# plum® HVAC

# miniMULTI

**installation controller**

## Weather installation controller supporting:

- heat pump
- gas boiler
- electric boiler
- simple mixing systems and DHW

miniMULTI is intended for connection in hybrid systems and for use in hydraulic cabinets & hydroboxes.

## Why you should choose the miniMULTI controller?

- sell hydronic cabinets with an integrated installation controller; bet on electronics that will upgrade your solution and put you one step ahead of the competition
- optimize plant operation and costs with weather control
- offer installers a simple way to connect appliances with the installation assistant and the ecoNEXT app
- control your installation with a bluetooth mode on your phone, without buying a control panel, retaining all the functionality; the panel is an option
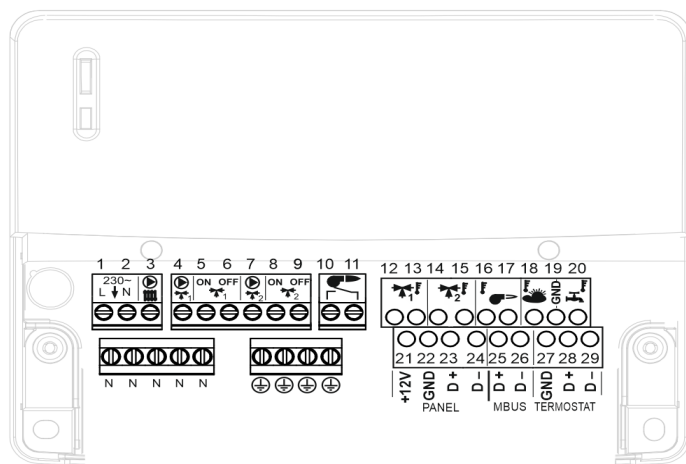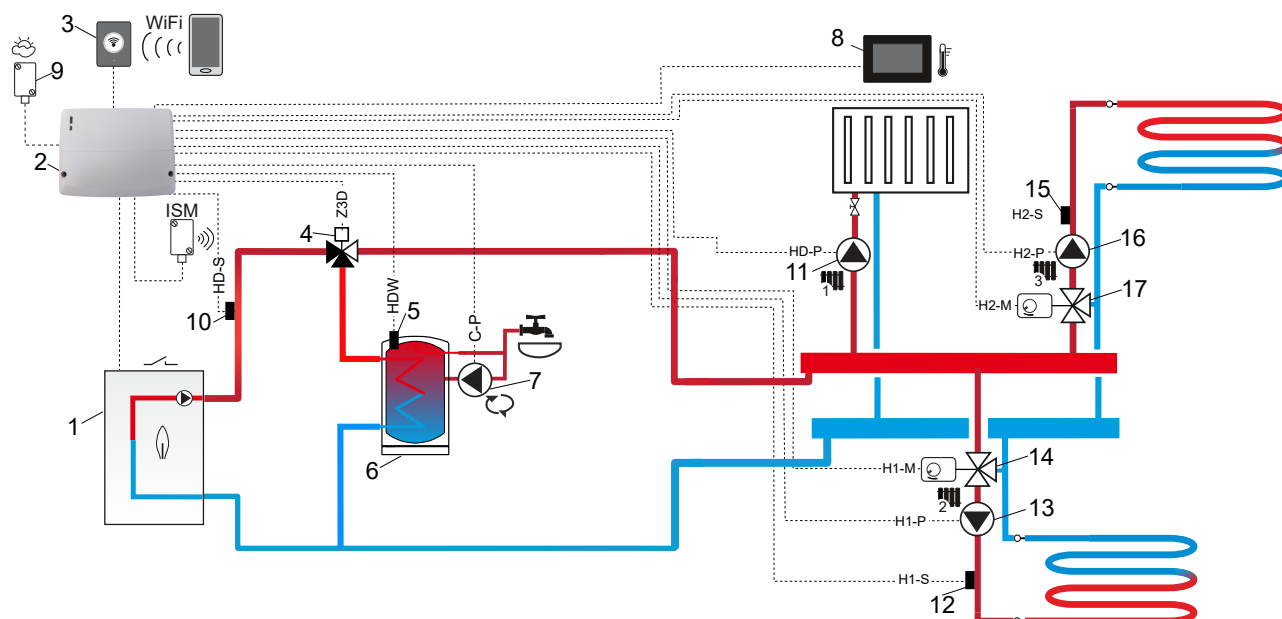- control the installation comprehensively, while reducing increasing bills

