- Microcontroller based digital technology
- Flexible, configurable control strategies
- 3 analog inputs
- 2 digital inputs
- 3 analog outputs
- External set-point potentiometer option
- 2x16 LCD user interface
- Standalone operation
- High resolution analog-to-digital conversion
- Protected inputs&outputs
- Easy to use templates for standard applications

Dimensions (mm)
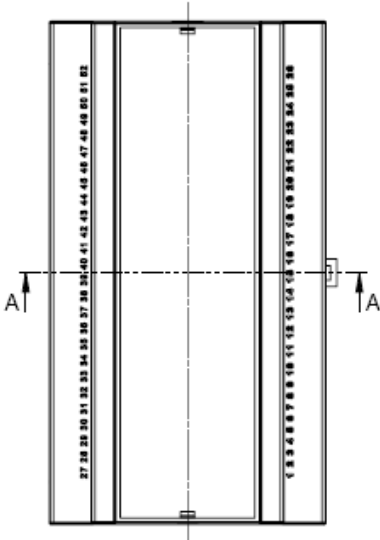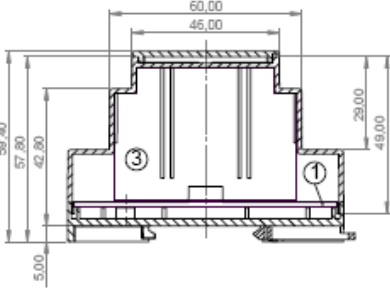
Specifications

General	8 bit microcontroller, 13-bit A/D converter EEPROM memory, LCD with back-light
Nominal voltage Power consumption	24 VAC +%10-%15, 50/60Hz 3 VA
Analog inputs	0(2)-10 VDC 0(4)-20 mA (500 Ohm resistor required) PT1000 temperature sensors
Digital inputs	Voltage-free contact
Potentiometer input	11Kohm
Analog outputs	0-10 VDC / 2 mA
Ambient temperature range Non-operating range Humidity range	0..50 ºC -25..+75 ºC %5...95 rh, non-condensing
Weight Dimensions Mounting	380 gr (Gross 450 gr) 157 x 86 x 60 For 35 mm DIN rail mounting
Degree of protection	IP20, EN 60529
Connections	Plug-in, max 1 x 2.5 mm²

Properties

General	L-ION series products are universal configurable controllers that can be used to manage a variety of building systems including heating, ventilation, air-conditioning (HVAC) systems. Advanced control strategies are available for optimized performance. All functions are configurable via series of parameters. A comprehensive set of templates assure easy start-up.
Inputs	Analog inputs are optimized for PT1000 type temperature sensors and 0-10 VDC devices. 13 bit A/D converters assure high resolution measurements. All inputs are software configurable.
	Digital inputs allow freeze protection, emergency stop and fire scenarios to be implemented.
Potentiometer input	One dedicated input allows a remote potentiometer (1-11 kOhm) to be used for remote set-point adjustment.
Outputs	Analog outputs are used to control valve and damper actuators, humidifiers, frequency drives, etc..
Configuration	L-ION's may be configured to control a wide range of systems. The configurations are saved in non-volatile memory, thus pre-configuration is possible prior to shipment.
	Four control loops are provided to control four different process variables. For example, temperature and humidity can be controlled on an air handling unit, or four valves may be controlled on four heat-exchangers.
	In addition to basic proportional + integral (PI) control, upper and lower limits, compensation, cascade control can be configured for each loop. Sequential control of heating and cooling systems is possible.
	All the parameters are set using the buttons and display on the controller. Instead of setting all the parameters from scratch, templates are available for a wide range of common systems. Predefined settings may then be optimized for the applied system.
Log records	Troubleshooting is facilitated by the logs of fault and alarm conditions, power failures and manual overrides.

Electrical connections