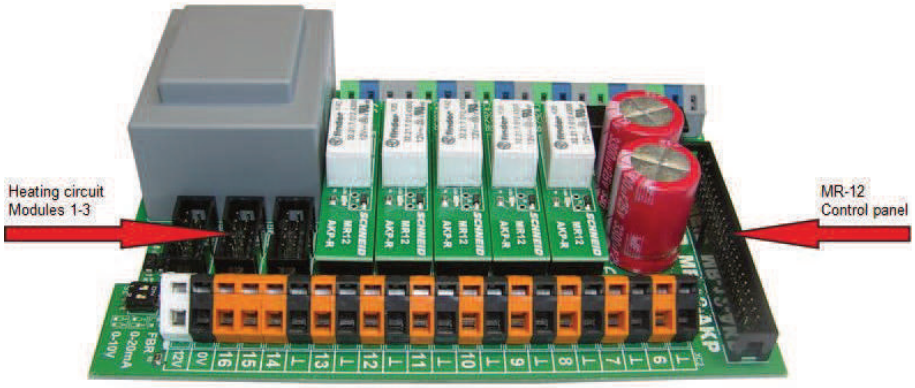
MR12-PLC module controller

Terminal board (AKP) module controller MR12:

The SCHNEID MR-12 is an electronic control device for flush mounting. The AKP of the module controller MR-12 is compatible with the components of the module controller MR-08.

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.



Terminal plan:

Supply 230 VAC L
Supply 230 VAC N
Protective conductor PE

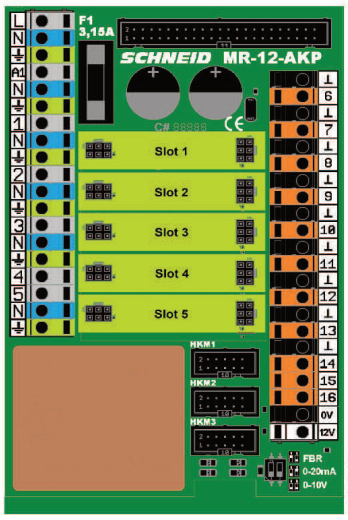
230 VAC output for heating circuit modules L
230 VAC output for heating circuit modules N
Protective conductor PE

P1 heating circuit 0 pump L
P1 heating circuit 0 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
(2-pole shielded)

GND
Terminal 6: T6 outside temperature
GND
Terminal 7: T7 return temperature primary
GND
Terminal 8: T8 secondary flow temperature
GND
Terminal 9: T9 boiler 1 temperature above
GND
Terminal 10: T10 boiler 1 temperature below
GND
Terminal 11: T11 return temperature secondary
GND
Terminal 12: T12 boiler 2 temperature above
GND
Terminal 13: T13 Boiler 2 temperature below
GND room remote control circuit 0
Terminal 14: FBT room temperature circuit 0
Terminal 15: FBS remote control signal
Terminal 16: VCC remote control supply

12VDC output (for e.g. SCHNEID radio modules)
maximum load: 500mA

Supply 115 VAC L
Supply 115 VAC N
Protective conductor PE

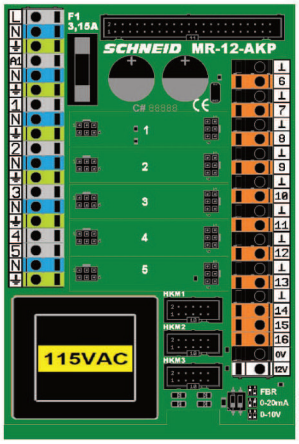
115 VAC output for heating circuit modules L
115 VAC output for heating circuit modules N
Protective conductor PE

P1 heating circuit 0 pump L
P1 heating circuit 0 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

