



More than **sensors + automation**



JUMO mTRON T – Your System

The scalable measuring, control, and automation system



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Dear Reader,

JUMO has been a reliable partner for high-quality measurement and control technology for more than 70 years. "More than sensors + automation" – this is our philosophy and our commitment. With JUMO mTRON T we have developed a measuring, control, and automation system which combines the latest technology and long-standing experience for an innovative complete solution.

JUMO mTRON T is a dynamic system which is constantly being refined in response to customer requirements and can be used in a multitude of applications. The expertise of our proven control and recording systems as well as the implementation of our experiences with diverse industries make JUMO mTRON T a flexible system solution that is easy to operate.

The modular component concept with variable I/O modules combined with powerful control panels is just as impressive in the area of measured value recording as it is for complex control tasks and sophisticated automation solutions.

Extremely high-quality universal analog inputs for a wide range of input variables and the JUMO control algorithm that has been proven over the years ensure high process reliability and the greatest possible transparency.

Let us surprise you with our JUMO mTRON T system. The following pages describe all the important information about our modular measuring, control, and automation system. Do you have questions about a particular application? Our application team would be happy to work with you to develop a tailored solution.

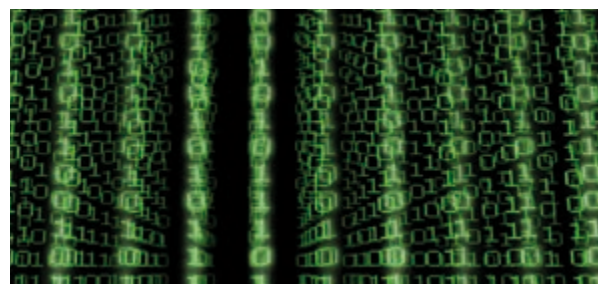
PS: Further information about the JUMO mTRON T system can be found under the specified product group number at www.JUMO.mTRON-T.net.



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JUMO mTRON T – Your System

The scalable measuring, control, and automation system

JUMO mTRON T combines a universal measured value acquisition system with a precise control system offering intuitive operation. It can also be expanded into a complete automation solution. The scalability of the JUMO mTRON T allows it to be individually adapted to a particular task. Tamper-proof data recording is just one of its outstanding features. Control and data recording therefore meet the requirements of the AMS 2750 and CQI-9 specifications.

The heart of the JUMO mTRON T is a **central processing unit** with a process map for up to 30 input and output modules. The CPU has superordinated communication interfaces including web server functionality. For individual control applications, the system has a **PLC (CODESYS V3)**, program generator, and limit value monitoring functions as well as math and logic modules.

Various components are available as **input and output modules** (e.g. **analog input modules** with galvanically isolated universal analog inputs for thermocouples, RTD temperature probes, and standard signals). As a result the same hardware can be used to precisely record and digitize a highly diverse range of process variables. Every **multichannel controller module** supports up to 4 PID control loops with a fast cycle time and proven control algorithms. The control loops here operate fully independently which means that they do not require resources from the central processing unit. Overall the system allows for

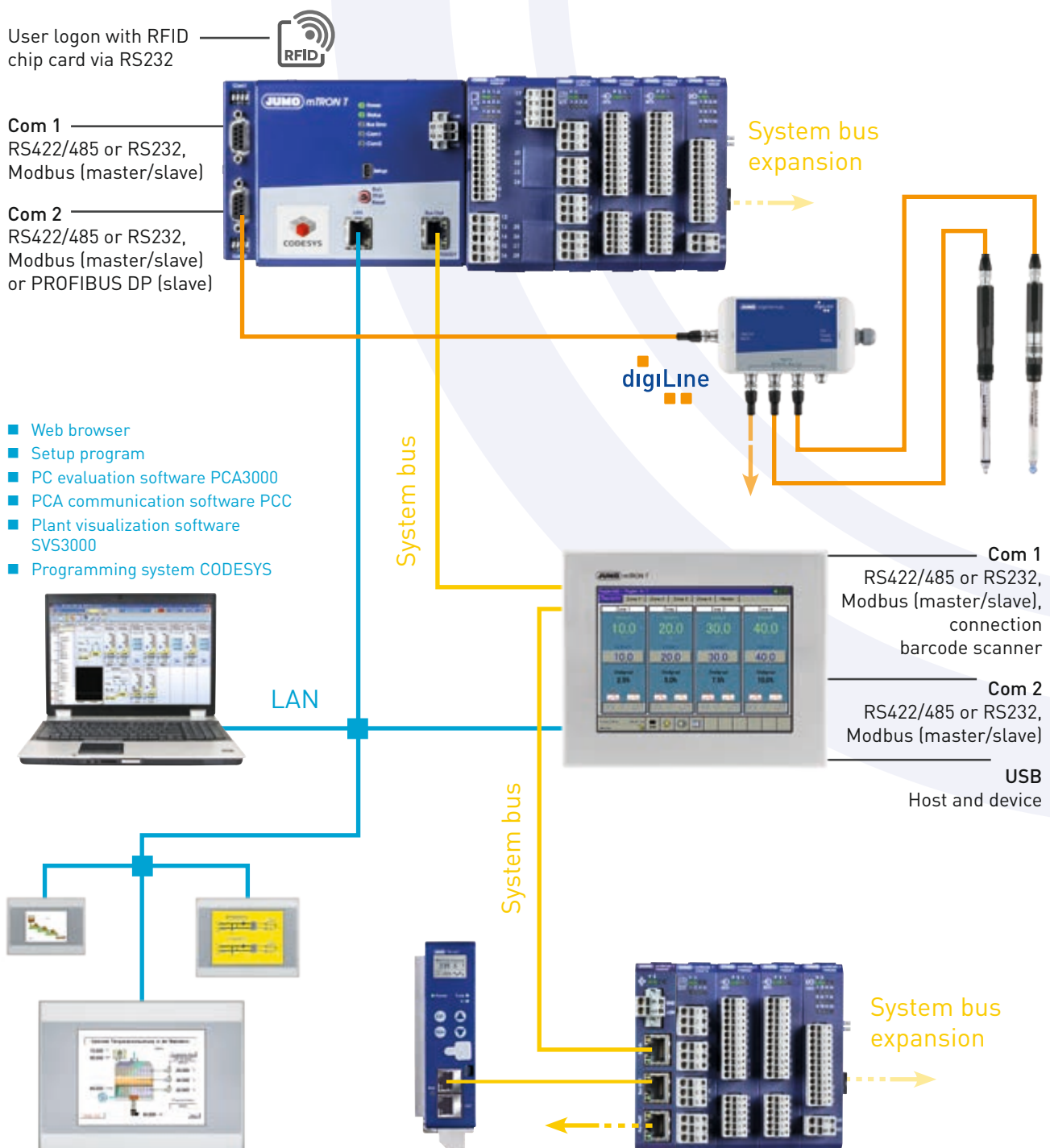
simultaneous operation of up to 120 control loops so that it can also be used for sophisticated processes. Through expansion slots the inputs and outputs of each controller module can be individually expanded and adapted. **Power controllers** can also be connected directly via the system bus.

A multifunction panel visualizes the measured values and enables convenient operation of the overall system. User-dependent access to parameter data and configuration data can also be set up. Using standard predefined screen masks, startup times are considerably reduced. The recording functions of a fully-fledged paperless recorder, including additional web server functionality, are also implemented in the multifunction panel. The data recording function is tamper-proof and also provides comprehensive batch reporting. Proven PC programs are available for extracting and evaluating historical data. If required, the JUMO mTRON T can be made even more flexible with **additional operating panels**.

A setup program is used for **hardware and software configuration** as well as for project planning of the measured value recording and control tasks. Users can also develop their own highly efficient automation solutions with CODESYS editors according to IEC 61131-3. Last but not least, **JUMO digiLine sensors for liquid analysis** can also be connected directly to the JUMO mTRON T via PLC application.

System structure

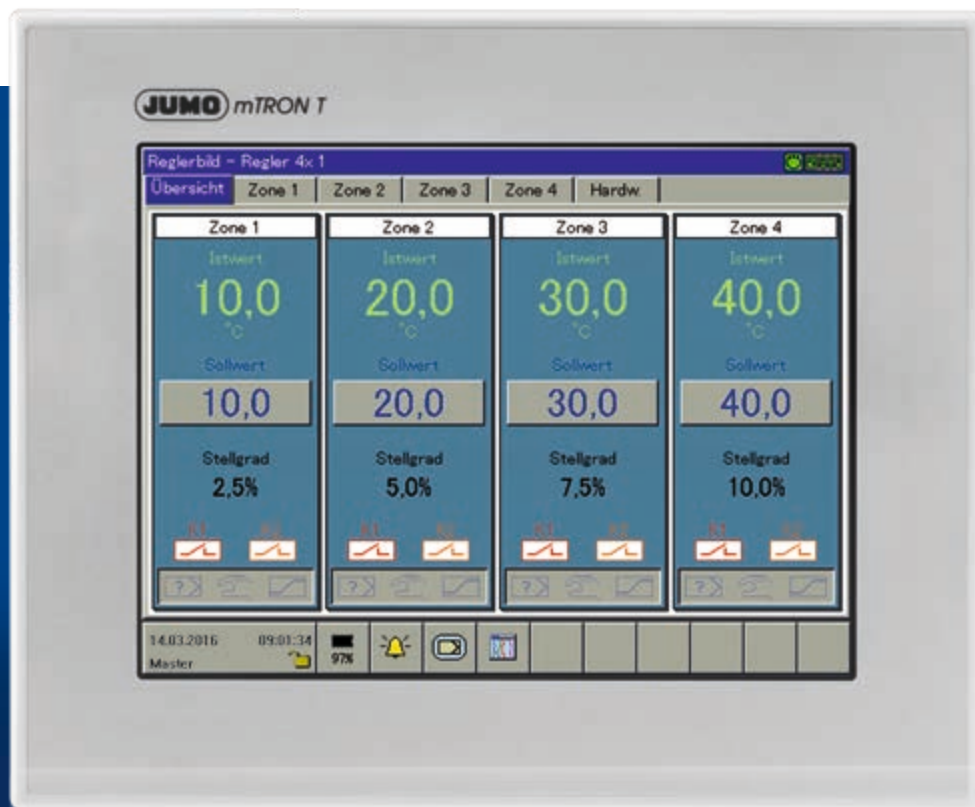
JUMO mTRON T with its modular design uses an Ethernet-based system bus and an integrated PLC – even for decentralized automation tasks. The measuring, control, and automation system can be used universally and combines JUMO's extensive process expertise with a simple, application-oriented, and user-friendly configuration concept.





