Technical Data Sheet

Heating and Cooling Connection Module Art. 12630/12631

6 Zones / 10 Zones

Application

The WEM connection module enables the quick and easy connection of electrothermal actuators and room thermostats for WEM surface heating and cooling systems. The system components are powered directly via the connection module's power supply. All switching commands from the room thermostats are relayed via the connection module to the connected components (e.g. pump, boiler or other electrical loads). The symbols on the individual terminals prevent unnecessary sources of error during wiring work.

Features

- Changeover input for heating/cooling
- time-controlled reduction of the room temperature (possible via an external digital timer)
- Pump/boiler control
- Connection for dew point sensor/temperature limiter
- Connection for external timer
- Status indication via LEDs
- for up to 6 / 10 room thermostats
- Easy to fit using screws or
- Easy installation on a top-hat rail
- Screwless terminal block connection technology
- Proven cable routing and standard-compliant strain relief
- Equipment for heating and/or cooling systems
- integrated pump logic

Functioning

The connection module enables simple wiring between room thermostats and the corresponding actuators. All connections for wiring the heating and cooling systems are provided. Either 6 or 10 room thermostats can be connected to the assigned actuators. The operating status is indicated by LEDs. Installation is carried out either directly on a wall or on a DIN rail (TS35 / 35 x 7.5 mm).

Technical data

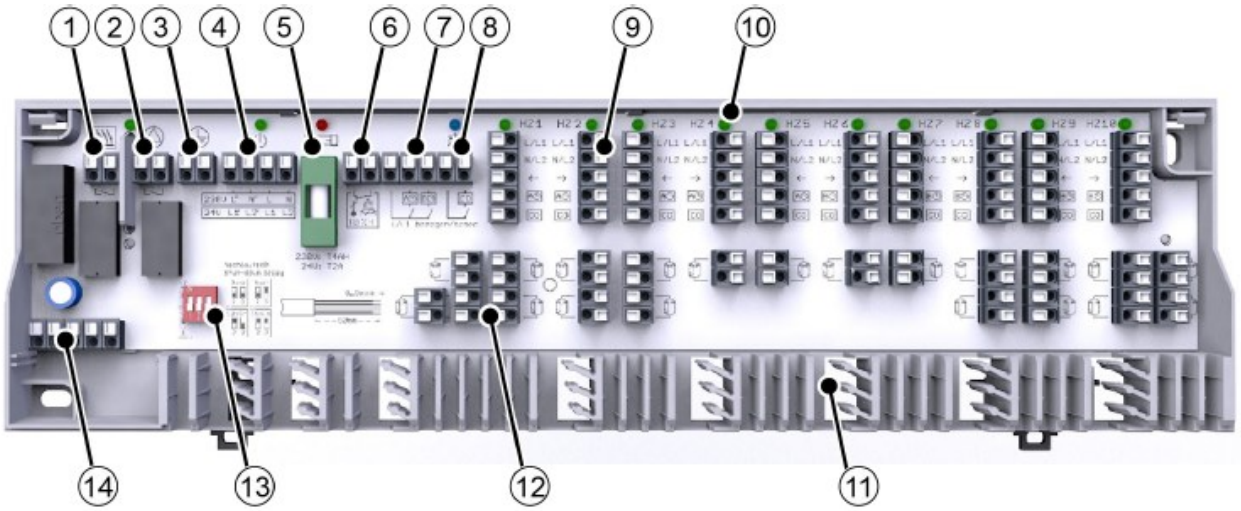
Operating voltage :	230 V +/- 10 %, 50 Hz
Idle power consumption :	< 1 W
Max. power consumption (excluding the pump and boiler)	max. 50 VA
Protection	T4AH
Connection cable	NYM-J/NYM-O (max. 5 x 1,5 mm²)
Operating temperature :	0 - 50 °C
Maximum number of controllers :	6 | 10
Max. number of connection points for actuators: 6 | 10 :	15 x 230 V | 18 x 230 V (max. start-up current: 500 mA per actuator)
Pump circuit	Normally open contact (single-pole switching) / direct connection via L´/N´ possible
Boiler control system	Normally open contact (single-pole switching)<)
Pump and boiler control:	
Switching capacity	2 A, 200 VA inductive
Switching element	Relay
Protection class :	Protection class II IP 20

Technical data

Switch output for circulation pump :	2 x relays voltage-free , max. 8 A
Switch output for dew point monitor:	NPC (no-potential break contact) 230V, 8 A
Case colour : Colour of cover :	Light grey RAL 7035 Transparent, with a polished finish around the LEDs
Material of the cover and housing	ABS
Dimensions (H x W x D):	90 x 326,5 x 52 mm

Dimensions (height/length in mm)

Overview of devices:



1	Boiler control	A potential-free contact for controlling a boiler circuit Pre-set switch-on and switch-off delay of 2 minutes
2	Pump control	A potential-free contact for controlling a pump circuit Pre-set switch-on and switch-off delay of 2 minutes Pump protection circuit - The pump is activated cyclically every 14 days for 1 minute following the last activation
3	Intermediate connection for the protective conductor	Terminal for the intermediate connection of the protective conductor for electrical appliances such as a pump (230 V version only)
4	Power supply / mains pass-through terminal	Direct mains connection Mains pass-through terminal for connecting electrical loads such as a pump
5	Fuse to prevent melting	Protects the connection module by interrupting the circuit if the current has exceeded a certain value for a sufficient period of time.

6	Temperature limiter / Dew point monitor	Switch contact for connecting a temperature limiter or dew point monitor - The temperature limiter prevents the flow temperature of the panel heating from becoming too high via a potential-free contact - In cooling mode, the dew point monitor monitors the system and switches it off if condensation is detected
7	Drop-down channel – connection for an external system clock	Transmission of up to two timer signals to connected controllers via a dry contact for the time-controlled reduction of the room temperature
8	Switch over between heating and cooling	Switching the entire individual room control system between heating and cooling Input of an external signal via a dry contact Forwarding of the switching signal to connected controllers
9	Connection for controller	Quick connection of up to 10 controllers Power supply for connected controllers
10	Status indication via LEDs	Clear status indicators even when the housing cover is closed, showing: - Boiler/pump active (green) - Operating status active (green) - Fuse faulty (red) - Cooling mode active (blue) - Heating zone active (green – one status LED per heating zone)
11	Cable routing and strain relief	Tried-and-tested, integrated cable routing and strain relief in accordance with DIN EN 60730-1
12	Connection for actuators	Power supply for connected actuators; Valve protection function on all outputs (optional) - Actuators are activated for 10 minutes every 14 days following the last activation

		- Prevents the valves from sticking during periods when the temperature is not being controlled
13	DIP switches	Operating mode can be set to ‘normally closed (NC)’ and ‘normally open (NO)’ via DIP switches Increase the switch-off delay for the boiler/pump control by 5 to 15 minutes
14	Connection of the timer module	Connection for the timer module on the Control version, or for retrofitting the timer module on the Comfort version

Wiring diagram: