

MR12 module controller base

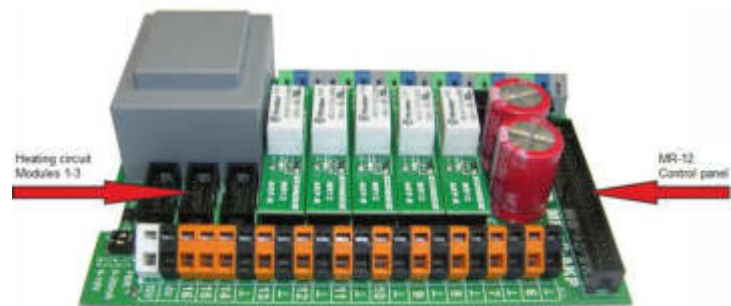
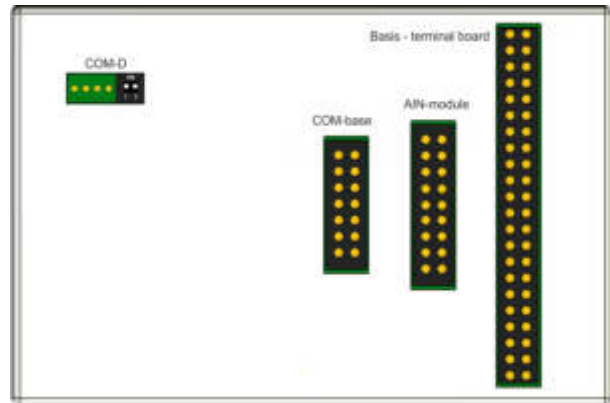
Terminal board (AKP) module regulator MR12:

The SCHNEID MR-12 is an electronic control unit for installation mounting. The AKP of the module regulator MR-12 is compatible with the components of the module regulator MR-08.

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

If a communication board (COM-BASE) is available, it will also be 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 cable routing takes place in the DIN rail rail.

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



Connection diagram :

Supply 230 VAC L
Supplyg 230 VAC N
Protective conductor PE

Output 230 VAC for Heating Circuit Module L
Output 230 VAC for Heating Circuit Module N
Protective conductor PE

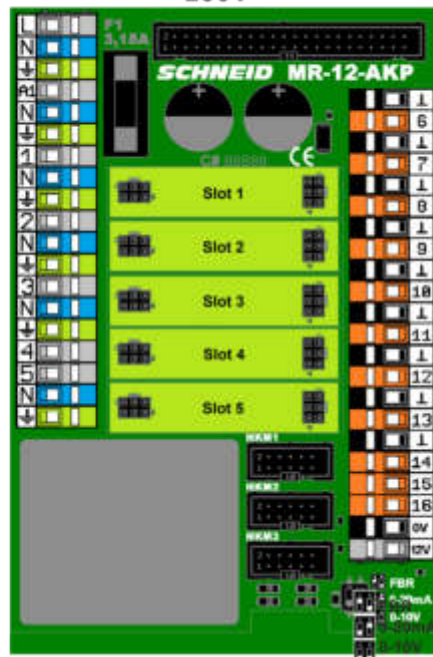
P1 Heating Circuit 1 Pump L
P1 Heating Circuit 1 Pump N

P2 Boiler 1 Pump L
P2 Boiler 1 Pump N

P3 Boiler 2 Pump L
P3 Boiler 2 Pump N

M45 District Heating Valve OPEN L
M45 District Heating Valve CLOSED L
M45 District Heating Valve N

Supply and Outputs 230V~



Temperatures Pt1000 (2poles, shieldedGND)

- GND
- Terminal 6: T6 External Temperature
- GND
- Terminal 7: T7 Primary Return Temperature
- GND
- Terminal 8: T8 Secondary Temp. during initial operation
- GND
- Terminal 9: T9 Boiler 1 Top Temperature
- GND
- Terminal 10: T10 Boiler 1 Bottom Temperature
- GND
- Terminal 11: T11 Secondary Return Temperature
- GND
- Terminal 12: T12 Boiler 2 Top Temperature
- GND
- Terminal 13: T13 Boiler 2 Bottom Temperature
- GND
- Circuit 0 of room temperature remote control
- Terminal 14: FBT Circuit 0 of room temperature remote control
- Terminal 15: FBS remote control Signal
- Terminal 16: VCC remote control Supply
12VDC Output (for E.g. SCHNEID radio modules)
maximum load: 500mA

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Connection diagram :

