay) available which will be expanded continuously by all well-established types of modules. By maximum module expandability, the user has up to 158 I/O channels available for his automation tasks.

Target application

The new MICRO PLC can be used as a high-performance, small or micro controller in both serial and special machine construction as well as central or decentralized control in the field of plant construction. Of course, because of its compact construction size it is perfectly suitable for the building automation and the installation in sub-distributors.

Firm hold by spring terminal technology

The connection plugs of the MICRO PLC are individually detachable and therefore suitable for the pre-wiring in the series launch. Equipped with the convenient push-in technology they can be mounted and replaced quickly and easily, and without tools. This reduces the down-times of the plants and systems and speeds up maintenance. In addition the plugs have spring terminals which not only allow easy wiring but also withstand every vibration. This makes the re-tightening of screw connections unnecessary.

Diagnosis made easily

The allocation of the I/O display LEDs directly on the appropriate plug connection allows the user an easy and clear allocation of the channel status even at such a high channel density. Additionally VIPA Controls offers the user an easy and up-to-date diagnosis access via an optional Bluetooth adapter. This enables fast and easy access to the visualization and operation via commercial smart phones and tablets as well as detailed diagnosis. This is even easier with the new free VIPA app. Moreover, the app is a compact collection of information which is provided on the VIPA homepage and offers direct and uncomplicated access to further information about the respective product at VIPA Controls.

Interfaces, communication and memory

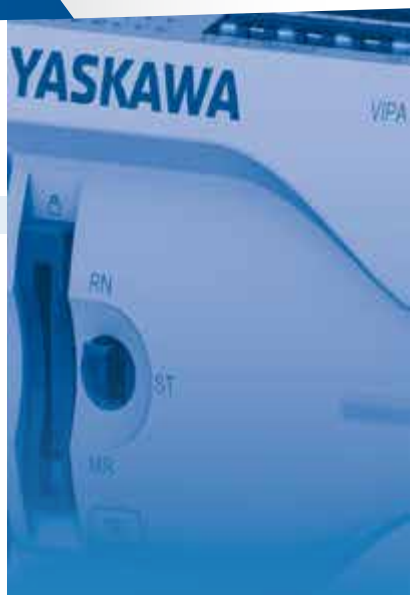
There is an active 2-port-switch for online access, programming, and communication. This switch is prepared for future applications of PROFINET - PROFINET Ready. So the functional range of the MICRO PLC can simply be extended by further planned features such as PROFINET support or webserver by means of a firmware update.

The MICRO PLC communicates via Ethernet TCP/IP (open communication, Modbus TCP etc.) as standard. The user has also the option of using the PROFIBUS slave function, PtP and MPI with an expansion module. Further functionalities of the SLIO system such as larger memory or field bus connections can be enabled if necessary using the multiple award-wining VIPA Set Card (VSC), which is unique in the world of automation.

In the basic version, the MICRO PLC has 64 kByte work memory which can be expanded up to max. 128 kByte via VSC. A big advantage of the MICRO PLC, and of all current VIPA CPUs, is the fully remanent memory. Data and status are therefore saved in the event of a power failure and no further safety measures are necessary. On the one hand this simplifies the program structuring and on the other hand it is an additional big benefit for producers and operators.

VIPA MICRO

Order no.	Name/Description
CPUs STEP7 programmierbar, C-Klasse	
M13-CCF0000	**CPU M13C - powered by SPEED7** › SPEED7 technology › 16 x DI, 12 x DO, 2 x AI, from which are 4 input channels parameterizable for counters and frequency measurement and 2 Output channels for PWM › 64 kB work memory › Memory extension (max. 128 kB) › optionell PROFIBUS-DP slave / PtP (switchable)
FeatureSets	
955-C000020	**VIPASetCard 003 for SLIO CPU** › + 64 kByte
955-C000S20	**VIPASetCard 005 for SLIO CPU** › + 64 kByte + PROFIBUS-slave
Memory modules for other components	
955-0000000	**VIPA SD-Card (VSD)** › VIPA SD-Card (VSD) › empty
Digital input modules	
M21-1BH00	**SM M21 - Digital input** › 8 inputs
Digital output modules	
M22-1BH00	**SM M22 - Digital output** › 8 outputs › Output current 0.5 A
M22-1HF10	**SM M22 - Digitale output** › 8 outputs › Output current, 2A relay
Digital in/output modules	
M23-1BH00	**SM M23 - Digital in-/output** › 8 inputs/8 outputs › Output current 0.5 A
Analog input modules	
M31-1CD53	**SM M31 - Analoge Eingabe** › AI4X16BIT U I RTD TC
Analog output modules	
M32-1BD53	**SM M31 - Analoge Ausgabe** › AO4X12BIT U I
Extension	
M09-0CB00	**Micro Extension 2xRS485** › Interface [1x RS422/RS485]: PtP: ASCII, STX/ETX, 3964(R), USS master, Modbus master/slave interface [1x RS485]: MPI, PROFIBUS slave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At a glance

System description VIPA SLIO
SLIO

VIPA SLIO

System description VIPA SLIO

Structure and Concept

SLIO stands for Slice I/O. The system is very compact and can be adapted piecemeal exactly to the requirements of the application.

The system is designed for central and decentralized automation tasks.

With the SLIO CPU the I/O system has become one of the most advanced centralized control systems in the automation market. The use of the innovative VIPASetCards (VSC) allows you to configure a CPU expansion suitable for your requirements. Besides expandable work memory you can also select between different fieldbus connections.

The compact CPU VIPA SLIO 013C combines both a 013C CPU with integrated SPEED7 technologie and digital and analog input and output channels as well as special channels with technologically special functions all in a single housing.

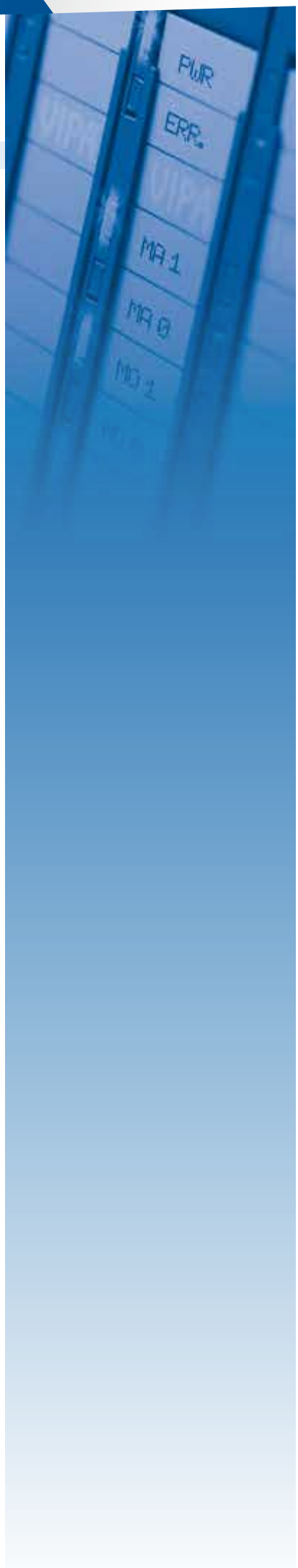
With the help of the power module (PM), color contrasted from the signal modules (SM) and functional modules (FM), these are supplied with power and separate potential groups can be defined as required. The terminal module (TM) combines clamp, seating for the electronic module (EM) and mechanical bus connector. The electronic modules are connected to the terminal module in a secure sliding mechanism. In the case of service, only the electronic module is replaced by simply pulling out of the terminal module – wiring and mounting remain on the 35 mm profile rail. The step-formed spring-type terminals on the terminal module enable a quick, clear and secure wiring. Through integrated status LEDs and the label strip on the front a channel-specific, unambiguous allocation, and readability of the channel conditions of the electronic module is ensured.

All interface modules (IM) for PROFIBUS-DP, CANopen, PROFINET, EtherCAT, DeviceNet, Ethernet/IP and Modbus/TCP support up to 64 electronic modules.

The space-saving assembly size allows use in any automation environment.

Assembly is very easy: First the terminal modules are connected, then the electronic modules are inserted into the slot designated for the terminal module until the connection between both module parts is established by an audible click.

VIPA SLIO is one of the most highly efficient decentral systems worldwide and is evolving daily.



Performance and Application

SLIO is designed for large decentralized automation tasks in the manufacturing and process industries. SLIO expands key solutions and is integrated with the help of the device master files into existing fieldbus infrastructure. Through the new backplane bus concept the interface modules (fieldbus slave) in SLIO enable very short response times for signal processing.

Programming

SLIO is programmable with WinPLC7 and with the new engineering framework SPEED7 Studio from VIPA in LAD, FBD, IL and SCL. Alternatively, a programming with STEP7 and TIA-Portal from Siemens is possible.

Functions

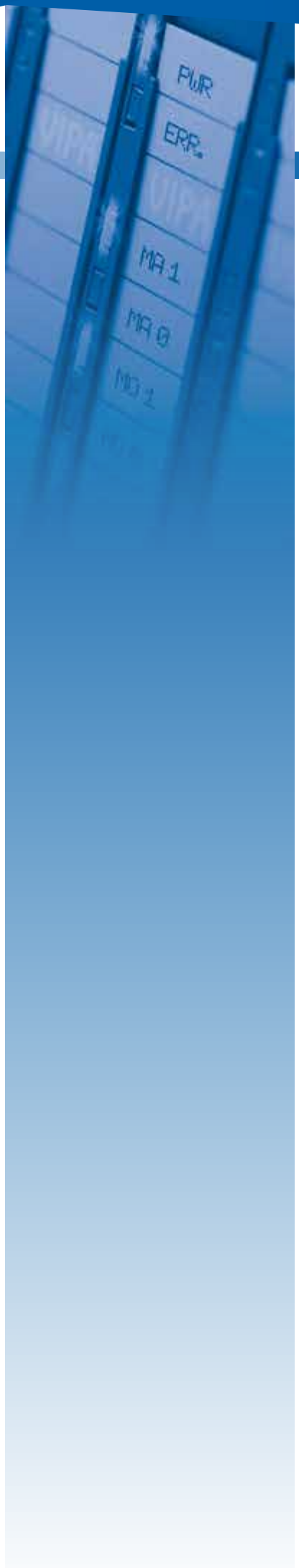
A variety of signal modules are available for the connection of sensors and actuators for acquiring digital and analog signals to and from the process.

For positioning, path measurement, counting tasks and other functions further functional modules are continuously being developed.

Communication

SLIO includes interface modules (fieldbus slave modules) with different fieldbus protocols by which the system, manufacturer-independent, can be integrated into most automation concepts. There is a PG/OP Ethernet interface for programming, visualization and data integration available at all CPUs of the SLIO system. The CLIO compact CPU has two Ethernet interfaces for the PG/OP communication and the access to the integrated web interface.

VIPA SLIO

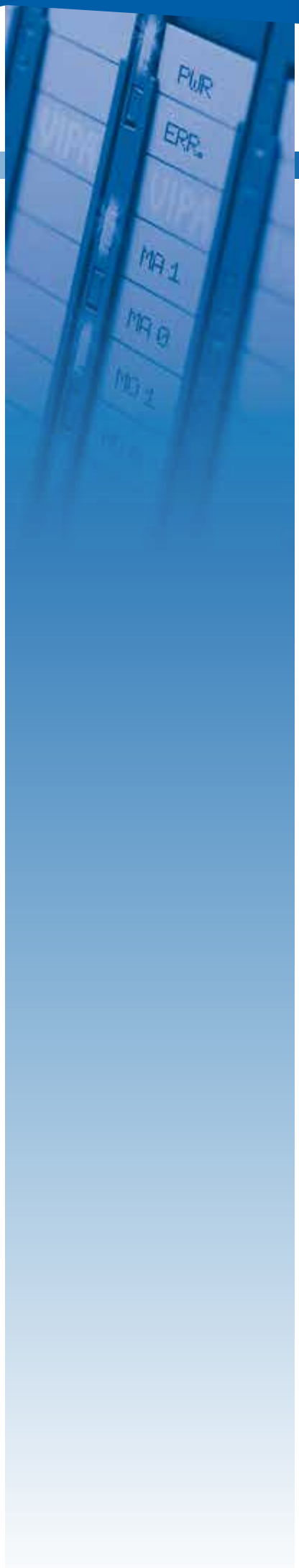


Order no.	Name/Description
CPUs STEP7 programmable, standard	
014-CEF0R01	**CPU 014 - SPEED7 technology** › SPEED7 technology › 128 kB work memory › Memory extension (max. 256 kB) via VIPASetCard › PROFIBUS slave/master activatable via VIPASetCard › Full-function RS485 interface integrated, switchable MPI/PtP › Ethernet PG/OP interface
CPUs STEP7 programmierbar, C-Klasse	
013-CCF0R00	**CPU 013C - SPEED7 technology** › SPEED7 technology › 16 x DI, 12 x DO, 2 x AI, from which are 4 input channels parameterizable for counters and frequency measurement and 2 Output channels for PWM › 64 kB work memory › Memory extension (max. 128 kB) › optionell PROFIBUS-DP slave/master / PtP (switchable)
CPUs STEP7 programmable, PROFINET	
015-CEFPR01	**CPU 015 - SPEED7 technology** › SPEED7 technology › 256 kB work memory › Memory extension (max. 512 kB) via VIPASetCard › PROFIBUS slave/master activatable via VIPASetCard › Full-function RS485 interface integrated, switchable MPI/PtP › PROFINET controller for up to 128 participants integrated › Ethernet PG/OP interface
017-CEFPR00	**CPU 017 - SPEED7 technology** › SPEED7 technology › 256 kB work memory › Memory extension (max. 512 kB) via VIPASetCard › PROFIBUS slave/master activatable via VIPASetCard › Full-function RS485 interface integrated, switchable MPI/PtP › PROFINET controller for up to 128 participants integrated › Ethernet PG/OP interface
CPUs STEP7 programmable, EtherCAT	
015-CEFNR00	**CPU 015N - SPEED7 technology** › SPEED7 technology › 256 kB work memory › Memory extension (max. 512 kB) via VIPASetCard › PROFIBUS slave/master activatable via VIPASetCard › Full-function RS485 interface integrated, switchable MPI/PtP › EtherCAT master for up to 128 participants integrated › Ethernet PG/OP interface
FeatureSets	
955-C000M00	**VIPASetCard 001 for SLIO CPU** › + PROFIBUS-Master
955-C000S00	**VIPASetCard 002 for SLIO CPU** › + PROFIBUS-slave
955-C000020	**VIPASetCard 003 for SLIO CPU** › + 64 kByte
955-C000050	**VIPASetCard 012 for SLIO CPU** › + 512 kByte
955-C000060	**VIPASetCard 014 for SLIO CPU** › + 1 MByte
955-C000070	**VIPASetCard 016 for SLIO CPU** › + 1,5 MByte
955-C000M50	**VIPASetCard 013 for SLIO CPU** › + 512 kByte + PROFIBUS-master
955-C000M60	**VIPASetCard 015 for SLIO CPU** › + 1 MByte + PROFIBUS-master
955-C000M70	**VIPASetCard 017 for SLIO CPU** › + 1,5 MByte + PROFIBUS-master
955-C000M20	**VIPASetCard 004 for SLIO CPU** › + 64 kByte + PROFIBUS-master
955-C000S20	**VIPASetCard 005 for SLIO CPU** › + 64 kByte + PROFIBUS-slave
955-C000030	**VIPASetCard 006 for SLIO CPU** › + 128 kByte
955-C000M30	**VIPASetCard 007 for SLIO CPU** › + 128 kByte + PROFIBUS-master

VIPA SLIO

Order no.	Name/Description
955-C000S30	**VIPASetCard 008 for SLIO CPU** › + 128 kByte + PROFIBUS-slave
955-C000040	**VIPASetCard 009 for SLIO CPU** › + 256 kByte
955-C000M40	**VIPASetCard 010 for SLIO CPU** › + 256 kByte + PROFIBUS-master
955-C000S40	**VIPASetCard 011 for SLIO CPU** › + 256 kByte + PROFIBUS-slave
955-C0ME040	**VIPASetCard 031 for SLIO CPU** › + 256 kByte + MotionContol 4-axes
955-C0NE040	**VIPASetCard 032 for SLIO CPU** › + 256 kByte + MotionContol 8-axes
955-C0PE040	**VIPASetCard 033 for SLIO CPU** › + 256 kByte + MotionContol 20-axes
Clamp modules	
001-1BA00	**CM 001 - Potential distributor module** › 8xDC 24 V clamps
001-1BA10	**CM 001 - Potential distributor module** › 8xDC 0 V clamps
001-1BA20	**CM 001 - Potential distributor module** › 4xDC 24 V, 4xDC 0 V clamps
Power modules	
007-0AA00	**PM 007 - Power-Modul** › Power supply DC 24 V
007-1AB00	**PM 007 - Power module** › Power supply DC 24 V, 10 A › Reverse polarity protection › Overvoltage protection
007-1AB10	**PM 007 - Power module** › Power supply DC 24 V, 4 A › Power supply DC 24 V for bus supply 5 V, 2 A › Reverse polarity protection › Overvoltage protection
Digital input modules	
021-1BB00	**SM 021 - Digital input** › 2 inputs
021-1BB10	**SM 021 - Digital input** › 2 fast inputs › Input filter time delay parameterizable 2 µs...4 ms
021-1BB50	**SM 021 - Digital input** › 2 inputs › Active low input
021-1BB70	**SM 021 - Digital input** › 2 inputs › Time stamp
021-1BD00	**SM 021 - Digital input** › 4 inputs
021-1BD10	**SM 021 - Digital input** › 4 fast inputs › Input filter time delay parameterizable 2 µs...4 ms
021-1BD40	**SM 021 - Digital input** › 4 inputs › Connect 2/3-wire
021-1BD50	**SM 021 - Digital input** › 4 inputs › Active low input
021-1BD70	**SM 021 - Digital input** › 4 inputs › Time stamp
021-1BF00	**SM 021 - Digital input** › 8 inputs
021-1BF01	**SM 021 - Digital input** › 8 Inputs, 0.5ms
021-1BF50	**SM 021 - Digital input** › 8 inputs › Active low input

VIPA SLIO

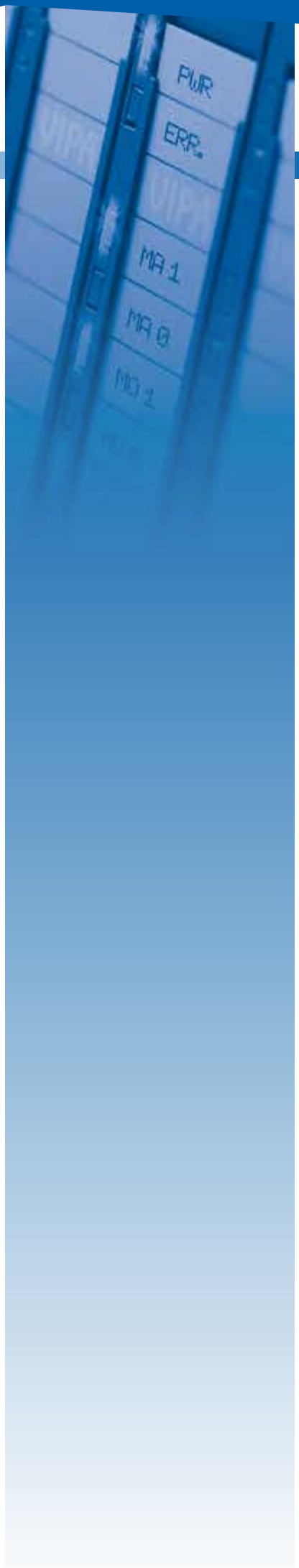


Order no.	Name/Description
021-1DF00	**SM 021 - Digital input** › 8 inputs › diagnosis of wiring errors
021-1SD00	**SM 021 - Digital input** › 4 inputs › Safety
Digital output modules	
022-1BB00	**SM 022 - Digital output** › 2 outputs › Output current 0.5 A
022-1BB20	**SM 022 - Digital output** › 2 outputs › Output current 2 A
022-1BB50	**SM 022 - Digital output** › 2 Low-Side outputs › Output current 0.5 A
022-1BB70	**SM 022 - Digital output** › 2 outputs › Time stamp › Output current 0.5 A
022-1BB90	**SM 022 - Digital output** › 2 outputs › PWM
022-1BD00	**SM 022 - Digital output** › 4 outputs › Output current 0.5 A
022-1BD20	**SM 022 - Digital output** › 4 outputs › Output current 2 A
022-1BD50	**SM 022 - Digital output** › 4 Low-Side outputs › Output current 0.5 A
022-1BD70	**SM 022 - Digital output** › 4 outputs › Time stamp › Output current 0.5 A
022-1BF00	**SM 022 - Digital output** › 8 outputs › Output current 0.5 A
022-1BF50	**SM 022 - Digital output** › 8 Low-Side outputs › Output current 0.5 A
022-1HB10	**SM 022 - Digital output** › 2 relay outputs › DC 30 V/ AC 230 V › Output current 3 A
022-1HD10	**SM 022 - Digital output** › 4 relay outputs › DC 30 V / AC 230 V › Output current 1.8 A
022-1DF00	**SM 022 - Digital output** › 8 outputs › Output current 0.5 A › diagnosis of wiring errors
022-1SD00	**SM 022 - Digital output** › 4 outputs › Safety › Output current 0.5 A
Analog input modules	
031-1BB10	**SM 031 - Analog input** › 2 inputs 12Bit › Current 0(4)...20mA › 2 wire
031-1BB30	**SM 031 - Analog input** › 2 inputs 12Bit › Voltage 0...10 V
031-1BB40	**SM 031 - Analog input** › 2 inputs 12Bit › Current 0(4)...20 mA

