Intelligent Solution Managing Automation

iSMA-B-MAC36NL

The **iSMA-B-MAC36NL** is a compact **Master Application Controller** with built-in different types of **I/O** and operating in **Niagara Framework** environment. Using the specific local I/O set **16x UI**, **8x AO, 4x DI** and **8x DO** allows to use the device in different applications. The controller provides control, data logging, alarming, scheduling, integration and visualisation.

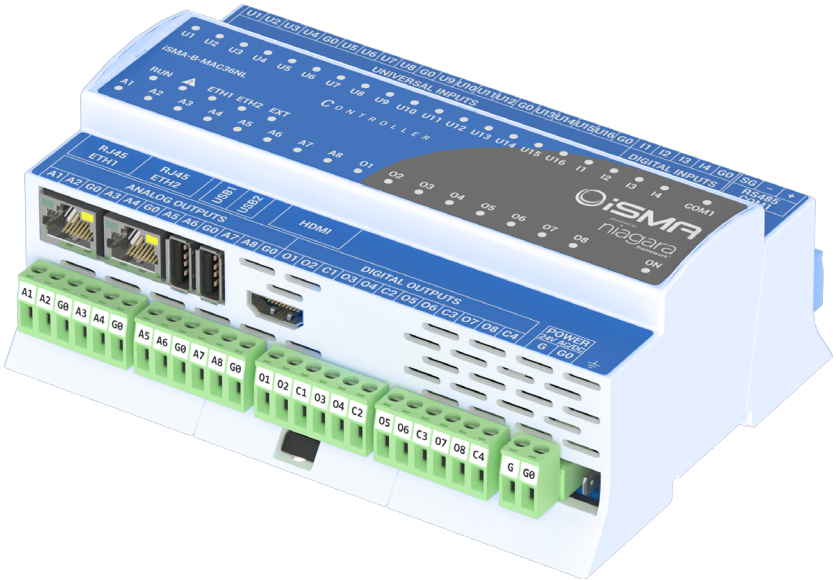
To allow IP connectivity there are **2x Fast Ethernet** ports which can operate as two independent ports. Built-in **1x RS485** can be used to expand number of I/O by connecting iSMA-B-MINI or iSMA-B-MIX series I/O modules or to integrate with other subsystems.

There is another hardware version of the controller with the second RS485 port available.

The **iSMA-B-MAC36NL** provides rich graphical interface displaying on a standard Web browser or on external display connected to built-in **HDMI and USB port** (touchscreen support) *(coming soon)*.

Key Features

- Niagara 4.4 and later
- Real-time programming
- 2x Fast Ethernet (independent)
- 1x RS485 (opto-isolated)
- 2x USB (1x Host, 1x OTG, touchscreen support)
- 16x UI, 8x AO, 4x DI and 8x DO
- HDMI to connect external display *(coming soon)*
- Built-in Web server provides graphical User interface available from Web browser level
- SD card to collect real-time data, history and alarms
- Hardware replacement by SD Card
- Optional hardware version with the second RS485 port
- Different licensing models for various application types



powered by niagara framework®

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iSMA-B-MAC36NL

Specification

16x Universal Inputs (16UI)

All Universal Inputs have 16-bit ADC which support the following types of inputs:

- Temperature input supports the following types of sensors: series NTC 10K3A1, 10K4A1, Carel 10K, 20K6A1, 2.2K3A1, 3K3A1, 30K6A1, SIE1, TAC1, SAT1 and Pt1000, Ni1000

For sensors Pt1000 and Ni1000 use only 16-bit resolution

- Voltage input 0-10 V DC, input resistance 100 kΩ
- Current input 0-20 mA (external resistor 200 Ω required)
- Resistive input 0-1000 kΩ
- Dry contact input

4x Digital Inputs (4DI)

- Dry contact inputs
- Fast pulse counter up to 100 Hz saved on SD card

8x Analog Outputs (8AO)

All Analog Outputs are equipped with 12-bit ADC. They support the following output types:

- Voltage: 0-10 V DC max. load up to 20 mA
- PWM: 0,01 Hz, 0,1 Hz, 1 Hz, 10 Hz, 100 Hz

8x Digital Outputs (8DO)

- Relay Output (NO): max. 3 A @ 230 V AC and max. 3 A @ 30 V DC

Platform

- Multicore Cortex-A Series ARM Processor
- 1 GB DDR3 SDRAM
- Removable micro-SD card – 4 GB (2 GB system reserved/ 2 GB User storage)

Communication

- RS485 half-duplex, opto-isolated
- Baud rate from 2400 to 115200
- 2x Fast Ethernet (independent)
- 2x USB (1x Host, 1x OTG)
- HDMI type A (standard) *(coming soon)*
- Micro SD card slot
- Second RS485 port (option)

Protocols

- Modbus TCP
- Modbus RTU/ASCII
- BACnet IP
- BACnet MS/TP
- oBiX
- SNMP
- KNX IP
- M-Bus IP
- LON IP

Power supply

- 24 V AC/DC

Housing

- Dimension: 160x111x62 mm (6.3x4.4x2.45 in)
- Construction: UL approved, self-extinguishing plastic (PC/ABS)
- DIN rail mounting DIN (DIN EN 50022 norm)
- Cooling: passive external air circulation

Environment

- Operating temperature: 0°C to 50°C (32°F to 122°F)
- Storage temperature: -40°C to 85°C (-40°F to 185°F)
- Relative humidity: 5% to 95%, no condensation
- Ingress Protection Rating: IP30 – for indoor installation