AQUA 3000 OPEN

Smart building: managing water in a mobile and efficient way

MAKE IT WONDERFUL

FRANKE

Managing water efficiently, successfully, and wirelessly

The technical equipment used in large building complexes such as swimming pools, sports facilities, offices, airports and industrial plants can now be automated and centrally controlled as a smart building. The main focus is on energy optimisation of building operations to reduce operating costs and increase building safety.

Franke Water Systems provides sanitary solutions for sustainable operation of these buildings. The AQUA 3000 open water management system establishes a balance between ecology and economy, between hygiene and consumption, and between planning and operation.

A well-designed, complete water management system facilitates economical operation of all connected components and can be connected to higher-level networks, e.g. via KNX-IP via a standardised RJ45 interface. Franke has been a member of the KNX Association since 2016.

AQUA 3000 open allows operators of large drinking water installation systems to enhance their efficiency in terms of water and energy consumption. The goal is to guarantee the best-possible level of drinking water hygiene at every withdrawal point in the building. Limited resources such as energy and water are conserved, thereby reducing the emission of CO2.

Reference property for AQUA 3000 open: secondary school in the Blue Land, Murnau (Germany)

Smart and easy drinking water hygiene with AQUA 3000 open

Access to clean and high-quality water has a significant influence on the quality of life and the standardised and mandatory directives on the quality of drinking water in EU member states (EU Drinking Water Directive 98/83/EC) help to ensure this. Each EU country has the freedom to implement the required quality standards with various factors such as physico-chemical, sensory and microbiological parameters generally being examined. In poorly designed and operated drinking water systems, the "clean" water can be polluted and can contaminate the entire building. The main causes of this are stagnation and critical temperatures. Germs and bacteria (e.g. legionella) in drinking water installations are propagated at temperatures between 25°C and 45°C. They are transmitted in a contactless manner by breathing in very fine droplets of water that are formed when showering. The AQUA 3000 open water management system can prevent stagnating water and these critical temperatures.

Sustainable

A flexible, expandable and future-proof system that can be usefully integrated into the building management system.

Hygienic

Regular water hygiene flushing operations and thermal disinfection programmes guarantee the high quality of the drinking water.

Economical

The efficient and demand-optimised use of resources (water, energy, time) makes the sanitary system cost effective.

The AQUA 3000 open water management system can be individually programmed and expanded as required. Shower fittings, basin taps, flushing valves and additional system components such as temperature sensors from Franke Water Systems can be connected retrospectively. For all connected fittings, the AQUA 3000 open system enables water hygiene flushing operations, thermal disinfection, operational mode switching, deactivation of cleaning, and system fault messages, such as leakage detection and statistical functions. Water volume, hygiene functions and their temperature limit values can be individually monitored and set for each room and even for each individual fitting. Malfunctions are detected immediately and reported by the system. The Ethernet CAN coupler (ECC2) with integrated WEB server helps with mobile controlling and monitoring of the entire water installation inside the building. All fittings connected to an ECC2 can be divided (up to eight groups) to separate rooms within a building, or to effectively and safely perform specialist functions. All of the data and relevant parameters for the groups can be exported in a csv format together with the date and time. The easy-to-read, illuminated display simplifies reading and navigation in the menu.

Smart fitting technology

AQUA 3000 open – Interconnecting intelligent basin taps, shower fittings and flush valves