Outputs 230VAC

- 1P1 Pump of Heating Circuit 1 1
- 1M1 Circuit 1 of Mixed Valve OPEN 2
- 1M1 Circuit 1 of Mixed Valve CLOSED 3



Heating Module Circuit 1

- GND
- TMP 1T1 Flow Temperature Circuit 1
- GND Remote Control Circuit 1
- FBT Remote Control Room Temperature
- FBS Remote Control Signal
- VCC Remote Control Supply

Outputs 230VAC

- 2P1 Pump of Heating Circuit 2 1
- 2M1 Circuit 2 of Mixed Valve OPEN 2
- 2M1 Circuit 2 of Mixed Valve CLOSED 3



Heating Module Circuit 2

- GND
- TMP 2T1 Flow Temperature Circuit 2
- GND Remote Control Circuit 2
- FBT Remote Control Room Temperature
- FBS Remote Control Signal
- VCC Remote Control Supply

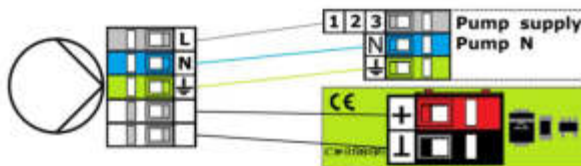
Outputs 230VAC

- 3P1 Pump of Heating Circuit 3 1
- 3M1 Circuit 3 of Mixed Valve OPEN 2
- 3M1 Circuit 3 of Mixed Valve CLOSED 3



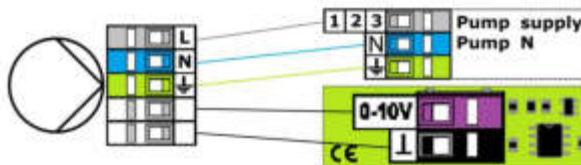
Heating Module Circuit 3

- GND
- TMP 3T1 Flow Temperature Circuit 3
- GND Remote Control Circuit 3
- FBT Remote Control Room Temperature
- FBS Remote Control Signal
- VCC Remote Control Supply



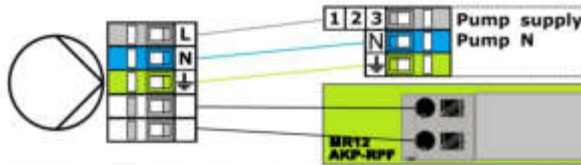
(Excerpt from the AKP-connection sheet)

Slot 1-3
(depending on the configuration required)



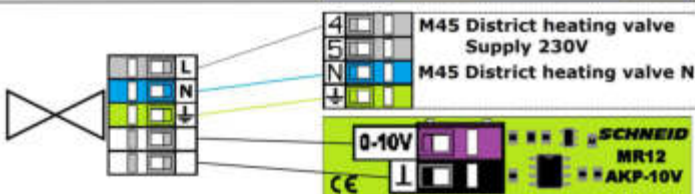
(Excerpt from the AKP-connection sheet)

Slot 1-3
(depending on the configuration required)



(Excerpt from the AKP-connection sheet)

Slot 1-3
(depending on the configuration required)



(Excerpt from the AKP-connection sheet)

Slot 4



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Supply and Outputs 230V~

Supply 230 VAC L
Supply 230 VAC N
Protective conductor PE

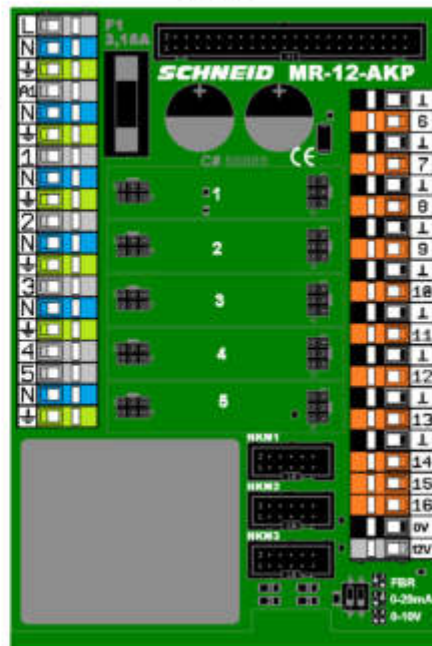
Output 230 VAC for Heating Circuit Module L
Output 230 VAC for Heating Circuit Module N
Protective conductor PE

