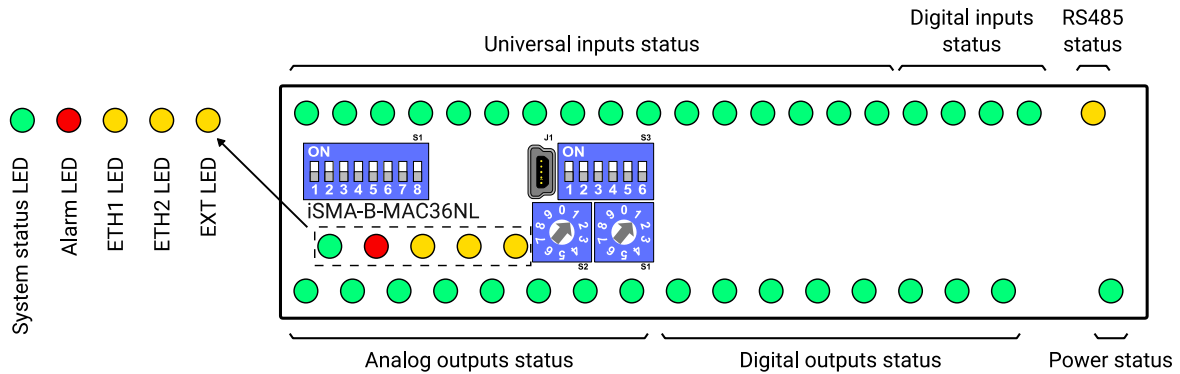
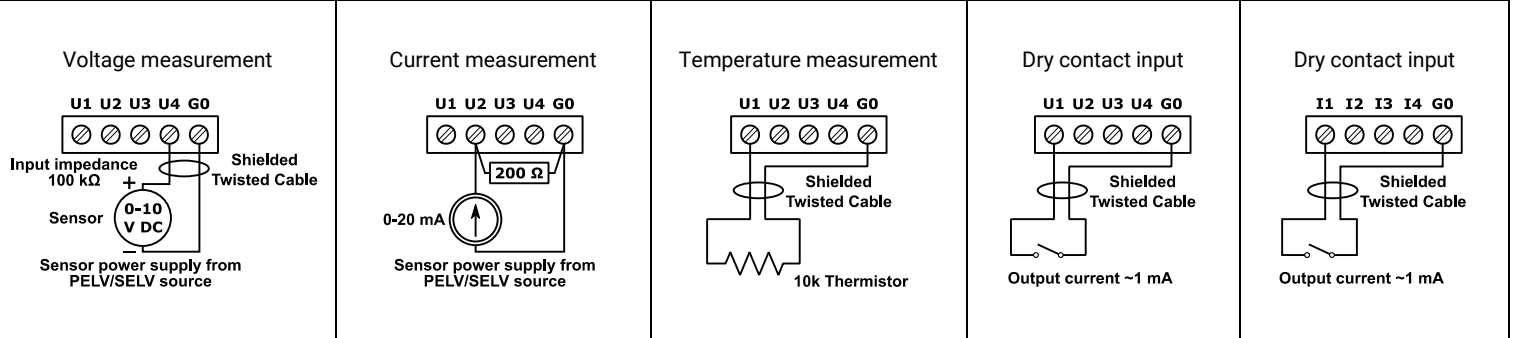


SPECIFICATION	
Power Supply	DC: 24 V ± 20%, 14 W; AC: 24 V ± 20%, 24 VA
Universal Inputs	16x voltage, current, resistance, temperature measurement, dry contact inputs
Digital Inputs	4x dry contact inputs, high-speed pulse counter up to 100 Hz
Digital Outputs	8x relay outputs; AC maximum ratings
	Resistive load: 3 A @ 230 V AC Inductive load: 75 VA @ 230 V AC
Analog Outputs	8x 0-10 V DC outputs, maximum load up to 20 mA
Processor	Multicore Cortex-A Series ARM Processor
Interfaces	2x 10/100 Ethernet, 1x RS485 (half duplex, optoisolated), 2x USB (1x Host, 1x OTG), HDMI, optional extension – second RS485 (half duplex, optoisolated)
Ingress Protection	IP30 - for indoor installation
Temperature	Operating: 0°C to 50°C (32°F to 122°F); Storage: -40°C to 85°C (-40°F to 185°F)
Relative Humidity	5 to 95% RH (without condensation)
Connectors	Removable screw terminals, separable 2.5 mm ² (18 – 12 AWG)
Dimensions	160 x 111 x 62 mm (6,3" x 4,4" x 2,45")
Mounting	DIN rail mounting (DIN EN 50022 norm)
Housing material	Plastic, self-extinguishing PC/ABS