Multifunction panel 840

The panel with an 8.4" TFT touchscreen visualizes data and process statuses. Furthermore, it offers individually adaptable user management with access to parameter and configuration data from the overall system. A multitude of preconfigured screen masks saves time and money due to reduced visualization work.



Operating, visualization, recording

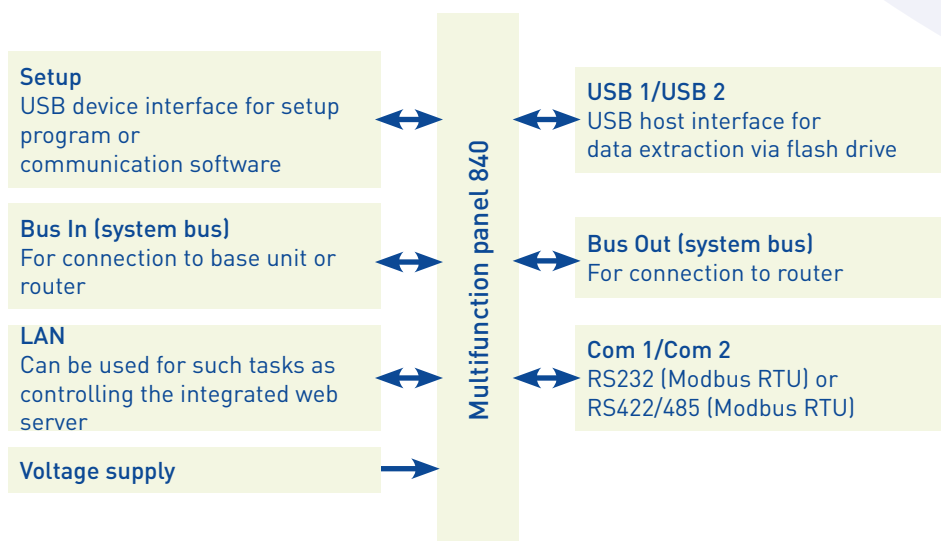
In addition to operating and visualization functions, the panel also offers an optional fully fledged paperless recorder with batch reporting as an easy-to-use human-machine interface. Predefined screen masks for service, controller, program generator, and recording functions allow very easy operation. It is also possible to create individual process screens in which measured value and switching position displays as well as input fields can be integrated. A process screen generated in this way gives the user a particularly clear and complete impression of the plant.

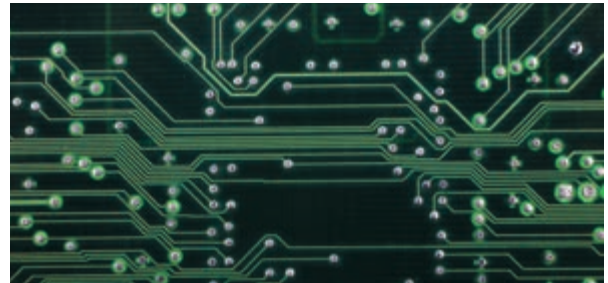
Multifunction panel 840, type 705060

Features:

- TFT touchscreen with a resolution of 640 × 480 pixels and 256 colors
- Integrated web server
- 3 USB interfaces
- 2 system bus interfaces
- LAN interface, Modbus TCP as master/slave
- 2 user programmable serial interfaces RS232 or RS422/485 (optional), Modbus RTU as master/slave, protocol for barcode scanner
- Configuration of the input and output modules
- Program editor
- Customer-specific process screens with up to 16 different levels per screen
- Optional paperless recorder (recording function) for tamper-proof data recording of up to 54 analog and 54 digital process values
- The recording function meets the requirements of the AMS 2750 and CQI-9 specifications (among others)
- Extended user management system: up to 50 different users are each assigned to one of up to 16 user groups, with individual rights allocation per user group
- Alarm and event lists
- Data backup using flash drive or interface
- Easily replaceable thanks to intelligent service concept
- Robust metal case (die-cast aluminum), stainless steel option
- Protection type (on the front): IP67
- Program preview in the multifunction panel

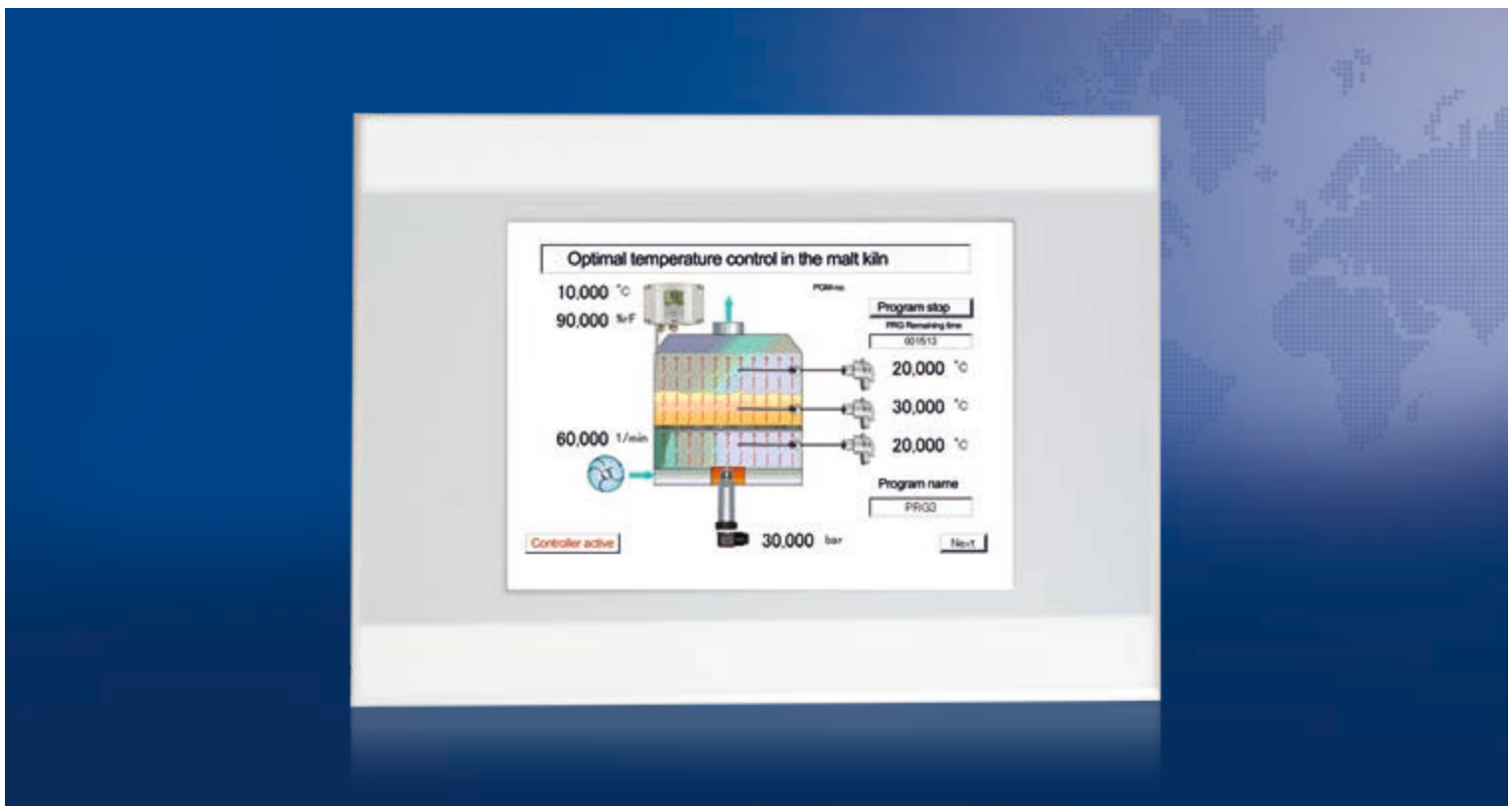
Block diagram:





Additional operating panels

JUMO mTRON T provides the multifunction panel 840 with a 8.4" TFT touchscreen in the basic version. In addition, the automation system offers even more flexibility through additional operating panels. These also include the TFT touch-screen and are available per default in sizes from 3.5" to 10.4".



Additional operating panels

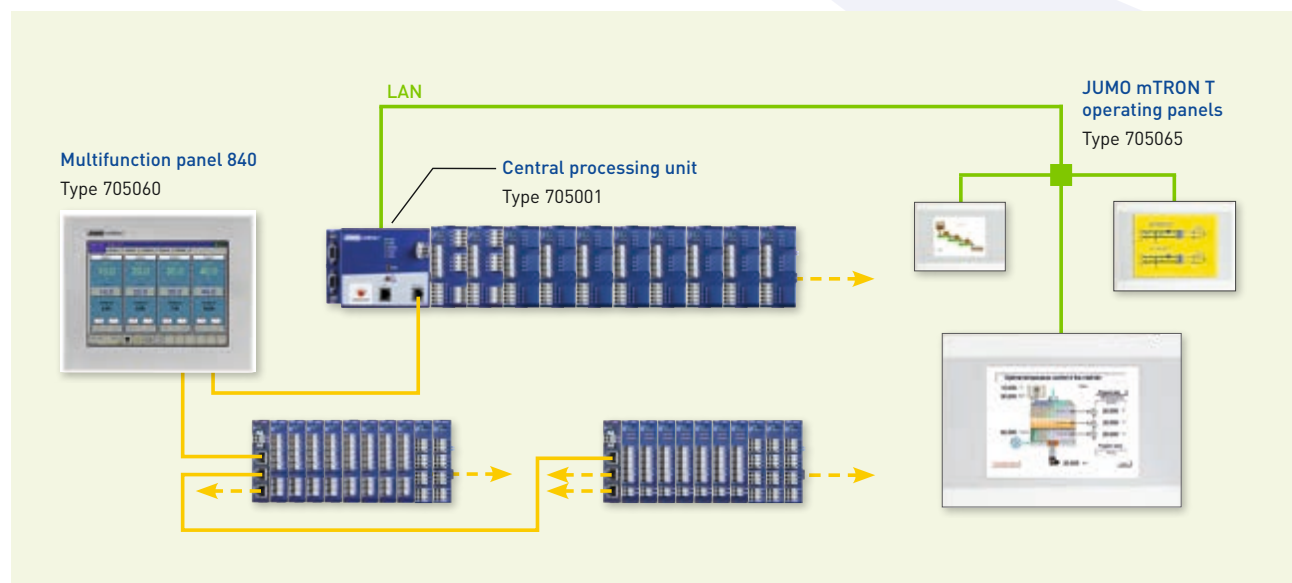
The additional operating panels have a CODESYS PLC as well as target and web visualization. Project planning and connection takes place via the CODESYS visualization. The advantage of this connection is that it enables direct access to the PLC variables of the JUMO mTRON T via the CODESYS data server or CODESYS data source manager (as of 3.5.10.0). Additional software to create the visualization is not required as the software is already part of the CODESYS development environment.

