

MR12 control unit



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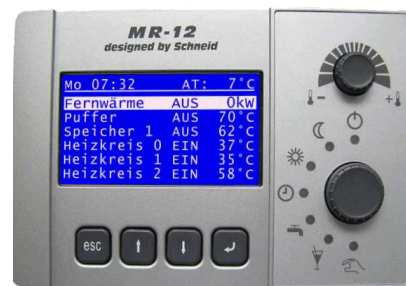
Products, data sheets, documentation, MR12-SCHEMA-calculator: www.schneid.at

SCHNEID MR12 control unit

- only available as a spare part -

Order number: 190.xxxxx

Order code: MR12 Bedienteil xxx



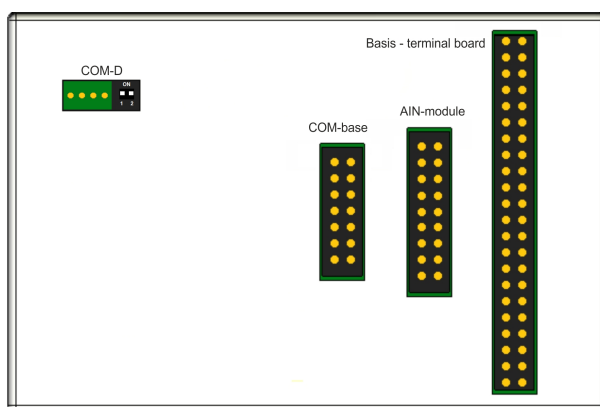
Overview:

The module controller MR12 is a microprocessor-controlled device for controlling district heating transfer stations with the option of modular expansion for another three mixer circuits and additional acquisition of the heat meter data and forwarding of all data to a higher-level network optimization computer in the boiler house.

The AKP board (BASIS board) is connected directly to the control unit.

If a communication board (COM-BASIS) is available, this is also connected directly to the control unit, as well as a possible extension with an additional module for analog and digital inputs and outputs (AIN module). The cables are routed in the DIN rail.

The heating circuit expansion modules 1-3 are connected to the AKP board.



MR12 control unit

- Zero cross detection (zero crossing circuit)

The relays are switched exactly at the zero point of the sine curve. At this moment, the inrush current is smallest. This protects the relay contacts and extends the service life of the relays.

- Possibility to use internal wireless modules.

(WiFi, Bluetooth or radio) For communication with end devices such as Tablet, smartphones or detection of future wireless sensors (outdoor, room sensors or radio FBR). The interface cards are installed inside the controller (no ComBasis required). This interface is shared with ComC on the COM basis. The CPU can select between ComC external and internal.

- 4.UART interface (COM-D) in the form of RS485.

Executed on the backplane with 4-pin connector (12V +/- RS485 D + / D-). For the direct connection of a digital remote control SCHNEID-FBR7 per heating circuit.

The AKP board (BASIS board) is connected directly to the control unit. If a communication board (COM-BASIS) is available, this is also connected directly to the control unit, as well as a possible extension with an additional module for analog and digital inputs and outputs (AIN module). The COM-D is designed in the form of RS485 and is used for the direct connection of a digital SCHNEID FBR12/14 per heating circuit. The cables are routed in the DIN rail. The heating circuit expansion modules are connected to the AKP board.

- Optional: the MR12 can be equipped with an additional expansion connection with the following signals:

- * 3 pc pulse inputs for counting applications
- * 1 pc additional PT1000 sensor input
- * 1 pc additional analog input 0-10V



Order variants:

MR12 control unit

with connection for 3 heating circuits

Order number: 190.15205

Order code: MR12 Bedienteil



MR12 control unit PLC

with connection for 7 heating circuits

Order number: 190.15635

Order code: MR12 Bedienteil SPS



MR12 control unit

Control unit module controller MR12:

OPERATING MODES

Off / frost protection

Control mode is deactivated except for the frost protection circuit. If the outside temperature falls below the frost protection temperature, the frost protection circuit is activated.

Lowering mode

The heating circuits are permanently in setback mode regardless of the time program, i.e. The target temperature is reduced according to the settings. The remote control of a heating circuit has priority.

Heating mode

The heating circuits are permanently in heating mode regardless of the time program. The remote control of a heating circuit has priority.

Automatic mode

The operating mode of the heating circuits (heating or lowering mode) depends on the time program and the remote controls.

Boiler operation

The heating circuits are out of order, with the exception of frost protection. Only the boiler is loaded. (Summer operation)

Party mode

The heating circuits are switched to heating mode for a certain period (adjustable). After the time has elapsed, the controller jumps back to the last selected operating mode.

MAINTENANCE

All outputs are switched off, there is no control function

ATTENTION: No frost protection! The maintenance function is not used to carry out electrical engineering and / or work on actuators (pumps, valves)! (Risk of injury!).