Building level

Fitting level

Electronic module from the accessory range

F5 basin taps

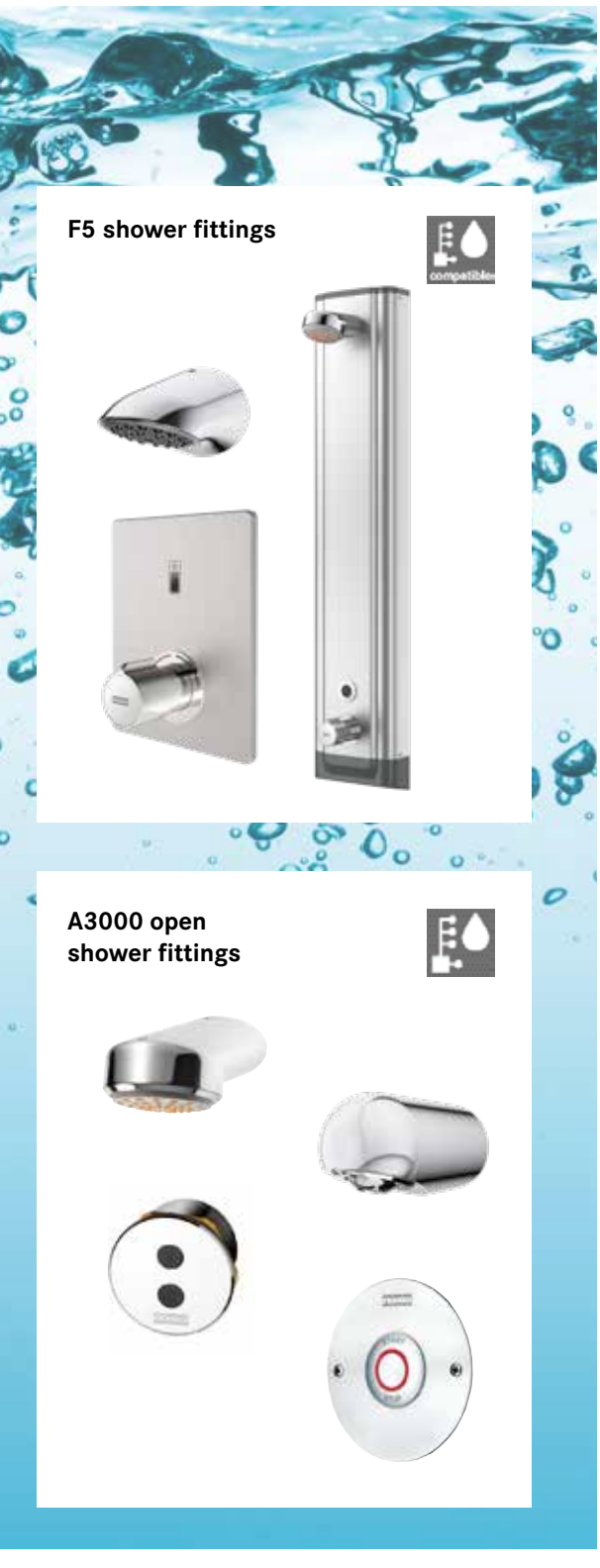
Integrated electronic module

A3000 open flush valves

AQUA 3000 open-compatible
- Option for combination with a suitable electronic module for integration into the AQUA 3000 open water management system of F5E fittings *)

AQUA 3000 open
- Network-compatible fitting
- The electronic module is included in the product

*)



AQUA 3000 open can be integrated into any sanitary facility in the building network and connected to existing building management systems using various data protocols. The ECC2 function controller constitutes the transfer point to the building network, it communicates with the respective fitting via the electronic module.

The intelligent electronic module is at the heart of the system. The suitable electronic module from the accessory range is available for all A3000 open-compatible F5 basin taps and shower fittings. The electronic module is part of the product on all network-compatible fittings for concealed mounting and flushing valves for WCs and urinals.

The factory programmed, "plug and play" functionality of the electronic modules allow the fittings to be easily installed. Together with the electronic module, each fitting has application-specific programming for all of the important water supply functions which is independent of the higher-level control unit. Furthermore, a unique serial number provides the basis for additional control functions.

Parameter options
Our intelligent fittings have the following function programmes:

1. Easy parameter settings
2. Demand-optimised water supply functions
3. Programme mode switching
4. Peak-load optimisation and Simultaneous-operation suppression
5. Paid supply of water with AQUAPAY
6. Safety switch-offs
7. Deactivation of cleaning
8. Statistical functions and temperature logs
9. Automatic water hygiene flushing operations
10. Thermal disinfection programmes

*) AQUA 3000 open system accessories must be ordered separately and tailored to a particular premises

Tailored product functions for optimum results

The intelligent product technology and the open system structure of AQUA 3000 open enable customised water supply functions and adaptation or expansion to specific building conditions at any time.