Additional operating panels, type 705065

Features:

- TFT-touchscreen from 3.5" to 21" in various resolutions with resistive or capacitive touchscreen
- Protection type (on the front): IP65
- Different case types (plastic, metal)
- Direct access to PLC variables
- Voltage supply: DC 24 V DC
- Up to 4 operating panels can be connected to each central processing unit
- Connection via Ethernet interface
- Selected operating panels can be used as an OPC UA server

Setup of the JUMO mTRON T system with additional operating panels





Central processing unit

The central processing unit contains the process map of your application. At the same time the unit manages the configuration and parameter data from your system. Startup of measured value recording and control loops is therefore quick and convenient when using the JUMO setup program. You can access your process values conveniently and reliably at any time using a web server (creation of customer-specific web pages, e.g. by JUMO Engineering based on HTML5).



Central processing unit

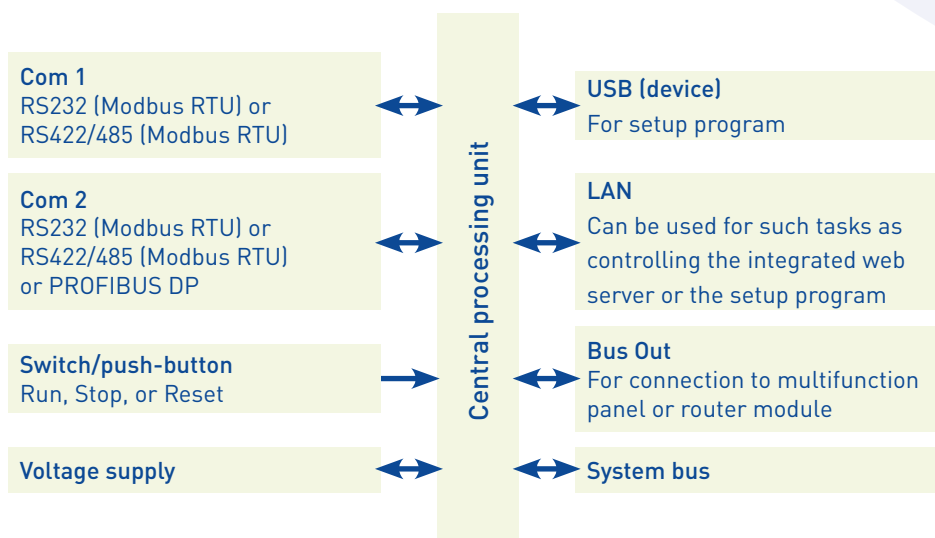
The central processing unit, up to 30 input or output modules, and the router module can be used to assemble a compact, cost-effective measuring, control, and automation system centrally or decentrally.

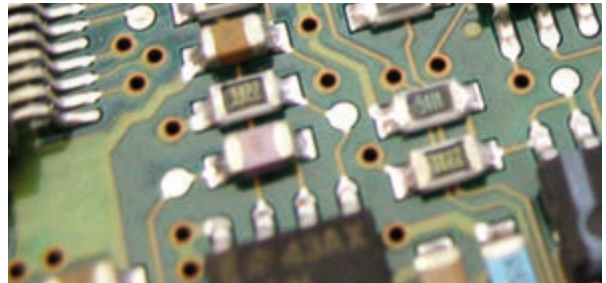
Central processing unit, type 705001

Features:

- Integrated web server
- Email functions (e.g. email notification in the event of limit value violation)
- PLC CODESYS V3 (optional) with battery-buffered RAM
- 9 program generators (optional): for use as standard program generators or with process step function (e.g. for smoking systems or climate chambers)
- 64 limit value monitoring functions
- USB interface system bus connection on the front (Bus Out)
- LAN interface, Modbus TCP as master/slave
- 2 user programmable serial interfaces RS232 or RS422/485 (optional), Modbus RTU as master/slave, PROFIBUS DP as slave
- User logon via interface (e.g. with RFID chip card via RS232)
- Robust metal case
- Quick cross wiring due to easy module connection
- Real-time clock

Block diagram:





Multichannel controller module

The multichannel controller module allows precise control of your processes based on the proven JUMO PID control algorithm with several autotuning functions. The control loops operate fully independently without making demands on the central processing unit resources. Excellent reliability is the result.



Multichannel controller module

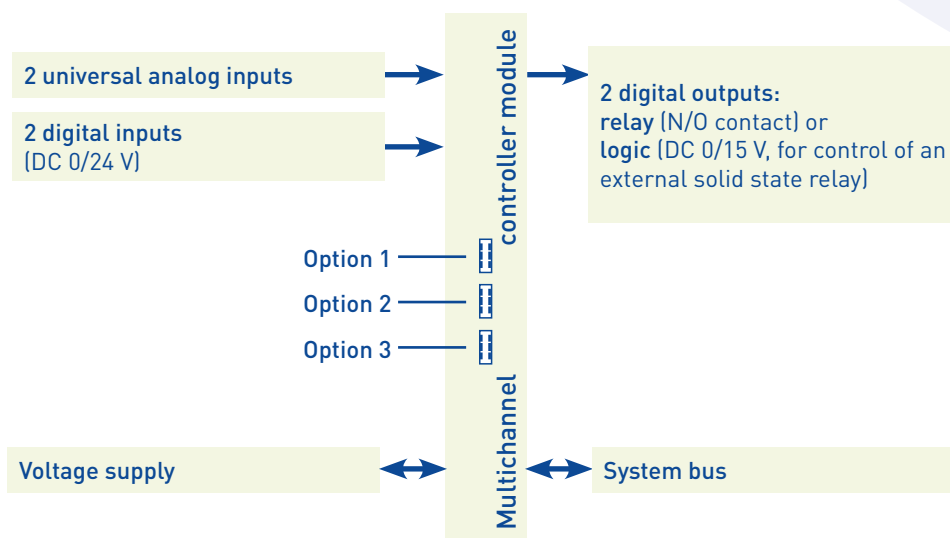
The modules have removable plug-in terminals with PUSH IN technology for the electrical connection. The voltage supply and operating status of a module as well as the statuses of the digital inputs and outputs are indicated with LEDs. Thanks to a proven PID control algorithm, which includes autotuning functions, the multichannel controller module enables precise control of your processes. The independent control offers the highest level of reliability as the control loops complete their control tasks independently of the central processing unit in a quick and reliably manner.

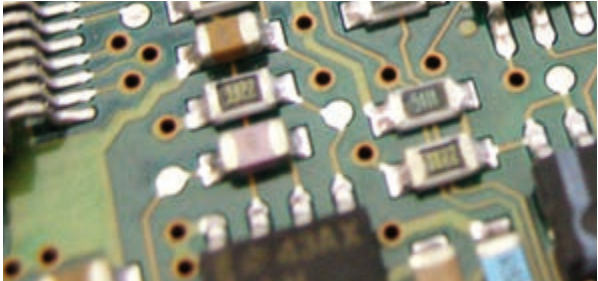
Multichannel controller module, type 705010

Features:

- Up to 4 controller channels with PID control algorithm that can be configured independently of one another
- Independent operation that does not make demands on the central processing unit resources
- 2 parameter blocks and 4 setpoint specifications (including ramp function) per controller channel
- Autotuning procedure (oscillation or step response method), can be selected separately for each controller channel
- Math and logic functions (option)
- Counter input up to 10 kHz
- Expansion of the inputs and outputs, all analog inputs or outputs are galvanically isolated from each other
- Suitable for hot swapping: automatic configuration through the central processing unit after replacement of a module insert
- Connection of inputs and outputs on the front
- Removable terminal strips
- Saves wiring time thanks to plug-in terminals with PUSH IN technology
- Quick cross wiring due to easy module connection

Block diagram:





Relay module 4-channel

The relay module has 4 relays (changeover contact AC 230 V/3 A in each case). The switching statuses are indicated with LEDs.



Relay module 4-channel

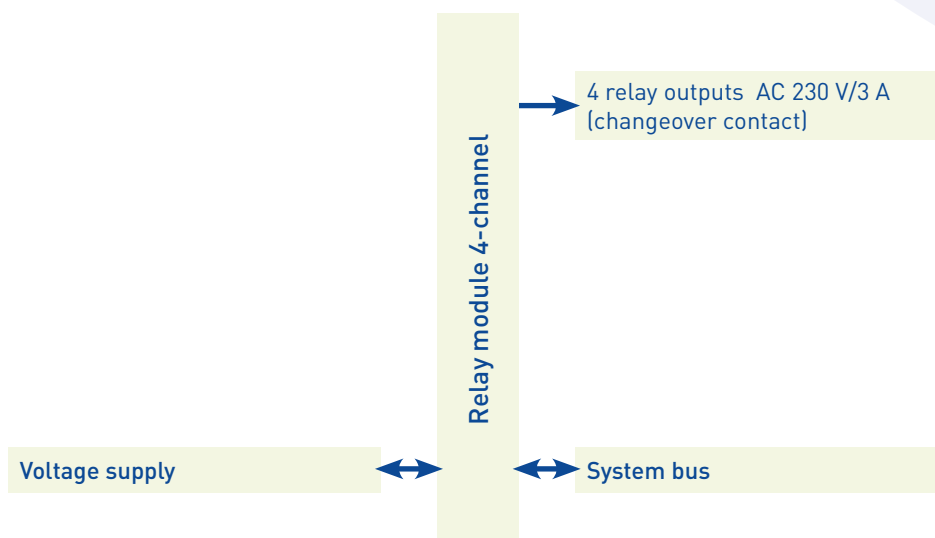
The modules have removable plug-in terminals with PUSH IN technology for the electrical connection. The voltage supply and operating status of a module as well as the statuses of the digital inputs and outputs are indicated with LEDs.

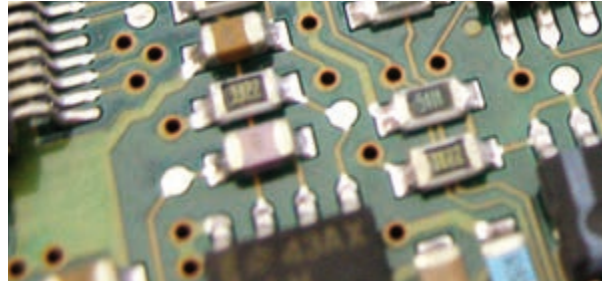
Relay module 4-channel, type 705015

Features:

- 4 relay outputs controlled via the system bus by digital signals
- Suitable for hot swapping: automatic configuration through the central processing unit after replacement of a module insert
- Connection of relay outputs on the front
- Removable terminal strips
- Saves wiring time thanks to plug-in terminals with PUSH IN technology
- Quick cross wiring due to easy module connection

Block diagram:





Analog input module 4-channel or 8-channel

The 4-channel analog input module offers 4 galvanically isolated universal measuring inputs for RTD temperature probes, resistance transmitters, thermocouples, and standard signals. The 8-channel analog input module offers up to 8 analog inputs for RTD temperature probes in a two-wire circuit.



Analog input module 4-channel or 8-channel

The modules have removable plug-in terminals with PUSH IN technology for the electrical connection. The voltage supply and operating status of a module as well as the statuses of the digital inputs and outputs are indicated with LEDs.

Analog input module 4-channel, type 705020

Features:

- 4 high-quality, user configurable analog inputs for RTD temperature probes, resistance transmitters, thermocouples, current 0(4) to 20 mA, voltage 0(2) to 10 V
- All analog inputs are galvanically isolated from each other
- Customer-specific linearization for non-standardized sensors
- Limit value monitoring (e.g. for min. and max. alarms)

Analog input module 8-channel, type 705021

Features:

- 8 high-quality analog inputs for RTD temperature probes Pt100, Pt500, Pt1000 in two-wire circuit
- Limit value monitoring function (e.g. for min. and max. alarms)

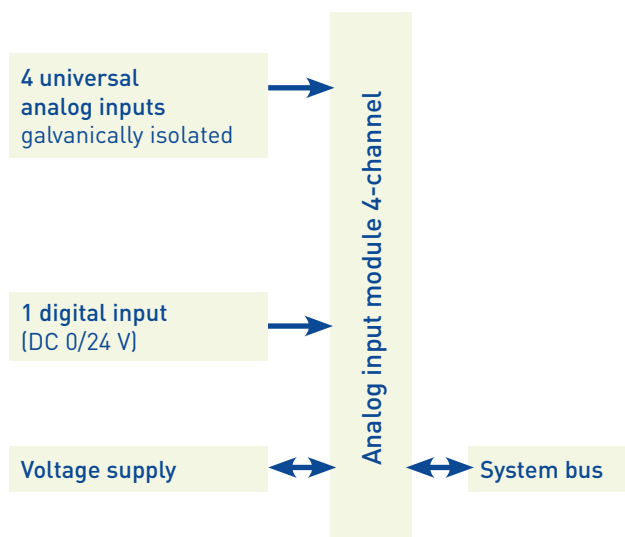
Both modules, type 705020/705021

Features:

- Additional digital input
- Suitable for hot swapping: automatic configuration through the central processing unit after replacement of a module insert
- Connection of inputs on the front
- Removable terminal strips
- Saves wiring time thanks to plug-in terminals with PUSH IN technology
- Quick cross wiring due to easy module connection

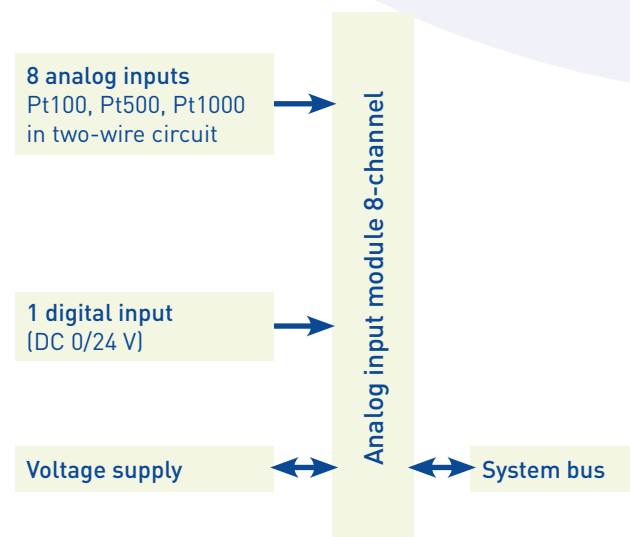
Block diagram:

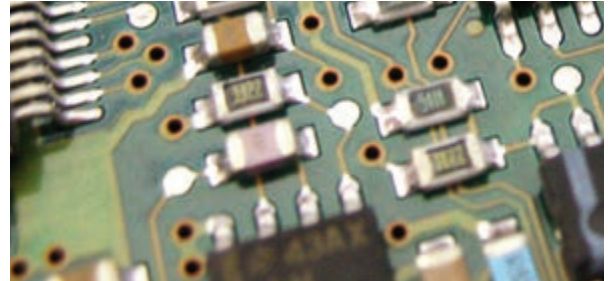
Analog input module 4-channel, type 705020



Block diagram:

Analog input module 8-channel, type 705021





Analog output module 4-channel

The analog output module is equipped with 4 outputs which can each be configured individually via the setup program or directly via the HMI (type 705060).



Analog output module 4-channel

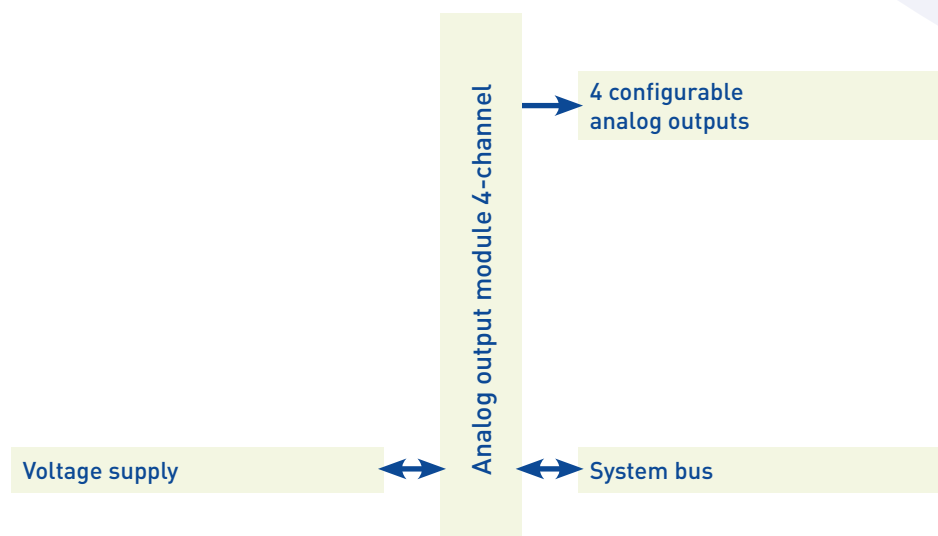
The modules have removable plug-in terminals with PUSH IN technology for the electrical connection. The applied voltage supply and operating status of the module are indicated with LEDs.

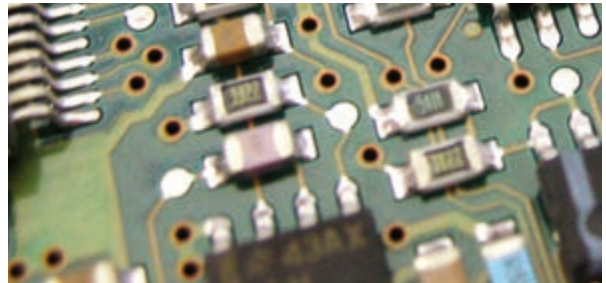
Analog output module 4-channel, type 705025

Features:

- 4 configurable analog outputs: 0(4) to 20 mA or 0(2) to 10 V
- Resolution: 16-bit
- Suitable for hot swapping: automatic configuration through the central processing unit after replacement of a module insert
- All analog outputs are galvanically isolated from each other
- Connection of outputs on the front
- Removable terminal strips
- Saves wiring time thanks to plug-in terminals with PUSH IN technology
- Quick cross wiring due to easy module connection
- Adjustable output behavior in case of malfunction

Block diagram:





Digital input or output module 12-channel

The 12-channel digital input or output module offers a high degree of flexibility due to freely selectable digital input or output channels. With a maximum capacity of 500 mA per digital output you are well equipped for a wide range of switching tasks.



Digital input or output module 12-channel

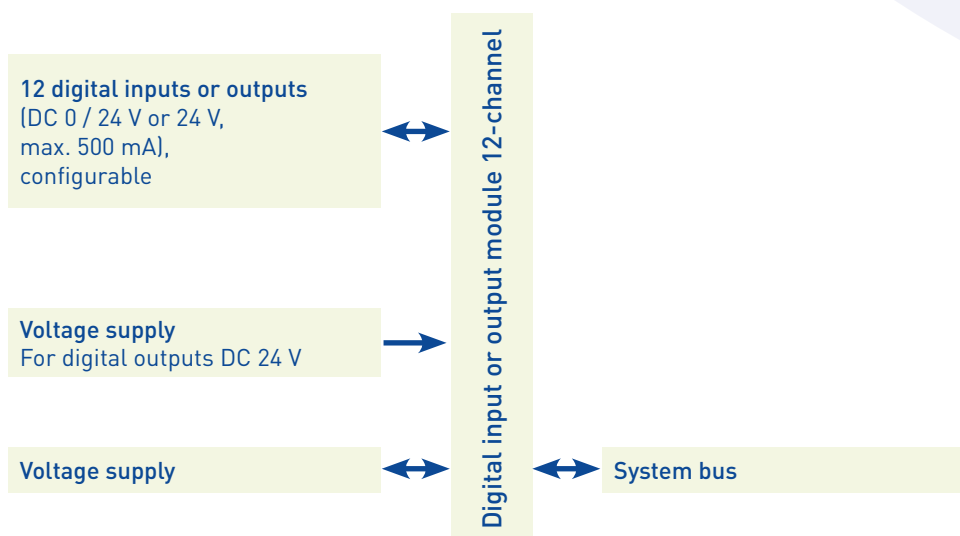
The modules have removable plug-in terminals with PUSH IN technology for the electrical connection. The voltage supply and operating status of a module as well as the statuses of the digital inputs and outputs are indicated with LEDs.

