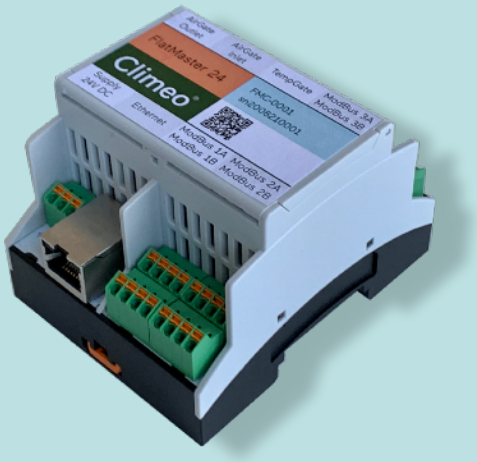
FlatMaster 24



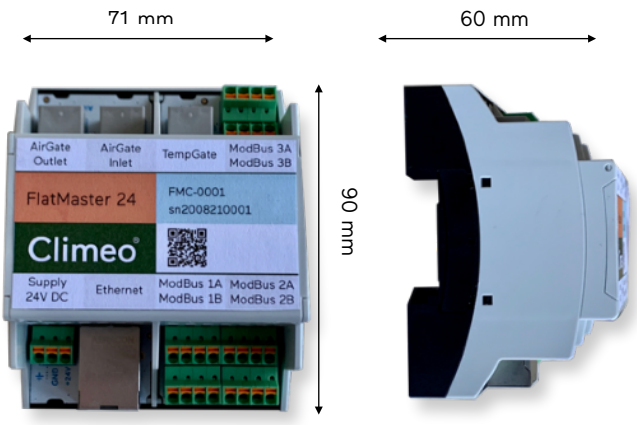
Application

FlatMaster 24 is a control unit for connecting all Climeo devices in an apartment: up to 2×16 AirGates, several TempGates and several RoomMasters. In addition, up to 30 ModBus participants can be connected to the corresponding ports. The FlatMaster 24 contains its own power supply unit and is connected directly to the 24 VAC power supply.
It communicates via ModBus, WLAN, Bluetooth and/or LoRa. An integrated AI control algorithm automatically optimizes all control parameters.
The FlatMaster 24 is intended for installation in an electrical cabinet (top-hat rail).

Specifications

Temperature	0 ..40°C
Supply	20...29 VDC /100mA
Dimensions	71 x 90 x 60 mm

Communication:
ModBus RTU/TCP, WLAN, Bluetooth, SAGB (Simple AirGate Bus), LoRa (optional)

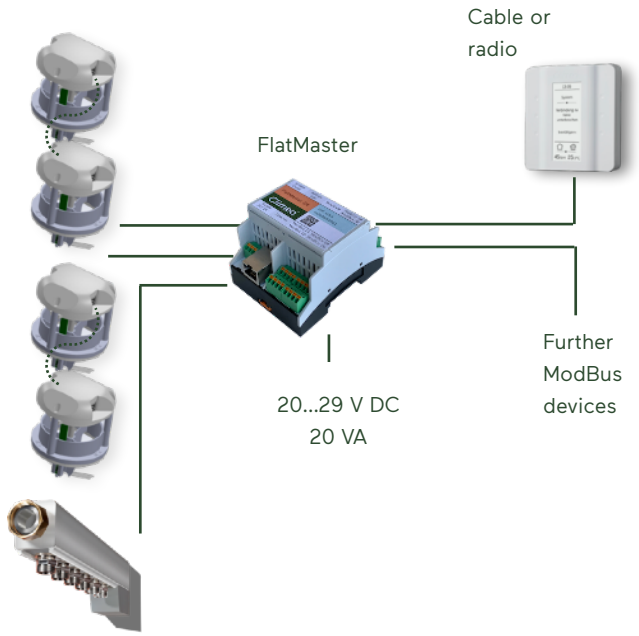


Installation

The FlatMaster 24 is installed and connected in the electrical cabinet on the top hat rail. It automatically configures all connected devices and can then be put into operation with the integrated Bluetooth app.
The electrical connection of the supply (20...29V) is made via two connecting wires (+/-).