# electrical scheme
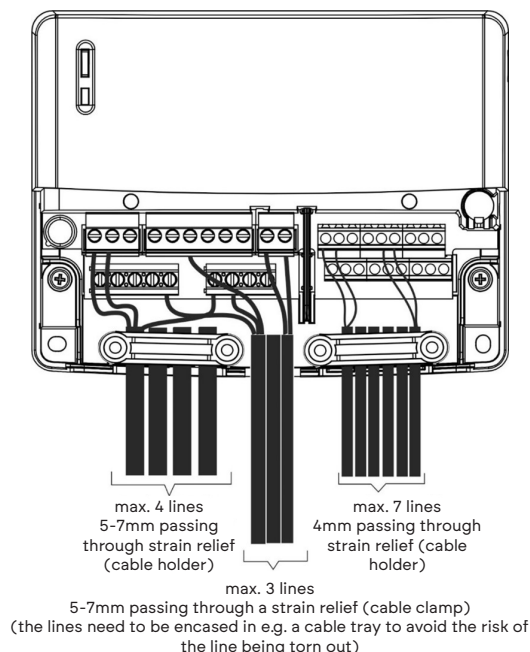


2: 230V power supply

3 - 9: powered relay outputs

10, 11: potential-free outputs

N: N board

PE: PE board

12 - 20: analogue inputs

21, 22: DC 12V

23, 24: serial port 1 - RS485

25, 26: serial port 2 - RS485

28, 29: serial port- 3 - RS485

# hydraulic scheme



1: heat source

2: miniMULTI controller

3: internet module

4: 3-way valve or HUW pump

5: DHW temperature sensor (weather sensor)

6: DHW accumulator

7: circulation pump

8: control panel with room thermostat function

9: outdoor temperature sensor (weather sensor)

10: direct circuit temperature sensor (pump only) - source sensor

11: direct circuit pump

12: the 1-cycle temperature sensor

13: the 1-cycle pump

14: the 1-circuit mixer actuator

15: the 2-circuit temperature sensor

16: the 2-cycle pump

17: the 2-cycle mixer actuator

# external lines



max. 4 lines
5-7mm passing
through strain relief
(cable holder)

max. 7 lines
4mm passing through
strain relief (cable
holder)

max. 3 lines
5-7mm passing through a strain relief (cable clamp)
(the lines need to be encased in e.g. a cable tray to avoid the risk of
the line being torn out)

# technical data

| | |
|---|---|
| **power supply** | 230 V~, 50 Hz |
| **current drawn** | 0,04 A3 |
| **max. rated current** | 6(6) A |
| **protection degree** | IP 20 |
| **operating temperature** | min. 0 °C, max. 40 °C |
| **storage temperature** | min. -25 °C, max. +60 °C |
| **relative humidity** | 5 - 85%, no condensation steam |
| **transmission** | - RS485<br>- BT v4.2 |
| **measuring range temperature CT10 sensors** | min. 0 °C, max. 100 °C |
| **measuring range temperature sensor CT10-P** | min. -40 °C, max. +40 °C |
| **accuracy of temperature measurement with sensors CT-10 and CT10-P** | ±2 °C |
| **screw terminals, mains cross-section** | 0.75 - 1.5 mm² (without sleeves), max. 0.75 mm² (with sleeves), 0.4 Nm, stripping length: 7 mm |
| **screw terminals, signal cross section** | 0.2 - 1.5 mm² (without sleeves), max. 0.2 - 1.75 mm² (with sleeves), 0.2 Nm, isolation length: 7 mm |
| **external dimensions** | 140 x 105 x 44 mm |
| **norms** | PN-EN 60730-2-9 |
| **software class** | A, acc PN-EN 60730-1 |
| **protection class** | class II (PN-EN 60730-2-9) |
| **degree of micro-environmental pollution** | level 2 (PN-EN 60730-2-9) |
| **mounting method** | independently on a flat surface |
| **accessories** | ecoNEXT<br>ecoNET Cloud<br>xCLOUD<br>control panel<br>temperature sensors |

# functions of the miniMULTI installation controller

- internet system connection - remote operation and management via ecoNET Cloud
- built-in installation assistant
- operation of up to 3 heating circuits
- DHW operation
- circulation pump operation
- weather-compensated control
- simple remote software update
- bluetooth communication, simple operation
- simple pairing of thermostats
- anti-freeze system
- 3 operation modes (auto/eco/comfort)
- anti-legionella thermal disinfection
- time schedules
- preventive cooling of heat source
- operation of two regulated circuits (underfloor heating system and radiators)

# use of miniMULTI controller

- hydraulic cabinet
- pump groups
- heat pumps
- heating boilers: gas, electric, pellets (with option of override by external signal)

# create one system with xCLOUD internet module

Connect controllers from different manufacturers, of heating system equipment, into one system with the xCLOUD internet module. Build an universal system in which you can:

- remotely analyse historical data
- eliminate equipment installation errors using the Installation Assistant and installation log
- reduce the cost of service trips by remotely resolving requests