VIPA SLIO

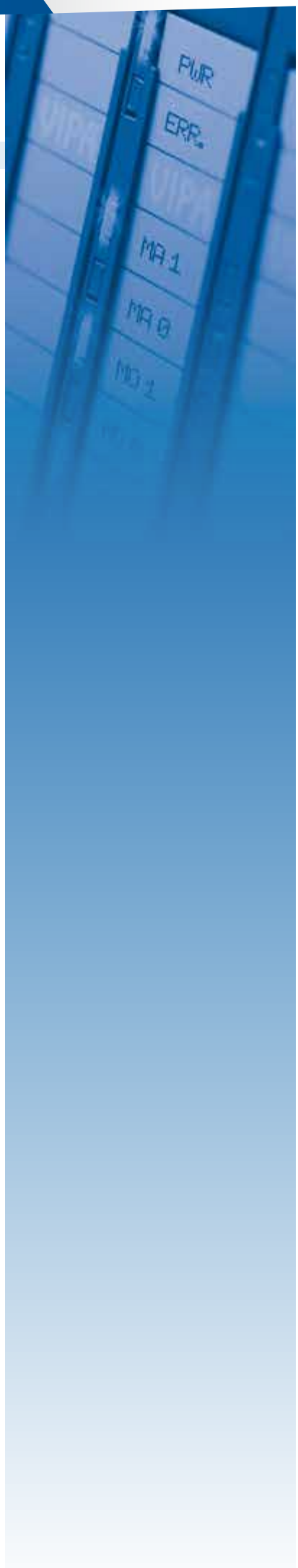
Order no.	Name/Description
031-1BB60	**SM 031 - Analog input** › 2 inputs 12Bit › Current 0(4)...20mA › 2 wire
031-1BB70	**SM 031 - Analog input** › 2 inputs 12Bit › Voltage -10 V...+10 V
031-1BB90	**SM 031 - Analog input** › 2 inputs 16Bit › Thermocouple type J, K, N, R, S, T, B, C, E, L › Voltage -80mV...+80mV
031-1BD30	**SM 031 - Analog input** › 4 inputs 12Bit › Voltage 0...10 V
031-1BD40	**SM 031 - Analog input** › 4 inputs 12Bit › Current 0(4)...20 mA
031-1BD70	**SM 031 - Analog input** › 4 inputs 12Bit › Voltage -10 V...+10 V
031-1BD80	**SM 031 - Analog input** › 4 inputs 16Bit › 0 .. 3000 ohm resistance › Resistance measurement with 2, 3, and 4-wires
031-1BF60	**SM 031 - Analog input** › 8 inputs 12Bit › Current 0(4)...20mA › 2 wire
031-1BF74	**SM 031 - Analog input** › 8 inputs 12Bit › Voltage -10 V...+10 V
031-1CB30	**SM 031 - Analog input** › 2 inputs 16Bit › Voltage 0...10 V
031-1CB40	**SM 031 - Analog input** › 2 inputs 16Bit › Current 0(4)...20 mA
031-1CB70	**SM 031 - Analog input** › 2 inputs 16Bit › Voltage -10 V...+10 V
031-1CD30	**SM 031 - Analog input** › 4 inputs 16Bit › Voltage 0...10 V
031-1CD35	**SM 031 - Analog input** › 4 inputs 16Bit › Voltage 0...10 V
031-1CD40	**SM 031 - Analog input** › 4 inputs 16Bit › Current 0(4)...20 mA
031-1CD45	**SM 031 - Analog input** › 4 inputs 16Bit › Current 0(4)...20 mA
031-1CD70	**SM 031 - Analog input** › 4 inputs 16Bit › Voltage -10 V...+10 V
031-1LB90	**SM 031 - Analog input** › 2 inputs 16Bit › Thermocouple › Voltage -80mV...+80mV › requires less parameter bytes than module 031-1BB90
031-1LD80	**SM 031 - Analog input** › 4 inputs 16Bit › 0 .. 3000 ohm resistance › Resistance measurement with 2, 3, and 4-wires › requires less parameter bytes than module 031-1BD80

VIPA SLIO



Order no.	Name/Description
DMS-Module	
031-1CA20	**SM 031 - Analog input** › Direct connection of a resistor full bridge (DMS) or load cell › 4- or 6-wire measurement › 16 (24)Bit resolution › Auto/self calibration zero point and final value › Absolute exactness radical error ±0,1% (± 0,01%) › Onboard power supply 2V5, 5V, 7V5, 10V and 12V
Energiemess-Module	
031-1PA00	**Energy measurement terminal** › 1/3 phase 230/400V 1A › Resolution measured value
Analog output modules	
032-1BB30	**SM 032 - Analog output** › 2 outputs 12Bit › Voltage 0...10 V
032-1BB40	**SM 032 - Analog output** › 2 outputs 12Bit › Current 0(4)...20 mA
032-1BB70	**SM 032 - Analog output** › 2 outputs 12Bit › Voltage -10 V...+10 V
032-1BD30	**SM 032 - Analog output** › 4 outputs 12Bit › Voltage 0...10 V
032-1BD40	**SM 032 - Analog output** › 4 outputs 12Bit › Current 0(4)...20mA
032-1BD70	**SM 032 - Analog output** › 4 outputs 12Bit › Voltage -10 V...+10 V
032-1CB30	**SM 032 - Analog output** › 2 outputs 16Bit › Voltage 0...10 V
032-1CB40	**SM 032 - Analog output** › 2 outputs 16Bit › Current 0(4)...20 mA
032-1CB70	**SM 032 - Analog output** › 2 outputs 16Bit › Voltage -10 V...+10 V
032-1CD30	**SM 032 - Analog output** › 4 outputs 16Bit › Voltage 0...10 V
032-1CD40	**SM 032 - Analog output** › 4 outputs 16Bit › Current 0(4)...20mA
032-1CD70	**SM 032 - Analog output** › 4 outputs 16Bit › Voltage -10 V...+10 V
RS232/422/485 and other CPs	
040-1BA00	**CP 040 - Communication processor** › RS232 interface
040-1CA00	**CP 040 - Communication processor** › RS422/485 interface
Positinier-Module	
054-1BA00	**FM054 – Stepper motor module** › 1-channel with feedback › 4 inputs/outputs DC 24V, which can be used as encoder inputs › Power control frequency 32 kHz › Step pattern 64 times microstepping
054-1CB00	**FM054 - DC motor module** › 2-channel with feedback › 4 inputs/outputs DC 24V, which can be used as encoder inputs › PWM clock frequency 32 kHz
054-1DA00	**FM054 - Pulse Train Output Module** › 1-channel RS422 with feedback › 4 configurable in-/outputs I/O1 ... I/O4 › Operating modes: CW/CCW, PLS/DIR, ENC/SIM

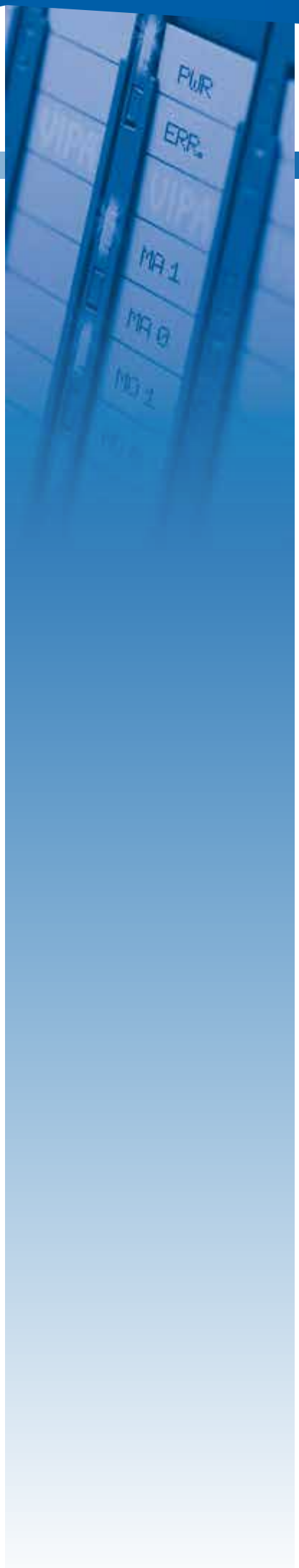
VIPA SLIO



Order no.	Name/Description
SSI modules	
050-1BS00	**FM 050S - SSI module** › SSI - Encoder › Master or slave mode › Encoder frequency 125 kHz...2 MHz › µs time stamp for encoder value
Counter modules	
050-1BA00	**FM 050 - Counter module** › 1 Counter 32 Bit (AB) › DC 24 V
050-1BA10	**FM 050 - Counter module** › 1 Counter 32 Bit (AB) › DC 5 V (difference signal)
050-1BB00	**FM 050 - Counter module** › 2 Counter 32 Bit (AB) › DC 24 V
050-1BB30	**FM 050 - Counter module Eco** › 2 Counter 32 Bit (AB) › DC 24 V
050-1BB40	**FM 050 - Frequency measurement** › 2 channels 24 Bit › DC 24 V
Fieldbus slave modules without I/Os	
053-1CA00	**IM 053CAN - CANopen slave** › CANopen slave › 16 Rx and 16 Tx PDOs › 2 SDOs › PDO linking › PDO mapping: fix › up to 64 peripheral modules
053-1DN00	**IM 053DN - DeviceNet slave** › DeviceNet slave › Group 2 only device › Poll only device › Baud rate: 125, 250 and 500kbit/s › up to 64 peripheral modules
053-1DP00	**IM 053DP - PROFIBUS-DP slave** › PROFIBUS-DP slave (DP-V0, DP-V1) › 244 Byte input and 244 Byte output data › up to 64 peripheral modules
053-1EC00	**IM 053EC - EtherCAT slave** › EtherCAT slave › RJ45 jack 100BaseTX › up to 64 peripheral modules
053-1IP00	**IM 053IP - EtherNet/IP slave** › EtherNet/IP-Slave › I/O configuration via fieldbus › up to 64 peripheral modules
053-1MT00	**IM 053MT - Modbus/TCP slave** › Modbus/TCP slave › I/O configuration via fieldbus › up to 64 peripheral modules
053-1PN00	**IM 053PN - PROFINET-IO slave** › PROFINET-IO slave › Transfer rate 100Mbit/s › up to 64 peripheral modules
Line extensions	
060-1AA00	**IM060 Line Extension** › SLIO IM060 bus extension › Master module for extension / renewal of the SLIO bus to another line › Connector: 1x RJ45 plug connector › Module width 25.8 mm › Connection: CAT6 cable, maximum length: 2m › Module is always installed at the last place in the line, module IM060 and IM061 always form a pair
061-1BA00	**IM061 Line Extension** › SLIO IM 061 bus extension › Slave module for extending SLIO bus up to 8 additional lines (up to 64 modules) › Connector: 1x RJ45 plug connector › Module width 25.8 mm › Connection: CAT6 cable, maximum length: 2m › Module is always installed at the first place in the line; Module IM 060 and IM 061 always form a pair

VIPA SLIO

Order no.	Name/Description
35 mm profile rail	
290-1AF00	**35 mm profile rail** › length 2000 mm
290-1AF30	**35 mm profile rail** › length 530 mm
Cables	
950-0KD30	**SLIO line extension cable** › SLIO line extension cable
Miscellaneous	
000-0AA00	**SLIO bus cover** › 1 piece
000-0AB00	**SLIO shield bus carrier** › 10 pieces
000-0AC00	**SLIO shield bus carrier** › Coding key for secure coding of SLIO modules › Quantity: 100 pieces
000-0DN00	**SLIO bus cover** › DeviceNet jack for IM › Contact surface: gold › Pole number: 5 › Contact termination: spring force connection
Memory modules for other components	
955-0000000	**VIPA SD-Card (VSD)** › VIPA SD-Card (VSD) › empty



At a glance

System description VIPA 100V
100V

VIPA 100V

System description VIPA 100V

Structure and Function

100V is a very compact control system.

The system is designed for centralized and decentralized automation tasks.

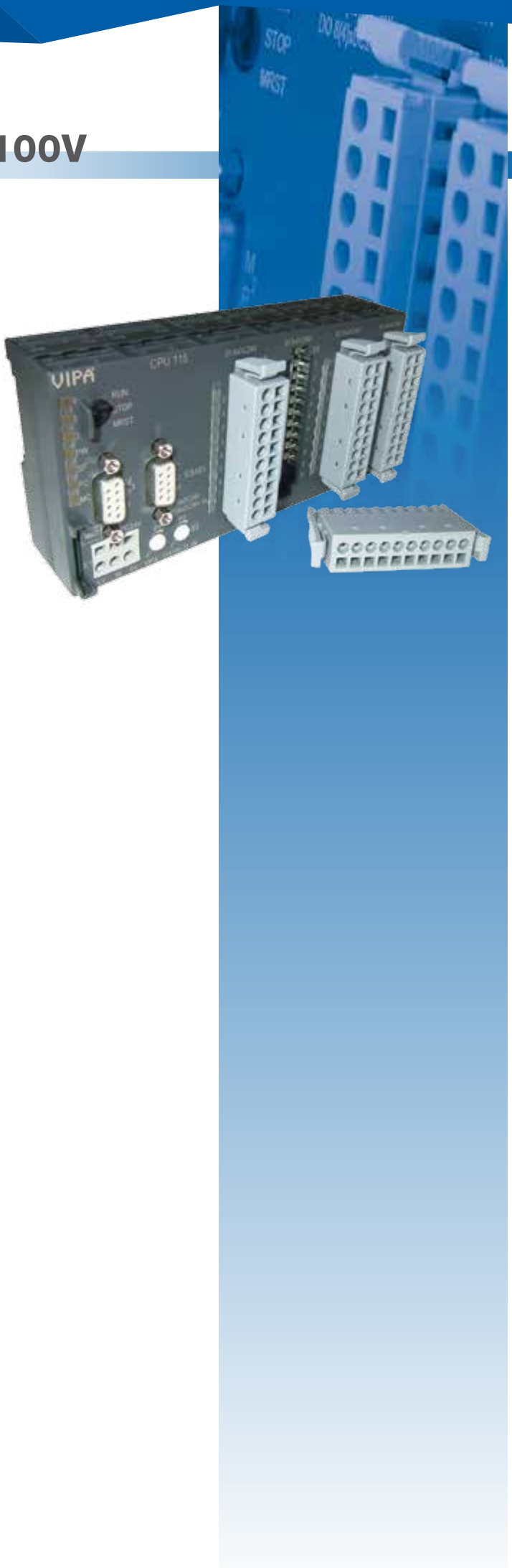
The compact CPUs unify interfaces for communication and digital I/O peripherals in a casing.

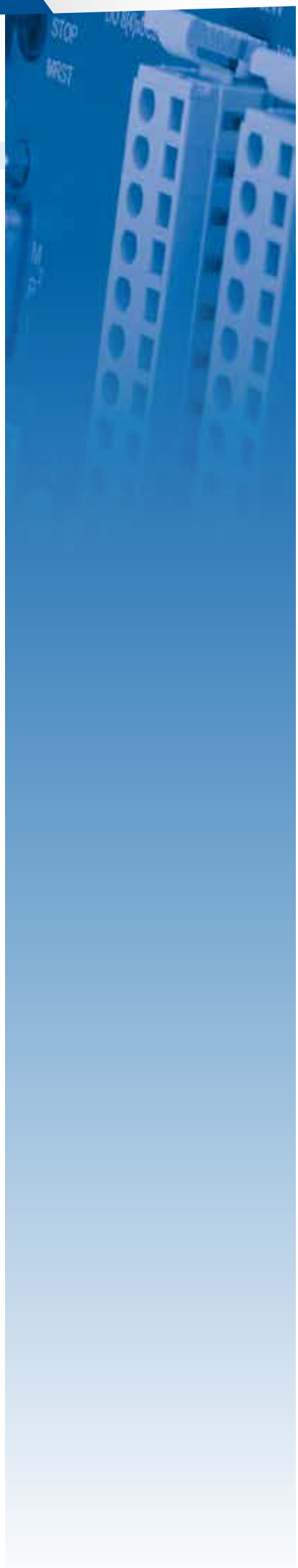
By the use of up to four expansion modules the CPUs can be extended by up to 160 analog and digital I/O points.

With its space-saving assembly size it fits into almost any automation environment.

100V is immediately usable central and decentral without further components. The installation of the system and the enlargement of the periphery is extremely simple. The CPU is clipped onto a standard 35 mm profile rail. If the CPU needs to be expanded bus connectors are used for communication between the CPU and expansion modules on the profile rail in advance, after that the CPU and the 100V/200V expansion modules are snapped on - finished.

The scope of supply includes front connectors, labeling strips and, in 100V expansion modules, also bus connectors.





Performance and Application

100V is designed for centralized and decentralized automation tasks in the manufacturing and process industries for the lower performance range.

Programming

100V is programmed with VIPA WinPLC7 or with Siemens STEP7 in LAD, FBD and STL.

Memory

The CPUs in the system 100V have the work and load memory already integrated. Depending on the CPU version, users can choose from 8 kByte to 32 kByte work memory. In addition, MMC cards for storing program and data are supported.

Functions

For the connection of sensors and actuators are a variety of signaling modules in 100V, and 200V for acquiring digital and analog signals in and out of the process is available. Most of the signal modules from 200V are bus and functionally compatible to 100V.

Depending on the CPU, variant counter inputs and PWM outputs are integrated. Due to the counter inputs, complex and fast counting tasks in the manufacturing and process industries will be economically realized. The adjustable PWM outputs via potentiometer allow, for example, CCFLs to be "dimmed" or the speed of appropriate electric motors and fans to be regulated via impulses.

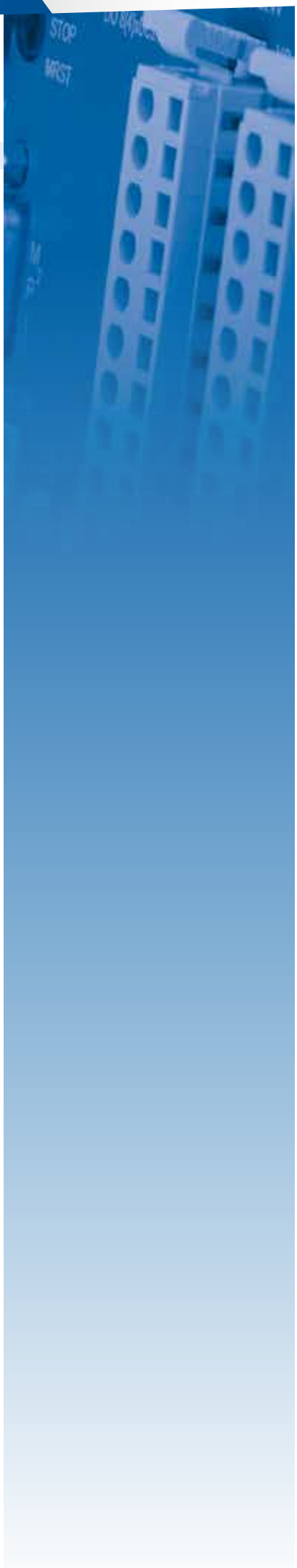
Communication

For the connection of serial devices, e.g. scanner or printer, and for the integration of systems from other manufacturers, different CPU variants are available with integrated interfaces. 100V provides fieldbus slave modules for PROFIBUS-DP and CANopen, with which the system also serves as manufacturer-independent, central, but also as subordinate decentralized fieldbus slave unit.

The fieldbus slave modules are integrated via the device master files into existing fieldbus infrastructure.

VIPA 100V

Order no.	Name/Description
CPUs STEP7 programmable	
112-4BH02	**CPU 112 - Micro PLC** › 8 (12) inputs › 8 (4) outputs › 8 kB work memory, 16 kB load memory
114-6BJ02	**CPU 114 - Micro PLC** › 16 (20) inputs › 8 (4) outputs › from which are 2 PWM 50 kHz outputs › 16 kB work memory, 24 kB load memory
114-6BJ03	**CPU 114 - Micro PLC** › 16 (20) inputs › 8 (4) outputs › from which are 2 PWM 50 kHz outputs › 24 kB work memory, 32 kB load memory
114-6BJ04	**CPU 114 - Micro PLC** › 16 (20) inputs › 8 (4) outputs › from which are 2 PWM 50 kHz outputs › 32 kB work memory, 40 kB load memory
114-6BJ52	**CPU 114R - Micro PLC** › 16 inputs › 8 relay outputs › AC 230 V/ DC 30 V › 16 kB work memory, 24 kB load memory
114-6BJ53	**CPU 114R - Micro PLC** › 16 inputs › 8 relay outputs › AC 230 V/ DC 30 V › 24 kB work memory, 32 kB load memory
114-6BJ54	**CPU 114R - Micro PLC** › 16 inputs › 8 relay outputs › AC 230 V/ DC 30 V › 32 kB work memory, 40 kB load memory
115-6BL02	**CPU 115 - Micro PLC** › 16 (20) inputs › 16 (12) outputs › from which are 2 PWM 50 kHz outputs › 16 kB work memory, 24 kB load memory
115-6BL03	**CPU 115 - Micro PLC** › 16 (20) inputs › 16 (12) outputs › from which are 2 PWM 50 kHz outputs › 24 kB work memory, 32 kB load memory
115-6BL04	**CPU 115 - Micro PLC** › 16 (20) inputs › 16 (12) outputs › from which are 2 PWM 50 kHz outputs › 32 kB work memory, 40 kB load memory
CPUs STEP7 programmable, PtP	
115-6BL12	**CPU 115SER - Micro PLC** › 16 (20) inputs › 16 (12) outputs › from which are 2 PWM 50 kHz outputs › 16 kB work memory, 24 kB load memory › RS232 interface
115-6BL13	**CPU 115SER - Micro PLC** › 16 (20) inputs › 16 (12) outputs › from which are 2 PWM 50 kHz outputs › 24 kB work memory, 32 kB load memory › RS232 interface
115-6BL14	**CPU 115SER - Micro PLC** › 16 (20) inputs › 16 (12) outputs › from which are 2 PWM 50 kHz outputs › 32 kB work memory, 40 kB load memory › RS232 interface