TOP PANEL



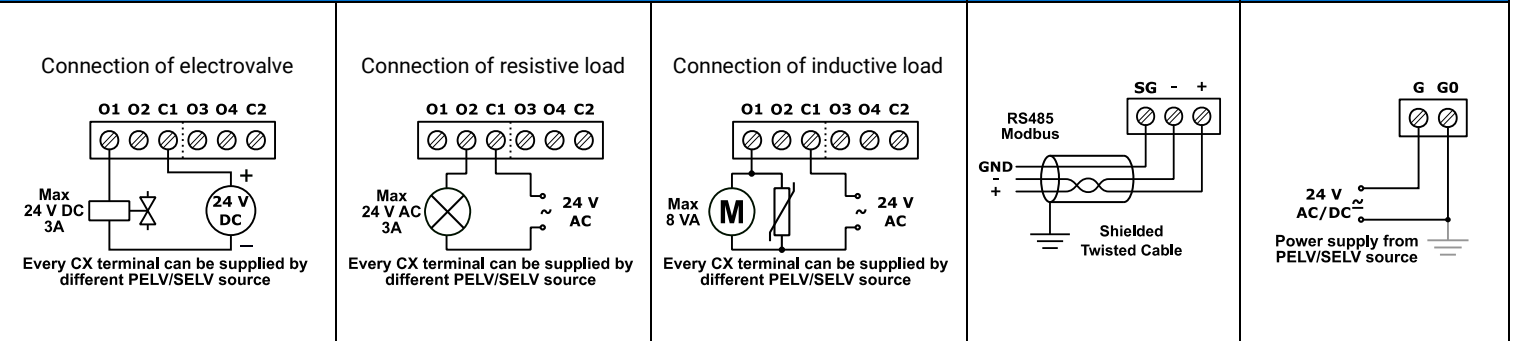
UNIVERSAL INPUTS



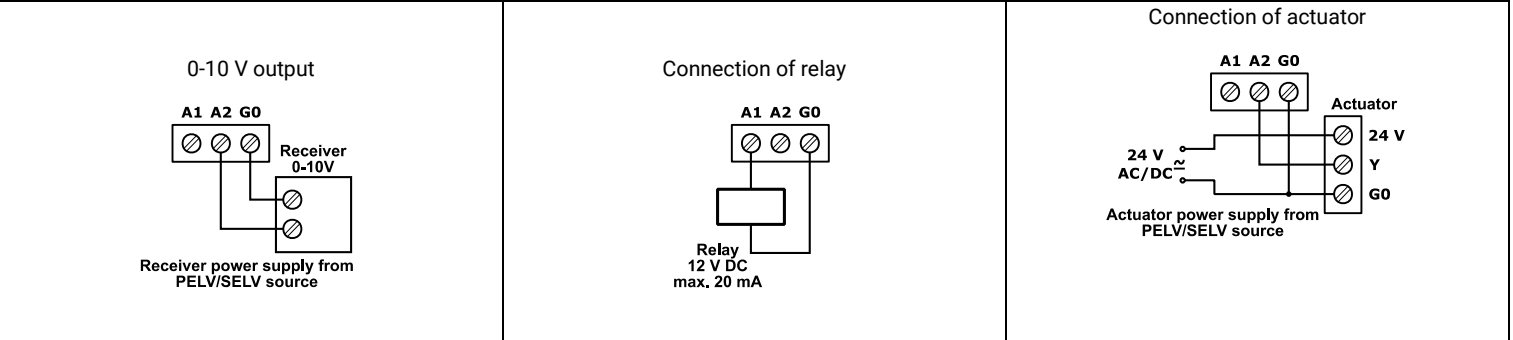
DIGITAL OUTPUTS

COMMUNICATION

POWER SUPPLY



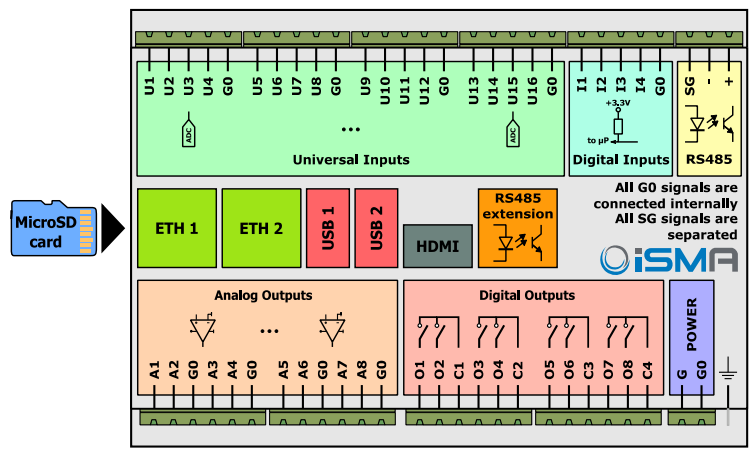
ANALOG OUTPUTS



⚠ WARNING

BLOCK DIAGRAM

- Note, an incorrect wiring of this product can damage it and lead to other hazards. Make sure the product has been correctly wired before turning the power ON.
- Before wiring, or removing/mounting the product, be sure to turn the power OFF. Failure to do so might cause electric shock.
- Do not touch electrically charged parts such as the power terminals. Doing so might cause electric shock.
- Do not disassemble the product. Doing so might cause electric shock or faulty operation.
- Use the product within the operating ranges recommended in the specification (temperature, humidity, voltage, shock, mounting direction, atmosphere etc.). Failure to do so might cause fire or faulty operation.
- Firmly tighten the wires to the terminal. Insufficient tightening of the wires to the terminal might cause fire.

