

## Controller

# DIALOG EQ



### **Use possibilities**

Controller DIALOGUE EQ is primarily designed for managing and controlling heating and cooling systems, but can also be used in various areas of automation and intelligent buildings.

Connected to the internet through the network applications in the "cloud" offers a simple and friendly user experience. The performance of your system can be remotely monitored and controlled (from anywhere) by computer, laptop, tablet or smart phone.

Server in the "cloud" stores settings, status, temperature and all interventions and events on the controller, which allows plotting of temperature graphs and analysis of the performance of your system.

Connection to the internet network is quite easy. The controller simply has to be plugged into an active wired connection, the rest makes Dialogue EQ itself.

**The composition of the controller allows easy adjustment to control-algorithms on your system and also a simple adjustment of the subtitles on the screen according to the wishes of the user.**

Controller Dialogue EQ can be used to regulate the distribution of the heating or cooling medium through the facility. Exits and algorithms are ready to control:

- direct circuit
- mixed circuit 2x
- sanitary water

At the same time the regulator Dialogue EQ may be used to regulate the production of heat or cold. Exits and algorithms are ready to operate with:

- Biomass boilers
- Boilers burning gaseous and liquid fuels
- Heat pumps air / water
- Heat pumps water / water
- Solar panels
- Electrical heaters (3 levels)

Special configuration of the controller also includes a communicator that allows direct communication with external units for heat pumps air-water brand FUJITSU.

## User interface

Regulator Dialogue EQ has two user interfaces:

- if the regulator is not connected to the internet network, the user interface is generated directly from the controller (INTERNAL SERVER);
- if the controller is connected to the internet network, the user interface is generated from a computer in the "cloud" (EXTERNAL WEB SERVER).

### INTERNAL SERVER

When the controller is not connected to the Internet network, you can monitor the operation of the system in two ways:

- Direct wired connection
- Wi-Fi connection

Access to interface with the setup is the same in both cases, you only need to type into your browser the default IP address (192.168.1.234)

#### Direct wired connection

It means that we directly connected with a computer or laptop to the controller. We only need a standard Ethernet cable.

#### Wi-Fi connection (WiFi)

It means that through a wireless access point generates a local wireless network. This network can be connected with any devices which enable wireless communication.

For this purpose we need a module (WiFi), called the wireless access point.

*Appearance of internal user interface:*



### EXTERNAL WEB SERVER

Connecting the controller to the Internet network can be done in two ways:

- The direct wired connection to the router (router)

- Wired connection via the mains

When connected to the Internet network, the controller will automatically begin to communicate with the router (DHCP) and to send data to the server "in the cloud".

If there would be any restrictions, the static address information and transition to the Internet can be entered into controller manually.

#### The direct wired connection to the router (router)

It means that we directly connected with a computer to the router. We only need a standard Ethernet cable.

