

Electronic regulation unit for HVAC systems

Datasheet
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Electronic regulation unit for HVAC systems.

For use with thermoregulation components (bus or stand-alone thermostats).

The unit includes a display and six multifunction buttons to program the parameters of the system and monitor it through a smart menu.

The device enables quick connection to K493TW chronothermostats through ModBus, to K495C thermostats through CANbus or, in "stand-alone" mode, to any free-contact thermostat.

It automatically controls the circulator intervention and operation of the mixing valve actuator.

➤ Versions and product codes

PRODUCT CODE	POWER SUPPLY
	24 Vac, 50/60 Hz (± 3 Hz), 20 VA max. no insulation
KPM22Y001	20...40 Vdc, 12 W max. no insulation provided by a class 2 circuit

Completion codes

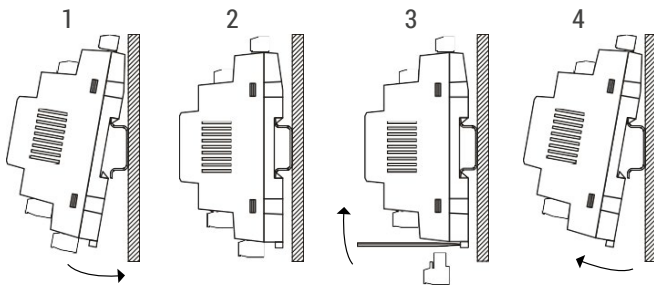
- **K493TW:** touch-screen chronothermostat, Wi-Fi, with temperature and humidity probe, ModBus connection
- **K495C:** thermostat with temperature and humidity probe, CANbus connection

► Technical data

- Power supply:
 - 24 Vac, 50/60 Hz (± 3 Hz), 20 VA max. no insulation
 - 20...40 Vdc, 12 W max. no insulation provided by a class 2 circuit
- Nominal impulse voltage: 4 kV
- Overvoltage category: III
- Software class and structure: A
- Clock: built-in (with lithium primary battery)
- Battery autonomy in case of power failure: 5 years at 25 °C
- Drift: ≤ 30 s/month at 25 °C
- Analogic inlets: 10 inlets
- Digital inlets: 13 inlets
- Analogic outlets: 1 outlet
- Digital outlets: 11 outlets
- Communication ports: 5 ports
 - 1 RS-485 port with ModBus slave communication protocol
 - 1 RS-485 port with ModBus master/slave communication protocol, BACnet MS/TP
 - 1 CAN port with CANbus communication protocol
 - 1 USB port
 - 1 Ethernet port with ModBus TCP communication protocol, Web Server, BACnet IP
- Working temperature range: -10÷55 °C
- Storage temperature: -25÷70 °C
- Humidity of use: 10÷90 % of relative humidity with no condensation
- Heat and fire resistance category: D
- Dimensions: 142 x 128 x 60 mm; 8 DIN modules
- Protection class: overall IP20; front IP40
- Connections:
 - removable male-only screw terminal strips, pitch 3,5 mm for connectors up to 1,5 mm²: power supply, analogic inlets, digital inlets, analogic outlets and RS-485 ModBus slave, RS-485 ModBus master/slave and CAN CANbus ports
 - removable male-only screw terminal strips, pitch 5 mm for connectors up to 2,5 mm²: digital outlets
 - type A USB connector: USB port
 - RJ45 F phone connector: Ethernet ModBus TCP port, Web Server
- Max length of connection wires:
 - power supply: 100 m
 - analogic inlets: 100 m
 - transducer power supply: 100 m
 - digital inlets: 100 m
 - PWM analogic outlets: 1 m
 - analogic outlets 0-20 mA, 4-20 mA and 0-10 V: 100 m
 - digital outlets (electromechanic relays): 100 m
 - digital outlets (command for solid relays): 100 m
 - RS-485 ModBus slave and RS-485 ModBus master/slave ports: 1000 m
 - CAN CANbus port: 250 m with baud rate 125000 baud
 - USB port: 1 m

Installation

⚠ WARNING. Installation and maintenance should be carried out by a professional operator with power Off.



The device should be installed on a DIN 35 x 7.5 mm or 35 x 15 mm guide in a control board.

Follow the operations shown in the picture to install the device.

To remove the device, first disconnect any removable terminal strip inserted in the lower portion, then pry on the clip of the DIN guide using a screwdriver as shown.

To reinstall the device, first push on the clip of the DIN guide.

Reference standards

- RoHS 2011/65/EU
- WEE 2012/19/EU
- EMC 2014/30/EU
- LVD 2014/35/EU
- REACH (CE) N° 1907/2006
- Classification of temperature control devices according to Reg.(EU) N.811/2013-813/2013: energy class IV, 2%.



Product specifications

KPM22

Electronic regulation unit for HVAC systems. with integrated display for system monitoring, configuration and control. 24 Vac power supply, dimension 8 DIN modules. Optional mixing valve control, circulator and free contact outlets. Connection through bus to K493TW or K495C thermostats. CE Certification.

⚠ Safety Warning. Installation, commissioning and periodical maintenance of the product must be carried out by qualified operators in compliance with national regulations and/or local standards. A qualified installer must take all required measures, including use of Individual Protection Devices, for his and others' safety. An improper installation may damage people, animals or objects towards which Giacomini S.p.A. may not be held liable.

♻ Package Disposal. Carton boxes: paper recycling. Plastic bags and bubble wrap: plastic recycling.

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♻ Product Disposal. Do not dispose of product as municipal waste at the end of its life cycle. Dispose of product at a special recycling platform managed by local authorities or at retailers providing this type of service.