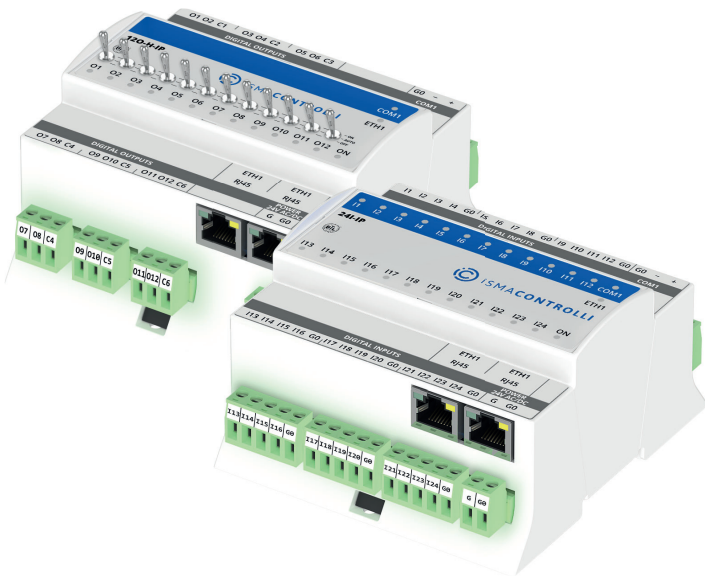


MAX-IP Series

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 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 an IP connection. The modules feature two Fast Ethernet ports that work in a switch mode, allowing for 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.

The modules are addressed using rotary switches, which facilitate and accelerate the process of commissioning the system. 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
- UL recognized component according to UL 60730-1 and CAN/CSA-E60730-1

TECHNICAL SPECIFICATION

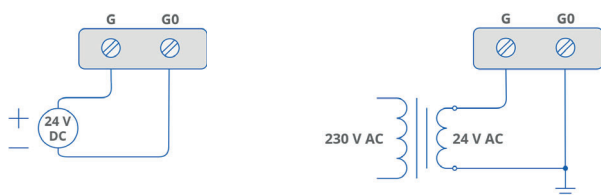
DESCRIPTION		MAX-IP I/O MODULES
Power supply	Voltage	24 V AC/DC \pm 20%
Digital inputs	Number of inputs	24 (24I-IP)
	Type	Dry contact or fast pulse counter
	Maximum input frequency	100 Hz saved in the EEPROM memory

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

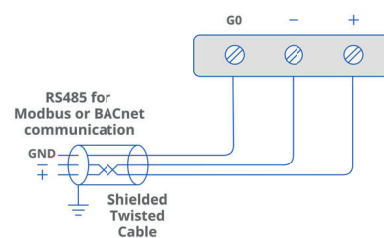
DESCRIPTION		MAX-IP I/O MODULES	
Digital outputs	Number of outputs	12 (12O-H-IP)	
	Resistive load (AC1)	3 A at 230 V AC, 3 A at 30 V DC	
	Inductive load (AC3)	75 VA at 230 V AC, 30 W at 30 V DC	
COM1	RS485 interface	Up to 128 devices	
		Half-duplex	
	Communication protocol	Modbus RTU/ASCII, BACnet MS/TP	
	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)	
Screw connectors	Type	Removable screw terminals	
	Maximum cable size	2.5 mm² (18...12 AWG)	
Housing	Material	Self-extinguishing plastic (PC/ABS)	
	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

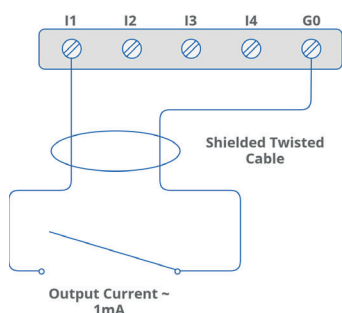
Power Supply



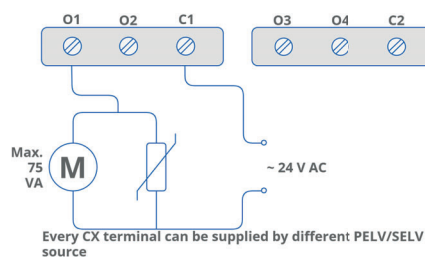
Communication

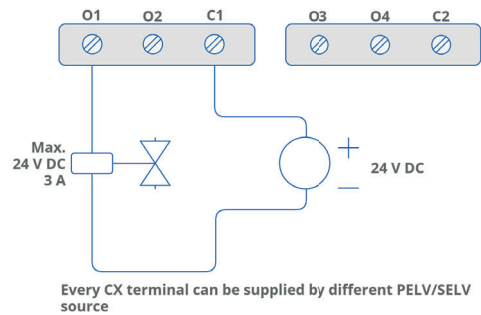
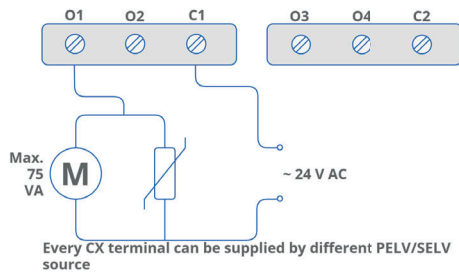