The following parameters demonstrate the various options for user-defined and useful control of sanitary fittings to reduce building system expenditure.

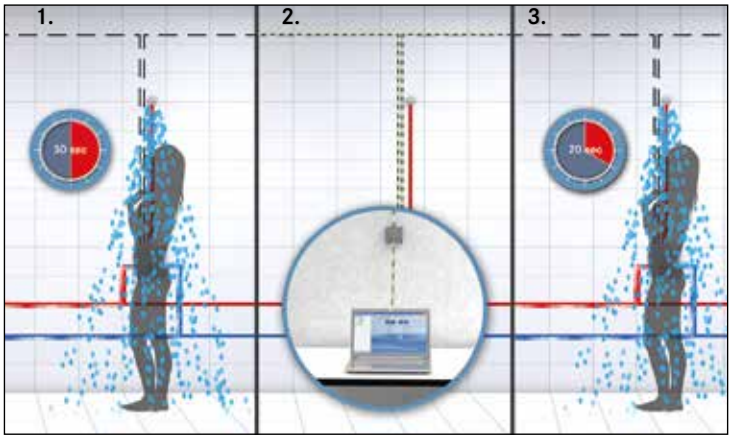
1 Easy parameter settings

Building-specific programme parameters can be configured using a WEB browser.

- Thermal disinfection
- Water hygiene flushing operations
- Deactivation of cleaning
- Operation mode switching
- Simultaneous-operation suppression
- Leakage detection
- Collective error messages
- Sequential controls
- External valves

2 Demand-optimised water-supply functions

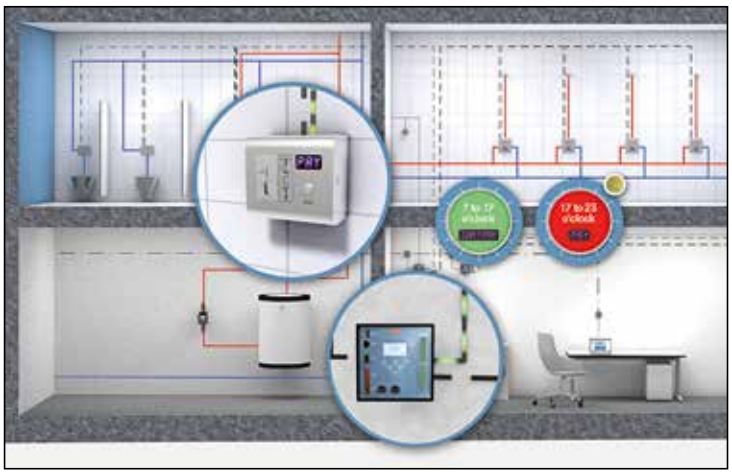
The electronic module automatically controls application-related basic functions such as start/stop of the water flow and flow duration. Different programme modifications such as individual hygiene flushing functions and peak load programmes can be individually customised during installation.



3 Programme mode switching

All fittings are provided with 2 alternative control programmes (water supply functions) that are stored in the electronic module. To select different modes, e.g. day/night, school/association, paid/unpaid supply of water, school term time/holidays, stadium/intermission, room occupied/vacant etc., the respective programmes can be switched via an ECC2 function controller or the WEB browser.

The optional AQUAPAY module for a paid supply of water ensures additional efficiency because users become more conscious of how they handle water resources.