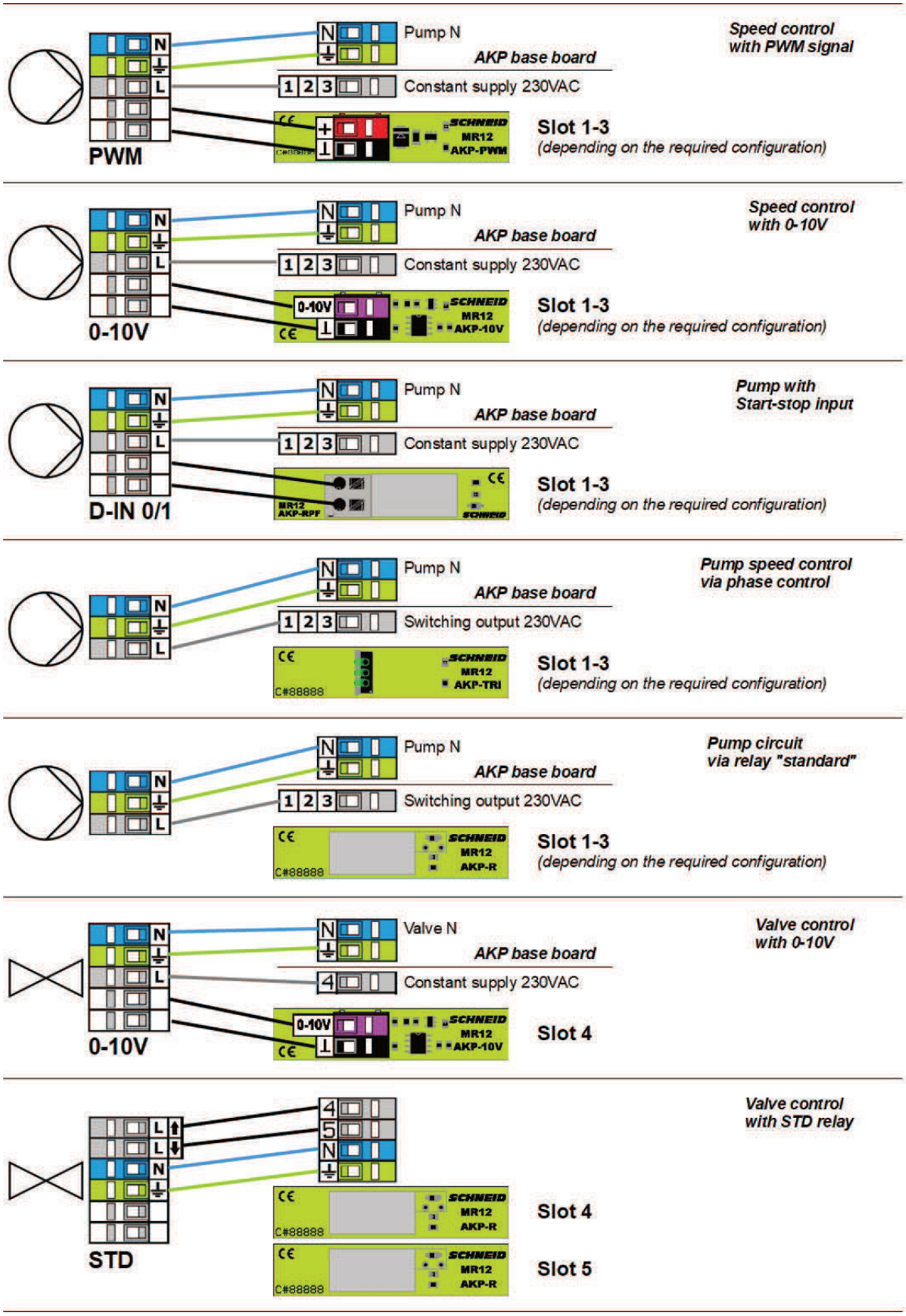


Temperatures PT1000
(2-pole shielded)