Digital input or output module 12-channel, type 705030

Features:

- Each channel can be configured as a digital input DC 0/24 V or as a digital output DC 24 V (max. 500 mA)
- Simple configuration through multifunction panel or setup program
- Suitable for hot swapping: automatic configuration through the central processing unit after replacement of a module insert
- Connection of inputs and outputs on the front
- Removable terminal strips
- Saves wiring time thanks to plug-in terminals with PUSH IN technology
- Quick cross wiring due to easy module connection

Block diagram:





Router module

Input and output modules can be divided between several mounting rails or control cabinets using a router module. For this arrangement a distance of up to 100 m between 2 router modules is allowed. The same distance applies between a router module and a base unit or a multifunction panel. Decentralized automation solutions are therefore simple to develop using router modules. A system can control a maximum of 30 input or output modules, irrespective of the number of router modules.



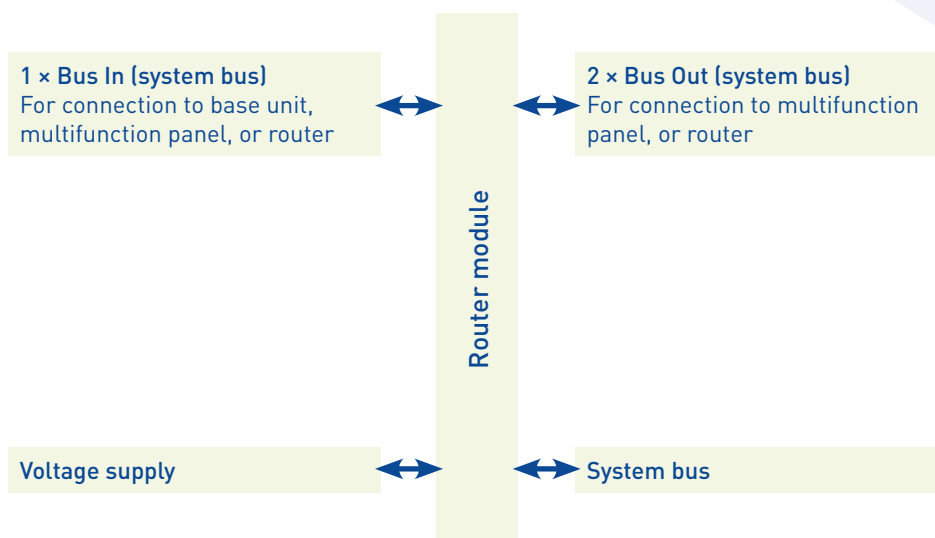
Router module

Router module, type 705040

Features:

- 3 system bus connections on the front (1 × Bus In, 2 × Bus Out)
- Expansion of the line topology for “free topology”
- No configuration necessary, addressing via address selection switch if necessary
- Operating voltage connection on the front
- Removable terminal strips
- Saves wiring time thanks to plug-in terminals with PUSH IN technology
- Quick cross wiring due to easy module connection
- Galvanic isolation of interfaces on the front

Block diagram:





Connection of thyristor power controllers

The JUMO TYA 200 series is the result of consistent development in JUMO power controller technology. The following device versions are available: type TYA 201 for single-phase operation, TYA 202 for operation in a three-phase economy circuit, and TYA 203 for a complete three-phase operation.

All JUMO power controllers can now be equipped with the Ethernet-based “JUMO mTRON T system bus” interface. It, along with JUMO mTRON T, forms the complete solution for many application such as furnace construction.



JUMO TYA 200 series

The new interface helps provide more data in a shorter time for the JUMO mTRON T. This also enables the cyclical transfer of process data such as load current, load voltage, and impedance. However, specifications on energy consumption and diagnosis functions such as mains voltage fluctuations, partial load failure, and excess temperature are also evaluated.

Technical data for the JUMO TYA series

Circuit options

- Single-phase operation
- Delta connection
- Open delta connection
- Star connection
- Three-phase economy circuit

Features

- Phase-angle control, burst-firing operation, and half-wave control
- Soft start function, current limiting, and much more

Continuous load current

- 20 A, 32 A, 50 A, 100 A, 150 A, 200 A, 250 A

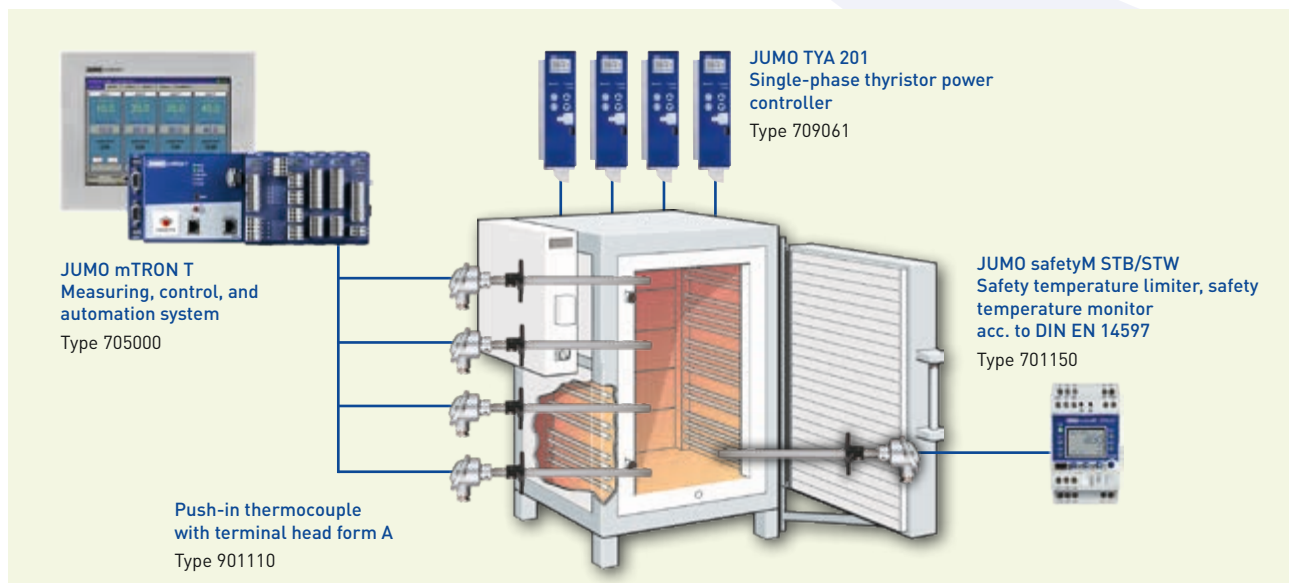
Load voltages

- 24 V, 42 V, 115 V, 230 V, 400 V, 460 V, 500 V

Subordinate control loops

- U, U2, I, I2, P control

Application: "Industrial Heat Treatment with JUMO according to AMS 2750E and CQI-9"





Connection of JUMO digiLine

With JUMO digiLine, JUMO presents a new bus-compatible connection system for digital sensors in liquid analysis. JUMO digiLine allows for the simple creation of sensor networks by connecting a wide array of sensors in various bus topologies (linear, star). A single shared signal line is used to communicate with the next evaluation unit or controller. This way plants in which several parameters need to be measured at the same time in different places can be wired efficiently and quickly.



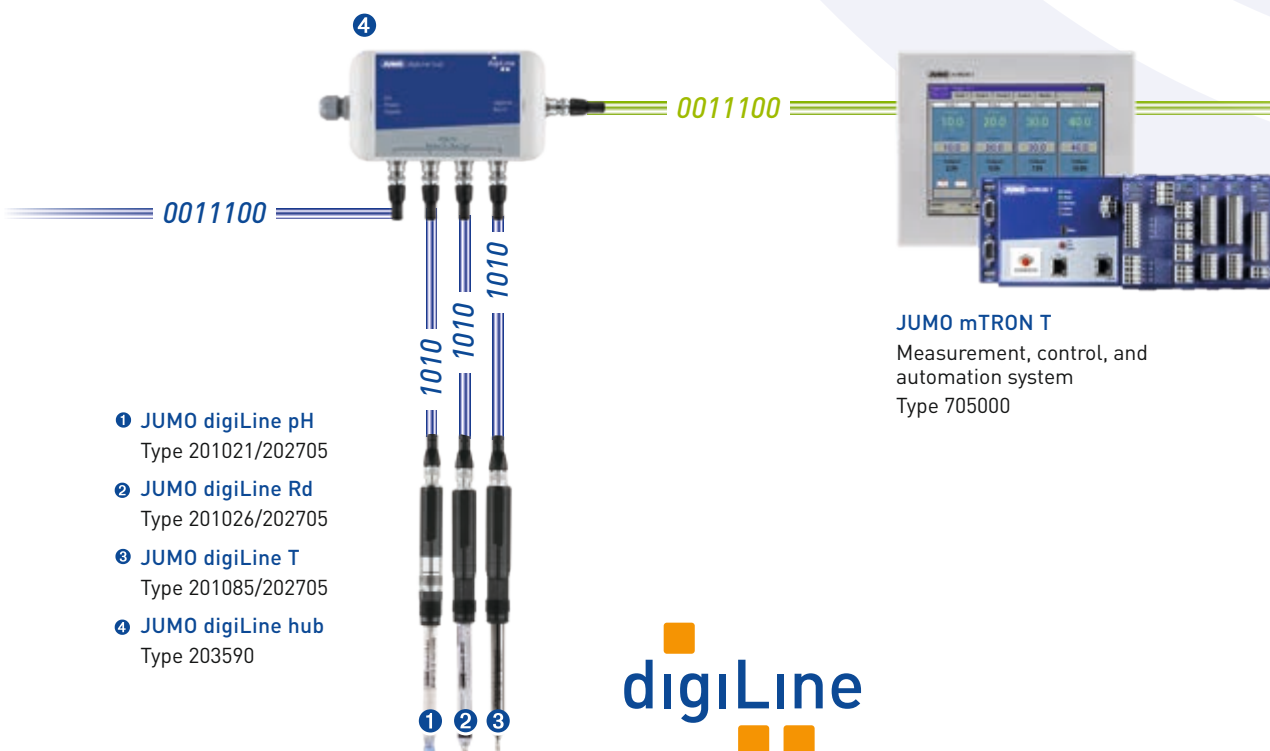
JUMO digiLine

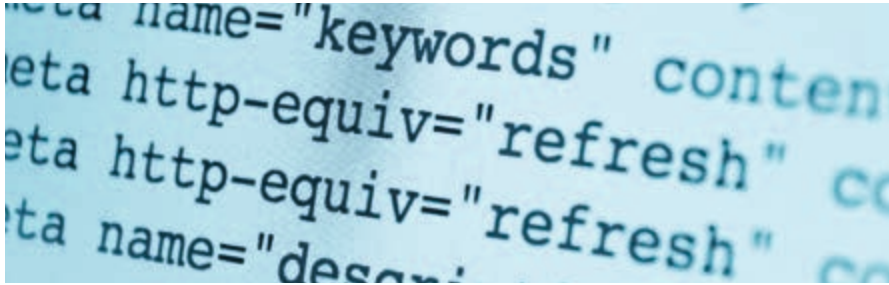
JUMO digiLine sensors can also be connected to the universal measuring, control, and automation system JUMO mTRON T. This means that entire automation solutions can be implemented. Thanks to its scalability, the system also allows individual adaptation to a particular task. An integrated PLC is used to integrate up to 62 JUMO digiLine sensors.