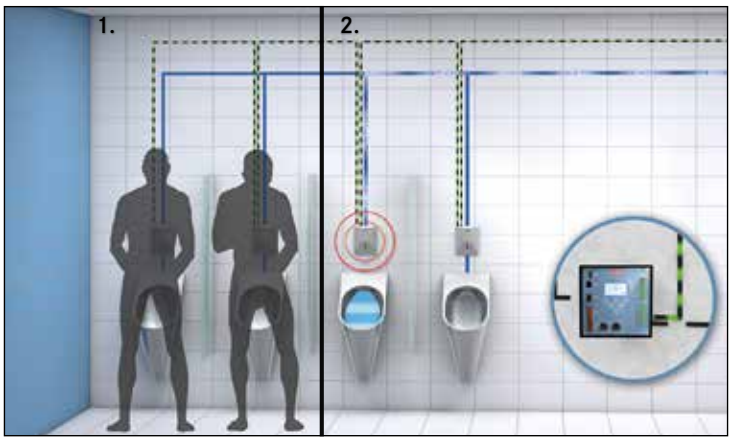


4 Peak-load optimisation

The peak load optimisation processes are stored in the electronic modules and can be enabled in the function programme.

The programme for a user-dependent reduction of the flow duration controls the supply of water depending on the frequency of usage of the fitting.

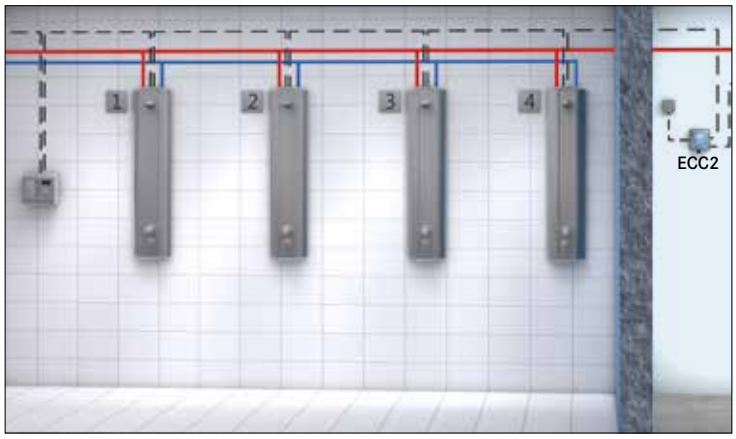
The simultaneous-operation suppression feature flushes the fittings in succession.



5 Paid supply of water with AQUAPAY

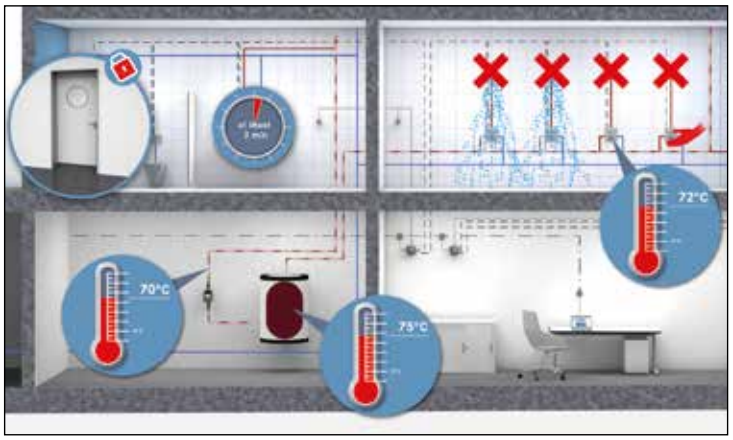
It is possible to use AQUAPAY coin-operated controllers to pay for a supply of water. This can be implemented via two options.

One option is to integrate a coin-operated controller in the entire fitting network in order to control up to 31 fittings with an ECC. Alternatively, an AQUAPAY coin-operated controller can be combined with an individual shower unit.



6 Safety switch-offs

In the event that a fitting is operated while thermal disinfection is being performed, the TD programme immediately interrupts the process. The safety switch-off feature also triggers when a fitting is activated continuously, e.g. due to improper use, and stops the flow of water.

