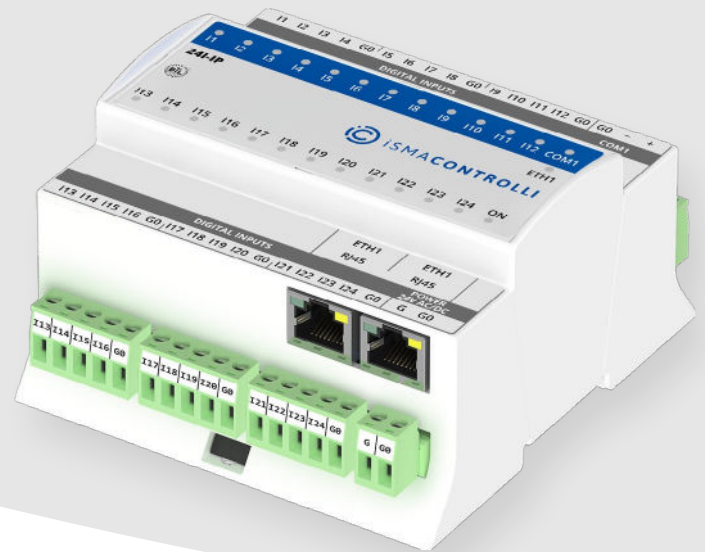


MAX-IP Series

Multiprotocol I/O module made for monitoring with 24 digital inputs, BACnet, and Modbus protocols, IP connectivity, and built-in Modbus TCP/IP to Modbus RTU/ASCII gateway.



iSMA-B-24I-IP

Multiprotocol I/O Module with a MAX number of Digital Inputs - a powerful addition to any building automation system.

Digitalize buildings with reduced engineering time using the powerful 24 digital inputs module, which works as a remote I/O over IP with open protocols, BACnet IP, and Modbus TCP/IP. The module is designed for data monitoring in data centers and HVAC applications. Open protocols standard offers the versatility of installing the modules in both new and existing facilities, whether it is a system expansion or a retrofit. The maximum number of the most popular types of inputs or outputs allows the module to be a versatile controller extension, whether in a small or large facility.

24 Digital Inputs

Dry contact inputs - made for monitoring. 100 Hz fast pulse counter with override function saves the real-time values to the EEPROM memory.

Modbus TCP/IP to Modbus RTU/ASCII Gateway

Built-in Modbus gateway on the COM1 port enables integration of up to 128 Modbus slave devices to the IP layer.

Simplified Configuration and Commissioning Process

The module allows for seamless configuration over BACnet, Modbus, built-in web server, or dedicated free of charge tool. The ability to be powered from a USB port facilitates local testing and a straightforward updating process. Two Ethernet ports working in a switch mode allow for daisy chaining of multiple modules over the RJ45, which facilitates the cabling process and reduces engineering time.

Quality and Reliability Confirmed by Certificates

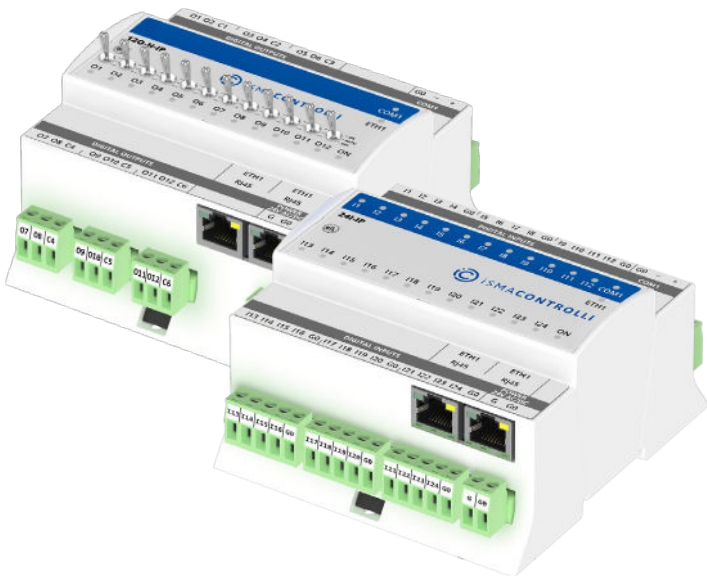
iSMA CONTROLLO is a long-standing member of the BACnet community. The experience in developing high quality products and the BTL (BACnet Test Laboratory) certification confirms the excellent performance of communication using the BACnet protocol.