VIPA 100V

Order no.	Name/Description
115-6BL32	**CPU 115SER - Micro PLC** › 16 (20) inputs › 16 (12) outputs › from which are 2 PWM 50 kHz outputs › 16 kB work memory, 24 kB load memory › RS485 interface
115-6BL33	**CPU 115SER - Micro PLC** › 16 (20) inputs › 16 (12) outputs › from which are 2 PWM 50 kHz outputs › 24 kB work memory, 32 kB load memory › RS485 interface
115-6BL34	**CPU 115SER - Micro PLC** › 16 (20) inputs › 16 (12) outputs › from which are 2 PWM 50 kHz outputs › 32 kB work memory, 40 kB load memory › RS485 interface
CPUs STEP7 programmable, DP slave	
115-6BL22	**CPU 115DP - Micro PLC** › 16 (20) inputs › 16 (12) outputs › 16 kB work memory, 24 kB load memory › PROFIBUS-DP slave interface
115-6BL23	**CPU 115DP - Micro PLC** › 16 (20) inputs › 16 (12) outputs › from which are 2 PWM 50 kHz outputs › 24 kB work memory, 32 kB load memory › PROFIBUS-DP slave interface
115-6BL24	**CPU 115DP - Micro PLC** › 16 (20) inputs › 16 (12) outputs › 32 kB work memory, 40 kB load memory › PROFIBUS-DP slave interface
Clamp modules	
101-4FH50	**CM 101 - Clamp modules** › 8x11 clamps › passive
Digital in/output modules	
123-4EH01	**EM 123 - Expansion module, digital** › 8 inputs/ 8 outputs › DC 24 V
123-4EJ01	**EM 123 - Expansion module, digital** › 16 inputs/ 8 outputs › DC 24 V
123-4EJ11	**EM 123 - Expansion module, digital** › 16 inputs › 8 relay outputs
123-4EL01	**EM 123 - Expansion module, digital** › 16 inputs/ 16 outputs › Isolated
Analog in/output modules	
134-4EE00	**EM 134 - Expansion module, analog** › 3 inputs U/I › 1 input Pt, Ni, R › 2 outputs U/I › Configurable
Fieldbus slave modules with I/Os, DI	
151-4PH00	**SM 151 - PROFIBUS-DP slave, digital** › PROFIBUS-DP slave › 16 inputs
151-6PH00	**SM 151 - PROFIBUS-DP slave, digital** › PROFIBUS-DP slave › 16 inputs › 4x11 clamps
151-6PL00	**SM 151 - PROFIBUS-DP slave, digital** › PROFIBUS-DP slave › 32 inputs

VIPA 100V

Order no.	Name/Description
Fieldbus slave modules with I/Os, DO	
152-4PH00	**SM 152 - PROFIBUS-DP slave, digital** › PROFIBUS-DP slave › 16 outputs
152-6PH00	**SM 152 - PROFIBUS-DP slave, digital** › PROFIBUS-DP slave › 16 outputs › 4x11 clamps
152-6PL00	**SM 152 - PROFIBUS-DP slave, digital** › PROFIBUS-DP slave › 32 outputs
Fieldbus slave modules with I/Os, DIO	
153-4CF00	**SM 153 - CANopen slave, digital** › CAN slave › 8 channels as inputs or outputs › 2x11 clamps
153-4CH00	**SM 153 - CANopen slave, digital** › CAN slave › 8 (12) inputs › 4 (8) outputs
153-4PF00	**SM 153 - PROFIBUS-DP slave, digital** › PROFIBUS-DP slave › 8 channels as inputs or outputs › 2x11 clamps
153-4PH00	**SM 153 - PROFIBUS-DP slave, digital** › PROFIBUS-DP slave › 8 inputs › 8 outputs
153-6CH00	**SM 153 - CANopen slave, digital** › CAN slave › 8 (12) inputs › 4 (8) outputs › 4x11 clamps
153-6PH00	**SM 153 - PROFIBUS-DP slave, digital** › PROFIBUS-DP slave › 8 inputs › 8 outputs › 4x11 clamps
153-6PL00	**SM 153 - PROFIBUS-DP slave, digital** › PROFIBUS-DP slave › 16 inputs › 16 outputs
153-6PL10	**SM 153 - PROFIBUS-DP slave, digital** › PROFIBUS-DP slave › 24 inputs › 8 outputs
Bus connectors	
290-0AA10	**Bus connector** › 1-tier
35 mm profile rail	
290-1AF00	**35 mm profile rail** › length 2000 mm
290-1AF30	**35 mm profile rail** › length 530 mm
Front connector	
292-1AF00	**Front connector** › 10 pin with cage clamps (included in the scope of delivery of signal modules)
MMC memory	
953-0KX10	**MMC - MultiMediaCard** › Extension memory for VIPA CPUs 11x, 21x, 24x, 31x, 51x, and 208-1DP01, CC 03 (for load memory not necessary)

At a glance

System description VIPA 200V
200V

VIPA 200V

System description VIPA 200V

Structure and Concept

200V is a highly compact and modular expandable system.

The system is designed for centralized and decentralized automation tasks.

With a central extension of a maximum of 32 modules directly to the CPU and up to 126 fieldbus slave modules with a further maximum of 32 modules per fieldbus slave module, 200V is highly flexible. The module size allows use in almost any automation environment.

The assembly is extremely simple. The bus connector for communication between the modules and the CPU can be easily inserted into a 35 mm standard rail, and then 200V modules are snapped on – finished.

Included with the supply of the signal and function modules are front connectors and labeling strips.

Performance and Application

200V is designed for centralized and decentralized automation tasks in the manufacturing and process industry up to medium power range.

Programming

200V is programmed with VIPA WinPLC7 or with Siemens STEP7 in LAD, FBD and STL.

Memory

The CPUs in 200V have the work and load memory already integrated. Depending on the CPU version, users can choose from 48 kByte to 128 kByte work memory. In addition, MMC cards for storing program and data are supported.

Functions

For the connection of sensors and actuators, a variety of signaling modules are available for acquiring digital and analog signals in and out of the process.

For positioning tasks and path measurement various SSI, servo and stepper modules can be chosen.

The counter modules in 200V also support complex and fast counting tasks in the manufacturing and process industry to calculate the comparative features and the connection of sensors, such as photoelectric barriers.

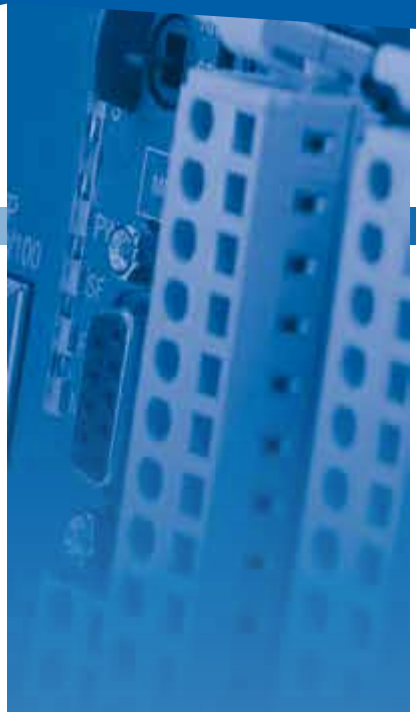
Communication

For the connection of serial devices, e.g. scanner or printer, and for the integration of systems from other manufacturers, the system offers a full complement of serial communication processors.

Ethernet communication processors incorporates 200V horizontally and vertically into the existing network structures, and thus make all relevant data connected to the MES and ERP systems available.

200V possesses fieldbus master and slave modules with various fieldbus protocols and can therefore function, manufacturer-independent, as master control as well as subordinate fieldbus slave unit.

VIPA 200V



Order no.	Name/Description
CPUs STEP7 programmable, standard	
214-1BA03	**CPU 214 - PLC CPU** › 96 kB work memory › 144 kB load memory
214-1BA06	**CPU 214 - PLC CPU** › 96 kB work memory › 144 kB load memory › Also configurable via TIA-Portal
214-1BC03	**CPU 214C - PLC CPU** › 48 kB work memory › 80 kB load memory
214-1BC06	**CPU 214C - PLC CPU** › 48 kB work memory › 80 kB load memory › Also configurable via TIA-Portal
215-1BA03	**CPU 215 - PLC CPU** › 128 kB work memory › 192 kB load memory
215-1BA06	**CPU 215 - PLC CPU** › 128 kB work memory › 192 kB load memory › Also configurable via TIA-Portal
CPUs STEP7 programmable, NET-CPUs	
214-2BE03	**CPU 214PG - PLC CPU** › Twisted pair Ethernet via RJ45 › 96 kB work memory › 144 kB load memory
214-2BT13	**CPU 214NET - PLC CPU** › Ethernet CP 243 › Twisted pair Ethernet via RJ45 › 96 kB work memory › 144 kB load memory
215-2BE03	**CPU 215PG - PLC CPU** › Twisted pair Ethernet via RJ45 › 128 kB work memory › 192 kB load memory
215-2BE06	**CPU 215PG - PLC CPU** › Twisted pair Ethernet via RJ45 for PG/OP communication › 128 kB work memory › 192 kB load memory › also configurable via TIA-Portal
215-2BT13	**CPU 215NET - PLC CPU** › Ethernet CP 243 › Twisted pair Ethernet via RJ45 › 128 kB work memory › 192 kB load memory
215-2BT16	**CPU 215NET - PLC CPU** › Ethernet CP 243 › Twisted pair Ethernet via RJ45 › 128 kB work memory › 192 kB load memory › also configurable via TIA-Portal
CPUs STEP7 programmable, PtP	
214-2BS03	**CPU 214SER - PLC CPU** › Serial communication via 2x RS232 › 96 kB work memory › 144 kB load memory
214-2BS13	**CPU 214SER - PLC CPU** › Serial communication via RS232 › 96 kB work memory › 144 kB load memory
214-2BS33	**CPU 214SER - PLC CPU** › Serial communication via RS485 › 96 kB work memory › 144 kB load memory
215-2BS03	**CPU 215SER - PLC CPU** › Serial communication via 2x RS232 › 128 kB work memory › 192 kB load memory

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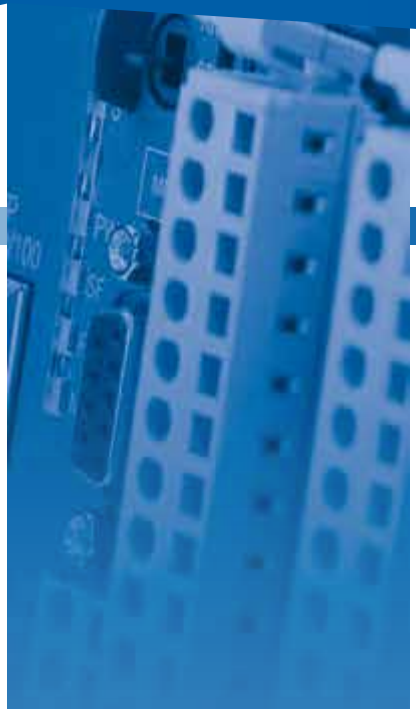
Order no.	Name/Description
215-2BS13	**CPU 215SER - PLC CPU** › Serial communication via RS232 › 128 kB work memory › 192 kB load memory
215-2BS33	**CPU 215SER - PLC CPU** › Serial communication via RS485 › 128 kB work memory › 192 kB load memory
CPUs STEP7 programmable, DP master	
214-2BM03	**CPU 214DPM - PLC CPU** › PROFIBUS-DP master › 96 kB work memory › 144 kB load memory
214-2BM06	**CPU 214DPM - PLC CPU** › PROFIBUS-DP master › 96 kB work memory › 144 kB load memory › Also configurable via TIA-Portal
215-2BM03	**CPU 215DPM - PLC CPU** › PROFIBUS-DP master › 128 kB work memory › 192 kB load memory
CPUs STEP7 programmable, DP slave	
214-2BP03	**CPU 214DP - PLC CPU** › PROFIBUS-DP slave › 96 kB work memory › 144 kB load memory
215-2BP03	**CPU 215DP - PLC CPU** › PROFIBUS-DP slave › 128 kB work memory › 192 kB load memory
CPUs STEP7 programmable, CAN master	
214-2CM03	**CPU 214CAN - PLC CPU** › CANopen master › 96 kB work memory › 144 kB load memory
215-2CM03	**CPU 215CAN - PLC CPU** › CANopen master › 128 kB work memory › 192 kB load memory
Clamp modules	
201-1AA00	**CM 201 - Double clamps module** › Dual terminals › 2x11 clamps, gray/gray › Passive
201-1AA10	**CM 201 - Double clamps module** › Dual terminals › 2x11 clamps, green-yellow/gray › Passive
201-1AA20	**CM 201 - Double clamps module** › Dual terminals › 2x11 clamps, red/blue › Passive
201-1AA40	**CM 201 - 4-tier clamps module** › Quad terminals › 2x5 clamps gray/gray › 2x6 clamps red/blue › Passive
Power supply	
207-1BA00	**PS 207 - Power supply** › AC 100...240 V w/o manual intervention › Output voltage DC 24 V
207-2BA20	**PS 207 - Power supply** › AC 100...240 V w/o manual intervention › Output voltage DC 24 V › Terminal module with 2x11 clamps
Digital input modules	
221-1BF00	**SM 221 - Digital input** › 8 inputs

VIPA 200V

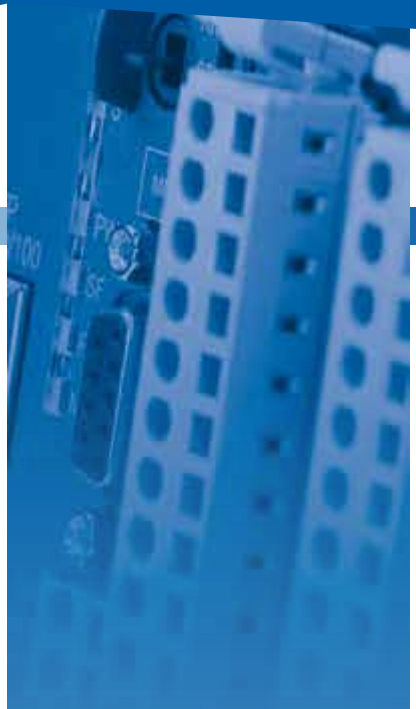


Order no.	Name/Description
221-1BF10	**SM 221 - Digital input** › 8 inputs, › Delay time 0.2 ms
221-1BF21	**SM 221 - Digital input** › 8 alarm inputs › Delay time 0.2 ms
221-1BF30	**SM 221 - Digital input ECO** › 8 inputs
221-1BF50	**SM 221 - Digital input** › 8 inputs › Active low input
221-1BH00	**SM 221 - Digital input** › 16 inputs › LED status display on the conversion module UB4x
221-1BH10	**SM 221 - Digital input** › 16 inputs
221-1BH30	**SM 221 - Digital input ECO** › 16 inputs
221-1BH50	**SM 221 - Digital input** › 16 inputs › Active low input › LED status display on conversion module UB4x
221-1BH51	**SM 221 - Digital input** › 16 inputs › Active low input
221-1FD00	**SM 221 - Digital input** › 4 inputs › AC/DC 90...230 V › Isolation per channel
221-1FF20	**SM 221 - Digital input** › 8 inputs › AC/DC 60...230 V
221-1FF30	**SM 221 - Digital input** › 8 inputs › AC/DC 24...48 V
221-1FF40	**SM 221 - Digital input** › 8 inputs › AC 230 V › Hysteresis
221-1FF50	**SM 221 - Digital input** › 8 inputs › AC 180...265 V
221-2BL10	**SM 221 - Digital input** › 32 inputs
Digital input with counter	
221-1BH20	**SM 221 - Digital input** › 16 inputs › 2 inputs are configurable as counter › LED status display
Digital output modules	
222-1BF00	**SM 222 - Digital output** › 8 outputs › Output current 1A
222-1BF10	**SM 222 - Digital output** › 8 outputs › Output current 2 A
222-1BF20	**SM 222 - Digital output** › 8 outputs › Isolation in 4 groups per 2 outputs › Output current 2 A
222-1BF30	**SM 222 - Digital output ECO** › 8 outputs › Output current 0.5 A
222-1BF50	**SM 222 - Digital output** › 8 Low-Side outputs › Output current 0.5 A

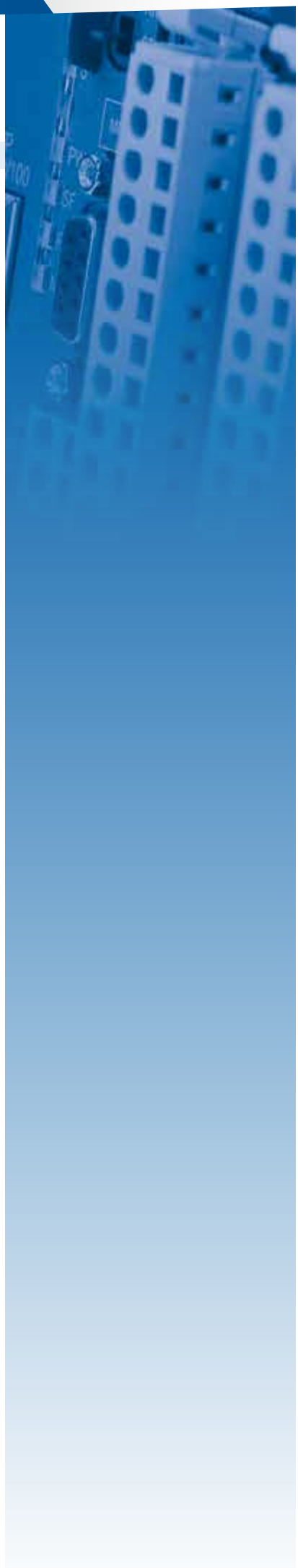
VIPA 200V

Order no.	Name/Description
222-1BH00	**SM 222 - Digital output** › 16 outputs › Output current 0.5 A › LED status display on conversion module UB4x
222-1BH10	**SM 222 - Digital output** › 16 outputs › Output current 1 A
222-1BH20	**SM 222 - Digital output** › 16 outputs › Output current 2 A
222-1BH30	**SM 222 - Digital output ECO** › 16 outputs › Output current 0.5 A
222-1BH50	**SM 222 - Digital output** › 16 Low-Side outputs › Output current 0.5 A
222-1BH51	**SM 222 - Digital output** › 16 Low-Side outputs › Output current 0.5A
222-1DB00	**SM 222 - Digital output** › 2 outputs › AC 100...240 V › Output current 2 A › Software dimmer for resistive, inductive or capacitive load › Frequency range 47...63 Hz
222-1FD10	**SM 222 - Digital output** › 4 isolated solid-state outputs › AC 230 V/ DC 400 V › Output current 0.5 A
222-1FF00	**SM 222 - Digital output** › 8 solide-state outputs › AC 230 V/ DC 400 V › Output current 0.5 A
222-1HD10	**SM 222 - Digital output** › 4 isolated relay outputs › AC 230 V/ DC 30 V › Output current 5 A
222-1HD20	**SM 222 - Digital output** › 4 isolated relay outputs › AC 230 V/ DC 30 V › Output current 16 A
222-1HF00	**SM 222 - Digital output** › 8 relay outputs › AC 230 V/ DC 30 V › Output current 5 A
222-2BL10	**SM 222 - Digital output** › 32 outputs › Output current 1 A
Digital in/output modules	
223-1BF00	**SM 223 - Digital in-/output** › 8 channels (as input or output) › Output current 1 A › Diagnostics function
223-2BL10	**SM 223 - Digital in-/output** › 16 inputs/ 16 outputs › DC 24 V › Output current 1 A
Analog input modules	
231-1BD30	**SM 231 - Analog input ECO** › 4 inputs › Configurable › Voltage +/-10 V
231-1BD40	**SM 231 - Analog input ECO** › 4 inputs › Configurable › Current 4...20 mA, +/-20 mA

VIPA 200V



Order no.	Name/Description
231-1BD53	**SM 231 - Analog input** › 4 inputs › Configurable › Voltage, current › Resistance › Resistance thermometer, thermocouple
231-1BD60	**SM 231 - Analog input** › 4 input 12 bit › Current 4...20 mA › Potential separated per channel
231-1BD70	**SM 231 - Analog input** › 4 input 12 bit › Voltage +/-10 V › Potential separated per channel
231-1BF00	**SM 231 - Analog input** › 8 inputs › Configurable › Voltage 0...60 mV › Resistance thermometer, thermocouple
231-1FD00	**SM 231 - Analog input FAST** › 4 fast inputs › Configurable › Voltage, current › Cycle time 0.8 ms
Analog output modules	
232-1BD30	**SM 232 - Analog output ECO** › 4 outputs › Configurable › Voltage +/-10 V, 0..10 V
232-1BD40	**SM 232 - Analog output ECO** › 4 outputs › Configurable › Current 0(4)...20mA
232-1BD51	**SM 232 - Analog output** › 4 outputs › Configurable › Voltage, current
Analog in/output modules	
234-1BD50	**SM 234 - Analog in-/output** › 2 inputs/2 outputs › Configurable › Voltage, current
234-1BD60	**SM 234 - Analog in-/output** › 4 inputs/2 outputs › Configurable › Voltage, current › Resistance, resistance thermometer
Combination modules	
238-2BC00	**SM 238C - Digital in-/output, counter, analog in-/output** › 16 (12) digital inputs › 0 (4) digital outputs › max. 3 counter › 4 analog inputs › 2 analog outputs
RS232/422/485 and other CPs	
240-1DA10	**CM 240 - Mini-switch** › 4 Ports for 10/100 MBit/s › "plug and play" through Auto-MDI/MDIX-crossover for 100BASE-TX and 10BASE-T › LEDs for activity, speed and collision
240-1BA20	**CP 240 - Communication processor** › RS232 interface
240-1CA20	**CP 240 - Communication processor** › RS485 interface
240-1CA21	**CP 240 - Communication processor** › RS422/485 interface
240-1EA20	**CP 240 - Communication processor** › 16 Byte parameter data › The transceiver module works at 868.3 MHz