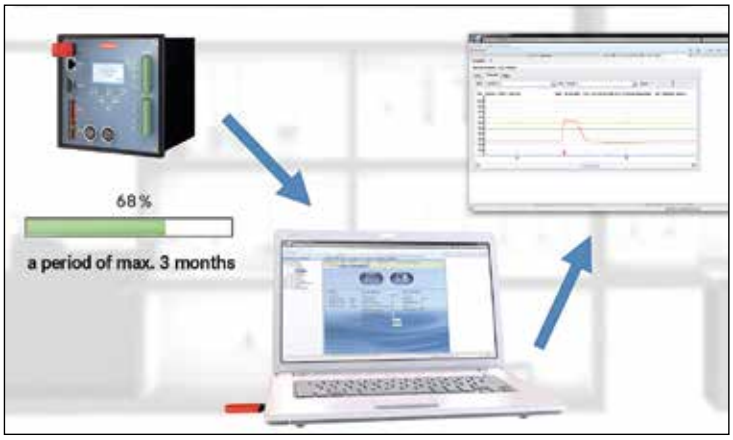


7 Deactivation of cleaning

This function ensures that sanitary facilities can be cleaned. It prevents fittings from being inadvertently activated.

8 Statistical functions and temperature logs

Temperature values and other important system data, such as completed water hygiene flushing operations and thermal disinfections, are stored. This data can be exported to a USB stick or downloaded via the WEB browser.



Ensuring drinking water hygiene – even with fluctuating usage times

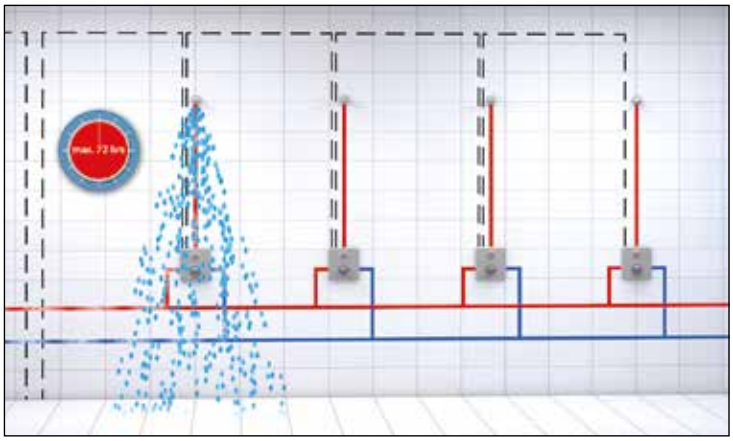
Made simple with water hygiene flushing operations or thermal disinfection

Both of the following functions are designed to be both a prevention and a treatment. They remove any build up of biofilm in the system which in turn prevents the water-pipes becoming contaminated with germs and bacteria (mainly legionella). The duration and intervals of the necessary thermal disinfection processes can be configured as specifically as the separate water hygiene flushing operations for preventing water stagnation. All of the statistical data is stored in the ECC2 and can be output via USB. The success of the hygiene measures must be inspected through regular sampling.

9 Automatic water hygiene flushing operations

The electronic module has up to three hygiene flushing program control functions which are specific to the building:

- An automatic water hygiene flushing operation is performed for a fitting within a fixed interval.
- Dynamic water hygiene flushing operations are performed when a fitting has not been used for a certain period of time (factory programmed to 24 hours after last use).
- Temperature-controlled water hygiene flushing operations are performed in conjunction with optional temperature sensors via a cold and/or hot temperature control system on the cold and/or hot water control system.

