EDS®
CONTROLLERS

Modular **PLCs**

the

Ambity Line™

series

Modular **PLCs**
the **Ambity Line™** series

Optimal solutions for micro and small applications (up to several dozen inputs/outputs), with a wide range of different variants of I/O modules.

Tailored to the needs...

The system combines the advantages of compact and modular solutions. Possibility of expansion up to 10 modules, allows to obtain a total of up to 128 measuring inputs and control outputs.

... easy assembly and use

The individual modules of the system are connected by means of a communication bus installed inside the DIN rail, which prevents wiring errors. All inputs and outputs are equipped with separable terminal blocks.

The modules are mounted on the rail using built-in latches (use and press). Installation or replacement of modules is quick, easy, does not require disassembly of the controller. The solution does not require additional holders or adapters.

System description

Local interface
OLED display, function buttons

It enables direct access to key information about the operation of the device or the ongoing process.

System bus
For communication with modules (RS-485 with dedicated communication protocol)

Installation, replacement or extension possible directly on the DIN rail.

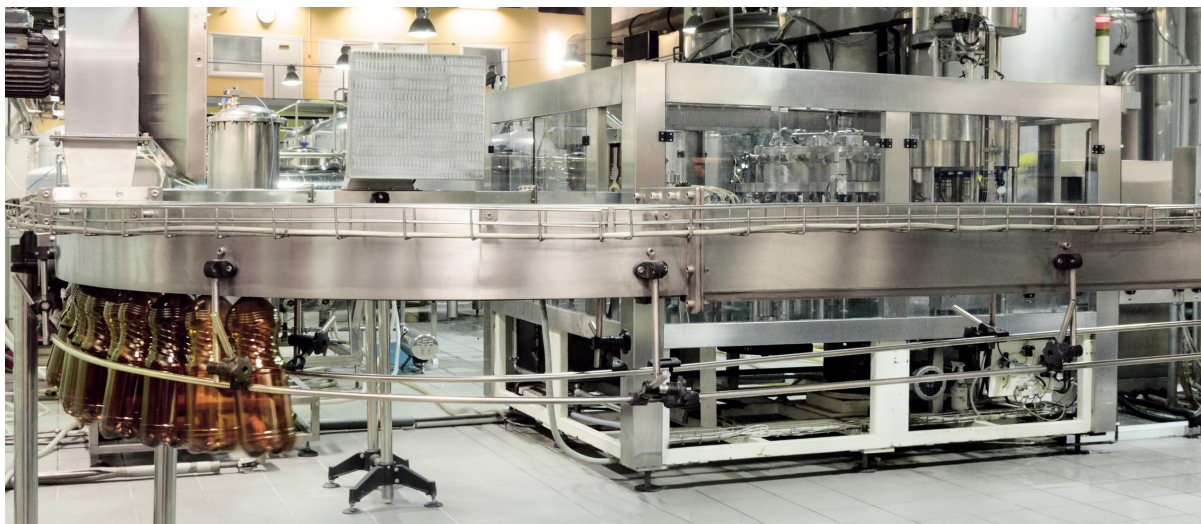**The housing is made of high-quality plastic**
Polyamide (PA66), UL 94 V0, IP 20/DIN EN 60529

High mechanical strength, while maintaining resistance to deformation

Configurable I/O channels

The distinguishing feature of the Ambity Line™ family are modules with configurable (universal) channels that can operate in different modes - depending on the needs, it can be a current or voltage input, as well as a digital input or output.

Such a module can replace any other in the series, thus it is an excellent solution at the stage of designing the installation or its subsequent servicing - it reduces the need to have many replacement or emergency devices.

System description

Made in Poland
The system is designed and manufactured in Poland

The most important thing for us is to create useful and intuitive solutions that will make your products work more efficiently, effectively and better.

Application - typical applications

The solution will be used in typical industrial applications (machines, technological lines, food and machine industry, dryers, quality control systems) and in solutions related to technical and building infrastructure (e.g. transport, ventilation, dedusting, clean zones, lighting, boiler rooms, heating and water supply nodes).

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Built-in input and output module

Depending on the model, the CPU may have built-in specialized inputs/outputs (only one type of signal) or configurable ones (possibility to select the type of signal, e.g. current, voltage, digital input, digital output).

If necessary, the system allows for free expansion of the unit by easily adding external expansion modules (up to 128 measuring inputs and control outputs in total).

Power:

o Voltage 22..24..26 VDC
o Current draw 150mA typical @24V (250mA max)
o Power source - external stabilized power supply
o Polarity reversal protection
o Internal overload protection (1.5A)
o Emergency power supply - external 12V 1.2Ah battery
o Charging with 150mA current through the built-in charger

Processor, Memory, Performance:

o 200MHz ARM Cortex-M7 processor
o User program size up to 2 MB (stored in internal file system)
o User data memory 128 kB MCU SRAM (fast; program stack and data only) | 4 MB SDRAM (shared between code and data)
o RETAIN data size - 0.25 MB (saved in the internal file system when stopping the user program and restored when starting the user program)
o Configurable program cycle time 50..1000ms
o Real Time Clock

Communication Interfaces

Modbus RTU (RS-485 isolated and non-isolated), Ethernet, Local User Interface (OLED display, buttons), USB OTG (communication with AL Utility™; USB memory support), microSD.

8 and 12 channels. Available in various execution variants

Depending on the model, they may have specialized inputs/outputs (only one type of signal) or configurable ones (possibility to choose the type of signal, e.g. current input, voltage input, digital input, digital output).

A wide range of variants, including fully configurable models, allows you to flexibly and optimally configure the set for a given application.

Work in Slave mode in Modbus networks

I/O modules from the Ambity Line series can work with any other control units (superior) using RS-485 for communication and supplied with DC voltage in the range of 22..24..26V. It is enough to switch the device to the appropriate mode using the service button.

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I/O modules

Power:

o Voltage 22..<u>24</u>..26 VDC
o Current Consumption Typically 25mA @24V (max 50mA)
o Power source from the system bus
o Polarity reversal protection
o Internal overload protection (100mA)

Measurement and control:

o Number of channels 8 or 12
o AI/DI/DO signal type (current, voltage or digital) | Specialized or configurable models
o Measuring speed min. 10 measurements per second (each channel)
o Current inputs 0-20mA (max. 0-24mA)
o Voltage inputs 0-10V (0-11V max) | 0-24V (0-28V max)
o Digital inputs (implemented as voltage measurement) 0-24 V
o Digital outputs, OC (active low) max. 30V, 100mA

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Contact

www.edscontrollers.com

User Manual

Current product offer List of available devices and their variants

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