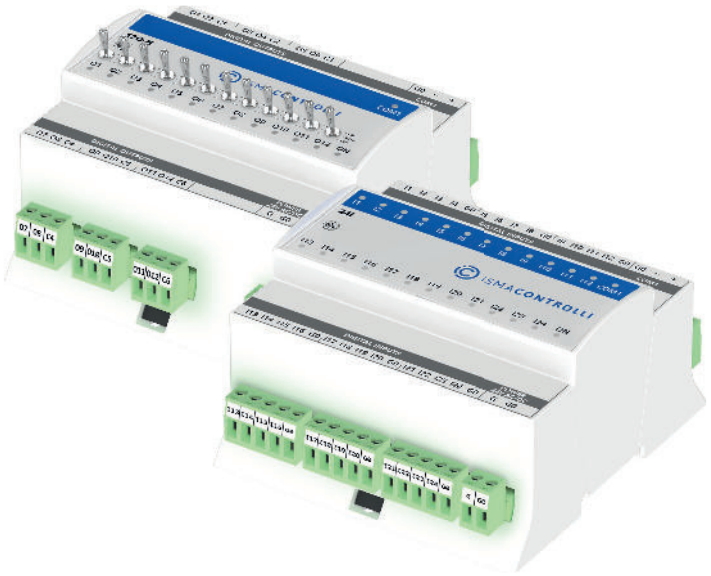
MAX-RS Series

Multiprotocol I/O Modules

MODEL	DESCRIPTION
iSMA-B-24I	I/O module with 24 digital inputs and RS485 BACnet MS/TP and Modbus RTU/ASCII communication
iSMA-B-12O-H	I/O module with 12 digital outputs, HOA switches, and RS485 BACnet MS/TP and Modbus RTU/ASCII 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-RS 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-RS series modules are equipped with commonly used types of I/Os in building automation, and support open communication protocols including Modbus RTU/ASCII and BACnet MS/TP selectable by a DIP switch. 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 serial bus connections.
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 MS/TP, BACnet Slave, and Modbus RTU/ASCII, selected with a DIP switch
- RS485 communication port, half-duplex
- Digital inputs work as fast counters up to 100 Hz
- LEDs indicate the status of inputs and outputs
- Digital outputs 230 V AC max. 3 A allow for a direct control without additional relays
- Simple and fast addressing from 0 to 99 using rotary switches
- BTL certified
- UL recognized component according to UL 60730-1 and CAN/CSA-E60730-1

TECHNICAL SPECIFICATION

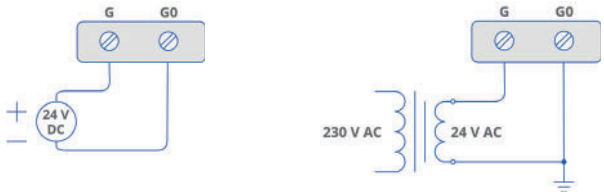
DESCRIPTION		MAX-RS I/O MODULES
Power supply	Voltage	24 V AC/DC ± 20%
Digital inputs	Number of inputs	24 (24I)
	Type	Dry contact or fast pulse counter
	Maximum input frequency	100 Hz saved in the EEPROM memory

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

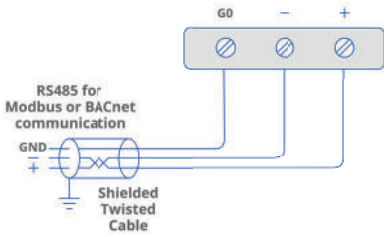
DESCRIPTION		MAX-RS I/O MODULES	
Digital outputs	Number of outputs	12 (12O-H)	
	Resistive load (AC1)	3 A at 230 V AC, 3 A at 30 V DC	
	Inductive load (AC3)	75 VA at 230 V AC, 30 W at 30 V DC	
COM1	RS485 interface	Up to 128 devices	
		Half-duplex	
	Communication protocol	Modbus RTU/ASCII, BACnet MS/TP	
	Ports	Screw connector	
	Baud rate	2400-115200	
	Address	0-99 set by a rotary switch	
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	12O-H
	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

