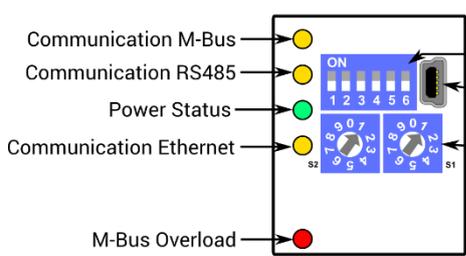


# ISMA-B-MG-IP

SPECIFICATION	
Supply	DC: 24 V ± 20%, 5 W; AC: 24 V ± 20%, 7.5 VA
Interface	RS485 half duplex: Modbus RTU/ASCII, up to 128 devices on the bus Ethernet: Modbus TCP/IP M-Bus: up to 60 devices on the bus
Address	Set by switch in range from 0 to 99
Baudrate	Set by switch in range from 4800 to 115200 bps
Ingress Protection Rating	IP40 - for indoor installation
Temperature	Operating: -10°C to +50°C (14°F to 122°F) Storage -40°C to +85°C (-40°F to +185°F)
Relative humidity	5 to 95% RH (without condensation)
Connectors	Separable, max 2.5 mm <sup>2</sup> (18 - 12 AWG)
Dimension	37 x 110 x 62 mm (1.46 x 4.33 x 2.44 in)
Mounting	DIN rail mounting (DIN EN 50022 norm)
Housing material	Plastic, self-extinguishing PC/ABS

## TOP PANEL



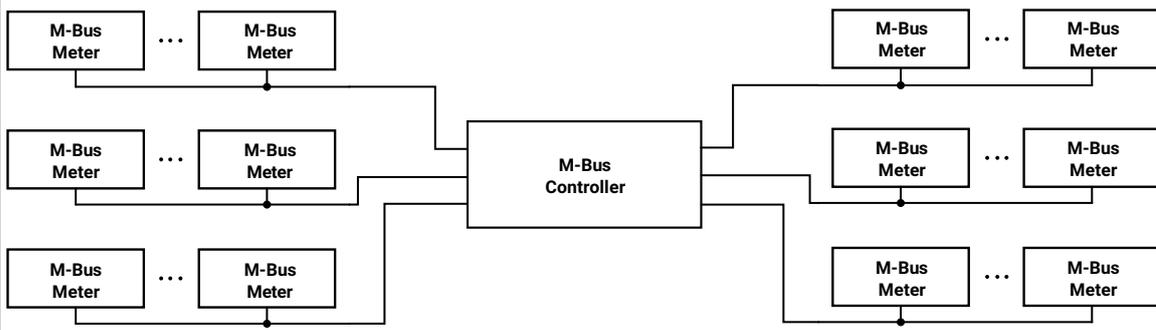
Setting baudrate, protocol, and restore the default settings

BAUDRATE 1,2,3	PROTOCOL 4,5	BIT 6
000 USER	00 MODBUS RTU	ON = Factory default
010 4800	01 MODBUS ASCII	
011 9600		
100 19200		
101 38400		
110 57600		
001 76800		
111 115200		