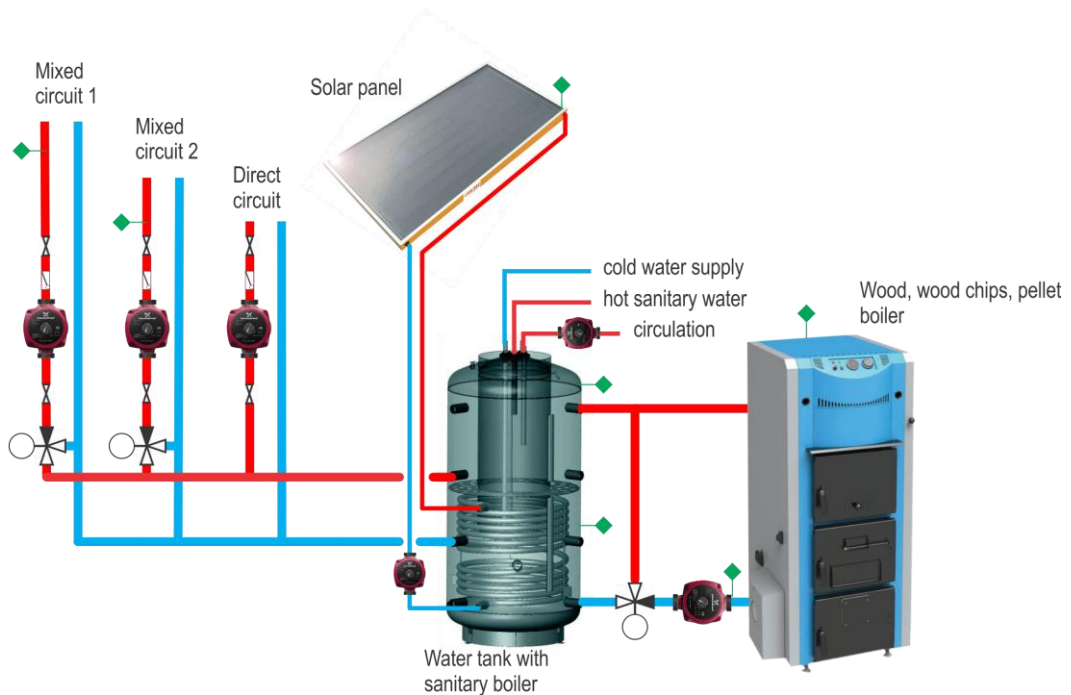
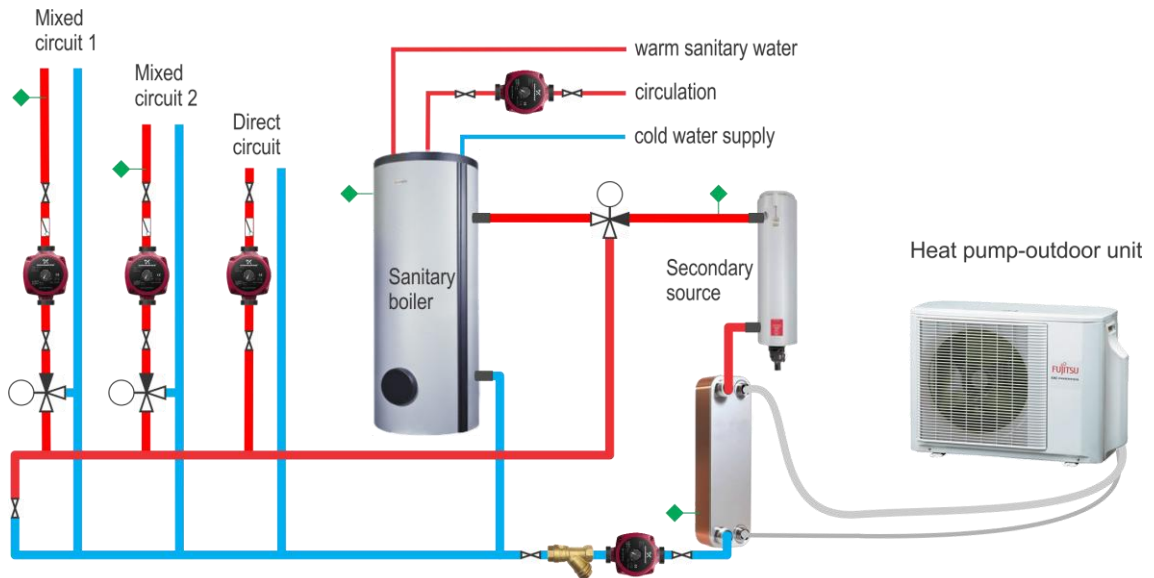
#### Wired connection via the mains

It means that we do not have the appropriate wired connection between the router and controller, therefore the power supply is used for the communication. This requires two modules (Et2PL), enabling Internet communications via the mains.