P1 Heating Circuit 1 Pump L
P1 Heating Circuit 1 Pump N

P2 Boiler 1 Pump L
P2 Boiler 1 Pump N

P3 Boiler 2 Pump L
P3 Boiler 2 Pump N

M45 District Heating Valve OPEN L
M45 District Heating Valve CLOSED L
M45 District Heating Valve N



Temperatures Pt1000
(2poles, shielded GND)

- GND
- Terminal 6: T6 External Temperature
- GND
- Terminal 7: T7 Primary Return Temperature
- GND
- Terminal 8: T8 Secondary Temp. during initial operation
- GND
- Terminal 9: T9 Boiler 1 Top Temperature
- GND
- Terminal 10: T10 Boiler 1 Bottom Temperature
- GND
- Terminal 11: T11 Secondary Return Temperature
- GND
- Terminal 12: T12 Boiler 2 Top Temperature
- GND
- Terminal 13: T13 Boiler 2 Bottom Temperature
- GND
- Terminal 14: FBT Circuit 0 of room temperature remote control
- Terminal 15: FBS remote control Signal
- Terminal 16: VCC remote control Supply 12VDC Output (for E.g. SCHNEID radio modules) maximum load: 500mA

- FBR
- 0-20mA
- 0-10V

Outputs 230VAC

- 1P1 Pump of Heating Circuit 1 1
- 1M1 Circuit 1 of mixed valve OPEN 2
- 1M1 Circuit 1 of mixed valve CLOSED 3

Outputs 230VAC

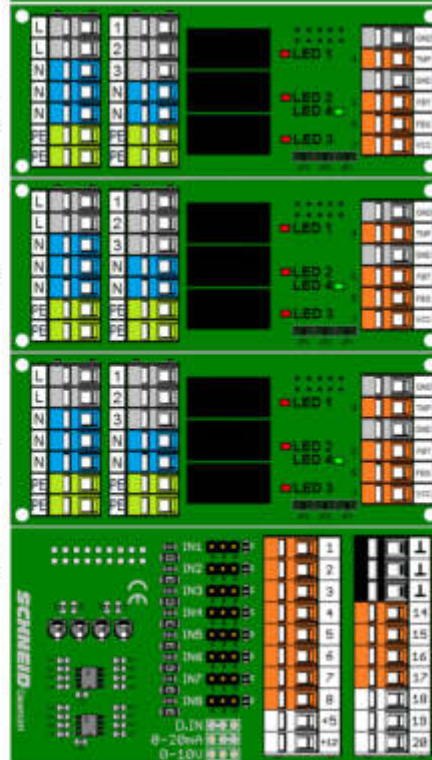
- 2P1 Pump of Heating Circuit 2 1
- 2M1 Circuit 2 of mixed valve OPEN 2
- 2M1 Circuit 2 of mixed valve CLOSED 3

Outputs 230VAC

- 3P1 Pump of Heating Circuit 3 1
- 3M1 Circuit 3 of mixed valve OPEN 2
- 3M1 Circuit 3 of mixed valve CLOSED 3

AIN - Module

- Terminal 1: AIN 1 0-10V Circle 1
- Terminal 2: AIN 2 0-10V Circle 2
- Terminal 3: AIN 3 0-10V Circle 3
- Terminal 4: IN 4
- Terminal 5: IN 5
- Terminal 6: IN 6
- Terminal 7: IN 7
- Terminal 8: IN 8
- VCC +5V: Supply 5V
- VCC +12V: Supply 12V



Heating Module Circuit 1

- GND
- TMP 1T1 Flow temperature Circuit 1
- GND Room remote control circuit 1
- FBT Remote control room temperature
- FBS Remote control signal
- VCC Remote control supply

Heating Module Circuit 2

- GND
- TMP 2T1 Flow temperature Circuit 2
- GND Room remote control circuit 2
- FBT Remote control room temperature
- FBS Remote control signal
- VCC Remote control supply

Heating Module Circuit 3

- GND
- TMP 3T1 Flow temperature Circuit 3
- GND Room remote control circuit 3
- FBT Remote control room temperature
- FBS Remote control signal
- VCC Remote control supply

- GND Signalground
- GND Signalground
- GND Signalground
- Terminal 14: AOUT 1 district heating valve
- Terminal 15: AOUT 2 Base C
- Terminal 16: AOUT 3 Base D
- Terminal 17: AOUT 4
- Terminal 18: DOUT 1 Leak Detector
- Terminal 19: DOUT 2 RESET
- Terminal 20: DOUT 3 Reserve