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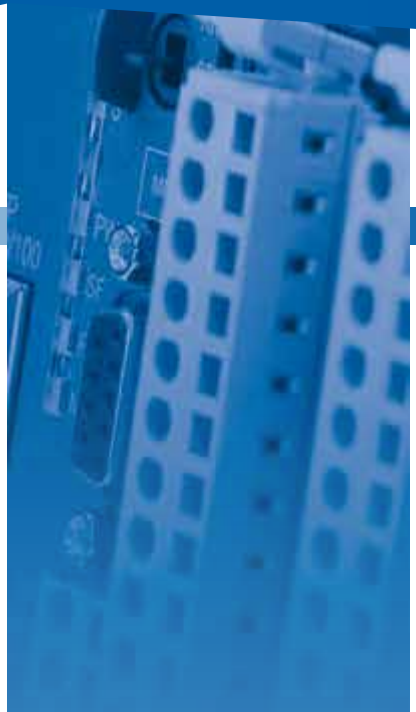
Order no.	Name/Description
240-1FA20	**CP 240 - Communication processor** › M-Bus master, potential separated › up to 6 slaves
Fieldbus master modules	
208-1CA00	**IM 208CAN - CANopen master** › CANopen master › 125 CAN slaves connectable › Project engineering under VIPA WinCoCT › 40 Transmit PDOs, 40 Receive PDOs
208-1DP01	**IM 208DP - PROFIBUS-DP master** › PROFIBUS-DP master › 125 DP slaves connectable
208-1DP11	**IM 208DPO - PROFIBUS-DP master** › PROFIBUS-DP master › 16 DP slaves connectable › FO interface
Counter modules	
250-1BA00	**FM 250 - Counter module** › 2/4 channels with 32/16 Bit › DC 24 V or via backplane bus › Free configurable DC 24 V outputs (1 A) › Up to 1 MHz
SSI modules	
250-1BS00	**FM 250S - SSI module** › 1 SSI channel › Direct power supply to the SSI transducer › Baud rate: 100/300/600 kBit/s (default: 300 kBit/s) › 2 configurable digital outputs, one may be used as hold input
Positioning modules	
253-1BA00	**FM 253 - Positioning module** › Positioning module for 1axis drive with stepper › 3 inputs for connecting end switches and 2 outputs
254-1BA00	**FM 254 - Positioning module** › Positioning module for 1axis drive with servo › For drives with an analog set point interface (+/-10 V control voltage) › 3 inputs for connecting end switches and 2 outputs
Row interface connection	
260-1AA00	**IM 260 - Interface module** › Only be used in conjunction with the PC 288 or a CPU
261-1CA00	**IM 261 - Interface module** › Only be used in conjunction with the PC 288 or a CPU
Fieldbus slave modules without I/Os	
253-1CA01	**IM 253CAN - CANopen slave** › CANopen slave › 10 Rx and 10 Tx PDO › 2 SDOs › PDO linking › PDO mapping
253-1CA30	**IM 253CAN - CANopen slave ECO** › CANopen slave › 10 Rx and 10 Tx PDO › 2 SDOs › PDO linking › PDO mapping
253-1DN00	**IM 253DN - DeviceNET slave** › Group 2 only Device - employs predefined connection set › Baud rates: 125, 250, 500 kBit/s › For max. 32 peripheral modules (8 analog)
253-1DP01	**IM 253DP - PROFIBUS-DP slave** › PROFIBUS-DP slave (DP-V0, DP-V1) › For max. 32 peripheral modules (16 analog) › 244 Byte input and 244 Byte output data
253-1DP11	**IM 253DPO - PROFIBUS-DP slave** › PROFIBUS-DP slave (DP-V0, DP-V1) › For max. 32 peripheral modules (16 analog) › 244 Byte input and 244 Byte output data › LWL-Interface (POF, HCS)

VIPA 200V



Order no.	Name/Description
253-1DP31	**IM 253DP - PROFIBUS-DP slave ECO** › PROFIBUS-DP slave (RS485, DP-V0, DP-V1) › For max. 8 peripheral modules › 244 Byte input and 244 Byte output data
253-1IB00	**IM 253IBS - INTERBUS slave** › INTERBUS slave › For 16 input and 16 output modules
253-1NE00	**IM 253NET - Ethernet slave** › Ethernet coupler with Modbus/TCP and Siemens S5 Header protocol › For max. 32 peripheral modules › Max. 256 Byte I/O data › RJ45 jack 100BaseTX, 10BaseT
Bus connectors	
290-0AA10	**Bus connector** › 1-tier
290-0AA20	**Bus connector** › 2-tier
290-0AA40	**Bus connector** › 4-tier
290-0AA80	**Bus connector** › 8-tier
35 mm profile rail	
290-1AF00	**35 mm profile rail** › length 2000 mm
290-1AF30	**35 mm profile rail** › length 530 mm
Front connector	
292-1AF00	**Front connector** › 10 pin with cage clamps (included in the scope of delivery of signal modules)
292-1AH00	**Front connector** › 18 pin with cage clamps (included in the scope of delivery of signal modules)
Cables	
260-1XY05	**Connection cable** › Connection cable for interface modules, length 0.5 m
260-1XY10	**Connection cable** › Connection cable for interface modules, length 1.0 m
260-1XY20	**Connection cable** › Connection cable for interface modules, length 2.0 m
260-1XY25	**Connection cable** › Connection cable for interface modules, length 2.5 m
Antennas, connectors etc.	
970-0CM00	**CM 240 - Jack** › For communication processor CM 240 - mini-switch, external DC 24 V power supply
240-0EA00	**CP 240 - Portable Antenna** › EnOcean Antenna portable, incl. SMA connector
240-0EA10	**CP 240 - Magnetic base antenna** › EnOcean Antenna magnetic base, incl. 150 cm cable and SMA connector
MMC memory	
953-0KX10	**MMC - MultiMediaCard** › Extension memory for VIPA CPUs 11x, 21x, 24x, 31x, 51x, and 208-1DP01, CC 03 (for load memory not necessary)
Labelling	
292-1XY10	**Labelling cards** › I/O labeling, perforated, 10 sheets per 8 cards
292-1XY20	**Clip-on cards** › Module labeling, perforated, 10 sheets 108 cards each
292-1XY00	**Labelling cards** › I/O labeling, with transparent cover sheet, 10 pieces

At a glance

System description VIPA 300S
300S

VIPA 300S+

System description VIPA 300S+

Structure and Concept

The product family 300S+ has currently been enhanced by the 300S+ CPUs. The capacity of the integrated work memory has been significantly expanded. The appropriate front connectors for the I/O channels are part of the scope of supply. The integrated web interface was completely renewed for better user friendliness.

300S+ is both a compact and a modular expandable system.

300S+ is designed for centralized and decentralized automation tasks in the manufacturing and process industry up to the highest power range.

With a central extension of up to 32 modules directly to the CPU and up to 126 fieldbus slave modules, it is deployable almost anywhere. The module size allows use in almost any automation environment.

The assembly is extremely simple. First, the backplane bus connectors for communication between the modules and the CPU are entered from behind and then the modules are individually placed and secured on the rail and screwed down.

The backplane bus connectors are supplied with the I/O modules. In the SPEED-Bus, the bus connection takes place via a SPEED-Bus terminal strip (PCB) integrated in the profile rail. The SPEED-Bus modules are mounted on the left of the CPU - depending on bus length 2, 6 or 10 SPEED-Bus modules can be deployed.

Performance and Application

300S+ is designed for centralized and decentralized automation tasks. The integrated SPEED7 ASIC system 300S+ is among the world's fastest automation systems. A wide range of CPU options makes the system universally deployable. The selection ranges from C-class CPUs with integrated I/O peripherals for smaller applications up to CPU versions with built-in Ethernet, fieldbus master interfaces, and High-Speed-Bus.

The CPU versions with integrated SPEED-Bus have been especially developed for automation tasks with very high demands on performance. Furthermore special high-speed modules for communication and for digital as well as analog signal processing are available.

Programming

300S+ can be programmed with WinPLC7 and the new engineering framework SPEED7 Studio from VIPA in LAD, FBD, IL and SCL. Alternatively, a programming with STEP7 and TIA-Portal from Siemens is possible.

Memory

The CPUs in 300S+ have the work and load memory already integrated. Depending on the CPU variant different work memory are available for the user. The work and load memory can be adapted to the needs of memory card by plugging in an MCC memory expansion card. To back up program and data standard MMC cards are also supported. The standard SD cards can also be used in the 300S+ CPUs.

Functions

For the connection of sensors and actuators, a variety of signal modules are available for recording digital and analog signals into and out of the process is available - also as high-speed modules for SPEED-Bus.

Measurements and the control of pressures, temperatures, flow rates and levels are realized at the highest level with the measurement and control modules.

Communication

An Ethernet programming interface is integrated on all CPUs in system 300S+. Ethernet communication processors link 300S+ horizontally and vertically into network structures. Therefore, all relevant data are made available to the connected host systems.

300S+ offers fieldbus master and slave modules with different fieldbus protocols and can act as a master controller or as a subordinate fieldbus slave unit.

Multi-master applications with very high performance of communication can be implemented via the fieldbus master module for SPEED-Bus.

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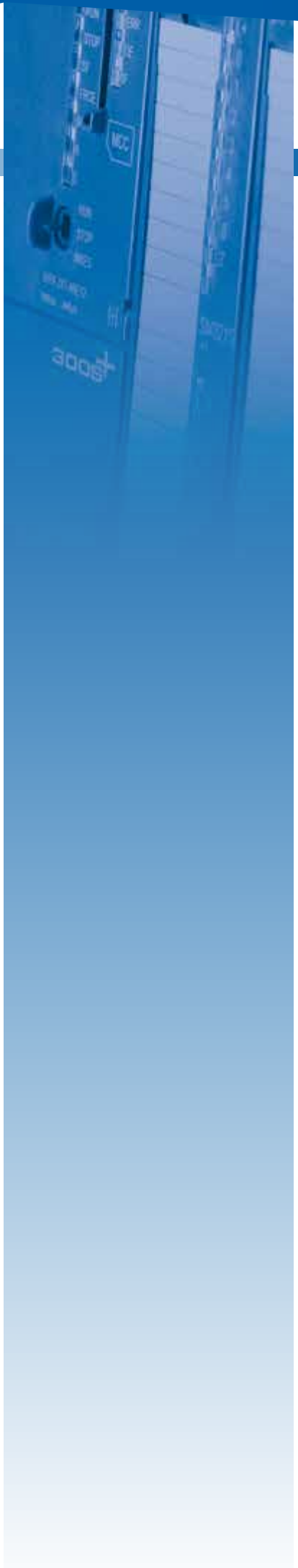
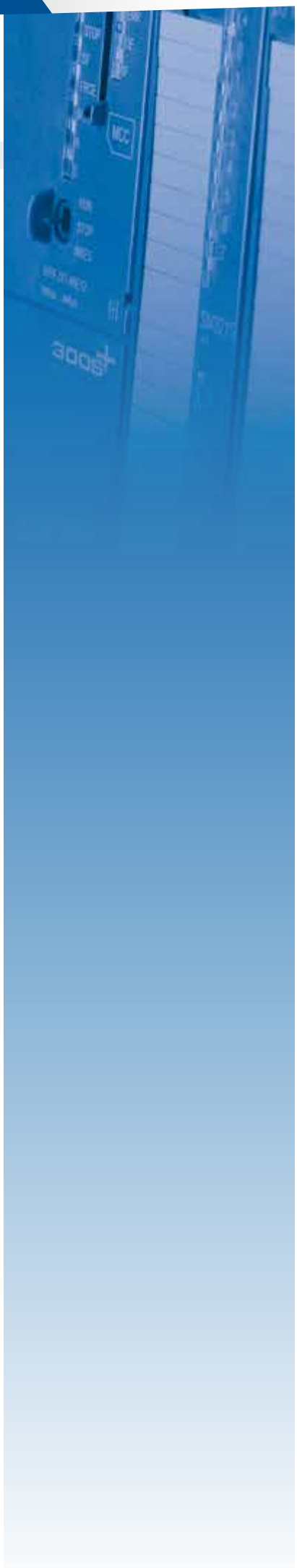


Order no.	Name/Description
CPUs STEP7 programmable, standard	
314-2AG23	**CPU 314SB/DPM - SPEED7 technology** › SPEED7 technology › 512 kB work memory › Memory extension (max. 1MByte) › PROFIBUS-DP master / PtP (switchable) › Also configurable via TIA-Portal
314-2BG23	**CPU 314SE/DPS - SPEED7 technology** › SPEED7 technology › 256 kB work memory › Memory extension (max. 1MByte) › PROFIBUS-DP slave / PtP (switchable) › Also configurable via TIA-Portal
315-2AG23	**CPU 315SB/DPM - SPEED7 technology** › SPEED7 technology › 1 MB work memory › Memory extension (max. 4 MB) › PROFIBUS-DP master / PtP (switchable) › Also configurable via TIA-Portal
317-2AJ23	**CPU 317SE/DPM - SPEED7 Technology (300S+)** › SPEED7 technology, SPEED-Bus › 4 MB work memory › Memory extension (max. 8 MB) › PROFIBUS-DP master / PtP (switchable) › Also configurable via TIA-Portal
CPUs STEP7 programmable, NET-CPUs	
315-4NE23	**CPU 315SN/NET - SPEED7 technology** › SPEED7 technology › 1 MB work memory › Memory extension (max. 4 MB) › PROFIBUS-DP master / PtP (switchable) › CP 343 integrated › Also configurable via TIA-Portal
317-4NE23	**CPU 317SN/NET - SPEED7 Technology (300S+)** › SPEED7 technology, SPEED-Bus › 4 MB work memory › Memory extension (max. 8 MB) › PROFIBUS-DP master / PtP (switchable) › CP 343 integrated › Also configurable via TIA-Portal
CPUs STEP7 programmable, PROFINET	
315-4PN23	**CPU 315SN/PN - SPEED7 technology** › SPEED7 technology › 1 MB work memory › Memory extension (max. 4 MB) › PROFIBUS-DP master / PtP (switchable) › PROFINET controller integrated › Also configurable via TIA-Portal
315-4PN43	**CPU 315SN/PN ECO - SPEED7 technology** › SPEED7 technology › 512 KB work memory › PtP › PROFINET controller integrated › Also configurable via TIA-Portal › Memory extension (max. 1 MB)
317-4PN23	**CPU 317SN/PN - SPEED7 technology (300S+)** › SPEED7 technology, SPEED-Bus › 4 MB work memory › Memory extension (max. 8 MB) › PROFIBUS-DP master / PtP (switchable) › PROFINET Controller integrated › Also configurable via TIA-Portal
CPUs STEP7 programmable, class C	
312-5BE23	**CPU 312SC - SPEED7 Technology (300S+)** › SPEED7 technology › 16 x DI, 8 x DO, incl. front connectors › 128 kB work memory › Memory extension (max. 1024 kB) › PtP interface › Also configurable via TIA-Portal
313-5BF23	**CPU 313SC - SPEED7 technology (300S+)** › SPEED7 technology › 24 x DI, 16 x DO, 4 x AI, 2 x AO, 1 x AI Pt100, incl. front connectors 2x40-pole › 256 kB work memory › Memory extension (max. 1 MB) › PtP interface › Also configurable via TIA-Portal



VIPA 300S

Order no.	Name/Description
313-6CF23	**CPU 313SC/DPM - SPEED7 technology (300S+)** › SPEED7 technology › 16 x DI, 16 x DO, incl. front connector › 256 kB work memory › Memory extension (max 1 MB) › PROFIBUS-DP master / PtP (switchable) › Also configurable via TIA-Portal
314-6CF23	**CPU 314ST/DPM - SPEED7 technology** › SPEED7 technology, SPEED-Bus › 8 x DI, 8 x DIO, 4 x AI, 2 x AO, 1 x AI Pt100 › 512 kB work memory › Memory extension (max. 2 MB) › PROFIBUS-DP master / PtP (switchable) › Also configurable via TIA-Portal
314-6CG23	**CPU 314SC/DPM - SPEED7 technology (300S+)** › SPEED7 technology › 24 x DI, 16 x DO, 8 x DIO, 4 x AI, 1 x AI Pt100, 2 x AO, incl. front connectors › 512 kB work memory › Memory extension (max. 2 MB) › PROFIBUS-DP master / PtP (switchable) › Also configurable via TIA-Portal
Power supply	
307-1BA00	**PS 307 - Power supply** › Output current 2.5 A › Output voltage DC 24 V › AC 100...240 V without manual switch
307-1EA00	**PS 307 - Power supply** › Output current 5 A › Output voltage DC 24 V › AC 120/230 V, 60/50 Hz switchable
307-1FB70	**PS 307S - Power supply - SPEED-Bus** › Only for CPU 317S › Output current 5.5A
307-1KA00	**PS 307 - Power supply** › Output current 10 A › Output voltage DC 24 V › AC 120/230 V, 60/50 Hz switchable
Digital input modules	
321-1BH01	**SM 321 - Digital input** › 16 inputs
321-1BH70	**SM 321S - FAST Digital input - SPEED-Bus** › SPEED-Bus › 16 fast inputs › Parameterizable as alarm/ETS
321-1BL00	**SM 321 - Digital input** › 32 inputs
321-1FH00	**SM 321 - Digital input** › 16 inputs, in groups of 4 › AC 120/230 V
Digital output modules	
322-1BF01	**SM 322 - Digital output** › 8 outputs, in groups of 4 › Output current 2 A
322-1BH01	**SM 322 - Digital output** › 16 outputs, in groups of 8 › Output current 1 A
322-1BH41	**SM 322 - Digital output** › 16 outputs, in groups of 8 › DC 24 V › Output current 2 A
322-1BH60	**SM 322 - Digital output** › 16 outputs › 1 input (activation for outputs) › 16 switches (automatic, manual 0/1) › Output current 0.5 A
322-1BH70	**SM 322S - FAST Digital output - SPEED-Bus** › SPEED-Bus › 16 fast outputs › Output current 0.5 A
322-1BL00	**SM 322 - Digital output** › 32 outputs, in groups of 8 › DC 24 V › Output current 1 A

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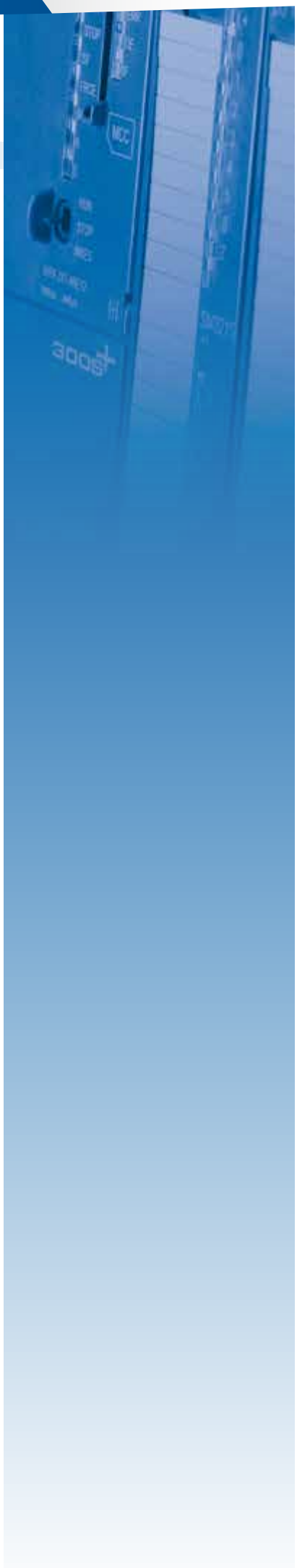
Order no.	Name/Description
322-1HH00	**SM 322 - Digital output** › 16 relay outputs, in groups of 8 › AC 230 V/ DC 30 V › Contact rating per channel 5 A
322-5FF00	**SM 322 - Digital output** › 8 outputs, in groups of 1 › AC 120/230 V › Output current 2 A › Substitute value output (programmable)
Digital in/output modules	
323-1BH00	**SM 323 - Digital in-/output** › 16 channels (as inputs or outputs) › Diagnostic function › Output current 1 A
323-1BH01	**SM 323 - Digital in-/output** › 8 inputs/ 8 outputs › Output current 1 A
323-1BH70	**SM 323S - FAST Digital in-/output - SPEED-Bus** › SPEED-Bus › 16 fast inputs/outputs › Output current 0.5 A
323-1BL00	**SM 323 - Digital in-/output** › 16 inputs/ 16 outputs › Output current 1 A
Analog input modules	
331-1KF01	**SM 331 - Analog input** › 8 inputs 13 bit › Voltage, current › Resistance › Resistance thermometer
331-7KF01	**SM 331 - Analog input** › 8 inputs, in 4 groups › Voltage, current › Resistance › Resitance thermometer › Thermocouples
331-7KB01	**SM 331 - Analog input** › 2 inputs, in 1 group › Voltage, current › Resistance › Resistance thermometer › Thermocouples
331-7AF70	**SM 331S - Analog input FAST - SPEED-Bus** › 8 inputs › Current ±20 mA › Oscilloscope-/FIFO function › Interrupt parameterizable
331-7BF70	**SM 331S - Analog input FAST - SPEED-Bus** › 8 inputs › Voltage ±10 V › Oscilloscope-/FIFO-Function › Interrupt parameterizable
Analog output modules	
332-5HB01	**SM 332 - Analog output** › 2 outputs › Configurable › Voltage, current
332-5HD01	**SM 332 - Analog output** › 4 outputs › Configurable › Voltage, current
Analog in/output modules	
334-0KE00	**SM 334 - Analog in-/output** › 4 inputs, 2 outputs › Configurable › Resistance › Voltage 0...10 V



VIPA 300S

Order no.	Name/Description
RS232/422/485 and other CPs	
341-1AH01	**CP 341 - Communication processor** › RS232, isolated › Function compatibility to Siemens CP 341 › Parameterization via the Siemens parameterization package › Data transfer rate up to 76.8 kbit/s › Power supply via backplane bus
341-1CH01	**CP 341 - Communication processor** › RS422/485, isolated › Function compatibility to Siemens CP 341 › Parameterization via the Siemens parameterization package › Data transfer rate up to 76.8 kbit/s › Power supply via backplane bus
341-2CH71	**CP 341S - Communication processor - SPEED-Bus** › 2x RS422/485, isolated › SPEED-Bus › Data transfer rate up to 115.2 kbit/s › Integrated diagnostics buffer
Fieldbus master modules	
342-1CA70	**CP 342S CAN - CANopen master - SPEED-Bus** › CANopen master, SPEED-Bus › 125 CAN slaves connectable › 40 Transmit PDOs, 40 Receive PDOs › 1 SDO (Server), 127 SDO (Client) › Project engineering: VIPA WinCoCT
342-1DA70	**CP 342S DP - PROFIBUS-DP master - SPEED-Bus** › PROFIBUS-DP master (Class 1), SPEED-Bus › RS485 › 124 DP slaves connectable › Project engineering: Siemens SIMATIC Manager › Diagnostic facilities
342-2IA71	**CP 342S IBS - INTERBUS master - SPEED-Bus** › Dual INTERBUS master, SPEED-Bus › 2x RS422 › Diagnostics via LEDs, diagnostics device (2x RJ45), Dual Port Master › Up to 512 slaves connectable
Actor/sensor interfaces	
343-2AH10	**CP 343-2P ASI - AS-i master** › Up to 62 slaves connectable › Corresponding to AS-i specification 3.0 (master profile M3) › Support of analog slaves concerning profile 7.3 resp. 7.4 › Automatic address programming possible (address 0)
Ethernet-CPs	
343-1EX71	**CP 343S TCP/IP - Ethernet-CP 343 - SPEED-Bus** › Ethernet CP 343S-NET, SPEED-Bus › RJ45 › 16 connections via Siemens NetPro › 64 connections via user program › 32 PG/OP connections
Fieldbus slave modules w/o I/Os	
353-1DP01	**IM 353DP - PROFIBUS-DP slave** › PROFIBUS-DP slave (DP-V0, DP-V1) › For max. 29 peripheral modules (16 analog) › 244 Byte input and 244 Byte output data › Integrated DC 24 V power supply
Memory extensions	
953-0KX10	**MMC - MultiMediaCard** › Extension memory for VIPA CPUs 11x, 21x, 24x, 31x, 51x, and 208-1DP01, CC 03 (for load memory not necessary)
953-1LE00	**Memory Configuration Card (MCC) 32kByte** › for SPEED7-CPUs › 16kbyte program / 16kbyte data
953-1LF00	**Memory Configuration Card (MCC) 64kByte** › for SPEED7-CPUs › 32kbyte program / 32kbyte data
953-1LG00	**Memory Configuration Card (MCC) 128kByte** › for SPEED7-CPUs › 64kbyte program / 64kbyte data
953-1LH00	**Memory Configuration Card (MCC) 256kByte** › for SPEED7-CPUs › 128kbyte program / 128kbyte data
953-1LJ00	**Memory Configuration Card (MCC) 512kByte** › for SPEED7-CPUs › 256kbyte program / 256kbyte data