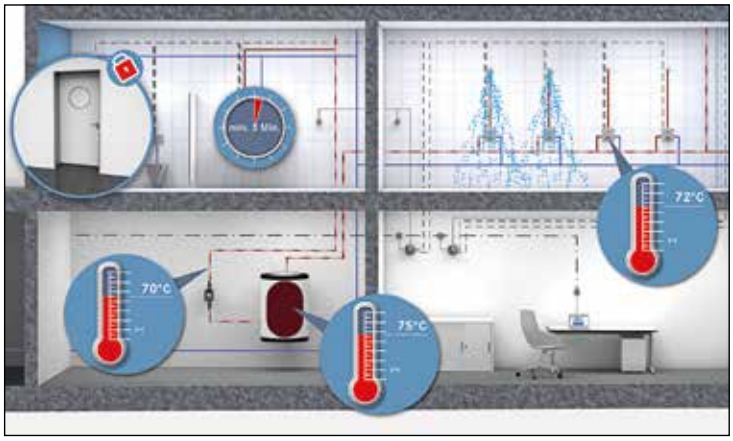


10 Thermal disinfection programmes

The most important parameters (treatment time, water-flow duration, temperature control) of the thermal disinfection (TD) process are stored in the electronic module of each individual fitting. The temperature logs are stored in here as well.

The thermal treatment process can be started via a digital input on the ECC2 function controller or a WEB browser. Operators can choose between a dynamic temperature-dependent programme or a time-controlled disinfection programme.

Furthermore, the optional supply of water via the last fitting in the circuit ensures a speedy flow of hot water through the circulation pipe, and the TD process can be performed in a time efficient manner.