MAX-IP Series

Multiprotocol I/O Modules



MODEL	DESCRIPTION
iSMA-B-24I-IP	I/O module with 24 digital inputs, BACnet IP and Modbus TCP/IP communication
iSMA-B-12O-H-IP	I/O module with 12 digital outputs, HOA switches, BACnet IP and Modbus TCP/IP communication



APPLICATION AND USE

MAX-IP I/O Modules are a powerful addition to any building automation system, providing ultimate control and monitoring capabilities. The MAX-IP series offers a range of modules, including a 24 digital inputs module and a 12 digital outputs module with hand control, both featuring open protocols such as BACnet and Modbus.

The 24 digital inputs module is designed for monitoring data in data centers and HVAC applications. Its compact design allows for multiple inputs to be packed into one housing, resulting in shorter engineering time, faster integration, and easier commissioning.

The 12 digital outputs module is ideal for HVAC applications, allowing for a direct control of up to 3 A loads per single digital output. With HOA switches, manual override of each output is possible, ensuring ultimate control.

All MAX-IP series modules are equipped with commonly used types of I/Os in building automation, and support open communication protocols including Modbus TCP/IP and BACnet IP. The modules are designed to create distributed control systems by extending the capabilities of building controllers like AAC20, iSMA-B-J8, or MAC36NL with inputs and outputs using IP connection.

The modules feature two Fast Ethernet ports that work in a switch mode, allowing for a daisy chain connection of multiple units. Additionally, the modules have an RS485 interface that acts as a Modbus TCP/IP to Modbus RTU/ASCII gateway, enabling the connection of extra devices/modules that communicate as servers (slaves) on the serial bus. Commissioning the system is facilitated by the rotary switches used to address the modules. The modules support open communication standards, allowing them to be installed in both new and completed installations as part of an existing BMS. The built-in mini USB allows for the initial configuration of the unit without a power supply.

FEATURES

- MAXimum benefits of different sets of I/Os
- BACnet IP and Modbus TCP/IP protocols, selected with a DIP switch
- Built-in Modbus TCP/IP to Modbus RTU/ASCII gateway
- 2 Fast Ethernet ports with a built-in switch
- Digital inputs work as fast counters up to 100 Hz
- Digital outputs 230 V AC max. 3 A allow for a direct control without additional relays
- LEDs indicate the status of inputs and outputs
- Simple and fast addressing 0-99 using rotary switches
- BTL certified

TECHNICAL SPECIFICATION

DESCRIPTION		MAX-IP I/O MODULES
Power supply	Voltage	24 V AC/DC \pm 20%
Digital inputs	Number of inputs	24 (24I-IP)
	Type	Dry contact or fast pulse counter
	Maximum input frequency	100 Hz saved in the EEPROM memory

The performances stated in this sheet can be modified without any prior notice.