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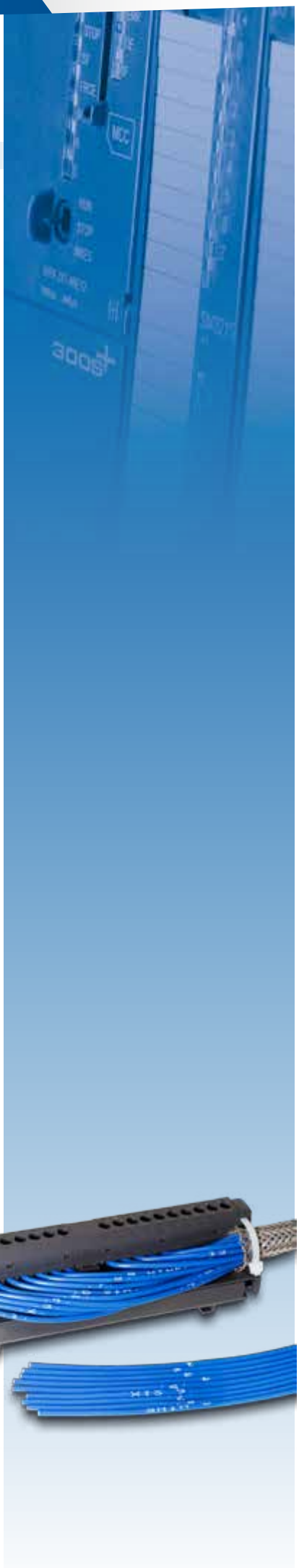
Order no.	Name/Description
953-1LK00	**Memory Configuration Card (MCC) 1MByte** › for SPEED7-CPUs › 512kbyte program / 512kbyte data
953-1LL00	**Memory Configuration Card (MCC) 2MByte** › for SPEED7-CPUs › 1MByte program / 1MByte data
953-1LM00	**Memory Configuration Card (MCC) 4MByte** › for SPEED7-CPUs › 2MByte program / 2MByte data
953-1LP00	**Memory Configuration Card (MCC) 8MByte** › for SPEED7-CPUs › 4MByte program / 4MByte data
Configuration and diagnosis modules	
342-0IA01	**CP 342 IBS - Configuration/diagnosis module** › LC display › 7 buttons › Cable 0.5 m › RJ45 connector › For 342-2IA71
Profile rail	
391-1AF10	**BP 391 - SPEED-Bus** › Profile rail, 530 mm with integrated High-SPEED rear panel bus for 2 expansion slots
391-1AF30	**BP 391 - SPEED-Bus** › Profile rail, 530 mm with integrated High-SPEED rear panel bus for 6 expansion slots
391-1AF50	**BP 391 - SPEED-Bus** › Profile rail, 530 mm with integrated High-SPEED rear panel bus for 10 expansion slots
391-1AJ10	**BP 391 - SPEED-Bus** › Profile rail, 830 mm with integrated High-SPEED rear panel bus for 2 expansion slots, left justified
391-1AJ30	**BP 391 - SPEED-Bus** › Profile rail, 830 mm with integrated High-SPEED rear panel bus for 6 expansion slots, left justified
391-1AJ50	**BP 391 - SPEED-Bus** › Profile rail, 830 mm with integrated High-SPEED rear panel bus for 10 expansion slots, left justified
390-1AB60	**Profile rail** › Length: 160 mm
390-1BC00	**Profile rail** › Length: 2000 mm
390-1AE80	**Profile rail** › Length: 482 mm
390-1AF30	**Profile rail** › Length: 530 mm
390-1AJ30	**Profile rail** › Length: 830 mm
Front connector	
392-1AJ00	**Front connector** › 20pole with screw contact
392-1BJ00	**Front connector** › 20pole with cage clamps
392-9AJ00	**Front connector** › 20pole with screw contact, ECO pack: 100 pieces
392-1AM00	**Front connector** › 40pole with screw contact
392-1BM01	**Front connector** › 40pole with cage clamps
392-9AM00	**Front connector** › 40pole with screw contact, ECO pack: 100 pieces

VIPA 300S



Order no.	Name/Description
922-3BC50	**Preassembled front connectors** › Preassembled front connectors for 300 series › cable length 2.5m › coretype H05V-K › nominal operating voltage DC 24 V › allowed continuous current at load of all cores max 1.5 A › 20 pin with 20 single cores 0,5 mm² › all the wires are marked at regular intervals with wire numbers
922-3BD20	**Preassembled front connectors** › Preassembled front connectors for 300 series › cable length 3.2m › coretype H05V-K › nominal operating voltage DC 24 V › allowed continuous current at load of all cores max 1.5 A › 20 pin with 20 single cores 0,5 mm² › all the wires are marked at regular intervals with wire numbers
922-3BF00	**Preassembled front connectors** › Preassembled front connectors for 300 series › cable length 5.0m › coretype H05V-K › nominal operating voltage DC 24 V › allowed continuous current at load of all cores max 1.5 A › 20 pin with 20 single cores 0,5 mm² › all the wires are marked at regular intervals with wire numbers
922-6BC50	**Preassembled front connectors** › Preassembled front connectors for 300 series › cable length 2.5m › coretype H05V-K › nominal operating voltage DC 24 V › allowed continuous current at load of all cores max 1.5 A › 40 pin with 40 single cores 0,5 mm² › all the wires are marked at regular intervals with wire numbers
922-6BD20	**Preassembled front connectors** › Preassembled front connectors for 300 series › cable length 3.2m › coretype H05V-K › nominal operating voltage DC 24 V › allowed continuous current at load of all cores max 1.5 A › 40 pin with 40 single cores 0,5 mm² › all the wires are marked at regular intervals with wire numbers
922-6BF00	**Preassembled front connectors** › Preassembled front connectors for 300 series › cable length 5.0m › coretype H05V-K › nominal operating voltage DC 24 V › allowed continuous current at load of all cores max 1.5 A › 40 pin with 40 single cores 0,5 mm² › all the wires are marked at regular intervals with wire numbers

At a glance

System description VIPA HMI
HMI

VIPA HMI

System description VIPA HMI

Structure and Concept

The VIPA professional Touch Panels with 5,7" to 12,1" TFT display, the Windows Embedded CE 6.0 operating system, and the Movicon 11 visualization system can be used universally. To make access controls easier the professional panels with display sizes of 8,4", 10,4" and 12,1" have been equipped with an integrated RFID reader.

The VIPA ecoPanels in four different display sizes from 4,3" to 15" are characterized by absolute reliability and flexibility and also special longevity and quality because of the special construction.

The VIPA PanelPCs in the display sizes 10,1", 15,6" and 21,5" are a combination of industrial PC with the most modern features and a Touch Panel with optimum display possibilities. The latest Intel Atom Processor technology combined with Windows Embedded Compact 7 or Standard 7 operating systems correspond to state of the art in the PC world.

The VIPA Commander Compact CC 03 with double spaced display and integrated PLC CPU is the ideal device for smaller controlling and operating tasks.

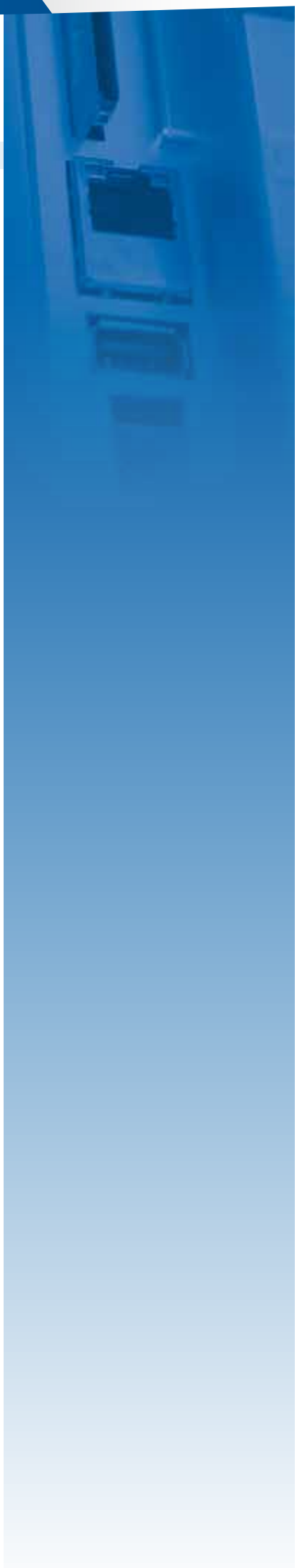
The VIPA Operator Panel OP 03 and the Text Display TD 03 are universal operating units for deployment with VIPA systems and other control systems with MPI interface.

Performance and deployment

VIPA operating and monitoring devices are universal in the manufacturing and process industry, but can also be used in building automation. The line displays and touch panels are designed both for watching and for active operation of machinery, plant and building.

Parameterization and programming

The Text Display TD 03 are parameterized with the free Tool TD Wizard. The Operator Panel OP 03 and the Commander Compact CC 03 devices are configured with the OP Manager or alternatively with Siemens ProTool. The PLC CPUs, integrated in Commander Compact CC 03, are programmed in addition via VIPA WinPLC7 or Siemens STEP7. The basis for the Touch Panels is Windows Embedded CE operating system from Microsoft. Here the applications and visualizations offered by VIPA (also partially their own) are ported. VIPA Touch Panels are shipped with pre-installed operating system and Movicon. The project, created with the appropriate editor on the PC, is transferred via data cable or memory card from the PC to the Touch Panel.



Memory

The Text Display TD 03 has no built-in memory. The messages, generated with TD-Wizard, are stored in the CPU. The Operator Panel OP 03 make 256 kByte and the Commander Compact CC 03 devices 128 kByte work memory available for projects. Incorporated in the Commander Compact CC 03 devices is an additional 16/24/32 kByte work memory for the PLC program. The touch panels offer up to 2048 MB of user memory (depending on the model). External expansion of the memory can easily be achieved by inserting a CF or MMC-/SD-Card.

Functions

Depending on the device type different and very versatile functions are realizable. The Text Display TD 03 is provided primarily for the simple presentation and the acknowledgement of messages. With the Operator Panels OP 03 advanced operating and monitoring tasks are already being realized with their own projects deposited in OP 03. Touch panels have multi-functional use. Depending on the application projects with up to several thousand variables will be realized on the PC. Thereby CPUs, higher-level systems and other devices are connected for the purpose of data collection, data sharing, visualization and operation.

Communication

The exchange of data with the CPUs occurs at TD 03 and OP 03 via MPI. The Commander Compact CC 03 devices combine display and operating elements as well as PLC CPU with I/O peripherals in one casing. They can thus be used completely self-contained.

VIPA HMI

Order no.	Name/Description
professional Panels	
62F-FEE0-CB	**Touch Panel TP 605CQ** › 5.7", TFT, 320x240 pixel › XScale processor, 800MHz › 128 MB work memory, 4 GB user memory › MPI/PROFIBUS-DP, RS232, RS422/485, USB-A, USB-B, Ethernet RJ45 › Windows Embedded CE 6.0 Professional, Movicon Runtime
62F-FEE0-CX	**Touch Panel TP 605CQ** › 5.7", TFT, 320x240 pixel › XScale processor, 800MHz › 128 MB work memory, 4 GB user memory › MPI/PROFIBUS-DP, RS232, RS422/485, USB-A, USB-B, Ethernet RJ45 › Windows Embedded CE 6.0 Professional, without Movicon Runtime
62G-FID0-CB	**Touch Panel TP 606C** › 6,5", TFT, 640x480 pixel › XScale processor, 1.1GHz › 256 MB work memory, 512 MB user memory › MPI/PROFIBUS-DP, RS232, RS422/485, USB-A, USB-B, Ethernet RJ45 › Windows Embedded CE 6.0 Professional, Movicon Runtime
62G-FID0-CX	**Touch Panel TP 606C** › 6,5", TFT, 640x480 pixel › XScale processor, 1.1GHz › 256 MB work memory, 512 MB user memory › MPI/PROFIBUS-DP, RS232, RS422/485, USB-A, USB-B, Ethernet RJ45 › Windows Embedded CE 6.0 Professional, without Movicon Runtime
62I-JID0-CB	**Touch Panel TP 608C** › 8,4", TFT, 800x600 pixel › XScale processor, 1.1GHz › 256 MB work memory, 512 MB user memory › MPI/PROFIBUS-DP, RS232, RS422/485, 2xUSB-A, USB-B, 2x Ethernet RJ45 › Windows Embedded CE 6.0 Professional, Movicon Runtime
62I-JID0-CX	**Touch Panel TP 608C** › 8,4", TFT, 800x600 pixel › XScale processor, 1.1GHz › 256 MB work memory, 512 MB user memory › MPI/PROFIBUS-DP, RS232, RS422/485, 2xUSB-A, USB-B, 2x Ethernet RJ45 › Windows Embedded CE 6.0 Professional, without Movicon Runtime
62I-JIDR-CX	**Touch Panel TP 608C** › 8,4", TFT, 800x600 pixel › XScale processor, 1.1GHz › 256 MB work memory, 512 MB user memory › MPI/PROFIBUS-DP, RS232, RS422/485, 2xUSB-A, USB-B, 2x Ethernet RJ45 › RFID Reader compliant to ISO14443AB, ISO15693, Mifare family › Windows Embedded CE 6.0 Professionnel
62K-JID0-CB	**Touch Panel TP 610C** › 10,4", TFT, 800x600 pixel › XScale processor, 1.1GHz › 256 MB work memory, 512 MB user memory › MPI/PROFIBUS-DP, RS232, RS422/485, 2xUSB-A, USB-B, 2x Ethernet RJ45 › Windows Embedded CE 6.0 Professional, Movicon Runtime
62K-JID0-CX	**Touch Panel TP 610C** › 10,4", TFT, 800x600 pixel › XScale processor, 1.1GHz › 256 MB work memory, 512 MB user memory › MPI/PROFIBUS-DP, RS232, RS422/485, 2xUSB-A, USB-B, 2x Ethernet RJ45 › Windows Embedded CE 6.0 Professional, without Movicon Runtime
62K-JIDR-CX	**Touch Panel TP 610C** › 10,4", TFT, 800x600 pixel › XScale processor, 1.1GHz › 256 MB work memory, 512 MB user memory › MPI/PROFIBUS-DP, RS232, RS422/485, 2xUSB-A, USB-B, 2x Ethernet RJ45 › RFID Reader compliant to ISO14443AB, ISO15693, Mifare family › Windows Embedded CE 6.0 Professional
62M-JID0-CB	**Touch Panel TP 612C** › 12,1", TFT, 1024x768 pixel › XScale processor, 1.1GHz › 256 MB work memory, 512 MB user memory › MPI/PROFIBUS-DP, RS232, RS422/485, 2xUSB-A, USB-B, 2x Ethernet RJ45 › Windows Embedded CE 6.0 Professional, Movicon Runtime

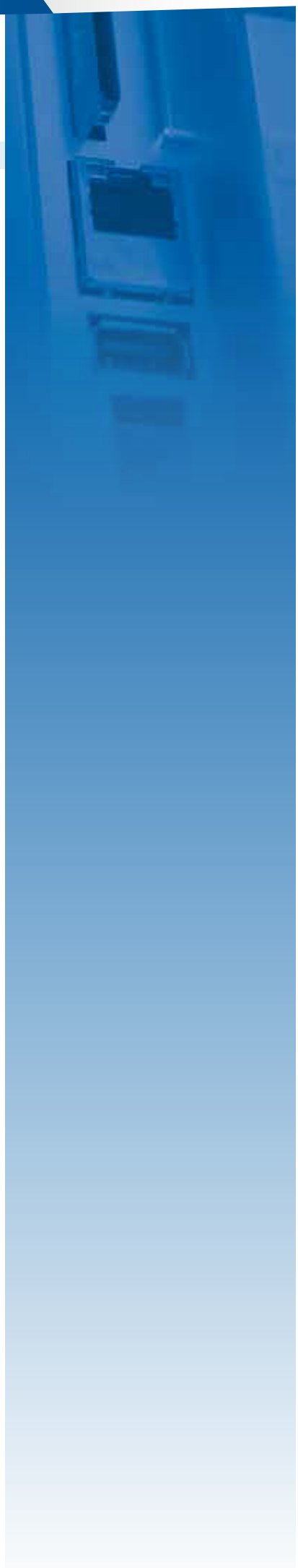
VIPA HMI

Order no.	Name/Description
62M-JID0-CX	**Touch Panel TP 612C** › 12,1", TFT, 1024x768 pixel › XScale processor, 1.1GHz › 256 MB work memory, 512 MB user memory › MPI/PROFIBUS-DP, RS232, RS422/485, 2xUSB-A, USB-B, 2x Ethernet RJ45 › Windows Embedded CE 6.0 Professional, without Movicon Runtime
62M-JIDR-CX	**Touch Panel TP 612C** › 12,1", TFT, 1024x768 pixel › XScale processor, 1.1GHz › 256 MB work memory, 512 MB user memory › MPI/PROFIBUS-DP, RS232, RS422/485, 2xUSB-A, USB-B, 2x Ethernet RJ45 › Windows Embedded CE 6.0 Professional, Movicon Runtime
eco Panels	
62E-MHC0-CB	**Touch Panel TP 604LC+** › 4.3", TFT, 480x272 Pixel › Cortex-A8 processor, 1000MHz › 256 MB work memory, 128 MB user memory › RS232, RS422/485, USB-A, Ethernet RJ45 (MPI/DP interface optional available) › Windows Embedded CE 6.0 Professional, Runtime Movicon CE Standard
62E-MHC0-DH	**Touch Panel TP 604LC+** › 4.3", TFT, 480x272 Pixel › Cortex-A8 processor, 1000MHz › 256 MB work memory, 128 MB user memory › RS232, RS422/485, USB-A, Ethernet RJ45 (MPI/DP interface optional available) › Windows Embedded CE 6.0 Core, Runtime Movicon CE Basic
62H-MHC0-CB	**Touch Panel TP 607LC+** › 7", TFT, 800x480 pixel › Cortex-A8 processor, 1000MHz › 256 MB work memory, 128 MB user memory › RS232, RS422/485, USB-A, Ethernet RJ45 (MPI/DP interface optional available) › Windows Embedded CE 6.0 Professional, Runtime Movicon CE Standard
62H-MHC0-DH	**Touch Panel TP 607LC+** › 7", TFT, 800x480 pixel › Cortex-A8 processor, 1000MHz › 256 MB work memory, 128 MB user memory › RS232, RS422/485, USB-A, Ethernet RJ45 (MPI/DP interface optional available) › Windows Embedded CE 6.0 Core, Runtime Movicon CE Basic
62K-NHC0-DH	**Touch Panel TP 610LC** › 10", TFT, 1024x768 Pixel › Cortex-A8 processor, 1000MHz › 256 MB work memory, 128 MB user memory › RS232, RS232/RS422/485, USB-A, 2x Ethernet RJ45 (MPI/DP interface optional available) › Windows Embedded CE 6.0 Core, Movicon Basic Runtime
62K-NHC0-CB	**Touch Panel TP 610LC+** › 10", TFT, 1024x768 Pixel › Cortex-A8 processor, 1000MHz › 256 MB work memory, 128 MB user memory › RS232, RS232/RS422/485, USB-A, 2x Ethernet RJ45 (MPI/DP interface optional available) › Windows Embedded CE 6.0 Professional, Runtime Movicon CE Standard
62P-NHC0-DH	**Touch Panel TP 615LC** › 15", TFT, 1024x768 pixel › Cortex-A8 processor, 1000MHz › 256 MB work memory, 128 MB user memory › RS232, RS232/RS422/485, USB-A, 2x Ethernet RJ45 (MPI/DP interface optional available) › Windows Embedded CE 6.0 Core, Movicon Basic Runtime
62P-NHC0-CB	**Touch Panel TP 615LC+** › 15", TFT, 1024x768 pixel › Cortex-A8 processor, 1000MHz › 256 MB work memory, 128 MB user memory › RS232, RS232/RS422/485, USB-A, 2x Ethernet RJ45 (MPI/DP interface optional available) › Windows Embedded CE 6.0 Professional, Runtime Movicon CE Standard

