

# MR12 plug-in modules

## SCHNEID MR12 plug-in modules

for module controller MR12-AKP & heating circuit module HK12

Order number:	190.xxxxx
Order code:	MR12 Steckmodul xxxx



### Overview:

The outputs on the MR12-AKP (terminal board) and the HK12 board are implemented on plug-in modules and are available in the following variants.

#### MR12 plug-in module relay standard

Order number: 190.15206

Order code: MR12 Steckmodul Relais Standard

#### MR12 plug-in module relay R16

Order number: 190.16614

Order code: MR12 Steckmodul Relais R16

#### MR12 plug-in module PWM

Order number: 190.15209

Order code: MR12 Steckmodul PWM

PWM for controlling pumps with a PWM signal. In this case, the 230V terminal on the AKP is permanently connected to 230V. The PWM signal is connected to the plug-in module.

#### MR12 plug-in module TRIAC

Order number: 190.15210

Order code: MR12 Steckmodul TRIAC

TRIAC module for controlling drives with a very high switching frequency (primary valves).

#### MR12 plug-in module analog signal

Order number: 190.15300

Order code: MR12 Steckmodul Analsignal

0-10V for controlling pumps with 0-10V signal. In this case, the 230V terminal on the AKP is permanently connected to 230V. The 0-10V signal is connected to the plug-in module.

#### MR12 plug-in module relay RPF

Order number: 190.15404

Order code: MR12 Steckmodul Relais RPF

RPF for controlling pumps with start-stop input. In this case, the 230V terminal on the AKP is permanently connected to 230V. The potential-free relay contact is connected to the plug-in module.



# MR12 plug-in modules

## Terminal plan:

### Outputs 230VAC

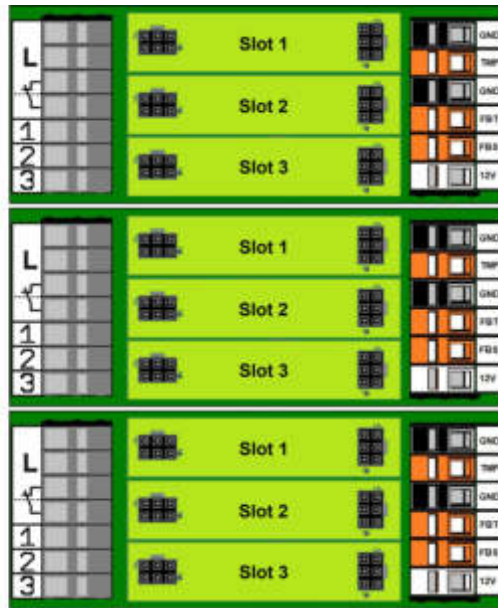
- 1P1 Pump of Heating Circuit 1      1
- 1M1 Circuit 1 of Mixed Valve OPEN    2
- 1M1 Circuit 1 of Mixed Valve CLOSED 3

### 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



### Heating Module Circuit 1

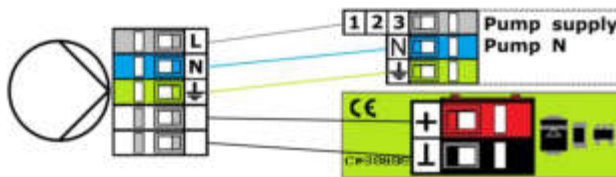
- GND
- TMP 1T1 Flow Temperature Circuit 1
- GND Remote Control Circuit 1
- FBT Remote Control Room Temperature
- FBS Remote Control Signal
- 12V VCC 12VDC

### 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
- 12V VCC 12VDC

### Heating Module Circuit 3

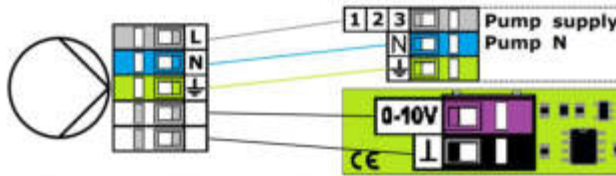
- GND
- TMP 3T1 Flow Temperature Circuit 3
- GND Remote Control Circuit 3
- FBT Remote Control Room Temperature
- FBS Remote Control Signal
- 12V VCC 12VDC



(Excerpt from the AKP-connection sheet)

### Slot 1-3

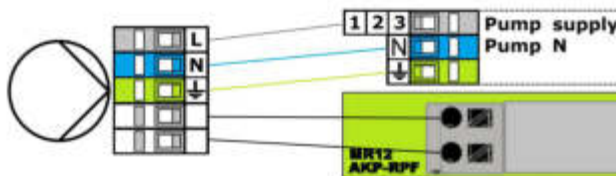
(depending on the configuration required)



(Excerpt from the AKP-connection sheet)