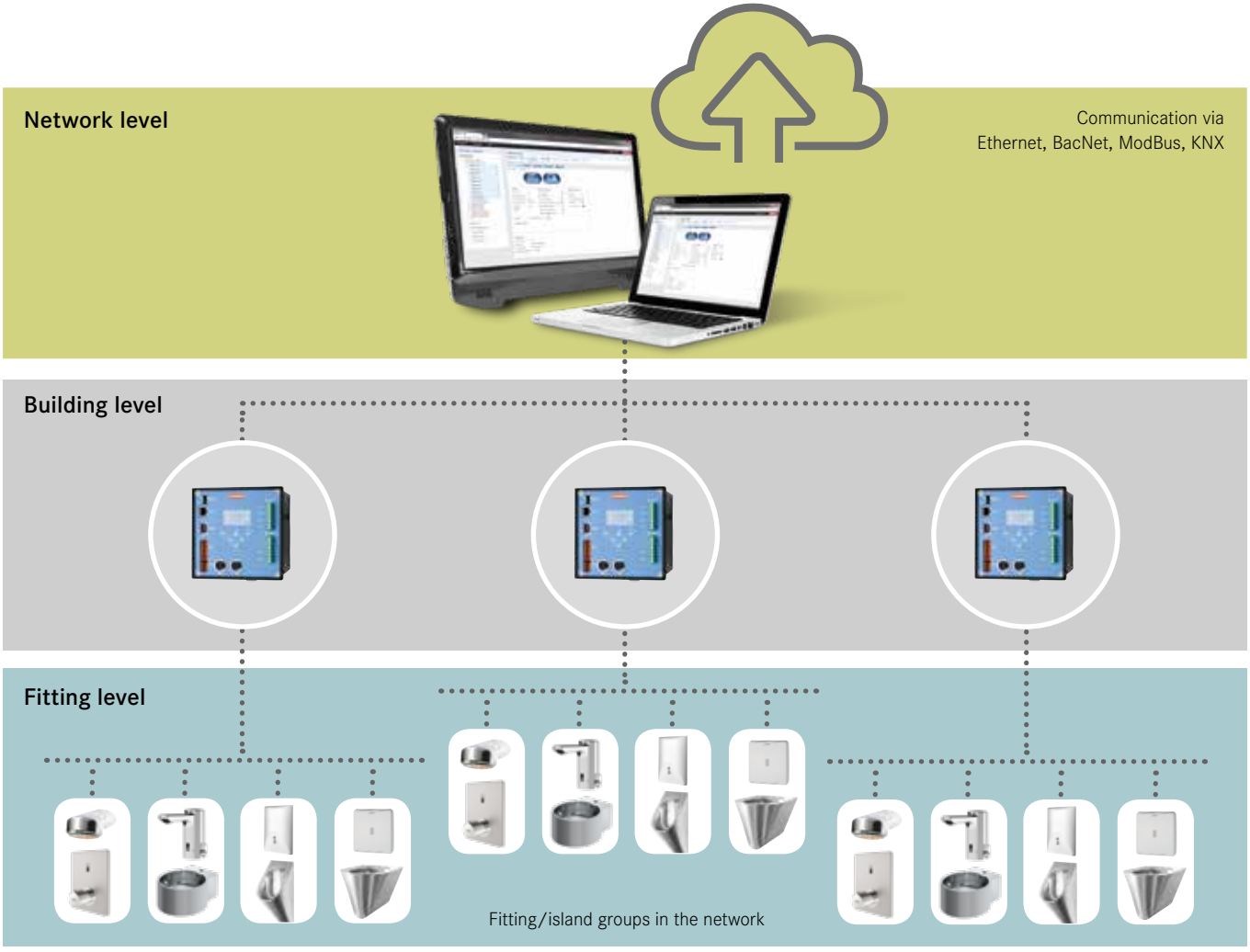


The structure of AQUA 3000 open

Network, building and fitting level

The AQUA 3000 open water management system is subdivided into a fitting building and network level. At the fitting level, an ECC2 function controller has a CAN island network with up to 32 fittings assigned to it. The ECC2 function controller at the building level serves as the transfer point to the network level.

For larger buildings, several ECC2-function controllers can be installed. The RJ45 ports of the individual ECCs can be used to connect all of the fittings installed in a building to a single PC or to the computer-aided facility management system (CAFM), from which they can then be jointly managed and/or controlled.



The ECC2 function controller and additional modules

Connecting the fitting and building levels

With the ECC2 (ECC = Ethernet-CAN-Coupler) function controller and the integrated WEB server, additional functions ranging up to CAFM and an additional IoT connection are available at a network level. The integrated display facilitates operation.

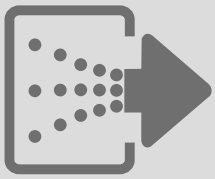
Expansion options are also available with two different additional modules: I/O module with digital inputs and outputs for downstream controllers and GSM module for mobile remote maintenance.

1 ECC2 function controller

2 Supplementary I/O

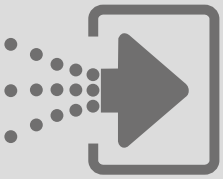
3 GSM wireless module

The functions of ECC2, I/O and GSM modules at a glance



Factory-programmed digital outputs

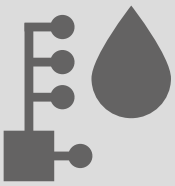
- Thermal disinfection active
- Thermal disinfection cancelled
- Safety shut-off of thermal disinfection
- Collective error messages



Factory-programmed digital inputs

- Start thermal disinfection
- Cancel thermal disinfection
- Operation mode switching
- Acknowledgement of outputs, e.g. for collective fault messages

When 5 or more functions are desired via the digital inputs and outputs, a supplementary I/O module 2 is required.
When fittings are connected to the ECC2 function controller via the system cable, this function controller provides a power supply (24 V DC/60 W) and data communication within the CAN island network. The multifunctional unit also offers the option for sequential controls.
In combination with the GSM wireless module 3 , it is possible to send remote maintenance and system messages (e.g. fault messages, start thermal disinfection) via SMS to up to 5 recipients.
This functionality requires the use of a SIM card, a mobile phone service contract, a UMTS mobile network and an optional antenna, depending on the individual strength of the signal received in the building.



Data communication

The ECC2 function controller has a standardised data communication port for a PC or a computer-aided facility management system (CAFM). The data protocols provided are Ethernet, BacNet, KNX, and ModBus.

System connection for fittings

Two system cables can be connected to the ECC2 function controller for providing power and data communication, with a total length of up to 200 metres and a total of up to 32 fittings.

Real-time data storage

At adjustable intervals, the ECC2 function controller's internal data memory stores temperature values, actuator counts and run-times, operating hours, hygiene flushes, thermal disinfections and deactivations of cleaning together with the respective, specific date and time.
The data can be exported to a USB stick in csv format or downloaded with the WEB browser; it can then be saved and viewed as a speadsheet (e.g. in Excel).