VIPA HMI

Order no.	Name/Description
Panel PC	
67K-PNJ0-EB	**Panel PC PPC021 CE** › Processor: Intel Atom D2550 dualcore @1.86 GHz › Work memory: 2 GB › Operating system and user memory: 2 GB › Memory card plug-in place: CFast › Interfaces: 2x Ethernet (10/100/1000), 4x USB 2.0, 2x serial (RS232,RS422/RS485), Audio out › Display: 21.5” › Incl. operating system Windows Embedded Standard 7 and Runtime Movicon CE Standard
67K-PNL0-JB	**Panel PC PPC010 ES** › Processor: Intel Atom D2550 dualcore @1.86 GHz › Work memory: 2 GB › Operating system and user memory: 16 GB › Memory card plug-in place: CFast › Interfaces: 2x Ethernet (10/100/1000), 4x USB 2.0, 2x serial (RS232, RS422/RS485), Audio out › Display: 10.1” › Incl. operating system Windows Embedded Standard 7
67K-PNL0-JX	**Panel PC PPC010 ES** › Processor: Intel Atom D2550 dualcore @1.86 GHz › Work memory: 2 GB › Operating system and user memory: 16 GB › Memory card plug-in place: CFast › Interfaces: 2x Ethernet (10/100/1000), 4x USB 2.0, 2x serial (RS232, RS422/RS485), Audio out › Display: 10.1” › Incl. operating system Windows Embedded Standard 7
67P-PNJ0-EB	**Panel PC PPC021 CE** › Processor: Intel Atom D2550 dualcore @1.86 GHz › Work memory: 2 GB › Operating system and user memory: 2 GB › Memory card plug-in place: CFast › Interfaces: 2x Ethernet (10/100/1000), 4x USB 2.0, 2x serial (RS232,RS422/RS485), Audio out › Display: 21.5” › Incl. operating system Windows Embedded Standard 7 and Runtime Movicon CE Standard
67P-PNL0-JB	**Panel PC PPC015 ES** › Processor: Intel Atom D2550 dualcore @1.86 GHz › Work memory: 2 GB › Operating system and user memory: 16 GB › Memory card plug-in place: CFast › Interfaces: 2x Ethernet (10/100/1000), 4x USB 2.0, 2x serial (RS232,RS422/RS485), Audio out › Display: 15.6” › Incl. operating system Windows Embedded Standard 7 and Runtime Movicon 11 Win Standard, 32 I/O Bytes
67P-PNL0-JX	**Panel PC PPC015 ES** › Processor: Intel Atom D2550 dualcore @1.86 GHz › Work memory: 2 GB › Operating system and user memory: 16 GB › Memory card plug-in place: CFast › Interfaces: 2x Ethernet (10/100/1000), 4x USB 2.0, 2x serial (RS232,RS422/RS485), Audio out › Display: 15.6” › Incl. operating system Windows Embedded Standard 7
67S-PNJ0-EB	**Panel PC PPC021 CE** › Processor: Intel Atom D2550 dualcore @1.86 GHz › Work memory: 2 GB › Operating system and user memory: 2 GB › Memory card plug-in place: CFast › Interfaces: 2x Ethernet (10/100/1000), 4x USB 2.0, 2x serial (RS232,RS422/RS485), Audio out › Display: 21.5” › Incl. operating system Windows Embedded Standard 7 and Runtime Movicon CE Standard

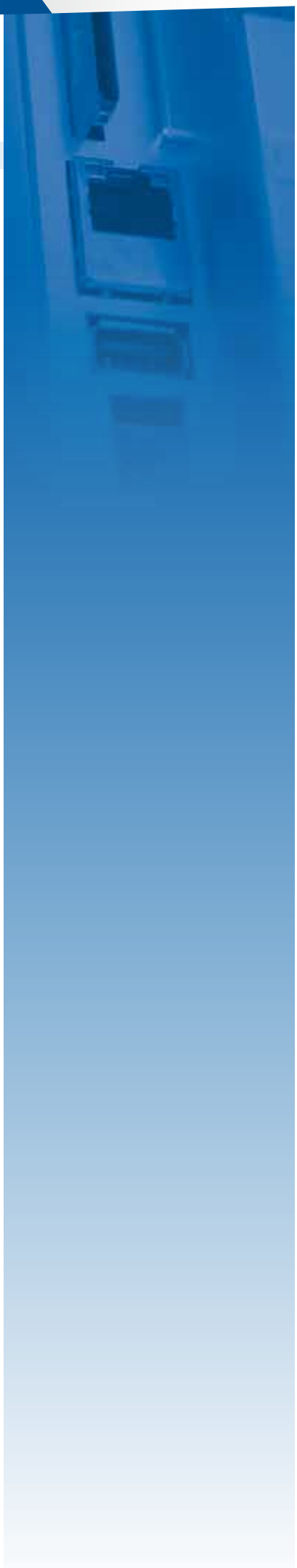
VIPA HMI



Order no.	Name/Description
67S-PNL0-JB	**Panel PC PPC021 ES** › Processor: Intel Atom D2550 dualcore @1.86 GHz › Work memory: 2 GB › Operating system and user memory: 16 GB › Memory card plug-in place: CFast › Interfaces: 2x Ethernet (10/100/1000), 4x USB 2.0, 2x serial (RS232,RS422/RS485), Audio out › Display: 21.5” › Incl. operating system Windows Embedded Standard 7 and Runtime Movicon 11 Win Standard
67S-PNL0-JX	**Panel PC PPC021 ES** › Processor: Intel Atom D2550 dualcore @1.86 GHz › Work memory: 2 GB › Operating system and user memory: 16 GB › Memory card plug-in place: CFast › Interfaces: 2x Ethernet (10/100/1000), 4x USB 2.0, 2x serial (RS232,RS422/RS485), Audio out › Display: 21.5” › Incl. operating system Windows Embedded Standard 7
Text displays and operator panels	
603-1TD00	**TD 03 - Text Display** › Display: 2 x 20 characters › Interface: MP²I › Languages: DE, EN › Visualization of the connected CPU via MPI
603-1OP00	**OP 03 - Operator Panel** › Display: 2 x 20 characters › Interface: MP²I › User memory: 256 kB › Languages: DE, EN, FR, ES, IT, SV, NO, DA › Project engineering via VIPA OP-Manager or Siemens ProTool
603-1OP10	**OP 03 - Operator Panel** › Display: 2 x 20 characters › Interface: MP²I › User memory: 256 kB › Languages: DE (without Umlaut), EN, RU › Project engineering only via VIPA OP-Manager
Commander compact	
603-1CC21	**CC 03 - Commander Compact** › Display: 2 x 20 characters › Interface: MP²I › User memory: 128 kB › Languages: DE, EN, FR, ES, IT, SV, NO, DA › Project engineering via VIPA OP-Manager or Siemens ProTool › Integrated PLC-CPU: 16/24kByte work/load memory, 16 x DI, 16 x DO, up to 4 I/O expansion modules
603-1CC22	**CC 03 - Commander Compact** › Display: 2 x 20 characters › Interface: MP²I › User memory: 128 kB › Languages: DE, EN, FR, ES, IT, SV, NO, DA › Project engineering via VIPA OP-Manager or Siemens ProTool › Integrated PLC-CPU: 24/32kByte work/load memory, 16 x DI, 16 x DO, up to 4 I/O expansion modules
603-1CC23	**CC 03 - Commander Compact** › Display: 2 x 20 characters › Interface: MP²I › User memory: 128 kB › Languages: DE, EN, FR, ES, IT, SV, NO, DA › Project engineering via VIPA OP-Manager or Siemens ProTool › Integrated PLC-CPU: 32/40kByte work/load memory, 16 x DI, 16 x DO, up to 4 I/O expansion modules
603-2CC21	**CC 03 - Commander Compact** › Display: 2 x 20 characters › Interface: MP²I , PROFIBUS-DP slave › User memory: 128 kB › Languages: DE, EN, FR, ES, IT, SV, NO, DA › Project engineering via VIPA OP-Manager or Siemens ProTool › Integrated PLC-CPU: 16/24kByte work/load memory, 16 x DI, 16 x DO, up to 4 I/O expansion modules

VIPA HMI

Order no.	Name/Description
603-2CC22	**CC 03 - Commander Compact** › Display: 2 x 20 characters › Interface: MP²I, PROFIBUS-DP slave › User memory: 128 kB › Languages: DE, EN, FR, ES, IT, SV, NO, DA › Project engineering via VIPA OP-Manager or Siemens ProTool › Integrated PLC-CPU: 24/32kByte work/load memory, 16 x DI, 16 x DO, up to 4 I/O expansion modules
603-2CC23	**CC 03 - Commander Compact** › Display: 2 x 20 characters › Interface: MP²I, PROFIBUS-DP slave › User memory: 128 kB › Languages: DE, EN, FR, ES, IT, SV, NO, DA › Project engineering via VIPA OP-Manager or Siemens ProTool › Integrated PLC-CPU: 32/40kByte work/load memory, 16 x DI, 16 x DO, up to 4 I/O expansion modules
Optional interfaces	
961-0MP0	**MPI/PROFIBUS-DP interface** › For optional retrofitting of the MPI/DP interfaces at eco panels series
HMI software - Runtime	
SW514S31B	**Movicon Version 11.x for Windows, standard version, upgrade variable use up to 128 IO-bytes** › USB dongle, executable only on VIPA Panel PCs with Movicon basic license (128 IO bytes)
SW514S33B	**Movicon Version 11.x for Windows, standard version, upgrade variable use up to 512 IO-bytes** › USB dongle, executable only on VIPA Panel PCs with Movicon basic license (512 IO bytes)
SW514S35B	**Movicon Version 11.x for Windows, standard version, upgrade variable use up to 2048 IO- bytes** › USB dongle, executable only on VIPA Panel PCs with Movicon basic license (2048 IO bytes)
SW514X11B1	**Expansion by 1 web client for Movicon version 11.x for Windows up to 128 IO bytes** › Online upgrade, executable only on VIPA Panel PCs, expansion for a Movicon 11 Win Standard license, the number of the IO bytes has to correspond
SW514X11B2	**Expansion by 2 web clients for Movicon version 11.x for Windows up to 128 IO bytes** › Online upgrade, executable only on VIPA Panel PCs, expansion for a Movicon 11 Win Standard license, the number of the IO bytes has to correspond
SW514X13B1	**Expansion by 1 web client for Movicon version 11.x for Windows up to 512 IO bytes** › Online upgrade, executable only on VIPA Panel PCs, expansion for a Movicon 11 Win Standard license, the number of the IO bytes has to correspond
SW514X13B2	**Expansion by 2 web clients for Movicon version 11.x for Windows up to 512 IO bytes** › Online upgrade, executable only on VIPA Panel PCs, expansion for a Movicon 11 Win Standard license, the number of the IO bytes has to correspond
SW514X15B1	**Expansion by 1 web client for Movicon version 11.x for Windows up to 2048 IO bytes** › Online upgrade, executable only on VIPA Panel PCs, expansion for a Movicon 11 Win Standard license, the number of the IO bytes has to correspond
SW514X15B2	**Expansion by 2 web clients for Movicon version 11.x for Windows up to 2048 IO bytes** › Online upgrade, executable only on VIPA Panel PCs, expansion for a Movicon 11 Win Standard license, the number of the IO bytes has to correspond
Memory modules for Touch Panels	
574-2AH00	**Compact Flash (CF) 1GByte** › for VIPA professional Panels
574-2AI00	**Compact Flash (CF) 2GByte** › for VIPA professional Panels
574-2BK00	**CFast memory card (8 GB)** › for VIPA Panel PC
574-2BL00	**CFast memory card (16 GB)** › for VIPA Panel PC
953-1SI00	**Secure Disc (SD) 2GByte** › for VIPA eco und professional Panels



VIPA HMI

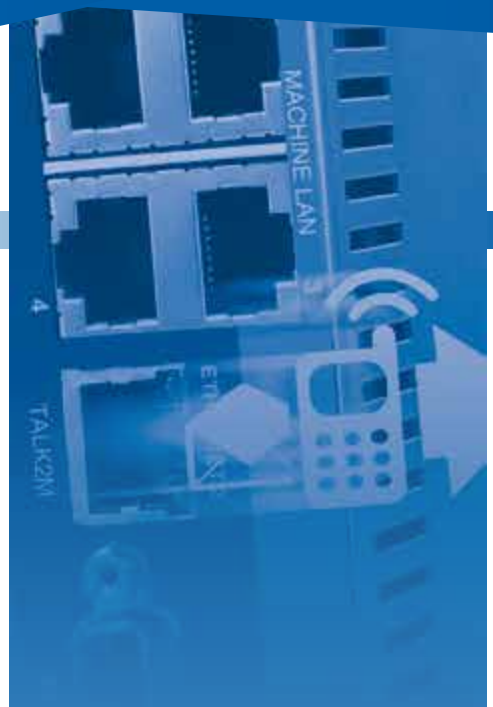
Order no.	Name/Description
Protective foil	
574-1AE01	**Protective foil TP606** › for professional Panels 5.7" and 6.5", 10 pieces
574-1AF01	**Protective foil TP608** › for professional Panels 8.4", 10 pieces
574-1AG01	**Protective foil TP610** › for professional Panels 10.4", 10 pieces
574-1AH01	**Protective foil TP612** › for professional Panels 12.1", 10 pieces
574-1BC01	**Protective foil TP604LC** › for eco Panels 4.3", 10 pieces
574-1BK01	**Protective foil TP604LC** › for eco Panels 4.3", 10 pieces
574-1BS01	**Protective foil TP607LC** › for eco Panels 7.0", 10 pieces
Cables	
670-0KB20	**Ethernet programming cable** › for Touch Panels mit Movicon 3,0 m
670-0KB00	**OP/AG cable 0°/90° with PU/Diagnostic port** › for VIPA CC 03, OP 03, TD 03
670-0KB01	**OP/AG cable 90°/90° with PU/Diagnostic port** › OP/AG cable 90°/90° with PU/Diagnostic port PU-/Diagnostic port, 2.5 m
660-0KB00	**Periphery expansion cable CC 03** › up to 4 expansion modules EM 123 or System 200V modules, 0.5 m
950-0KB50	**PC/AG programming cable** › MPI cable with with PU-/Diagnostic port, 2.5 m

At a glance

System description Teleservice
Teleservice

Teleservice

Teleservice



As demonstrated by numerous studies, up to 70% of the maintenance costs can be saved by preventive maintenance. A useful tool for this is the teleservice that enables a continuous monitoring and maintenance of the systems. For this reason with the VIPA teleservice modules we offer a modern and intelligent kind of teleservice for the different types of transmission. Whether on the conventional way via analog or ISDN line or via broadband connections as ADSL and HSUPA (mobile communications) VIPA offers here the complete product range on teleservice modules too. The communication to your automatization modules is established by MPI or PROFIBUS or via the Ethernet interface, which belongs to each of our devices as standard. The configuration of the VIPA teleservice modules is performed via a web browser. Additional software or the like is not required.

Beside the robust hardware, which shines with the usual VIPA interface variety, VIPA offers also a free service called Talk2M. Via this service you are able to establish a save connection to your construction within seconds, regardless of whether they are communicating via mobile phone or a line.

Teleservice of controllers, HMIs, frequency converters, roboters, IPCs etc. are not an impossible challenge for us. With the VIPA Teleservice modules, you have a perfectly balanced combination of hardware and software.

Teleservice

Order no.	Name/Description
Teleservice modules	
900-2C580	**TM-C VPN Router 3G+/WAN/LAN** › 3G+ modem for external broadband communication › 4x RJ45 LAN 100 Mbit/s (configurable LAN/WAN) › 2x digital input for internet release › 1x digital output for display Talk2M › integrated web interface for configuration › OpenVPN for save internet connection with Talk2M › high level protection through access control
900-2C510	**TM-C VPN Router WAN/LAN** › 4x RJ45 LAN 100 Mbit/s (configurable LAN/WAN) › 2x digital input for internet release › 1x digital output for display Talk2M › integrated web interface for configuration › OpenVPN for save internet connection with Talk2M › high level protection through access control
900-2C520	**TM-C VPN Router WIFI/WAN/LAN** › WIFI interface for connection to a WIFI network › 4x RJ45 LAN 100 Mbit/s (configurable LAN/WAN) › 2x digital input for internet release › 1x digital output for display Talk2M › integrated web interface for configuration › OpenVPN for save internet connection with Talk2M › high level protection through access control
900-2C610	**TM-C Router** › For teleservice through broadband connection via Talk2M › 1x RS485 MPI-/PROFIBUS-DP interface › 4x LAN RJ45 Ethernet interface › 1x WAN RJ45 Ethernet interface
900-2H611	**TM-H Router VPN** › For teleservice through a broadband connection via Talk2M & VPN › 1x RS485 MPI-/PROFIBUS-DP interface › 4x LAN RJ45 Ethernet interface › 1x WAN RJ45 Ethernet interface
900-2H682	**TM-H Router VPN/HSPA/Ethernet/MPI** › For remote maintenance via Talk2M VPN › 4x RJ45 LAN 100 Mbit / s (integrated switch) › 1x RJ45 WAN 100 Mbps › 1x integrated GSM / HSPA Pentaband modem (WAN) › 1x SUB-D 9-pin MPI / PROFIBUS up to 12 Mbit / s › 1x digital input and output › Alarm management › Please order the antenna separately › Alarm management via SMS & EMail

At a glance

System description StarterKits
StarterKits

StarterKits

StarterKits

Order no.	Name/Description
SLIO	
800-1DK10	**SLIO_Starter-Kit 1- IM053DP** › contains › 1x 35 mm profile rail 140mm › 1x 053-1DP00 IM 053DP - Profibus DP slave › 1x 001-1BA20 CM 001 potential distribution module (4xDC24V, 4xDC0V) › 1x 021-1BF00 SM 021 digital input (DI 8xDC 24V) › 1x 021-1BD00 SM 021 digital input (DI 4xDC 24V) › 1x 022-1BD00 SM 022 digital output (DO 4xDC 24V, 0,5A) › 1x 031-1BB30 SM 031 analog input (AI 2x12Bit, U) › 1x 032-1BB30 SM 032 analog output (AO 2x12Bit, U) › 1x 950-0KD00 Profibus cable 1m incl. 2x PB connectors (972-0DP01 + 972-0DP10)
800-1DK21	**SLIO Starter-Kit EtherCAT** › 1x SPEED7 Studio BASIC single user license › 1x ready to connect EtherCAT cable incl. 2x EC plug + profile rail › 1x CPU 015N incl. EtherCAT master for up to 128 slaves › 1x IM 053EC - EtherCAT slave › 1x CM 001 potential distribution module (4xDC24V, 4xDC0V clamps) › 1x SM 021 digital input (DI 8xDC 24V), 1x SM 021 digital input (DI 4xDC 24V) › 1x SM 022 digitale output (DO 4xDC 24V, 0,5A) › 1x SM 031 analog input (AI 2x12Bit, U) › 1x SM 032 analog output (AO 2x12Bit, U)
800-1DK31	**SLIO Starter-Kit EtherCAT + FU** › 1x SPEED7 Studio BASIC single user license, 1x DIN profile rail 35mm for SLIO components › 1x CPU 015N incl. EtherCAT master for up to 128 slaves › 1x VIPA IM 053EC - EtherCAT slave › (DI 8xDC 24(DI 4xDC 24V), (DO 4xDC 24V, 0,5A), (AI 2x12Bit, U), (AO 2x12Bit, U) › 1x YASKAWA V1000 drive, 230V single phase › 1 A, 1x YASKAWA EtherCAT option card for V1000 › 1x USB converter/copy unit incl. USB cable and connection cable to drive › 1x USB stick (contents: Quick setup guide, EtherCAT Kit flyer, manuals, PC software, Links) › 2x EtherCAT cable 1m, 1x Ethernet cable PC-CPU
800-1DK51	**SLIO Starter-Kit PROFINET** › 1x SPEED7 Studio BASIC single user license, 1x profile rail › 1x CPU 015 incl. PROFINET controller › 1x CM 001 potential distribution module (4xDC24V, 4xDC0V clamps) › 1x SM 021 digital input (DI 8xDC 24V) › 1x SM 021 digital input (DI 4xDC 24V) › 1x SM 022 digital input (DO 4xDC 24V, 0,5A) › 1x SM 031 analog input (AI 2x12Bit, U) › 1x SM 032 analog output (AO 2x12Bit, U) › 1x ready to connect PROFINET cable incl. 2x PN plugs

At a glance

System description Safety
Safety

Safety

Safety

Structure and concept

samosPRO is a fast, compact, modular safety controller for monitoring and controling mechanical and system engineering applications.

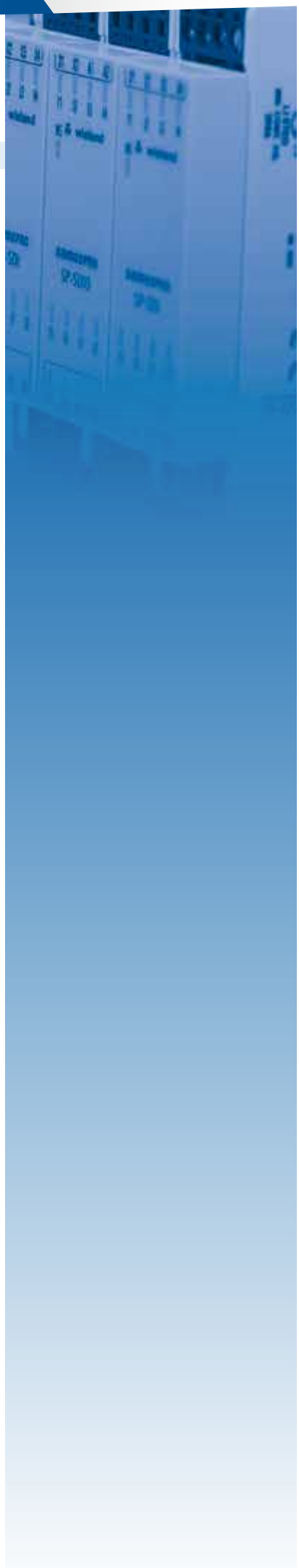
The system enables complete and economic safety solutions that are more flexible than conventional relay technology.

The graphic device configuration and a functional diagram editor with extensive certified function block library ensure convenient and clear programming.

The modular design also allows expansion at a later stage and therefore flexible planning with fewer module variations. Up to 12 input and output expansion modules each with a width of 22.5 mm can be connected to a controller module. In this way 8 to 96 safe inputs and 4 to 48 safe outputs can be implemented.

The safety control system samosPRO is certified in accordance with EN 61508 to SIL 3, EN 62061 to SIL CL 3 and in accordance with EN ISO 13849-1:2006 up to Performance Level e/category 4. This covers the requirements of mechanical and system engineering applications.

It is mounted on a 35mm profile rail.