Measure the different measurands in liquid analysis with just one system:

- Measurands: pH value, temperature, redox potential, oxygen concentration, turbidity, and conductivity
- For industrial applications in the process, food, pharmaceutical, and water industry
- Fail-safe digital data transfer for optimal process monitoring
- Modular system – for both individual measuring points as well as for setting up sensor networks
- The digiLine electronics can continue to be used even when the sensor becomes worn
- Simple and reliable calibration of sensors as well as comprehensive measuring point management – both can be easily done on a PC with the JUMO DSM (Digital Sensor Management) software tool

System structure

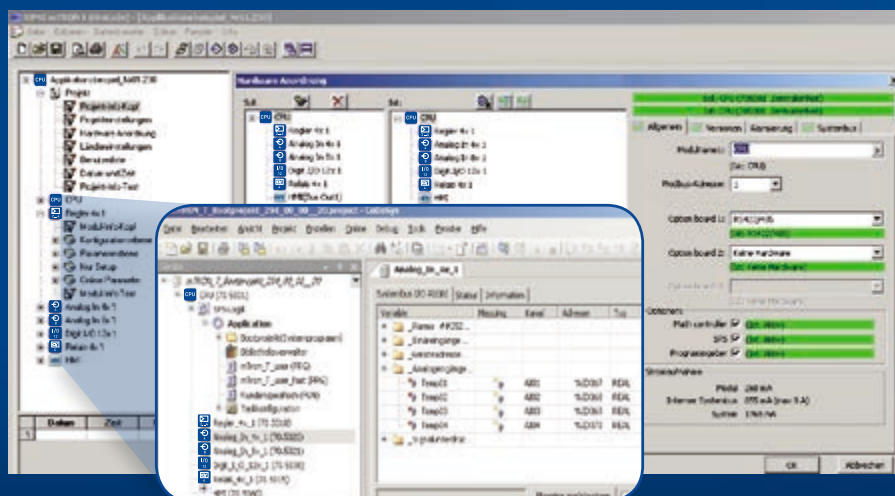




Setup program

You can use the setup program to carry out the project planning and configuration of the complete system conveniently on your PC. Integrated auxiliary functions assist you in adjusting the JUMO mTRON T to your process or application. A complete PLC can be activated as an option.

- User-friendly configuration, parameterization, and startup
- Diagnosis function (display of the process data)
- Input of math or logic formulas
- Process screen editor
- Automatic transfer of the hardware configuration to the PLC programming system CODESYS
- Simple printout of the configuration for documentation purposes
- Program editor (standard) facilitates the creation of operating programs with up to 100 sections. These can then be transferred to the system using a USB or network connection.
- Program editor for process steps facilitates the creation of operating programs with up to 100 process steps. The predefined process steps can be conveniently compiled to form various programs. These can then be transferred to the system using a USB or network connection.



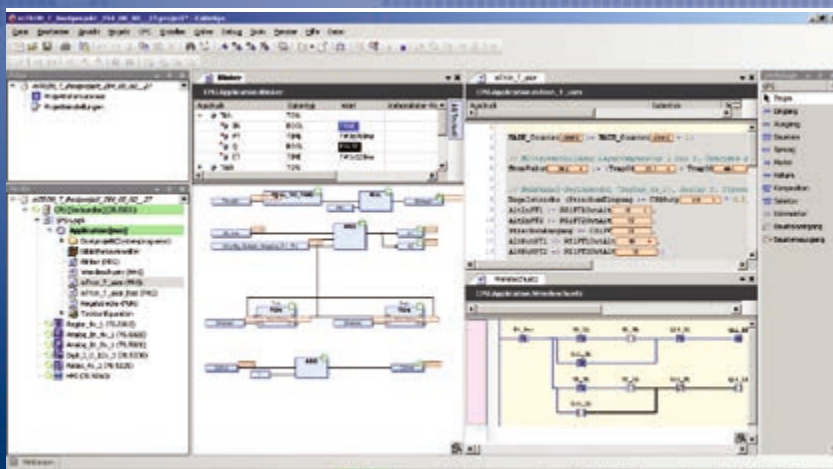
Software

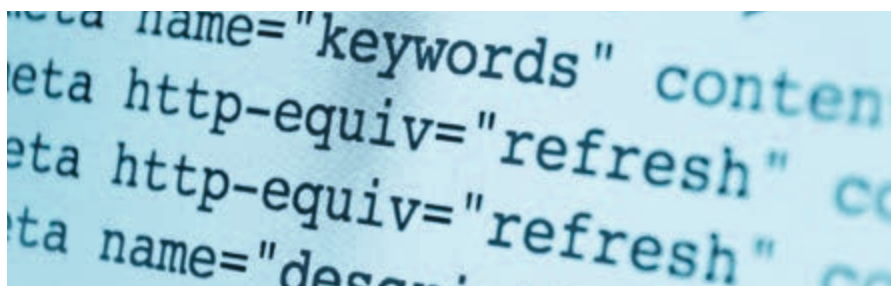
PLC programming system CODESYS V3

The CODESYS PLC, which can be implemented in the JUMO mTRON T as an option, is a comprehensive tool for industrial automation. This widely used PLC programming system according to IEC 61131-3 enables almost all automation tasks to be carried out.

All editors defined in the standard are available to you for the purpose of programming your control applications:

- Editor for structured text (ST)
- Sequential function chart editor (SFC)
- Continuous function chart editor (CFC)
- Function block diagram editor (FBD)
- Ladder diagram editor (LD)
- Instruction list editor (IL)





Plant visualization software SVS3000

The visualization software SVS3000 enables you to visualize process data in real-time or as a historical trend on your PC. The diverse reporting functions with batch-related protocol creation make the evaluation of archived production data easier. Thanks to preprogrammed graphic objects, it is easy to visualize plant-specific components and processes in the form of group screens and process screens. You have the option of processing 75, 250, 1,000, or 5,000 process variables.

- Comprehensive library with graphic elements for individual process screens
- Preprogrammed graphic objects for depicting JUMO devices
- Quick and simple creation of customized group screens and trend screens
- Plant operation via group screens or process screens
- Extensive documentation function with continuous and batch related evaluation
- Search function for date and time, plant and user-definable batch criteria
- Automatic printout and data export



Software

PCA3000 evaluation software

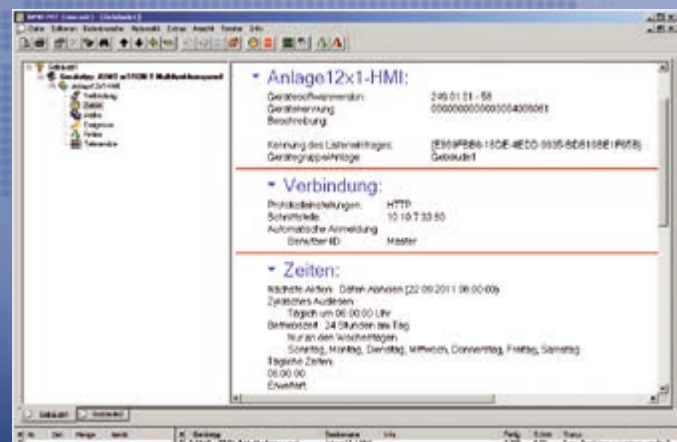
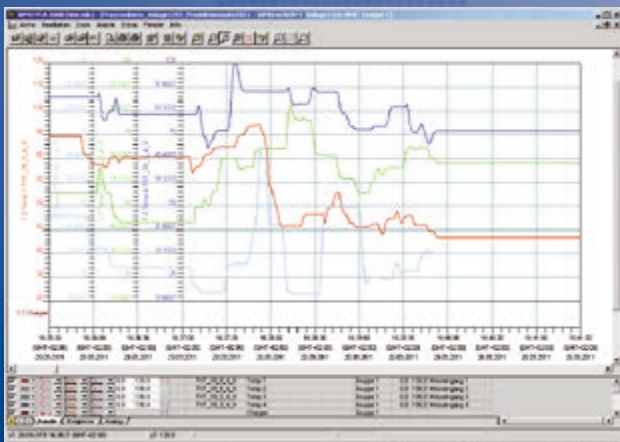
The PC-based, professional evaluation software PCA3000 can be used to manage, archive, visualize, and evaluate historical process data (measurement data, batch data, notifications, etc.). The data can be imported via a USB flash drive or made available for central processing using the PCC communication software.

- Easy, straightforward archiving of all process data in a data file
- Archived data can be directly read and visualized from the CD-ROM or DVD
- Graphical preparation of measured values: evaluation of measurement data with minimum or maximum search and zoom function (magnifying glass icon)
- Data export with PCA3000 form output in a wide range of formats (CSV, HTML, PDF)

PCA communication software PCC

PCC communication software is ideally geared towards PCA3000 and allows for easy data extraction via Ethernet.

- Time-controlled, automatic data extraction via Ethernet
- Easy, straightforward archiving of all process data in a data file on a hard disk drive or a network server
- Automatic time synchronization
- Can be launched as a Windows® system service
- Email notification in the event of communication failure



Measured value
recording

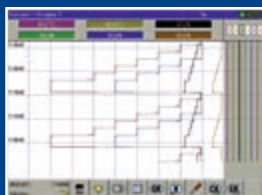
Controlling

Automation

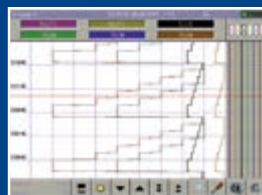


Measured value recording

JUMO mTRON T provides comprehensive measured value recording, easy-to-use visualization, and tamper-proof data archiving.



