



PRIMA LOGIC



>> **PRIMA LOGIC** is the programmable automation controller of PRIMA ELECTRONICS, front panel mounting, based on an ARM9 200MHz CPU.

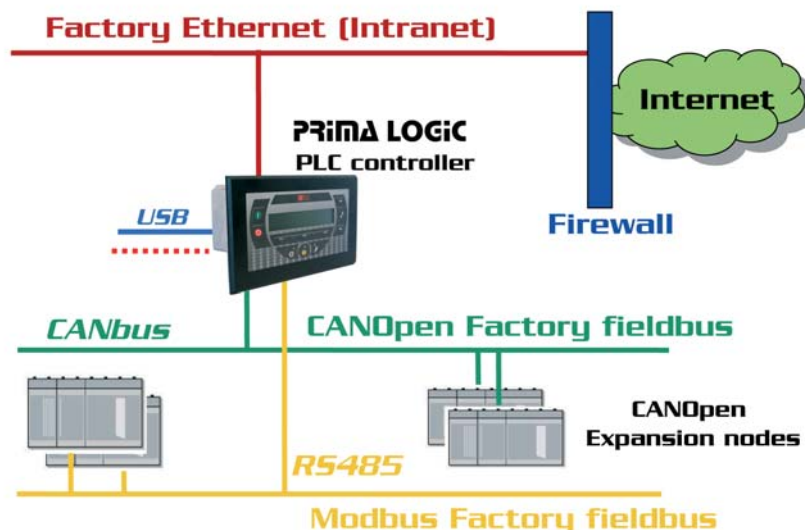
It is equipped with all necessary functions to run as a stand-alone unit or connected into a network:

power supply, alphanumeric LCD display, keyboard, analogue and digital I/Os, communication channel for network connections or services.

>> The software architecture is based on Microsoft WindowsCE .Net operating system, that grants reliability, performance and a high level of real-time. The operating system with the integrated Ethernet controller includes functionalities like remote service, remote configuration, logging and firmware upgrade, that can be accessed through an integrated Web Server.

The integrated SoftPLC run-time module is designed for complex and time-critical operations. The development tool is a user friendly, graphic oriented environment allowing high level, multitasking IEC 61131-3 compliant programming. Users can choose among five different programming languages to best fit their preferences and the application: Instruction List, Ladder Diagram, Function Block, Structured Text or Sequential Flow Chart.

A symbolic debugger allows step by step execution, setting of breakpoints and watching variables at run-time. Application downloading and debugging is executed through a standard Ethernet TCP/IP communication link between the development tool and the control unit.





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PRIMA LOGIC characteristics

HMI	4 x 40 Character LCD-Display
	LED Backlight
	8 Keys
Mass Memory	3 Status LED's custom self adhesive front foil on request
RAM	16 MByte Flash (minimum size)
Non volatile RAM	32 Mbyte SDRAM (minimum size)
Real Time Clock with backup battery	E2PROM functionality is simulated into a dedicated sector of Flash.
DIGITAL OUTPUT	includes a timekeeper to keep track of the module total life time
	4 Digital Output Relays / 250 VAC - 12A / 1xNO
	2 Digital Output Relays / 250 VAC - 12A / 1xNO+1xNC
DIGITAL INPUT	4 Digital Output 24Vdc external supply; 0.5A nominal current; short circuit protection; under voltage, over voltage and over temperature shut-down; guaranteed inactive state at power-up.
	16 Digital Inputs "0" state; voltage range: -3V to +5V; transition voltage range: +5V to +15V; "1" state voltage range: +15V to +30V.
ANALOGUE INPUT	2 Digital Counter Input; maximum input frequency is 2 kHz.
	4 Analogue Input 12 bit resolution over the 0V to 5V input range; fail safe provision (0V forced if cable disconnected); 100k input resistance (typical); 5V sensor supply output with overload protection (15mA max. current)
ANALOGUE OUTPUT	4 Analogue Input PT100 / PT1000 470µs time constant filtering; -50°C to +350°C temperature range plus margin for out-of-scale and sensor error detection; 12 bit resolution over the whole temperature range; fail safe provision (short/open sensor error detection); 1mA constant current supply for PT1000 sensors; 10mA constant current supply for PT100 sensors.
	4 Analogue Output 12bit resolution over 0V to 10V output range; DAC integral non linearity: +/-1 LSB maximum; DAC differential non linearity: +/-1 LSB maximum, guaranteed monotonic; DAC settling time (1/4 to 3/4 code change): 10µs maximum; DAC slew rate: 0.5 V/µs typical; guaranteed 0V output at power-up.
Fielbus	1 CAN-Bus port. CAN controller compatible 2.0A e 2.0B
LAN	1 Ethernet port compatible IEEE 802.3. It supports protocols 10BASE-T (10Mbit/s) and 100BASE-TX (100Mbit/s).
COM	1 RS485 port: half-duplex communications and UART controller integrated guarantee baud rates up to 115200 Baud. Connector is a standard female, 9 pins, SUB-D.
USB	1 USB 2.0 at full speed (12Mbits/sec). USB interface is a standard USB type B.
Power Supply	24Vac, -30% to +40% input range; 24Vdc, -10% to +10% input range; power fail function.
Operating temperature	0°C to 55°C
Stock temperature	-20 to +60°C.