Safety

Order no.	Name/Description
Safety electronics modules	
R119000300	**samosPRO SP-SDIO84-P1-K-A** › samosPRO, IO-module with 8 input/4 solid state output, screw clamp terminal pluggable
R119000400	**samosPRO SP-SDIO84-P1-K-C** › samosPRO, IO-module with 8 input/4 solid state output, spring clamp terminal pluggable
R119000500	**samosPRO SP-SDI8-P1-K-A** › samosPRO, IN-module with 8 input, screw clamp terminal pluggable
R119000600	**samosPRO SP-SDI8-P1-K-C** › samosPRO, IN-module with 8 input, spring clamp terminal pluggable
Gateway modules	
R119001900	**samosPRO SP-PROFIBUS-DP** › samosPRO buscoupling modul for PROFIBUS-DP
R119002100	**samosPRO SP-CANopen** › samosPRO gateway for CANopen
Safety relay	
R118839300	**safeRELAY SNE 4024K-A** › Output expansion unit › 2x2 enabling current paths, › 2x1 signalling outputs › DC 24 V › screw-terminals pluggable
R118839400	**Output expansion unit** › Output expansion unit › 2x2 enabling current paths › 2x1 signalling outputs › DC 24 V › cage clamp-terminals pluggable
Kompakt-Module	
R119011100	**samosPRO SP-COP1-A** › samosPRO compact module, 20 safe inputs, 4 safe outputs, USB interface, plugable screw terminals
R119011200	**samosPRO SP-COP1-A** › samosPRO compact module, 20 safe inputs, 4 safe outputs, USB interface, plugable spring terminals
R119012100	**samosPRO SP-COP2-EN-A** › samosPRO compact module, 16 safe inputs, 4 safe outputs, 4 configurable, safe I/O, USB + Ethernet interface, plugable screw terminals
R119012200	**samosPRO SP-COP2-EN-C** › samosPRO compact module, 16 safe inputs, 4 safe outputs, 4 configurable, safe I/O, USB + Ethernet interface, plugable spring terminals
R119013100	**samosPRO SP-COP2-ENI-A** › samosPRO compact module, 16 safe inputs, 4 safe outputs, 4 configurable, safe I/O, USB interface, Industrial Ethernet, plugable screw terminal
R119013200	**samosPRO SP-COP2-ENI-C** › samosPRO compact module, 16 safe inputs, 4 safe outputs, 4 configurable, safe I/O, USB interface, Industrial Ethernet, plugable spring terminals
Safety Zubehör	
R119000900	**samosPRO SP-CABLE1** › samosPRO, cable, 2m, M8-DSUB
R119002500	**samosPRO SP-CONVERTER** › USB-RS232-adapter
R119002600	**samosPRO SP-FILTER1** › samosPRO-Output-Filter, 680nF
R119002700	**samosPRO SP-FILTER2** › samosPRO-Output-Filter, 2,2uF
R119010000	**samosPRO SP-COP-CARD1** › samosPRO memory card for SP-COP

At a glance

System description Solutions
Solutions

Solutions

Solutions

Energy Management

Redevelopment of the successful energy management system

Management systems are modern tools of corporate management that give enterprises a kind of regulation framework for important business areas. There are standards and certifications for the different areas to document the application of management systems within the company and externally. The best known are: the quality management in accordance with ISO 9001, the environment management in accordance with ISO 14001 and the energy management in accordance with DIN EN ISO 50001.

The conscious use of energy in all areas of life is becoming increasingly important. Protecting the environment is only one aspect. In fact with permanently increasing energy costs it's more a matter of finding suitable measures in businesses to uncover and implement potential savings in energy use. This is where the Energy Management of VIPA, which can be adapted exactly to the requirements and needs of customers by means of individually selectable modules, takes effect.

The new development of this energy management system (EnMS) is based on the latest technology and was re-developed by VIPA from scratch. Numerous product changes considerably increase the benefits of this solution package and enlarges the universal applicability.

You receive an easy and reliable energy management system together with control components from a single source. Consultancy and implementing solutions form the scope of our service. With our EnMS we offer you all tools that are required for the **energy audit and the certification in accordance with DIN EN ISO 50001 or DIN EN 16247-1**.

Finally all measures in the framework of energy management lead to decreasing energy costs and a significant improvement of your **energy balance**.

Solutions

Order no.	Name/Description
Energiemanagement	
SW710B3MA	**VIPA EnMS server/client Set 1** › 32 measuring points avaiable, expandable up to max. 1008 measuring points (VIPA EnMS update), optional load management (VIPA EnMS extension) 0
SW710X1MA	**VIPA EnMS upgrade (4 MP)** › Externsion of the VIPA EnMS server/client products up to 4 further measuring points
SW710Y1MA	**VIPA EnMS expansion (LM)** › Extension of the VIPA EnMS server/client products up to a load management

At a glance

System description Software
Software

Software

Software

Structure and Function

Software tools allow a comfortable programming and parameterization of VIPA systems and other automation concepts.

OPC-Server

The OPC-Server provides the standard interface for accessing data from OPC clients to PLC systems from different manufacturers. The OPC-Server supports TCP/IP networks via standard network cards as well as MPI networks that have one or more COM ports, an MPI-serial converter and/or are connected via VIPA MPI-USB adapter.

Programming Software

WinPLC7 is a programming system for Systems 100V up to 500S as well as for the Siemens controllers S7-300 and S7-400.

Parameterization Software

Different parameterization tools are available to users:

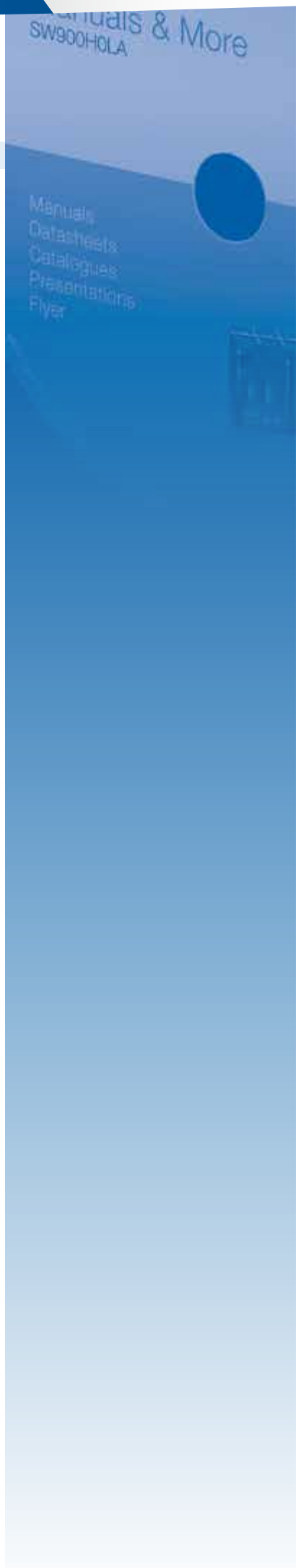
TD-Wizard: Parameterization tool for VIPA TD 03

WinCoCT: Configuration of CANopen networks with VIPA System

OP-Manager: Parameterization tool for VIPA OP 03 and CC 03

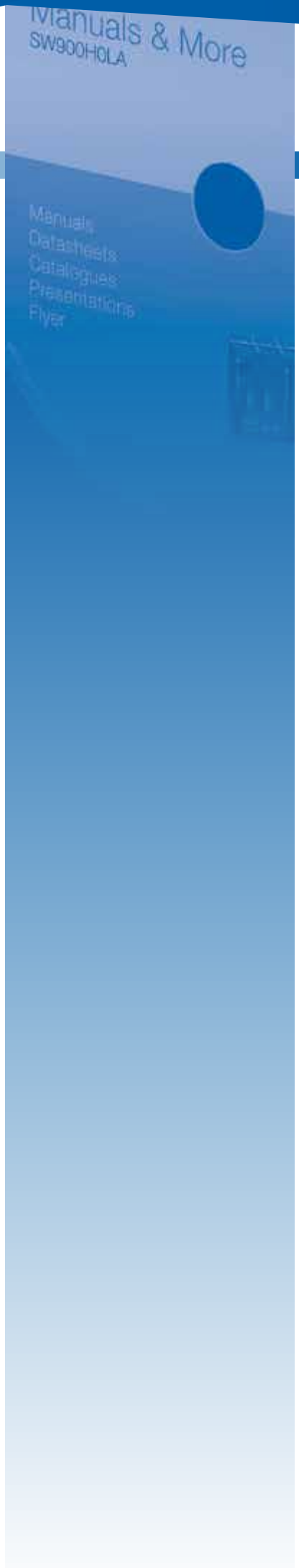
Other Software and Tools:

- WinPLC Analyzer for PLC user programs
- WinLP - Labeling software for VIPA System 200V
- EPLAN macros - technical information and drawings to the VIPA systems 100V, 200V, 300S and HMI
- Handling blocks - Libraries for VIPA systems and components
- Demo projects - configurations for VIPA System 200V and 300S
- GSD/EDS files - configuration files for PROFIBUS-DP and CANopen
- How-to-do - initial operation information



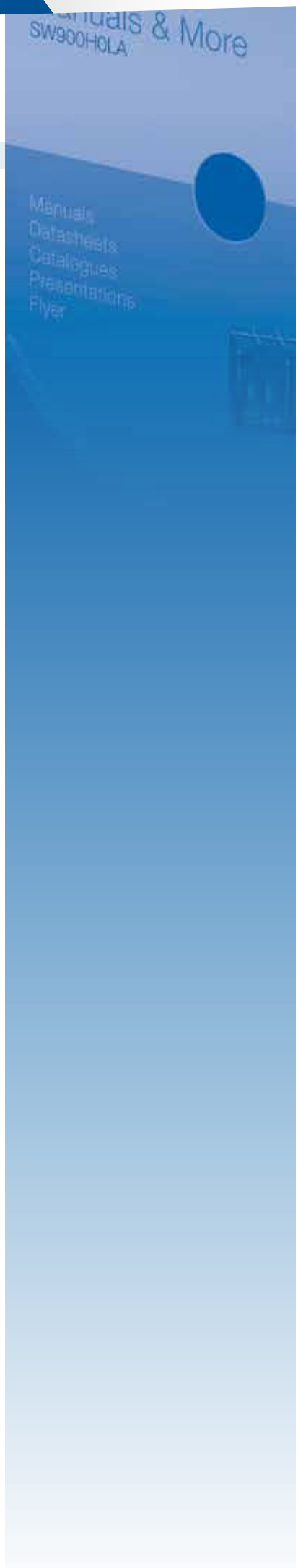
Software

Order no.	Name/Description
Communication software	
SW101T0MA	**SPEED7 Com Drivers** › Windows-32-Bit-DLLs for the high level languages C++, C#, VB, VB.NET, DELPHI for the communication between PC and VIPA SPEED7 / SIEMENS S7 CPUs, Windows-64-Bit-DLLs for the extension up to 64 Bit applications for the high level language C++ for the commun
SW110A1LA	**OPC Server with connection via MPI Protocol** › For serial MPI communication (PC: COM Port PLC: MPI Port) › Single license
SW110A2LA	**OPC Server with connection via RFC1006 Protocol** › For PG/OP / TCP/IP communication (PC: Ethernet Port PLC: Ethernet Port) › For all VIPA CPUs with integrated PG/OP interface › Single license
SW110A3LA	**OPC Server with connection via TCP/IP Protocol** › For CP communication with configured connections (PC: Ethernet Port PLC: Ethernet Port) › Required: CP343, CPU315SN/NET, 317SN/NET › Single license
SW110F1MA	**VIPA OPC Server F/W DOC** › PG/OP / TCP/IP communication between PC systems (Ethernet Port) and VIPA SPEED7 / SIEMENS S7 CPUs (Ethernet Port)
SW110F5MA	**VIPA OPC Server F/W PDF** › PG/OP / TCP/IP communication between PC systems (Ethernet Port) and VIPA SPEED7 / SIEMENS S7 CPUs (Ethernet Port)
SW110M1MA	**VIPA OPC Server MPI DOC** › Serial MPI communication between PC systems (COM Port) and VIPA SPEED7 / SIEMENS S7 CPUs (MPI Port)
SW110M5MA	**VIPA OPC Server MPI PDF** › Serial MPI communication between PC systems (COM Port) and VIPA SPEED7 / SIEMENS S7 CPUs (MPI Port)
SW110T1MA	**VIPA OPC Server S7 TCP/IP DOC** › CP communication with configured connections between PC systems (Ethernet Port) and VIPA SPEED7 / SIEMENS S7 CPUs (Ethernet Port)
SW110T5MA	**VIPA OPC Server S7 TCP/IP PDF** › CP communication with configured connections between PC systems (Ethernet Port) and VIPA SPEED7 / SIEMENS S7 CPUs (Ethernet Port)
SW11131MA	**SPEED7 Com Driver 32bit DOC** › Windows-32-Bit-DLLs for the high level languages C++, C#, VB, VB.NET, DELPHI for communication between PC and VIPA SPEED7 / SIEMENS S7 CPUs
SW11135MA	**SPEED7 Com Drivers 32bit PDF** › Windows-32-Bit-DLLs for the high level languages C++, C#, VB, VB.NET, DELPHI for communication between PC and VIPA SPEED7 / SIEMENS S7 CPUs
SW11161MA	**SPEED7 Com Driver 64bit DOC** › Windows-64-Bit-DLLs for extension up to 64 Bit applications for the high level language C++ for communication between PC and VIPA SPEED7 / SIEMENS S7 CPUs
SW11165MA	**SPEED7 Com Driver 64bit PDF** › Windows-64-Bit-DLLs for extention up to 64 Bit applications for the high level language C++ for communication between PC and VIPA SPEED7 / SIEMENS S7 CPUs
SW111C1MA	**SPEED7 Com Driver CE DOC** › Windows Embedded CE 6.0 DLLs for the high level language C++ for communication between PC and VIPA SPEED7 / SIEMENS S7 CPUs
SW111C5MA	**SPEED7 Com Driver CE PDF** › Windows Embedded CE 6.0 DLLs for the high level language C++ for communication between PC and VIPA SPEED7 / SIEMENS S7 CPUs
SW15AS21A	**SPEED7 Communication Driver (32bit) - developer license** › S7 communication driver (Windows-32-Bit-DLL) for all common high level languages (C++, C#, VB, VB.NET, DELPHI). › For VIPA SPEED7 CPUs and Siemens S7 CPUs.
SW15AS22A	**SPEED7 Communication Driver (64bit extension) - developer license** › S7 communication driver expansion for 64Bit application (Windows-64-Bit-DLL) for high level language C++. › For VIPA SPEED CPUs and Siemens S7 CPUs.
SW15AS23A	**SPEED7 Communication Driver (CE) - developer license** › S7 communication driver for Windows Embedded CE 6.0 (ARM) and C++. › For VIPA SPEED7 CPUs and Siemens S7 CPUs.
SW300M0MA	**SPEED7 Modbus Tool** › Parametrization tool for SLIO IM 053MT
SW300T0MA	**SPEED7 EtherCAT Mgr TRIAL** › SPEED7 EtherCAT Manager for configuration of the VIPA EtherCAT CPUs



Software

Order no.	Name/Description
Programming software	
SW000T0MA	**SPEED7 Studio - 30 days Trial-Version without licence** › Configuration of all VIPA systems › Configuration and diagnostics of PROFIBUS, PROFINET and EtherCAT devices › Standard S7 programming languages (STL, FBD) › Import of ASCII sources › Migration of S7 Projects and S7 libraries › PLC Simulation
SW000T0MA	**SPEED7 Studio - 30 days Trial-Version without licence** › Configuration of all VIPA systems › Configuration and diagnostics of PROFIBUS, PROFINET and EtherCAT devices › Standard S7 programming languages (STL, FBD) › Import of ASCII sources › Migration of S7 Projects and S7 libraries › PLC Simulation
SW010B5MA	**SPEED7 Studio BASIC PDF (1)** › Configuration of the VIPA MICRO / SLIO / 300S CPUs › VIPA Touch Panels and Panel PCs › project engineering and diagnosis of the PROFIBUS / PROFINET / EtherCAT devices › connection and licensing of the SCADA system Movicon 11 › programming with S7 editors for IL / FBD / LAD › visualization with the integrated SVG editor (Web visualization) › connection and licensing of the SCADA system Movicon 11
SW010B4MA	**SPEED7 Studio BASIC SET (1)** › Configuration of the VIPA MICRO / SLIO / 300S CPUs › VIPA Touch Panels and Panel-PCs › project engineering and diagnosis of the PROFIBUS / PROFINET / EtherCAT devices › programming with the S7 editors for IL/FBD/LAD › visualization with the integrated SVG editor (Web visualization) › connection and licensing of the SCADA system Movicon 11
SW010B1MA	**SPEED7 Studio BASIC DOC (1)** › Configuration of the VIPA MICRO / SLIO / 300S CPUs › VIPA Touch Panels and Panel-PCs › project engineering and diagnosis of the PROFIBUS / PROFINET / EtherCAT devices › programming with the S7 editors for IL/FBD/LAD › visualization with the integrated SVG editor (Web visualization) › connection and licensing of the SCADA system Movicon 11
SW000U0MA	**SPEED7 Studio UPDATE** › Configuration of the VIPA MICRO / SLIO / 300S CPUs › VIPA Touch Panels and Panel-PCs › project engineering and diagnosis of the PROFIBUS / PROFINET / EtherCAT devices › programming with the S7 editors for IL/FBD/LAD › isualization with the integrated SVG editor (Web visualization) › connection and licensing of the SCADA system Movicon 11
SW010L1MA	**SPEED7 Studio LITE DOC (1)** › Configuration of the VIPA MICRO / SLIO / 300S CPUs › VIPA Touch Panels and Panel-PCs › project engineering and diagnosis of the PROFIBUS / PROFINET / EtherCAT devices › programming with S7 editors for IL/FBD/LAD › visualization with the integrated SVG editor (Web visualization)
SW010L5MA	**SPEED7 Studio LITE PDF (1)** › Configuration of the VIPA MICRO CPUs › VIPA Touch Panels and Panel-PCs › project engineering and diagnosis of the PROFIBUS / PROFINET / EtherCAT devices, programming with S7 editors for IL / FBD / LAD › programming with the S7 editors for IL/FBD/LAD › visualization with the integrated SVG editor (Web visualization)
SW010P1MA	**SPEED7 Studio – Per single-user license by E-Mail or letter with product license key - Professional** › Configuration of all VIPA systems › Configuration and diagnostics of PROFIBUS, PROFINET and EtherCAT devices › Standard S7 programming languages (STL, FBD, LAD, SCL) › Import of ASCII sources › Migration of S7 Projects and S7 libraries › PLC simulation
SW010P5MA	**SPEED7 Studio PRO PDF (1)** › Configuration of the VIPA MICRO / SLIO / 300S CPUs › VIPA Touch Panels and Panel-PCs › project engineering and diagnosis of the PROFIBUS / PROFINET / EtherCAT devices › programming with the S7 editors for IL/FBD/LAD › visualization with the integrated SVG editor (Web visualization) › connection and licensing of the SCADA system Movicon 11 › Motion Control functionalities with PLCopen modules



Software

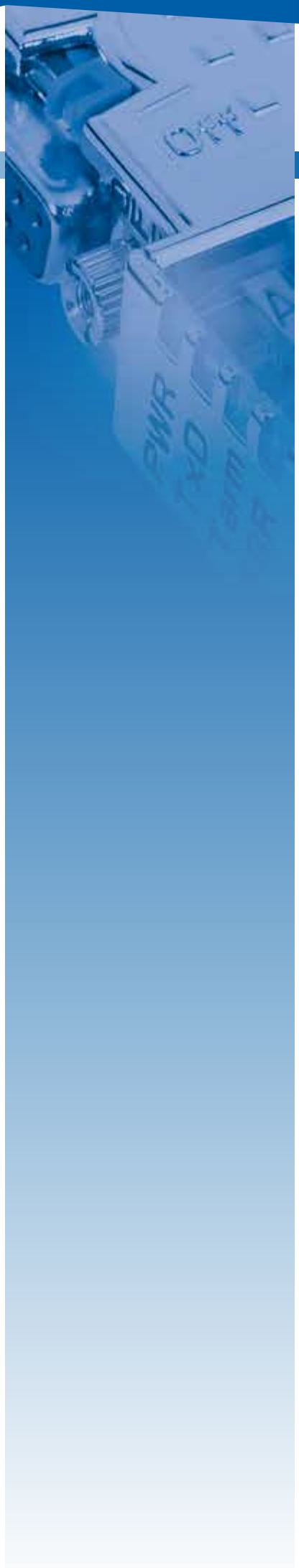
Order no.	Name/Description
SW010P4MA	**SPEED7 Studio – Per single-user license, set with USB stick and letter with product license key - Professional** › Configuration of all VIPA systems › Configuration and diagnostics of PROFIBUS, PROFINET and EtherCAT devices › Standard S7 programming languages (STL, FBD, LAD, SCL) › Import of ASCII sources › Migration of S7 Projects and S7 libraries › PLC simulation
SW310B1MA	**SPEED7 EtherCAT Mgr DOC** › SPEED7 EtherCAT Manager for configuration of VIPA EtherCAT CPUs › project engineering and diagnosis of EtherCAT networks › automatically read of EtherCAT network topologies
SW310B5MA	**SPEED7 EtherCAT Mgr PDF** › SPEED7 EtherCAT Manager for configuration of VIPA EtherCAT CPUs › project engineering and diagnosis of EtherCAT networks › automatically read of EtherCAT network topologies
Parameterization software	
SW30TB0MA	**VIPA TD-Wizard** › Parametrization tool for TD 03
SW30OT0MA	**VIPA OP-Manager** › SW30OT0MA
SW30WT0MA	**VIPA WinCoCT** › Parametrization tool for VIPA CANopen CPUs and CPs
SW31OB1MA	**VIPA OP-Manager DOC** › Parametrization tool for OP 03
SW31OB5MA	**VIPA OP-Manager PDF** › Parametrization tool for OP 03
SW31WB1MA	**VIPA WinCoCT DOC** › Parametrization tool for VIPA CANopen CPUs and CPs
SW31WB5MA	**VIPA WinCoCT PDF** › Parametrization tool for VIPA CANopen CPUs and CPs
Analysis tool	
SW710B4MA	**VIPA EnMS Server/Client Set 2** › 96 measuring points available › expandable up to max. 128 measuring points (VIPA EnMS Update)
SW710B5MA	**VIPA EnMS Server/Client Set 3** › 64 measuring points available
SW711A1LA	**WinPLC-Analyzer** › CD + dongle, German/English, for VIPA Systems and S7-300/400 from Siemens (in combination with WinPLC7), incl. driver
SW711A2LA	**WinPLC-Analyzer** › CD + dongle, German/English, for VIPA Systems and S7-300/400 from Siemens, incl. driver