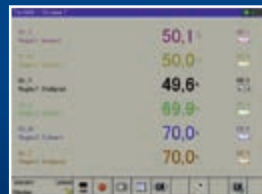
Recording image



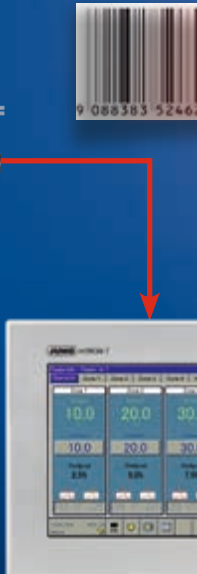
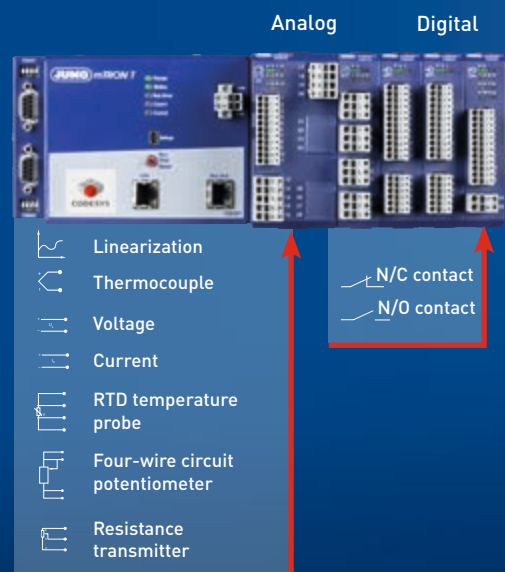
History



Bar graph display



Text image

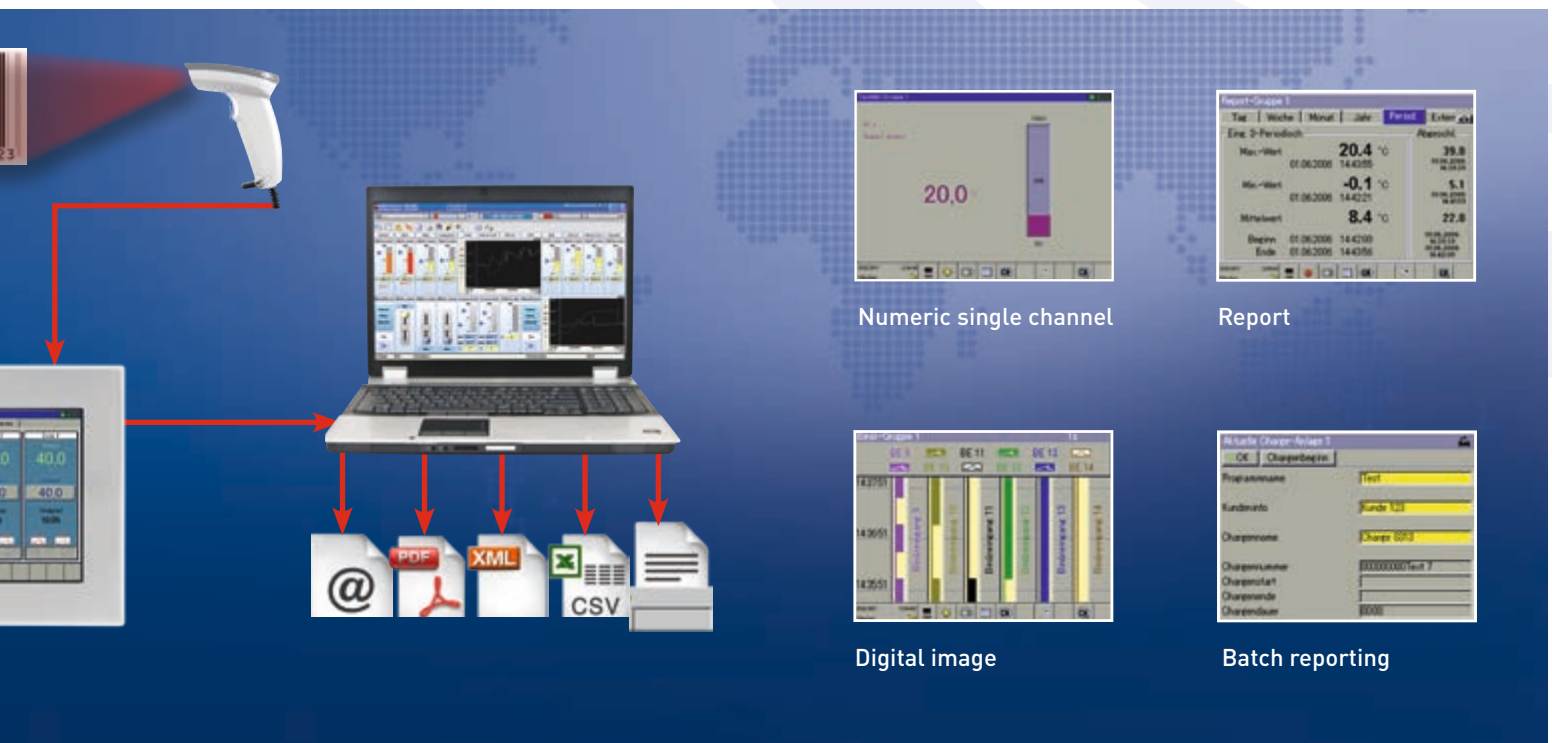


Applications

The visualization of analog and digital signals is quick and simple to project. Predefined screen masks with high-quality graphics are available for this task.

The process data is collected and processed through the input or output modules and continuously supplied to the multifunction panel via the system bus. The recording function that is integrated in the multifunction panel can then be used to visualize and record up to 54 analog and 54 digital process values. 9 recording groups are available for this task. Batch reporting can be set up for each group. Batch data can be entered by such means as a barcode scanner or it can be entered directly via touchscreen.

The historic data is extracted automatically with the PCC PCA communication software. Alternatively the data can also be transferred manually by USB flash drive. The management, archiving, visualization, and evaluation of the historic data can be carried out conveniently using the PC evaluation software PCA3000. It can also be used to create automated protocols such as a HTML, PDF, XML, or CSV file – a printout is also possible.



Measured value
recording

Controlling

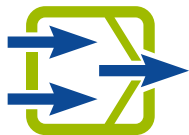
Automation



Controlling

JUMO mTRON T offers reliable control technology that is simple to operate.

Among its features the system includes a multichannel controller module which is suitable for a wide range of applications. This module can be expanded on a customized basis using 7 optional plug-in boards. As a result, flexible and efficient control tasks can be implemented.



Controlling



Recording



Monitoring



Controller overview screen



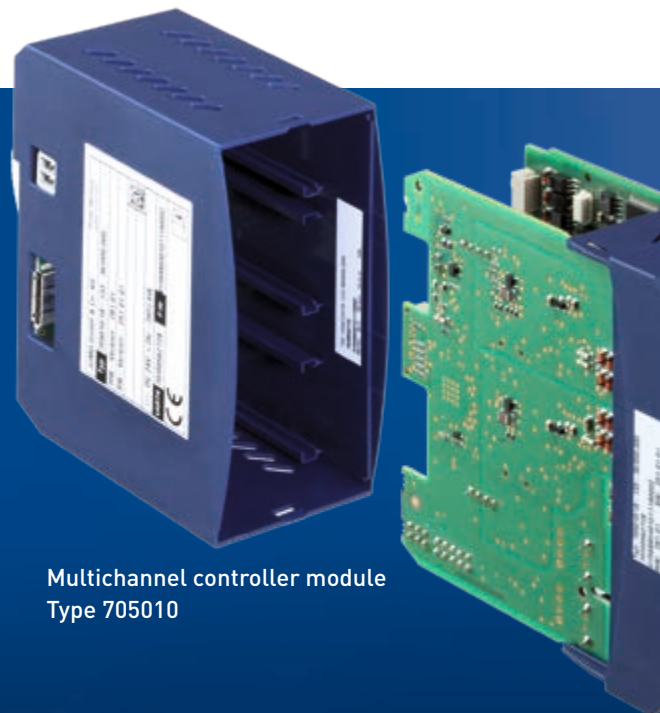
Control loop screen



Program generator screen



Program preview



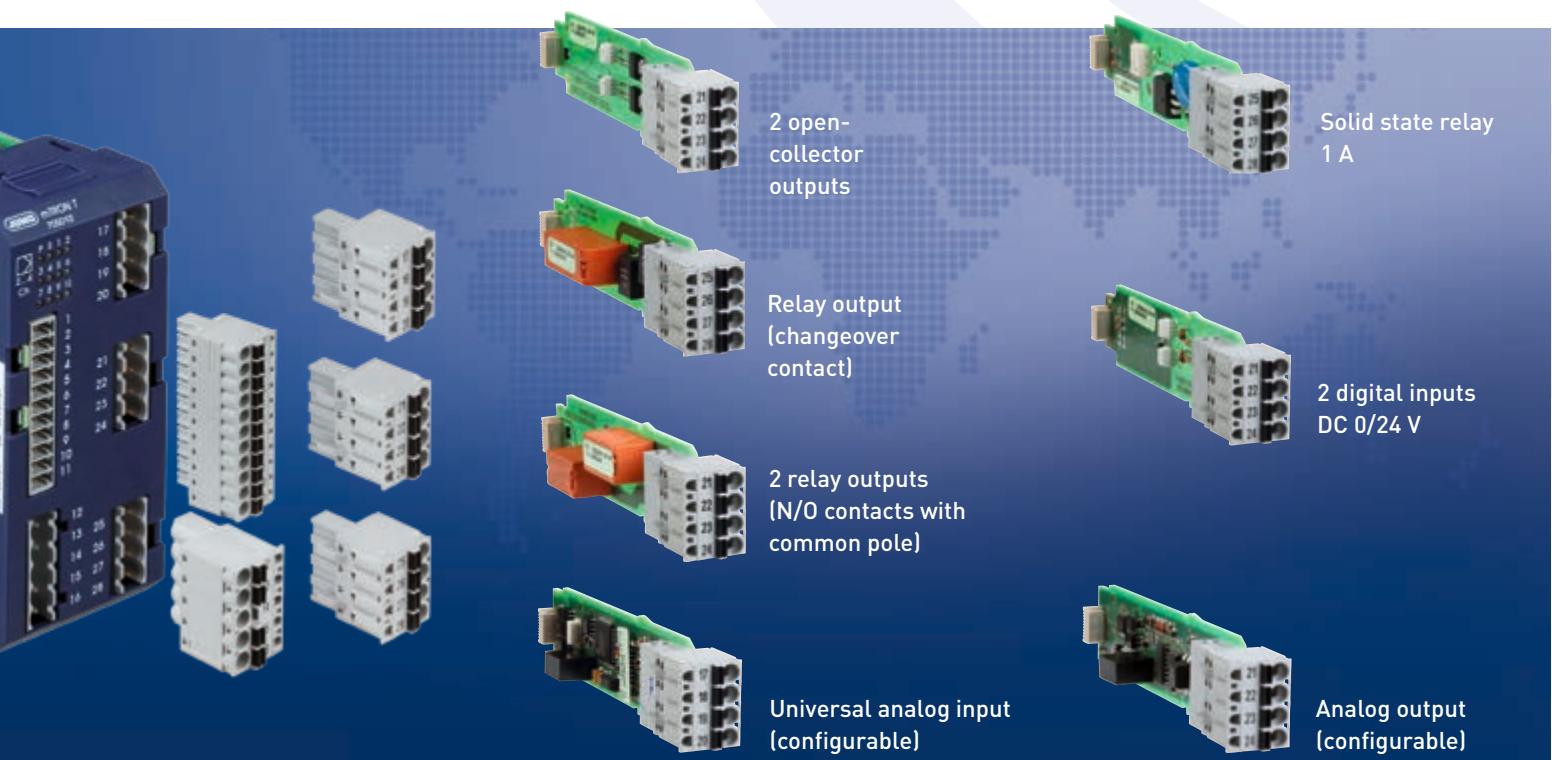
Multichannel controller module
Type 705010

Applications

JUMO mTRON T can be configured as a control system which can be operated intuitively and without programming knowledge. In addition, integrated autotuning processes enable quick and simple startup. This way, considerable cost savings can be made depending on the plant or process.

