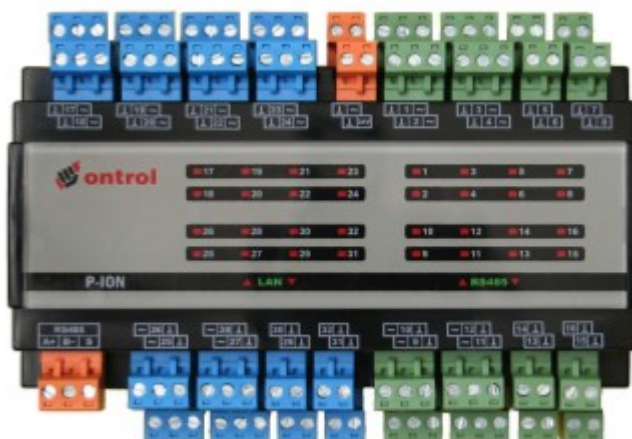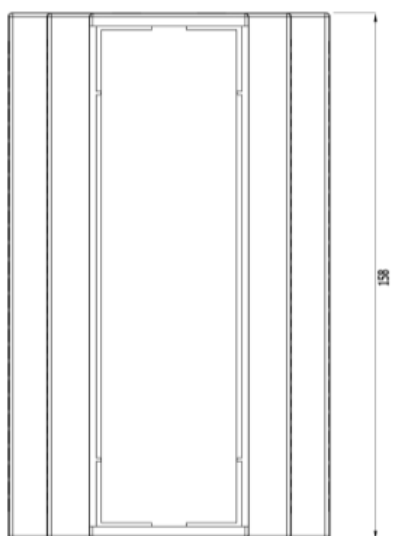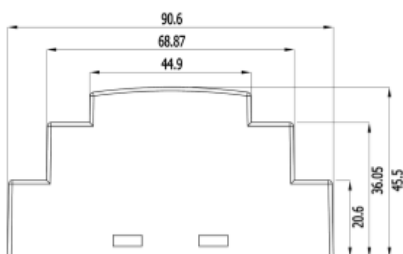- IP based programmable controller for Building Management Systems

- Implements Sedona Framework™

- 16 Universal Inputs
  16 Flex Input/Outputs

- Any flex I/O point can be configured as analog output, digital input or pulse input

- Software based configuration

- Status LED for all inputs and outputs

- Real-time-clock with scheduling

- Up to 8 additional relay outputs via optional relay modules

- RJ45 Ethernet port
  RS485 port
  USB port (for firmware upgrade)

Dimensions (mm)

Specifications

General	32 bit microcontroller, 13-bit A/D converter
	flash memory
Nominal voltage	24 VAC +%10-%15, 50/60Hz
Power consumption	6 VA
Universal inputs configuration	0(2)-10 VDC
	0(4)-20 mA (500 Ohm resistor required)
	PT1000
	NTC 10K3A1
	Voltage-free contact
	Resistance (0-330 kOhm)
Flex points configuration	• Voltage output 0(2)-10 Vdc, 2 mA max
	• Digital input (voltage-free contact)
	Pulse input (max 20 Hz, 50% duty cycle, max 50ohm contact) (count stored in non-volatile memory)
RJ45 Ethernet Connection	Ethernet 10/100 Base-T, Bacnet IP slave
	Supporti: IP, TCP, UDP, HTTP, Sedona Sox
RS485 Connection	Modbus RTU master, Modbus RTU slave,
	Modbus TCP master, Modbus TCP slave,
	Bacnet Mstp slave
Ambient temperature range	0..50 ºC (32..122 ºF)
Non-operating range	-25..+75 ºC (-13..+167 ºF)
Humidity range	%5...95 rh, non-condensing
Weight	570 gr (Gross 750 gr)
Dimensions	157,5 x 122 x 57,5 (Including terminals)
Mounting	For 35 mm DIN rail mounting
Degree of protection	IP20, EN 60529
Connections	Plug-in terminals, max 1 x 2.5 mm²
	Individual 0V common terminals for all inputs & outputs.
	Individual 24Vac power terminals for 75% of all inputs and outputs.

Properties

General	P-ION series products are universal programmable controllers that can be used to manage a variety of building systems including heating, ventilation, air-conditioning (HVAC) systems. Basic and advanced control strategies can be programmed by Sedona Framework™ for optimized performance.
Universal Inputs	All universal inputs can be configured as analog or voltage free digital inputs.
	Analog inputs are optimized for resistive type temperature sensors (e.g. PT1000) and 0-10 VDC devices. 13 bit A/D converters assure high resolution measurements. For (0)4-20 mA input signals, external 500 Ohm resistors are required.
	All inputs are protected against short circuits to ground and against direct connection up to 50 VAC.
Flex I/O Points	All flex I/O points can be configured as analog output, digital input or pulse input.
	Analog outputs are used to control 0(2)-10V valve and damper actuators, humidifiers, frequency drives, etc. Convertor relay boards can be used to drive on/off loads.
	All outputs are protected against short circuits to ground and against direct connection up to 50 VAC.
Optional Relay Board Extension	Two relay modules can be connected by ribbon cable to provide a total of 8 additional relay outputs at 10A
Sedona Framework™	The Sedona Framework™ is the industry's first, open source development framework that provides a complete software platform for developing, deploying, integrating, and managing controller. The Sedona Framework distributes decision making control and manageability to the controller and brings intelligence and connectivity to the network edge and back.

Field Equipment Connections