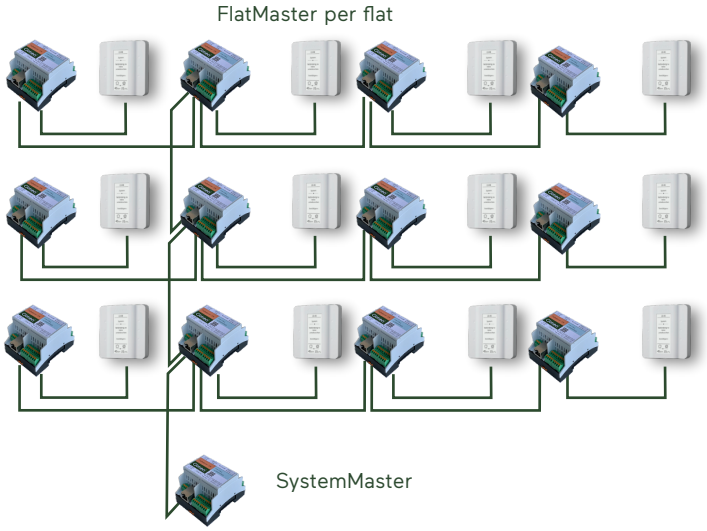
Interior connections

The FlatMaster 24 is connected directly to 20...29 V DC. The AirGates and TempGates can be connected via three RJ12 sockets (supply air/ exhaust air/tempGate). The 6-pin cables provide the power supply (+24V/GND) and 2 communication lines. Cable and RJ12 plug are included in the delivery.
In addition, there are two further connections for communication with a RoomMaster or other ModBus devices (e.g. local ventilation units)



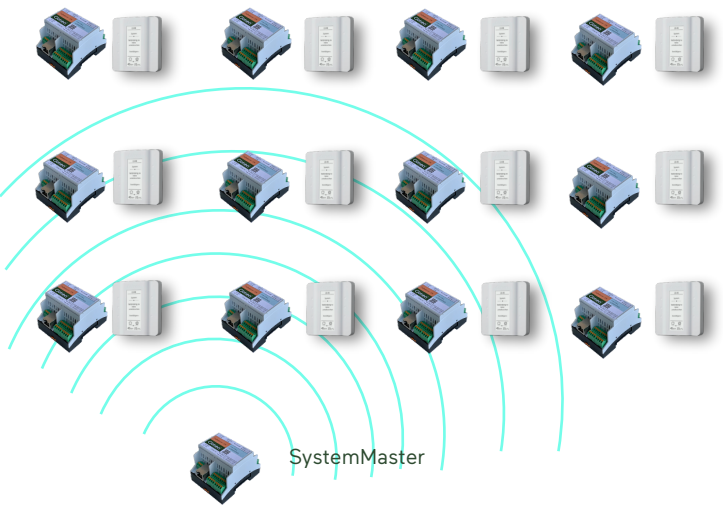
Wiring for multi-family buildings

Each FlatMaster 24 has the built-in function of a GateWay. Via ModBus 1, the FlatMaster 24 is integrated into the ModBus line of the SystemMaster. The SystemMaster automatically assigns the ModBus address. The ModBus 2 enables the expansion of the network structure in form of a structure with any number of branches. For this purpose, the ModBus 2 is connected to the branch of ModBus 1 of the subsequent devices. Here, too, an automatic address assignment is performed by the SystemMaster. A maximum of 32 devices per branch (horizontal/ vertical) and a total of 254 ModBus addresses can be assigned.



Wireless

Such a type of network can also be connected exclusively via WiFi. In this case, all physical network cables are omitted and replaced by a self-configuring mesh network. Only the connection of AirGates and TempGate within the apartment must be done with cables.

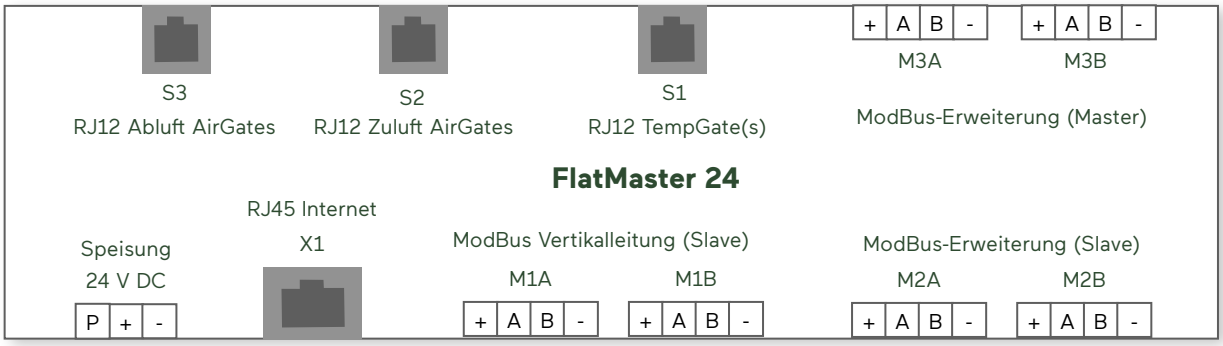


Electrical circuit diagram

The FlatMaster 24 has 3 RJ12 sockets to which AirGates and the TempGate are connected. In addition, there are 6 ModBus connections for integration into a house-wide network. ModBus 1 is for integration into a house network, ModBus 2 for expansion in the sense of a further branch of the network and ModBus 3 for the integration of devices in the apartment.
In addition, FlatMaster 24 has an RJ45 socket for the Internet connection.

The 24 V supply is connected via corresponding terminals.

FlatMaster 24, electrical connection



Commissioning

The FlatMaster 24 is put into operation with the corresponding app. More detailed information can be found in the operating manual.
The app is free of charge and automatically updates itself to the latest version.