GND
Terminal 6: T6 outside temperature
GND
Terminal 7: T7 return temperature primary
GND
Terminal 8: T8 secondary flow temperature
GND
Terminal 9: T9 boiler 1 temperature above
GND
Terminal 10: T10 boiler 1 temperature below
GND
Terminal 11: T11 return temperature secondary
GND
Terminal 12: T12 boiler 2 temperature above
GND
Terminal 13: T13 Boiler 2 temperature below
GND room remote control circuit 0
Terminal 14: FBT room temperature circuit 0
Terminal 15: FBS remote control signal
Terminal 16: VCC remote control supply

12VDC output (for e.g. SCHNEID radio modules)
maximum load: 500mA

Terminal plan:

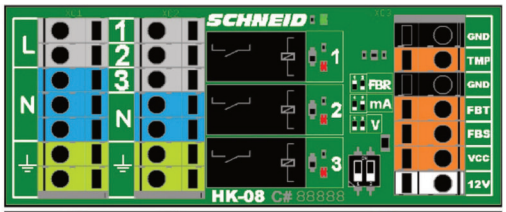


MR12-PLC module controller

Outputs 230VAC

1P1 pump heating circuit 1 1
1M1 mixing valve circuit 1 OPEN 2
1M1 mixing valve circuit 1 CLOSED 3

FBR
0-20mA
0-10V

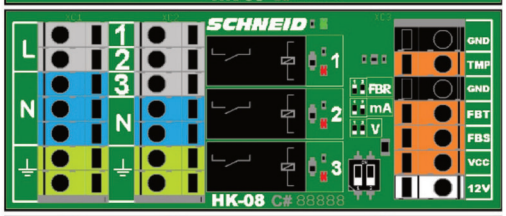


Heating circuit module circuit 1
GND
TMP 1T1 flow temperature circuit 1
GND room remote control circuit 1
FBT remote control room temperature
FBS remote control signal
VCC remote control supply
12VDC output (max. 100mA load)

Outputs 230VAC

2P1 pump heating circuit 2 1
2M1 mixing valve circuit 2 OPEN 2
2M1 mixing valve circuit 2 CLOSED 3

FBR
0-20mA
0-10V

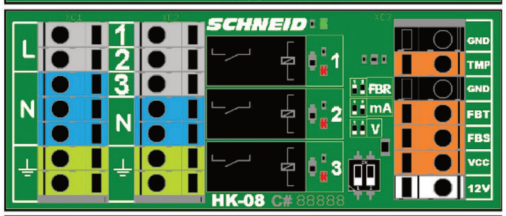


Heating circuit module circuit 2
GND
TMP 2T1 flow temperature circuit 2
GND room remote control circuit 2
FBT remote control room temperature
FBS remote control signal
VCC remote control supply
12VDC output (max. 100mA load)

Outputs 230VAC

3P1 pump heating circuit 3 1
3M1 mixing valve circuit 3 OPEN 2
3M1 mixing valve circuit 3 CLOSED 3

FBR
0-20mA
0-10V

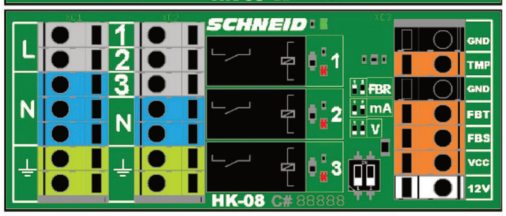


Heating circuit module circuit 3
GND
TMP 3T1 flow temperature circuit 3
GND room remote control circuit 3
FBT remote control room temperature
FBS remote control signal
VCC remote control supply
12VDC output (max. 100mA load)

Outputs 230VAC

4P1 pump heating circuit 4 1
4M1 mixing valve circuit 4 OPEN 2
4M1 mixing valve circuit 4 CLOSED 3