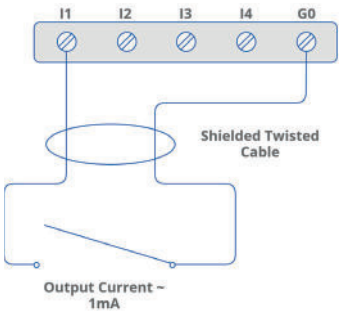
Power Supply



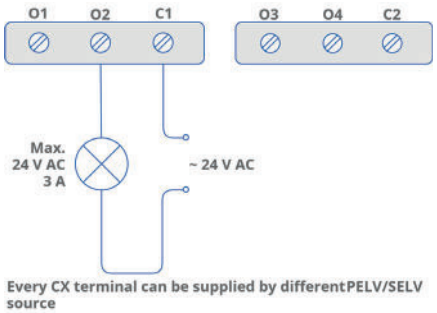
Communication

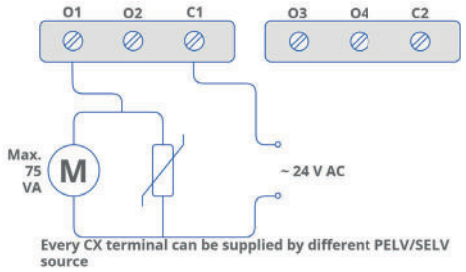


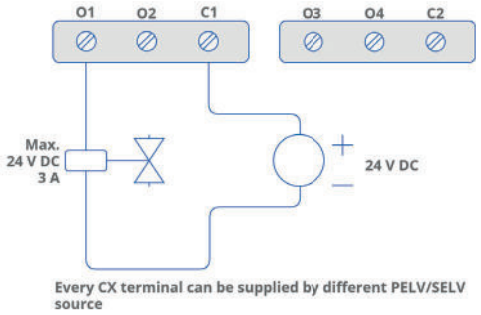
Digital Inputs



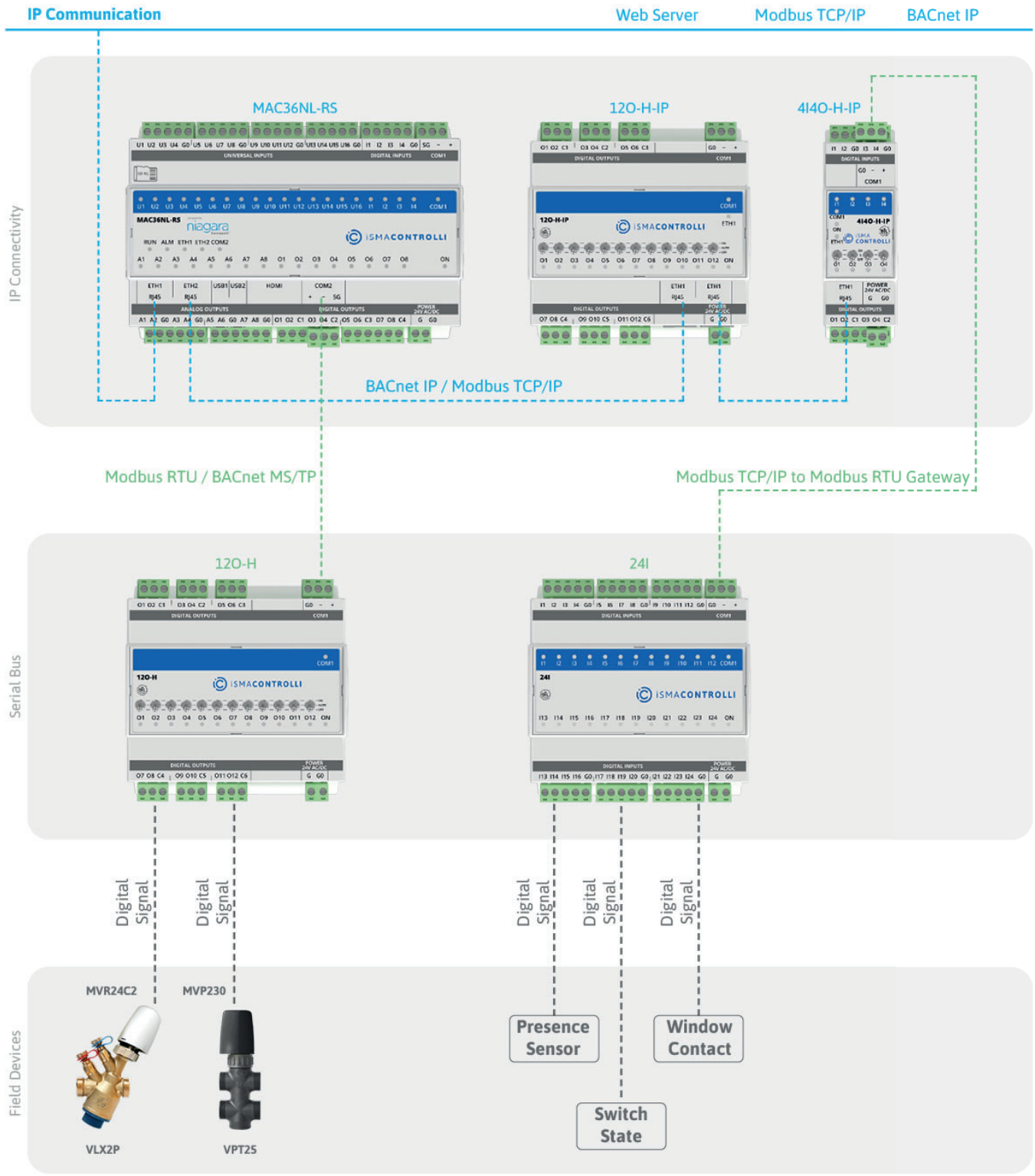