At a glance

Accessories

Accessories

Accessories



Order no.	Name/Description
S5 components	
306-1LE00	**IM 306 DP slave - 115U ZG/EG IM** › Converting Siemens S5 PLCs to S7 › Exclusively suited for AG-115U central controller and expansion units › Intagrated DC 24V power supply
306-1UE00	**IM 306 DP slave - 135U/155U ZG/EG IM** › Converting Siemens S5 PLCs to S7 › Exclusively suited for AG-135U/155U central controller and expansion units › Integrated DC 24V power supply
306-1UZ00	**IM 306 DP slave - 135U/155U ZG CPU** › Converting Siemens S5 systems to S7 › Exclusively suited for AG-135U/155U central controller
DP-Repeater	
920-1BB10	**Profibus-Repeater B1** › Transparent for all PROFIBUS DP protocols › 1 segment and 31 deivces per channel › 9.6 Kbps .. 12 Mbps (automatic recognition) › 1200 m segment length (depending on the baud rate) › No Profibus address required
920-1BD10	**Profibus-Repeater D1 IP66** › Screw terminal and DB9 plug connector › Integrated terminators (disconnectable) › Redundant power supply
920-1CA50	**MultiRepeaterA5** › 5 segmente and 31 divces per channel › 9.6 Kbps .. 12 Mbps (automatic recognition) › 1200 m segment length (depending on baud rate) › Integrated terminators (disconnectable)
920-1CB20	**Profibus-MultiRepeaterB2-R** › 2 segmente and 31 devices per channel › 9.6 Kbps .. 12 Mbps (automatic recognition) › 1200 m segment length (depending on baud rate) › Integrated terminators (disconnectable) › telegram check (integrity check) › Alarm contact and Redundant power supply
920-1CB50	**Profibus-MultiRepeaterB5-R** › 5 segmente and 31 devices per channel › 9.6 Kbps .. 12 Mbps (automatic recognition) › 1200 m segment length (depending on baud rate) › Integrated terminators (dis-connectable) › Alarm contact › Redundant power supply
920-1DB50	**Profibus-MultiRepeater B5-R** › 5 segmente and 31 devices per channel › 9.6 Kbps .. 12 Mbps (automatic recognition) › 1200 m segment length (depending on the baud rate) › Integrated terminators (disconnectable) › Alarm contact and Redundant power supply
921-1EB50	**Profibus-MultiRepeaterB5-R** › Changes at the speed in the ongoing operation › Screw and DB9 terminal › Grounding option configurable › Integrated terminators › Redundant power supply
924-1BB10	**Profibus-TermT1** › 9,6 Kbps up to 12 Mbps › Removable screw terminals and 1 DB9 terminal › Power supply specifications › Redundancy: current 1 OR 2 › Diagnostic LEDs
Ethernet-Switches	
910-1EN50	**Industrial-Switch EN5-R** › 5x RJ45 10/100BaseTX full / half Duplex › Supports IEEE 802.3 and IEEE 802.3u/x and automatic MDI/MDI-X recognition › Redundant power supply for 12-45 VDC › IP30 aluminium housing for DIN rail mounting
910-1EN80	**Industrial-Switch EN8-R** › 8x RJ45 10/100BaseTX full / half Duplex › Supports IEEE 802.3 and IEEE 802.3u/x and automatic MDI/MDI-X recognition › Redundant power supply for 12-45 VDC › IP30 aluminium housing for DIN rail mountin

Accessories

Order no.	Name/Description
911-2PN50	**Industrial-Switch PN5-RD** › PROFINET v2 Conformance Class B › Profinet diagnosis via GSD integration › Management functions such as IGMP Snooping, IEEE 802.1Q VLAN, QoS, RMON, SNMP › Port mirroring › PROFINET I/O parameters, I/O cyclic data, DCP, DHCP › Turbo Ring and Turbo Chain (recovery time < 20 ms)
911-2PN80	**Industrial-Switch PN8-RD** › PROFINET v2 Conformance Class B › Profinet diagnosis via GSD integration › Management functions such as IGMP Snooping, IEEE 802.1Q VLAN, QoS, RMON, SNMP › Port mirroring › PROFINET I/O parameters, I/O cyclic data, DCP, DHCP › Turbo Ring and Turbo Chain (recovery time < 20 ms)
FIELDBUS accessories	
972-0DP01	**EasyConn 90° - PROFIBUS plug** › Clock rate up to 12MBit/s › Metal case › PG jack › Switchable terminating resistor › 90° outgoing cable › Packaging unit: 1 piece
972-0DP10	**EasyConn 90° - PROFIBUS plug** › Clock rate up to 12MBit/s › Metal case › PG jack › Switchable terminating resistor › 90° outgoing cable › Bus diagnosis via LEDs › Packaging unit: 1 piece
972-0DP20	**EasyConn 45° - PROFIBUS plug** › Clock rate up to 12MBit/s › Metal case › PG jack › Switchable terminating resistor › 45° outgoing cable › Bus diagnosis via LEDs › Packaging unit: 1 piece
972-0DP30	**EasyConn 0° - PROFIBUS plug** › Clock rate up to 12MBit/s › Metal case › Switchable terminating resistor › 0° outgoing cable › Bus diagnosis via LEDs › Packaging unit: 1 piece
972-0PN00	**PN/EC-Stecker 180° Field Plug** › PROFINET & EtherCAT plug › Plug: RJ45 › Connection: 8 wire › Connection technique: IDC (insulation displacement connection) terminals › Connection area: AWG24/1 - 22/1, AWG26/7 - 22/7 › Cable diameter: 5,5 - 8,5 mm › Allocation: T568A, T568B › Industrial (4/8 wire) › Packaging unit: 1 piece
972-8PN00	**PN/EC-Stecker 180° Field Plug** › PROFINET & EtherCAT plug › Plug: RJ45 › Connection: 8 wire › Connection technique: IDC (insulation displacement connection) terminals › Connection area: AWG24/1 - 22/1, AWG26/7 - 22/7 › Cable diameter: 5,5 - 8,5 mm › Packaging unit: 10 pieces
Miscellaneous	
905-6AA00	**EasyStrip** › Stripping tool for PROFIBUS cables
Cables	
830-0LC00	**FCC 2xAWG 22 - Standard PROFIBUS cable** › 100m Cable reel
830-0LD00	**FCC 2xAWG 22 - Standard PROFIBUS cable** › 200m Cable reel
830-0LE00	**FCC 2xAWG 22 - Standard PROFIBUS cable** › 500m Cable reel

Accessories

Order no.	Name/Description
830-0LF00	**FCC 2xAWG 22 - Standard PROFIBUS cable** › 1000m Cable reel
830-0PC00	**PROFINET cable** › 100m Cable reel
830-0PD00	**PROFINET cable** › 200m Cable reel
830-0PE00	**PROFINET cable** › 500m Cable reel
830-0PF00	**PROFINET cable** › 1000m Cable reel
950-0AD00	**USB adapter** › for MMC programming (Windows 98SE/ME/2000/XP)
950-0KB00	**VIPA "Green Cable"** › only for CPU 11x, 21x, 31x, 51x
950-0KB01	**PC/AG programming cable** › RS232-MPI/Profibus adapter, 3m
950-0KB10	**PC/AG programming cable** › RS232-MPI/PPI adapter, LCD, 3m
950-0KB30	**PC/AG programming cable** › USB-MPI/PROFIBUS adapter, LCD 3 m
950-0KB31	**PC/AG programming cable** › USB-MPI/Profibus Adaptor, 3m
950-0KB40	**PC/AG programming cable** › TCP/IP-MPI/PPI/Profibus adapter, LCD, 3m
950-0KB50	**PC/AG programming cable** › MPI cable with with PU-/Diagnostic port, 2.5 m
Antennas and accessories	
900-0AB51	**TM antenna GSM/UMTS** › Mobile antenna incl. 5 m cable › SMA connector › Resistance: 50 Ohm › Power: 10 W › Gain: 2.14 dBi › 900/1800 MHz

At a glance

Appendix

Distributors and branch offices

EUROPE

Austria
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http://www.vec-tech.by

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Terms and conditions

General

The general supply and delivery terms are valid in their latest version (see next pages) as well as the addendum on extended retention of title.
The prices are quoted in Euro (€) ex works, without insurance, freight and packaging. They do not include any VAT.
Packaging cannot be returned.
VAT will be indicated separately according to legal regulations and at the respective valid rate.

Minimum Order Value

The minimum value for each order amounts to € 150,- net.
Orders with a value less than € 150,- will be charged with a handling fee of € 20,- to cover costs.

Dispatch and packing costs

Export sales:
Dispatch will be organized on ex works basis with a forwarding agent/courier service named by customer; alternatively freight cost will be calculated and charged according to weight and/or volume on the basis of VIPA Germany‘s freight rates at local partners..

Domestic sales:

Order value to 1.000 €	= 10,00 €
1.001 € - 2.500 €	= 1,00% of net price
2.501 € - 5.000 €	= 0,85% of net price
5.001 € - 7.500 €	= 0,65% of net price
7.501 € and higher	= all inclusive 57,00 €

Freight charges for bulky goods (e.g. 2 m of rails and cable drums) are calculated separately.

# of sale and delivery

Validity

This price list is valid from 01.03.2017.
The price list may be subject to changes, especially as far as the values, dimensions and weights are concerned, if nothing different is noted explicitly.
The goods will be invoiced at the date of dispatch.

Manuals

When ordering modules, you will receive the corresponding customer documentation free of charge as PDF on our webpage.
The latest versions of all our manuals can be found on our homepage:
www.vipa.com -> Service -> manuals.
For further information please contact us:
Export sales: +49 (0)9132/744 - 1675 or -1670
Domestic sales: +49 (0)9132 / 744 - 1730
Homepage: http://www.vipa.com

Legend/Trademarks

MP2I = MPI + RS232

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Availability and technical specifications are subject to change without notice.

General terms and conditions

1. General provisions

The following General Terms and Conditions of the Gesellschaft für Visualisierung und Prozessautomatisierung, hereinafter referred to as VIPA GmbH, shall apply for all present and future orders, deliveries and services (hereinafter referred to as: deliveries), unless expressly otherwise agreed by contract.

In case of deviations, supplements etc., we hereby expressly object to any conflicting or differing terms and conditions of contractual partners. We exclude all and any terms and conditions of contractual partners unless we expressly agree to them in writing.

2. Subject matter of the contract, scope of delivery, partial deliveries

a) The offer and/or order confirmation of VIPA GmbH shall be decisive for the scope of delivery.

b) Regarding cost estimates, drawings, wiring diagrams, samples, software source codes and other documentation, VIPA GmbH hereby retains its rights of ownership, copyrights and patent rights in their entirety. Such documents may only be made accessible to third parties with the prior written consent of VIPA GmbH. Drawings, wiring diagrams, samples, software source codes and other documentation that are part of the offer must be returned immediately on request in case the order is not awarded to VIPA GmbH. With regard to documents that were handed over to VIPA GmbH, the latter is entitled to make accessible such documents to third parties, as far as the company transfers services and deliveries to such third parties in a permissible way.

c) VIPA GmbH is entitled to make partial deliveries, insofar as this is reasonable for the customer.

3. Prices and terms of payment, exclusion of set-off, cost estimates

a) All the prices of VIPA GmbH are net prices quoted ex works, i.e. not including transport and packaging costs. All costs for delivery ex works, packaging, transport insurance etc. are invoiced separately. The same shall apply for the costs resulting from installation, erection and/or assembly, e.g. travel expenses. VAT will be charged separately. VIPA GmbH is entitled to charge a reminder fee of € 5.00 per reminder upon occurrence of a default.

b) A set-off by the contractual partner is only permitted in case the outstanding claims are uncontested or established by final enforceable judgment. The same shall apply for any right of retention.

c) Cost estimates shall be paid for.

4. Delivery period, deadlines, passing of risk

a) Delivery dates and deadlines are not binding for VIPA GmbH unless it is agreed by contract that they are binding.

b) The delivery time which was agreed upon shall be extended accordingly in the event of any circumstances beyond our control, which occur either in our own business or in that of a preliminary supplier. This applies in particular to strikes and lockouts as well as cases of force majeure which result from unforeseeable events or events over which the company and/or the preliminary suppliers have no control. VIPA GmbH undertakes to inform its contractual partners of any such delays as soon as they are foreseeable. If the performance of services by VIPA GmbH therefore becomes impossible or is seriously impaired, VIPA GmbH may cancel the contract wholly or in part. The customer is entitled to cancel the contract if VIPA GmbH does not perform the delivery after a written reminder until the end of a new appropriate deadline set by the customer. The compliance with expressly agreed delivery deadlines depends on the receipt in due time of all documents, necessary permits, clearances etc. which are to be supplied by the contractual partner, the clearance and approval of all plans in due time, as well as the compliance with the agreed terms of payment and other obligations by the contractual partner of VIPA GmbH. VIPA GmbH shall be entitled to exercise its right of retention despite a contractual delivery date in case due receivables from prior goods and services have not been settled by the contractual partner.

c) The delivery deadline shall be considered met and the risk passes to the customer as soon as VIPA GmbH has handed over the item to the forwarding agent, the carrier or another person or institution responsible for dispatch or to the collector. If installation, erection or assembly is included in the scope of delivery, the risk shall pass and the delivery deadline shall be considered met on the day of taking-over on the business premises of the contractual partner. If a test run was agreed, the latter shall be performed without delay after assembly and/or installation. If the dispatch, the assembly or installation/erection and/or the taking-over or a possible test run is delayed due to reasons for which the contractual partner is responsible or if a default of acceptance occurred, the risk shall pass to the contractual partner upon the start of delay caused by the contractual partner or upon occurrence of default of acceptance. This shall also apply for possible dispatches within the scope of replacement deliveries or after the performance of rectifications of defects by VIPA GmbH. The purchaser shall bear the risk for any reshipments effected by the customer to VIPA GmbH until the items of the reshipment are handed over in the premises of VIPA GmbH. Possible reshipments must always be free of carriage charges for VIPA GmbH.

5. Reservation of title

VIPA GmbH makes deliveries solely on the basis of the following reservation of title. This shall also apply to all future deliveries, even if VIPA GmbH does not make explicit reference to this.

a) All deliveries / services are solely effected under reservation of title. VIPA GmbH shall remain the owner of the delivered goods until all accounts to which the company entitled from the customer as a result of the business relationship have been paid in full. The customer may neither pledge nor provide the goods as security to which we have retained ownership and it is also not allowed to resell such goods. The reseller is granted the revocable authorisation to resell such goods in the normal course of business, provided that its customers effect payment.

b) As long as the ownership title has not been transferred, the customer shall be obliged to handle and stock the object of purchase with due care and to insure it at its own expense at replacement value against losses and damage from theft, fire and water. If any servicing or inspection work is required, the customer shall perform such work in due time at its own expense. As long as the ownership title has not been transferred, the customer shall be obliged to notify VIPA GmbH in writing as soon as possible in case the delivered item is pledged or is about to be pledged, retained or is threatened by execution or insolvency or is exposed to other third party interventions etc. In case of a compulsory execution or insolvency, the competent authorities must be informed about the ownership title of VIPA GmbH. The contractual partner shall be liable for damage resulting from neglect as well as for intervention expenses, if any. The expenses incurred by averting a seizure shall be borne by the customer. Where the third party is unable to reimburse the court and out-of-court expenses of a lawsuit pursuant to § 771 of the German Code of Civil Procedure (ZPO), the customer shall be liable for any loss incurred by VIPA GmbH.

c) The customer shall be entitled to resell the goods subject to reservation of title in the normal course of business. The customer shall assign all purchase price and wage claims etc. arising from the resale of the goods subject to reservation of title to VIPA GmbH in the amount of the invoicing value including VAT. VIPA GmbH accepts this assignment. Such assignment shall be valid irrespective of the fact whether the goods were resold without or after processing. The customer shall be entitled to collect debts even after the assignment. The authority of VIPA GmbH to collect the debts itself shall not be affected by this. However, we undertake to refrain from collecting the claim as long as our contractual partner meets the payment obligations from the collected revenues, is not in delay of payment and, in particular, has not filed an application to open insolvency proceedings, and a cessation of payments does not exists.

d) The processing, treatment or transformation of the purchased item shall always be made by the purchaser in the name and on behalf of VIPA GmbH. In this case, the customer shall continue to be eligible for the purchased item subsequent to processing or transformation. Should the purchased item be processed with other objects not belonging to VIPA GmbH, VIPA GmbH shall then acquire a joint ownership in the new item in the ratio of the value of the purchased item to the other processed objects at the time of processing. The same shall apply in the event of incorporation. If incorporation takes place in such a way that the customer's product is considered to be the main product, it is agreed that the customer shall transfer pro-rata joint ownership title to VIPA GmbH and shall safeguard on our behalf the sole title or joint title thereby arising. In order to secure the claims of VIPA GmbH against the customer, the latter shall assign to VIPA GmbH any claims that it acquires against a third party through the linking of the goods subject to reservation of title with a property. VIPA GmbH hereby accepts such assignment. VIPA GmbH undertakes to release the securities to which it is entitled, provided that their value exceeds the secured outstanding dues by more than 20%.

6. Claims for damages

a) VIPA GmbH shall only assume liability if this is expressly agreed upon in writing or if an exclusion of liability is not permitted by law, e.g. in the event of willful intent or gross negligence or in case of harm to life, health and body or if the company is liable according to the Product Liability Act. Any other liability of VIPA GmbH, in particular claims for damages and reimbursement of expenses by the contractual partners, shall be excluded. Liability is also and particularly excluded in the case of non-performance or defective performance and for consequential losses or indirect damage. Liability of VIPA GmbH due to culpa in contrahendo shall be expressly excluded. VIPA GmbH hereby accepts this exclusion.

b) Contractual penalties are not permissible unless expressly otherwise agreed in writing.

7. Limitation period, suspension of the limitation period

The limitation period for warranty claims and other claims against VIPA GmbH shall be twelve months. In case of shorter statutory limitation periods or shorter limitation periods agreed upon, such shorter limitation period shall apply. A shortening of the limitation period shall not be valid if this is excluded by law, in particular in case of fraudulent concealment of a defect. For deliveries to VIPA GmbH, the statutory limitation periods shall apply. The statutory regulations on suspension of statute of limitation, suspension of and restart of the limitation period shall not be affected by this. Settlement negotiations shall be deemed terminated in case VIPA GmbH does not respond in writing to a letter of the contractual partner after expiration of a period of 8 weeks.

8. Warranty

a) A warranty beyond the statutory warranty regulations shall only be granted if such warranty is expressly stated in writing.

b) The goods supplied by VIPA GmbH must be inspected immediately after handover. VIPA GmbH must be notified in writing immediately after receipt and/or inspection of the delivery of any defects, the lack of guaranteed qualities, transport damage, shortfall quantity, wrong deliveries etc and all processing or treatment works must be stopped immediately. Possible hidden defects must be communicated to us in writing as soon as they have been discovered. If such notification is not made in time, the delivery shall be deemed accepted. VIPA GmbH and the carrier must be notified in writing and without delay of any transport damage after receipt of goods. In case the notification of defects is justified and was made in time, VIPA GmbH shall be entitled to either rectify the defects, to effect a faultless replacement delivery and/or to render a faultless service. The contractual partner‘s right of reduction of the purchase price shall not be affected by unsuccessful rectification or cancellation of the contract.

c) In case of the following, any warranty and/or any guarantee to which the company exceptionally consented in writing shall be excluded, unless the defect was fraudulently concealed:

Damage or losses resulting from faulty installation made by the customer or third parties or caused by improper use or fire, lightning strike, force majeure etc.

Repairs or repair attempts performed incorrectly or other interventions by the customers or other persons not authorised by VIPA GmbH

Damage caused by non-observance of the operating instructions or other instructions given by the staff of VIPA GmbH

Transport damage

Damage caused by the use of unsuitable or inferior replacement parts

Damage resulting from wear, humidity, strong heating of rooms or other effects of weather and temperature

Wear and tear parts

In case of negligible deviation from the agreed characteristics, in case of negligible impairment of serviceability or in case the model presents only minor deviations from the specifications in catalogues, advertising materials, samples etc.

Insufficient maintenance of the goods by the contractual partner

d) No warranty is granted for second-hand goods supplied by VIPA GmbH. Second-hand goods are sold as seen.

e) VIPA GmbH is entitled to claim compensation for the costs and expenses it incurred from the contractual partner in case the notification of defects was not justified. Claims from the purchaser towards VIPA GmbH for compensation of expenses, in particular transport costs and service assignments, due to supplementary performance, are excluded insofar as the expenses increase due to the fact that the object of delivery was subsequently carried to a place other than the agreed delivery address of the contractual partner.

f) For any software, the conditions of the software licence of VIPA GmbH and of the software producer shall apply.

9. Impossibility of performance, adaptation of the contract

If it becomes impossible for VIPA GmbH to effect or provide the agreed delivery or service, the general legal principles shall apply as follows:

If the impossibility is the fault of VIPA GmbH, the contractual partner is entitled to make a claim for damages; however, such claim for damages of the purchaser shall be limited to 10% of the value of such part of the delivery or service that could not be used properly or put into service due to the impossibility of performance.

Any claims for damages exceeding the aforementioned 10% shall be excluded. This shall not apply in the event of willful intent or gross negligence, where liability is mandatory, or in case of harm to life, health and body.

The customer‘s right to withdraw from the contract shall not be affected by this.

In case unforeseeable events considerably modify the economic importance or the content of the delivery or service or affect the business operations of VIPA GmbH, the contract shall be adapted accordingly by VIPA GmbH, provided that this is compliant with the principles of good faith.

As far as this is not economically feasible, VIPA GmbH shall have the right to withdraw from the contract. When the company intends to make use of its right of withdrawal, it shall inform the purchaser of its intention as soon as the significance of the event will have fully come to its knowledge, i.e. also in such cases when an extension of the time of delivery was agreed with the purchaser.

10. Place of jurisdiction, place of performance, applicable law

a) The sole local and international place of jurisdiction (if the contractual partner is a merchant) for all disputes arising directly or indirectly from the contract shall be the registered office of VIPA GmbH.

b) The contractual relationship shall be subject to German substantive law only.

c) The place of performance for deliveries and services of VIPA GmbH shall be the registered office of VIPA GmbH.

11. Authorisations, foreign countries

The contractual partner shall be responsible for and obtain official authorisations that may be required, in particular export licences. VIPA GmbH shall not be responsible or liable for possible official authorisations, in particular export licences, that may be required. The contractual partner is obliged to comply with all export provisions and export restrictions and all other provisions of the foreign trade legislations, in particular those of Germany, the EU and the EU member states, and to ensure that its contractual partners and third parties comply with these provisions as well. The contractual partner shall be obliged to make all required notifications, to provide all required information and to make all other necessary declarations to foreign authorities duly and completely.

The contractual partner shall pay all required customs duties, taxes or levies which may arise from a delivery into or the rendering of a service in a foreign country.

12. Other provisions, validity of the contract, authorisations

Should one or several provisions of the contract, including these General Terms and Conditions, be invalid, the validity of the contract or the General Terms and Conditions as a whole shall not be effected. In this case, the parties undertake to replace the invalid provision by a valid one which comes closest to the economic purpose of the invalid provision. The same shall be done in case of contractual gaps.

Changes and amendments to the contract must be effected in writing in order to be effective.

Notices

Notices

VIPA Controls worldwide

…in about 80 countries at home

YASKAWA

VIPA Gesellschaft für Visualisierung und Prozessautomatisierung mbH

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