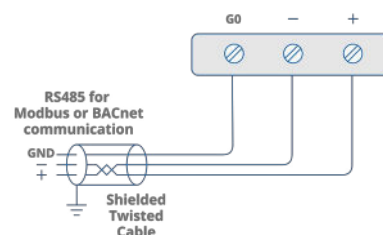
DESCRIPTION		MAX-IP I/O MODULES	
Digital outputs	Number of outputs	12 (12O-H-IP)	
	Resistive load (AC1)	3 A at 230 V AC, 3 A at 30 V DC	
	Inductive load (AC3)	75 VA at 230 V AC, 30 W at 30 V DC	
COM1	RS485 interface	Up to 128 devices	
		Half-duplex	
	Communication protocol	Modbus RTU/ASCII, BACnet MS/TP	
	Ports	Screw connector	
	Baud rate	2400-115200	
	Address	0-99 set by a rotary switch	
ETH1	Ethernet interface	1 Fast Ethernet with a switch mode	
	Communication protocol	Modbus TCP/IP, BACnet IP	
	Ports	2 RJ45	
	Baud rate	10/100 Mb/s	
USB1	USB 2.0	mini USB type B	
Ingress protection	IP rating	IP 20 for indoor installation	
Temperature	Storage	-40°C to +85°C (-40°F to +185°F)	
	Operating	-10°C to +50°C (14°F to 122°F)	
Humidity	Relative	5 to 95% RH (without condensation)	
	Type	Removable screw terminals	
Screw connectors	Maximum cable size	2.5 mm² (18...12 AWG)	
	Material	Self-extinguishing plastic (PC/ABS)	
Housing	Mounting	DIN (DIN EN 50022 norm)	
Dimensions	Module:	24I-IP	12O-H-IP
	Width	106.30 mm/4.19 in	106.30 mm/4.19 in
	Length	110.00 mm/4.33 in	110.00 mm/4.33 in
	Height	62.00 mm/2.44 in	70.00 mm/2.76 in

WIRING DIAGRAMS

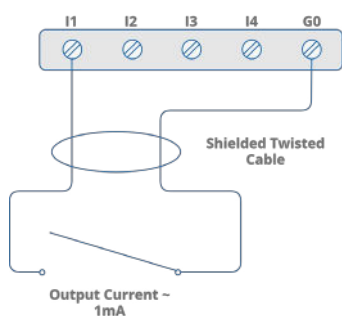
Power Supply



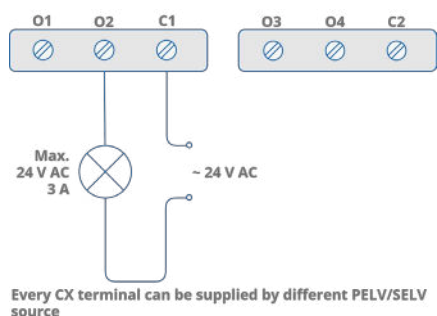
Communication

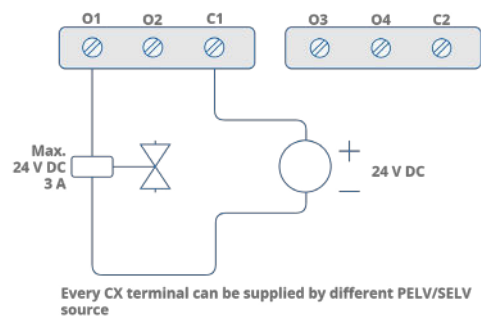
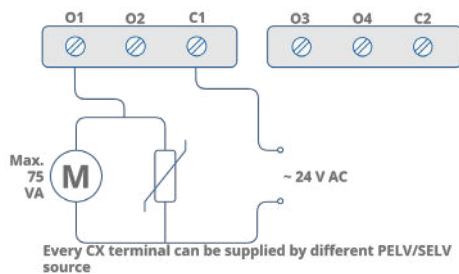