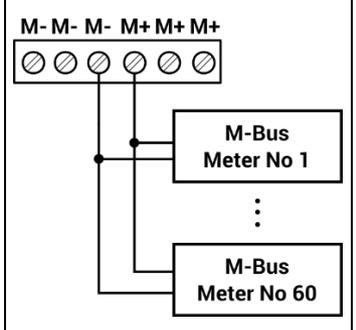
mini USB

Setting the device address  
Address = S2\*10 + S1

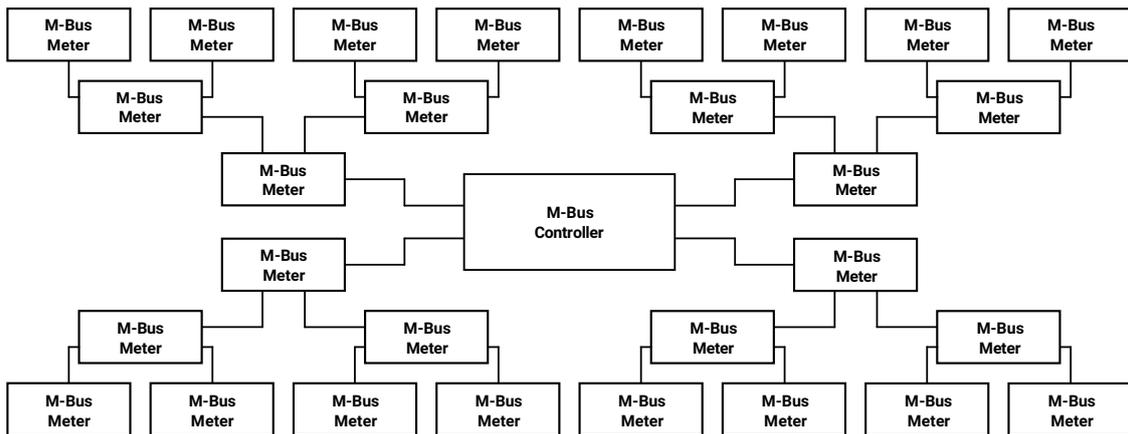
## M-BUS STAR TOPOLOGY



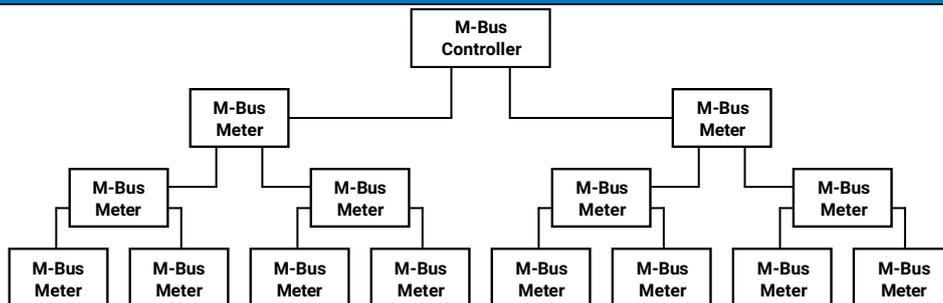
## M-BUS BUS TOPOLOGY

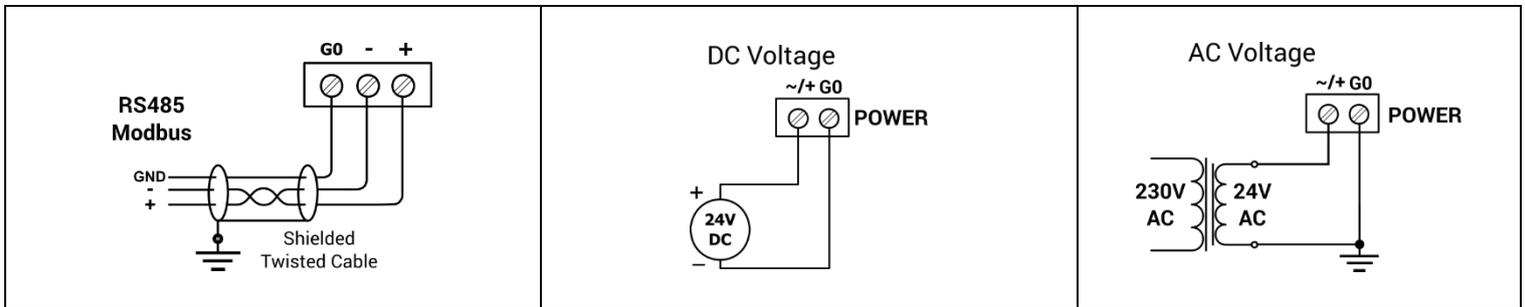


## M-BUS EXTENDED STAR TOPOLOGY OPOLOGY



## M-BUS TREE TOPOLOGY OPOLOGY

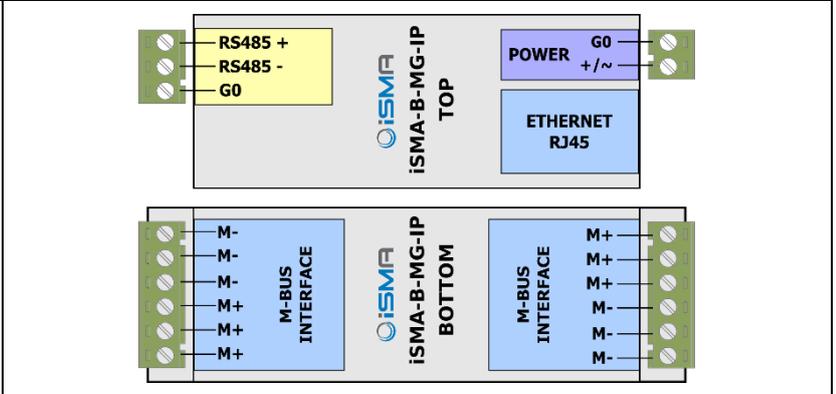




**WARNING**

- 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.

**TERMINALS OF THE DEVICE**



**FCC COMPLIANCE NOTE**

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**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