Digital Outputs







APPLICATION EXAMPLE

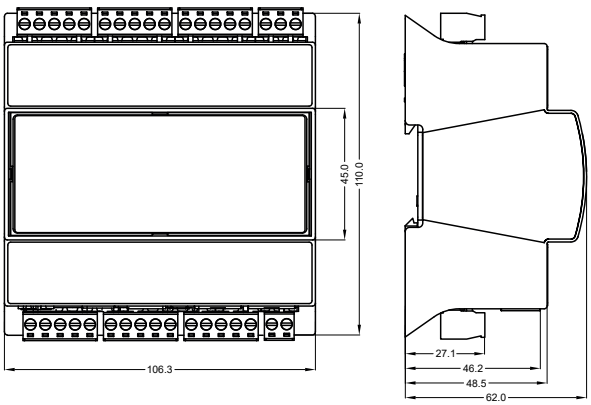
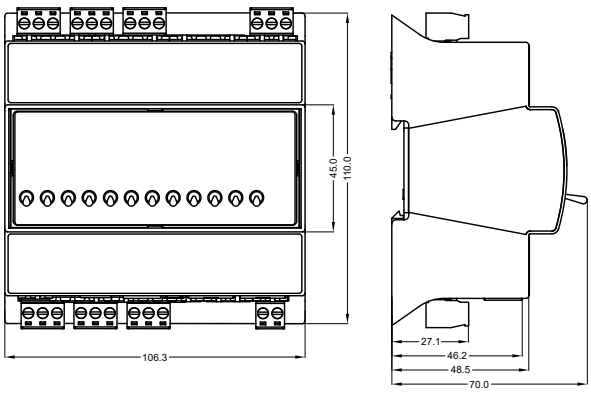


DEDICATED SOFTWARE

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

DIMENSIONS [mm]

24I



12O-H