Digital Inputs

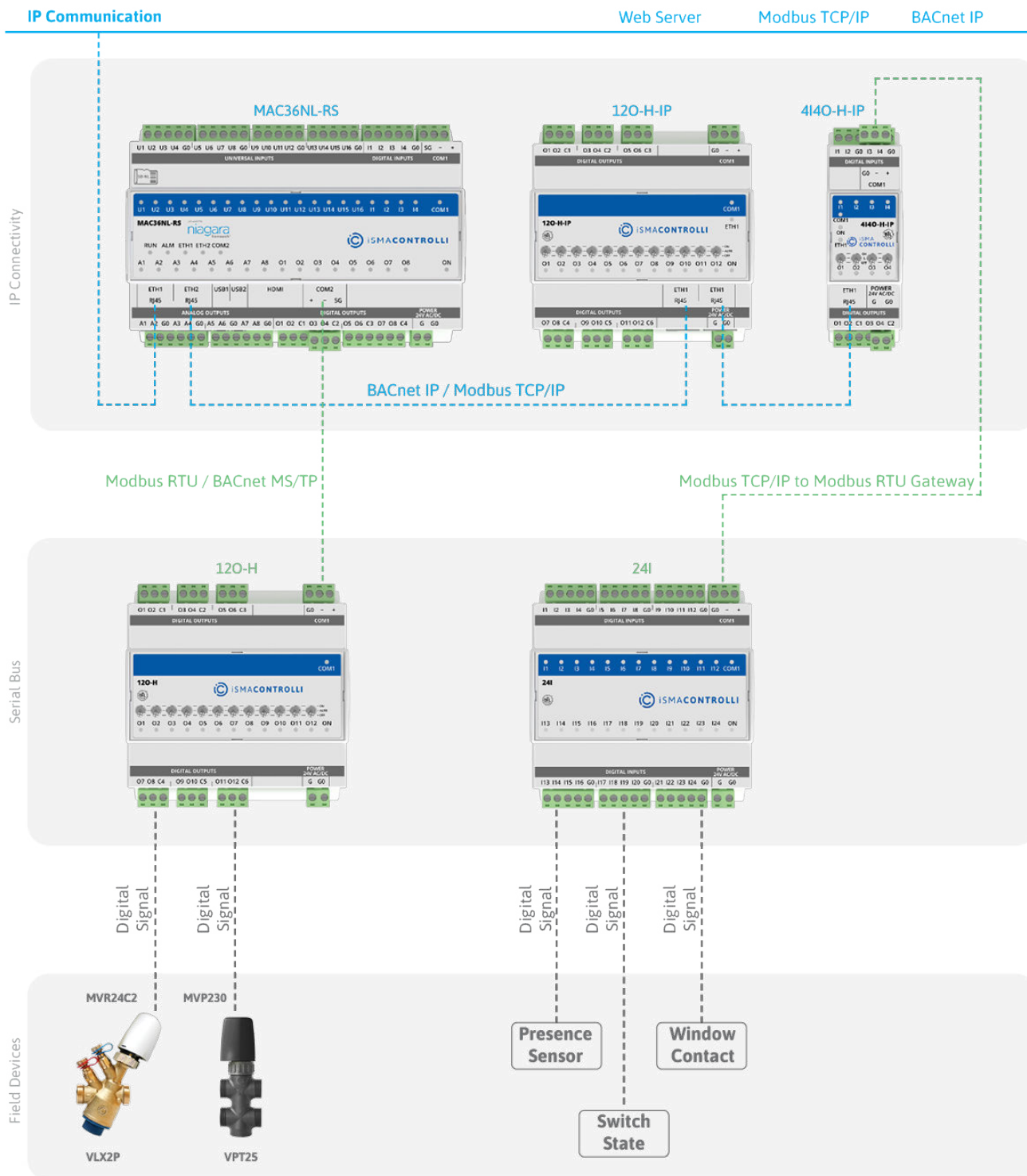


Digital Outputs





APPLICATION EXAMPLE

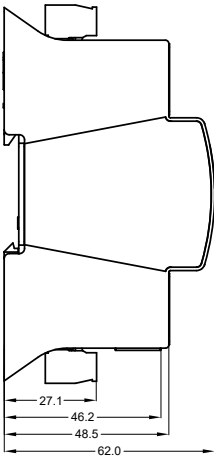
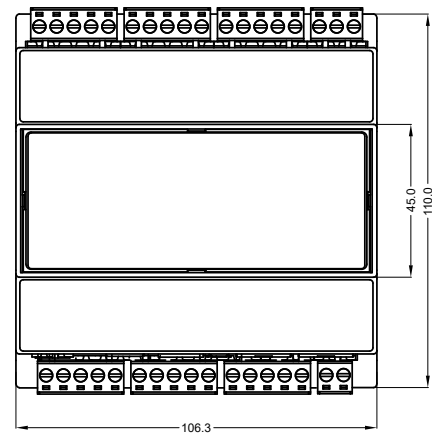




iSMA Configurator - configuration tool for non-programmable iSMA CONTROL I devices

DIMENSIONS [mm]

24I(-IP)



12O-H(-IP)