The JUMO control algorithms have been proven over decades and enable you to achieve optimal process control and therefore consistently high product quality. Each multichannel controller module supports up to 4 independent PID control circuits with fast cycle time and a proven control algorithm without placing strain on the central processing unit. The system allows simultaneous operation of up to 120 control loops which also makes it suitable for demanding control processes. The "Independent controller" function allows the corresponding controller module to maintain its tasks in such an event as a stop of the central processing unit.

Furthermore, the multichannel controller module can be individually expanded and adapted using 7 optional plug-in board types. P, I, PI, PD, and PID can be selected as a controller structure. The following controller types are available: two-state controller, three-state controller, three-step controller, continuous controller, and continuous controller with integrated position controller. For autotuning an oscillation or a step response process can be used – depending on the type of plant to be started up. The multichannel controller module is suitable for many different control processes in a wide variety of processes.



Measured value
recording

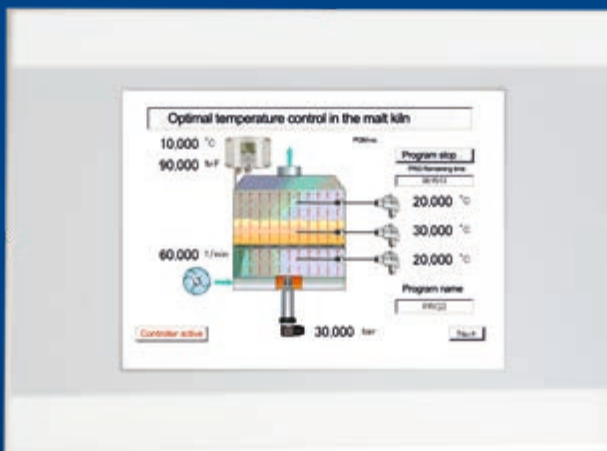
Controlling

Automation

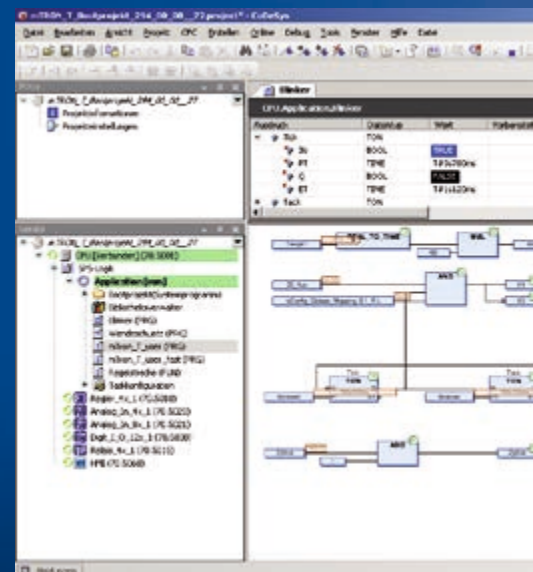


Automation

The comprehensive, efficient automation system JUMO mTRON T can be equipped with the widely available soft PLC CODESYS if needed. We use the modern and innovative version 3 in this case.



Process screen



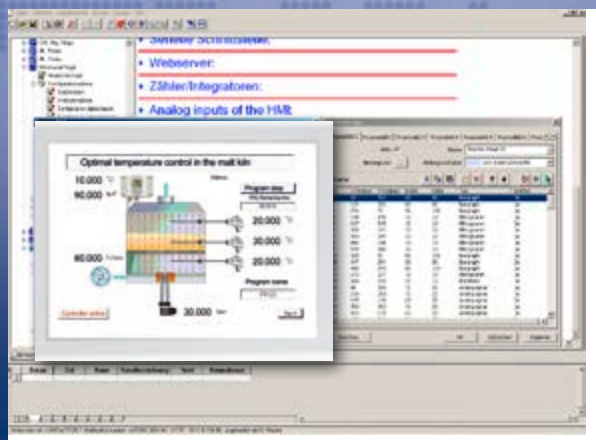
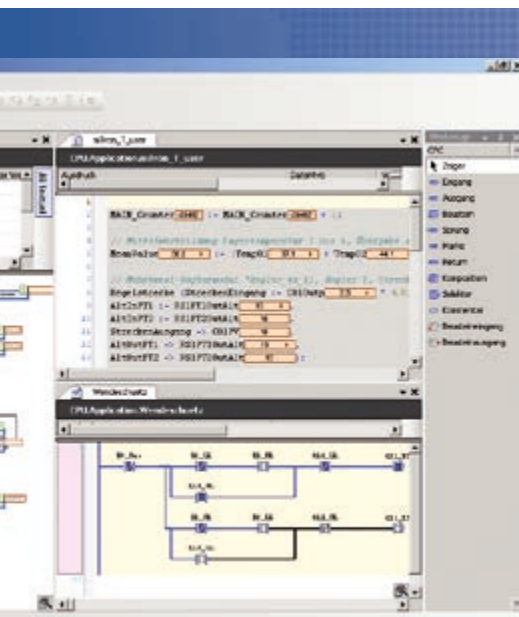
PLC programming system CODESYS V3

Applications

The option of individually presenting the plants, including their processes and individual sections, is very important to an automation system. For this purpose up to 18 process screens can be individually generated in the multifunction panel. In turn, up to 150 objects can be presented per process screen on up to 16 different levels.

Other than the necessary system functionality, project planning software that is as simple and intuitive to operate as possible was at the heart of JUMO's product development. For this reason, hardware/software configuration and project planning of the measured value recording tasks as well as control tasks using the setup program are carried out for the JUMO mTRON T with the same look and feel as other JUMO devices. To ensure an automation solution according to IEC 61131-3, access to the CODESYS V3 programming system has been integrated in the JUMO setup program. This means that the hardware assignment and the

description of the physical inputs and outputs are adopted automatically. Subsequently, project variables can then be defined and linked to a particular input or output address of the hardware assignment that appears in the device tree. All editors for programming the control application that are defined in the IEC 61131-3 standard are available in CODESYS. After programming the automation solution with CODESYS, the project data is transferred from the setup program again. As a result the complete application can be recorded in a project file, which greatly simplifies project management and version maintenance.



Setup program with process screen editor
inc. process screen preview

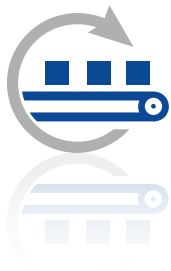


Services & Support

It is the quality of our products that is responsible for such a high level of customer satisfaction. But our reliable after-sales service and comprehensive support are also valued. Let us introduce you to the key services we provide for our innovative JUMO products. You can count on them – anytime, anywhere.

JUMO Services & Support – so that it all comes together!

Manufacturing Service



Are you looking for a competitive and efficient system or component supplier? Regardless of whether you seek electronic modules or perfectly fitting sensors – either for small batches or mass production – we are happy to be your partner. From development to production we can provide all the stages from a single source. In close cooperation with your business our experienced experts search for the optimum solution for your application and incorporate all engineering tasks. Then JUMO manufactures the product for you.

As a result you profit from state-of-the-art manufacturing technologies and our uncompromising quality management systems.

Customer-specific sensor technology

- Development of temperature probes, pressure transmitters, conductivity sensors, or pH and redox electrodes according to your requirements
- A large number of testing facilities
- Incorporation of the qualifications into application
- Material management
- Mechanical testing
- Thermal test



Electronic modules

- Development
- Design
- Test concept
- Material management
- Production
- Logistics and distribution
- After-sales service



Metal technology

- Toolmaking
- Punching and forming technology
- Flexible sheet metal machining
- Production of floats
- Welding, jointing, and assembly technology
- Surface treatment technology
- Quality management for materials





Information & Training



Would you like to increase the process quality in your company or optimize a plant? Then use the offers available on the JUMO website and benefit from the know-how of a globally respected manufacturer. For example, under the menu item "Services and Support" you will find a broad range of seminars. Videos are available under the keyword "E-Learning" about topics specific to measurement and control technology. Under "Literature" you can learn valuable tips for beginners and professionals. And, of course, you can also download the current version of any JUMO software or technical documentation for both newer and older products.

Product Service



We have an efficient distribution network on all continents available to all of our customers so that we can offer professional support for everything concerning our product portfolio. Our team of professional JUMO employees is near you ready to help with consultations, product selection, engineering, or optimum use of our products. Even after our devices are commissioned you can count on us. Our telephone support line is available to give you answers quickly. If a malfunction needs to be repaired on site our Express Repair Service and our 24-hour replacement part service are available to you. That provides peace of mind.

Maintenance & Calibration



Our maintenance service helps you to maintain optimum availability of your devices and plants. This prevents malfunctions and downtime. Together with the responsible parties at your company we develop a future-oriented maintenance concept and are happy to create all required reports, documentation, and protocols. Because we know how important precise measurement and control results are for your processes we naturally also professionally calibrate your JUMO devices – on site at your company or in our accredited DAkkS calibration laboratory for temperature. We record the results for you in a calibration certificate according to EN 10 204.



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