Digital Inputs

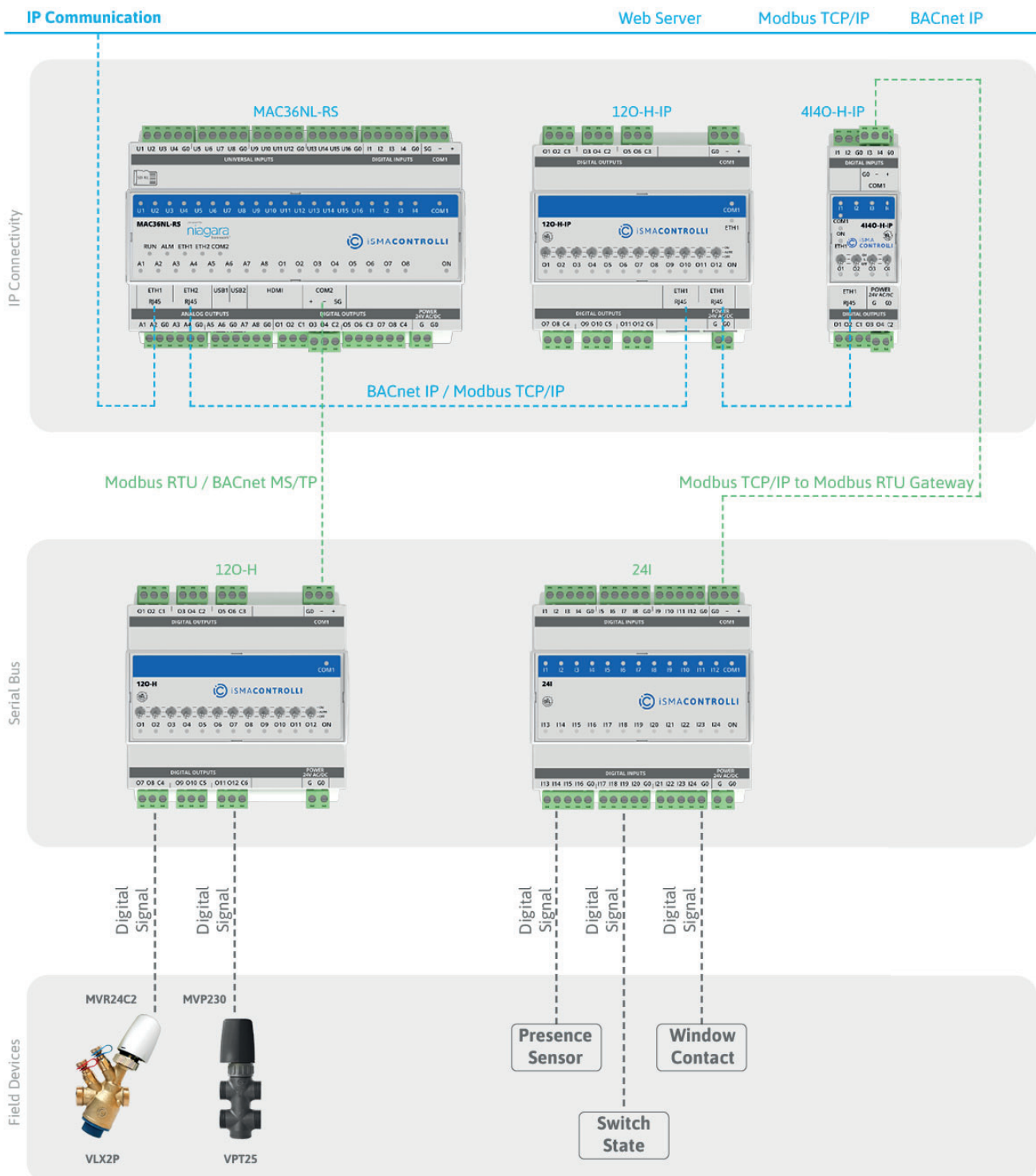


Digital Outputs





APPLICATION EXAMPLE

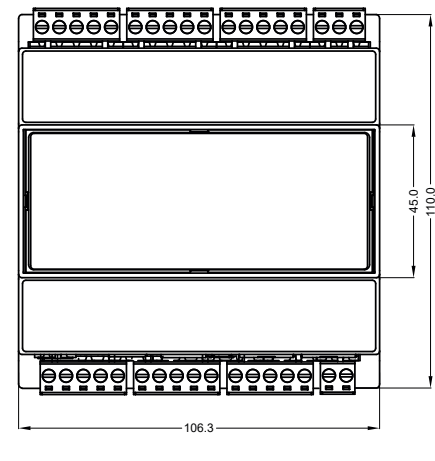




iSMA Configurator - configuration tool for non-programmable iSMA CONTROLLI devices

DIMENSIONS [mm]

24I-IP



120-H-IP