### Slot 1-3

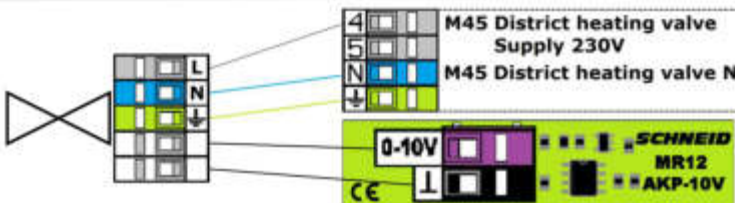
(depending on the configuration required)



(Excerpt from the AKP-connection sheet)

### Slot 1-3

(depending on the configuration required)



(Excerpt from the AKP-connection sheet)

### Slot 4



## MR12 plug-in modules

### Technical data MR12 plug-in module relay standard for MR12-AKP & HK12

Intrastat Number:	8537.10.91.90
Country of origin	EU/AT
Height, width, depth (in mm)	12x55x22,3mm
Weight (in kg)	0,009
Degree of protection	IP-20
Ambient temperature	0°C....+40°C
Operating voltage	12VDC
Power consumption	0,25W
Max. Rated current output	2A continuous current // max. 15A inrush current
Relay output life	50 x 10 <sup>3</sup> switching cycles
Connection type	No terminals for outer conductors available
Mounting type	Attachable to carrier boards
Operating time	Continuous operation
Degree of pollution	2

### Technical data MR12 plug-in module relay R16 for MR12-AKP & HK12

Intrastat Number:	8537.10.91.90
Country of origin	EU/AT
Height, width, depth (in mm)	12x55x26,8mm
Weight (in kg)	0,014
Degree of protection	IP-20
Ambient temperature	0°C....+40°C
Operating voltage	12VDC
Power consumption	0,3W
Max. Rated current output	3 A continuous current // max. 25A inrush current
Relay output life	50 x 10 <sup>3</sup> switching cycles
Connection type	No terminals for outer conductors available
Mounting type	Attachable to carrier boards
Operating time	Continuous operation
Degree of pollution	2

## MR12 plug-in modules

### Technical data MR12 plug-in module analog signal for MR12-AKP & HK12

Intrastat Number:	8537.10.91.90
Country of origin	EU/AT
Height, width, depth (in mm)	12x55x24,5mm
Weight (in kg)	0,006
Degree of protection	IP-20
Ambient temperature	0°C....+40°C
Operating voltage	12VDC
Power consumption	< 0,1W
Signal output	0-10V
Max. Nominal current per output	10mA
Connection type	Fixed wiring terminals
Connection technology	Spring clamp
Cable cross section	Max. 2.5mm <sup>2</sup>
Mounting type	Attachable to carrier boards
Operating time	Continuous operation
Degree of pollution	2

### Technical data MR12 plug-in module TRIAC for MR12-AKP & HK12

Intrastat Number:	8537.10.91.90
Country of origin	EU/AT
Height, width, depth (in mm)	12x55x30mm
Weight (in kg)	0,007
Degree of protection	IP-20
Ambient temperature	0°C....+40°C
Operating voltage	12VDC
Power consumption	< 0,1W
Max. Nominal current per output	3.15A continuous current // max. 105A inrush current
Connection type	No terminals for outer conductors available
Mounting type	Attachable to carrier boards
Operating time	Continuous operation
Degree of pollution	2

## MR12 plug-in modules

### Technical data MR12 plug-in module PWM for MR12-AKP & HK12

Intrastat Number:	8537.10.91.90
Country of origin	EU/AT
Height, width, depth (in mm)	12x55x24,5mm
Weight (in kg)	0,006
Degree of protection	IP-20
Ambient temperature	0°C....+40°C
Operating voltage	12VDC
Power consumption	< 0,1W
Signal output	PWM 12V
Max. Nominal current per output	10mA
Relay output life	50 x 10 <sup>3</sup> switching cycles
Connection	Fixed wiring terminals
Connection technology	Spring clamp
Cable cross section	Max. 2.5mm <sup>2</sup>
Mounting type	Attachable to carrier boards
Operating time	Continuous operation
Degree of pollution	2

### Technical data MR12 plug-in module relay RPF for MR12-AKP & HK12

Intrastat Number:	8537.10.91.90
Country of origin	EU/AT
Height, width, depth (in mm)	12x55x28mm
Weight (in kg)	0,011
Degree of protection	IP-20
Ambient temperature	0°C....+40°C
Operating voltage	12VDC
Power consumption	0,25W
Max. Rated current output	2A continuous current // max. 15A inrush current
Relay output life	50 x 10 <sup>3</sup> switching cycles
Connection type	Fixed wiring terminals
Connection technology	Spring clamp
Cable cross section	Max. 1,5mm <sup>2</sup>
Mounting type	Attachable to carrier boards
Operating time	Continuous operation
Degree of pollution	2