FBR
0-20mA
0-10V

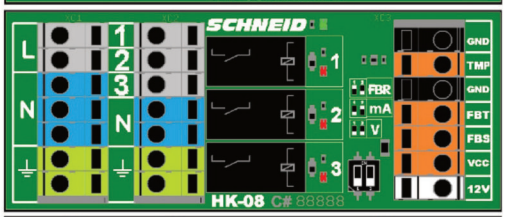


Heating circuit module circuit 4
GND
TMP 4T1 flow temperature circuit 4
GND room remote control circuit 4
FBT remote control room temperature
FBS remote control signal
VCC remote control supply
12VDC output (max. 100mA load)

Outputs 230VAC

1P1 pump heating circuit 1 1
1M1 mixing valve circuit 1 OPEN 2
1M1 mixing valve circuit 1 CLOSED 3

FBR
0-20mA
0-10V

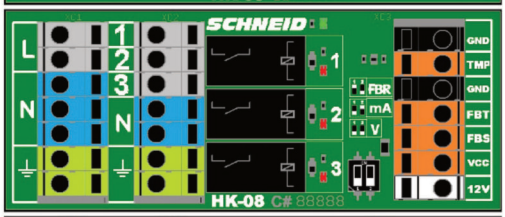


Heating circuit module circuit 1
GND
TMP 1T1 flow temperature circuit 1
GND room remote control circuit 1
FBT remote control room temperature
FBS remote control signal
VCC remote control supply
12VDC output (max. 100mA load)

Outputs 230VAC

2P1 pump heating circuit 2 1
2M1 mixing valve circuit 2 OPEN 2
2M1 mixing valve circuit 2 CLOSED 3

FBR
0-20mA
0-10V

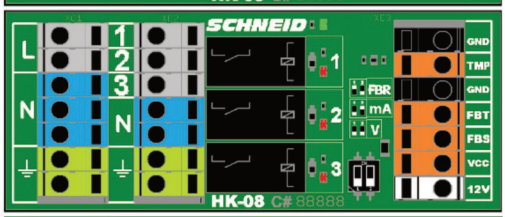


Heating circuit module circuit 2
GND
TMP 2T1 flow temperature circuit 2
GND room remote control circuit 2
FBT remote control room temperature
FBS remote control signal
VCC remote control supply
12VDC output (max. 100mA load)

Outputs 230VAC

3P1 pump heating circuit 3 1
3M1 mixing valve circuit 3 OPEN 2
3M1 mixing valve circuit 3 CLOSED 3

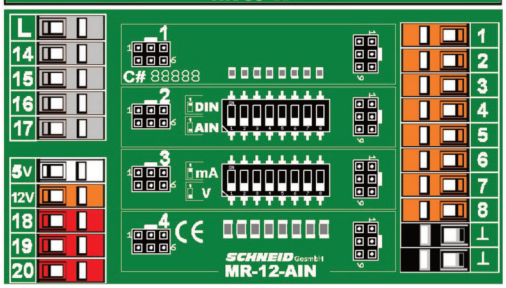
FBR
0-20mA
0-10V



Heating circuit 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
12VDC output (max. 100mA load)

GND Signalground
Terminal 14: **AOUT 1** District heating valve
Terminal 15: **AOUT 2** Base C / Circuit 1
Terminal 16: **AOUT 3** Base D / Circuit 2
Terminal 17: **AOUT 4** Circuit 3

VCC +5V: Supply 5V
VCC +12V: Supply 12V
Terminal 18: **DOUT 1** Leak warning
Terminal 19: **DOUT 2** RESET
Terminal 20: **DOUT 3** Reserve



Terminal1: **AIN 1** 0-10V Circuit1
Terminal 2: **AIN 2** 0-10V Circuit 2
Terminal 3: **AIN 3** 0-10V Circuit 3
Terminal 4: **IN 4**
Terminal 5: **IN 5**
Terminal 6: **IN 6**
Terminal 7: **IN 7**
Terminal 8: **IN 8**