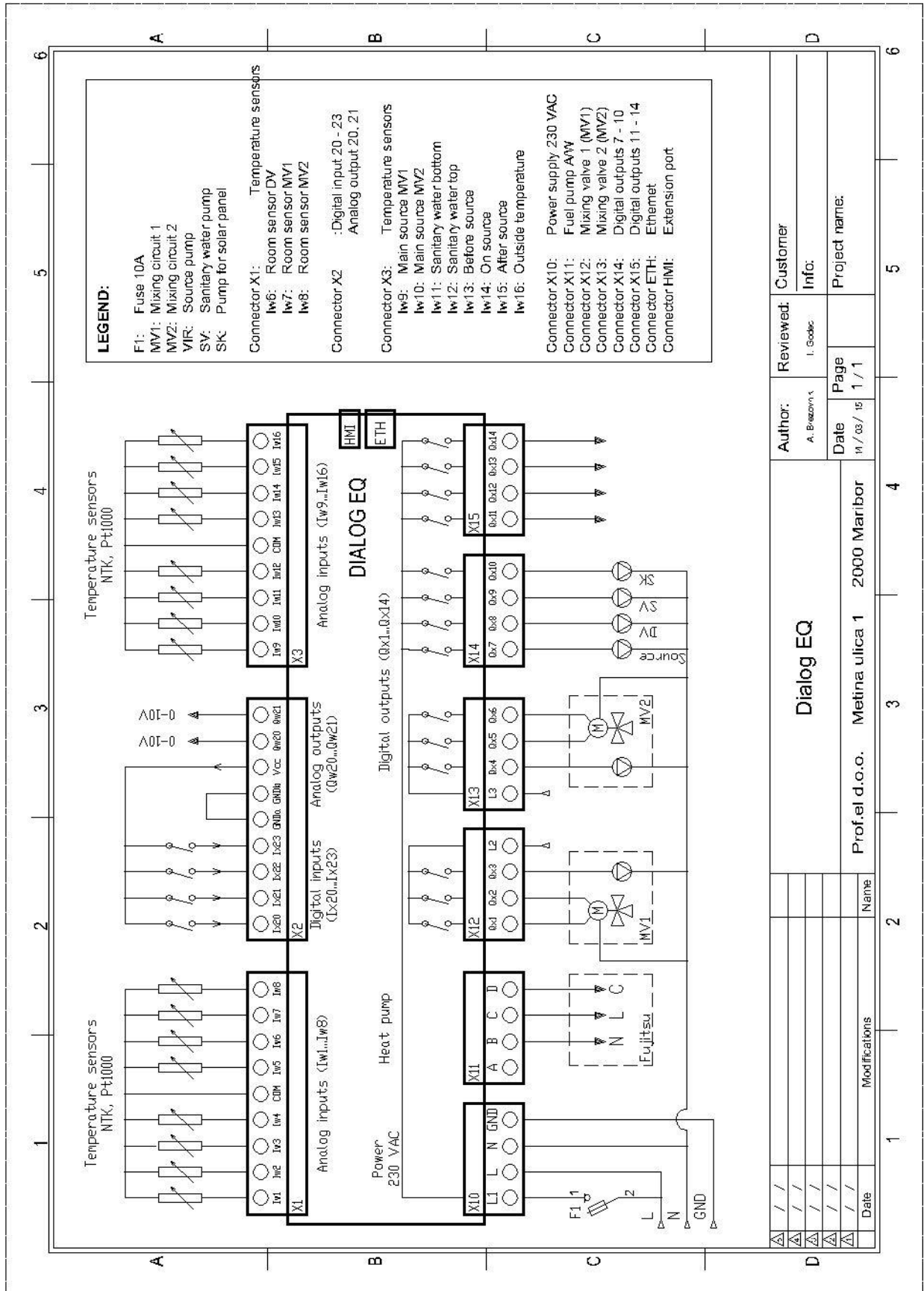
*Appearance of WEB user interface:*




**Typical heating/cooling schemes**



Electrical scheme



**Technical information**

Supply voltage	230 VAC, 50 Hz
Consumption	4 VA
Working temperature	0 °C to 50 °C
Storage temperature	-20 °C to 70 °C
Insulation class (VDE 0100) (DIN 40050)	II IP20
Compliance with standards:	IEC 61131-2-2007
	
Dimensions of the housing	160 x 108 x 58mm
Housing material	Lamex, ABS
Weight	520 g
<b>Controller inputs</b>	
Temperature sensors	16 x analog + 4 x digital NTK or Pt1000 (max 14x)
Analog input (0-10V, 0-20mA)	2 x
Digital inputs	4 x galvanically isolated
Digital counters	2 x (to 500 Hz)
<b>Controller exits</b>	
Maximum load of digital outputs	14 x digital + 2 x analog (0-10 V) 10 x relay (250 VAC, 1,5 A) 4 x optotriak (250 VAC, 100 mA)
Power supply connectors	Ethernet, CAN
Communicator	For the outdoor unit Fujitsu A / V heat pump
RTC Independence	3 days

**Ordering information**

**Type:**

- **Dialog EQ** (basic version)

**Options:**

- **2F** (with the communicator for Fujitsu Heat Pumps)
- **Wifi** (wireless access point)
- **Eth2PL** (Internet connection via mains)

**Temperature sensors:**

- NTK temperature sensors (10kohm) (-30 to 90 degrees)
- PTC temperature sensors (Pt1000) (-30 to 200 degrees)

**Order example:** Dialog EQ + Wifi + NTK (10x) + PTK (2x)

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