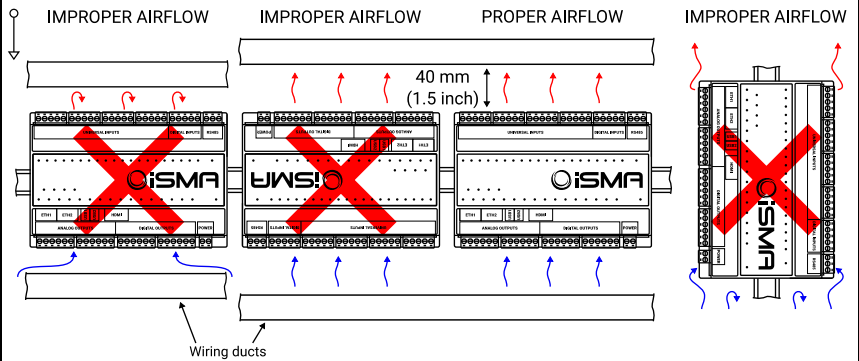


WIRING

- Line power cables must be routed with spatial separation from signal and data transmission cables.
- Analogue and digital signal cables should also be separated.
- It is recommended to use shielded cables for analogue signals, cable shields should not be interrupted by intermediate terminals.
- The shielding should be earthed directly after the cable enters the cabinet.
- It is recommended to install interference suppressors when switching inductive loads (e.g. coils of contactors, relays, solenoid valves). RC snubbers or varistors are suitable for AC voltage and freewheeling diodes for DC voltage loads. The suppressing elements must be connected as close to the coil as possible.

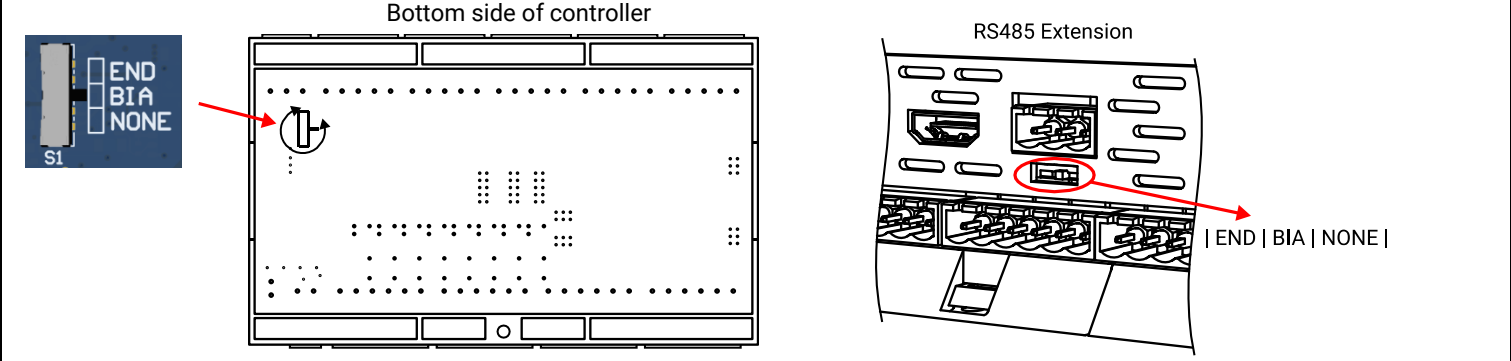
PLACEMENT RECOMMENDATIONS

For appropriate ventilation MAC36NL must be placed horizontally inside the cabinet. Avoid placing any objects 40 mm below and above the controller to ensure unobstructed airflow.



RS485 CONFIGURATION

The transmission line often creates communication problems. These problems include reflections and signal attenuation. To eliminate the presence of reflections at the ends of the bus cable, it must be terminated at both ends with a resistor across the line. The resistor value has to be the same as the characteristic impedance of the bus cable. Both ends must be terminated since the direction of propagation is bidirectional. In the case of an RS485 twisted pair cable the termination is typically 120 Ω. In the iSMA-B-MAC36NL device there is a built-in 3 position Switch which is dedicated to connect termination resistor and/or biasing resistors. It can be accessed by removing the bottom part of enclosure. If using RS485, the additional switch is located just below the extension's terminal.



Switch position	Biasing	Termination 120 Ω
1 (END)	ON	ON
2 (BIA)	ON	OFF
3 (NONE) - default	OFF	OFF

SOFTWARE LICENSE NOTICE

This product contains code covered by the GNU General Public License (GPL).