Managing water over the internet

ECC software at a glance

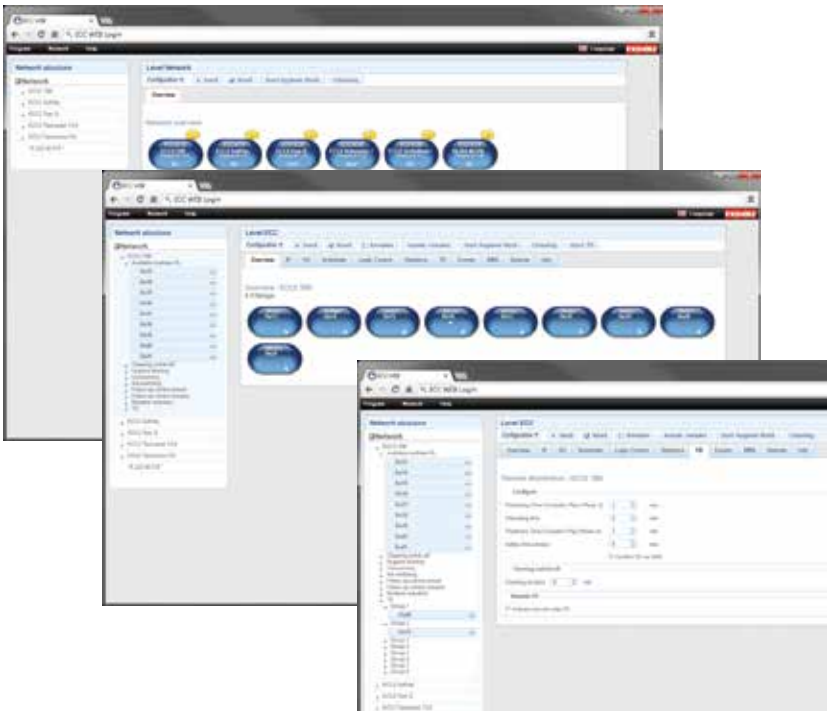
With the help of the WEB server integrated in the ECC2, all sanitary engineering processes can be viewed, monitored, and logged in a very user-friendly manner via a WEB browser. Furthermore, it is easy to set the parameters of system components. The optional GSM wireless module can be used to individually send alarms and event messages.

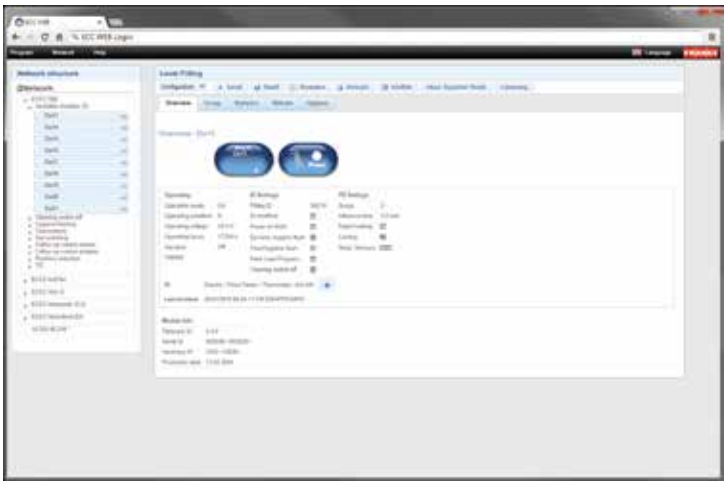
All of the fittings that work in conjunction with a specific ECC2 function controller are clearly depicted as island networks. As well as the ability to set media-flow durations (water, soap, air, etc.) and communication parameters, it is possible to perform and record water hygiene flushes and thermal disinfections. With the help of the virtual fitting islands, which can be grouped, moved and rearranged, the entire real sanitary system can be displayed on a standard WEB browser.

For applications in security-relevant areas, e.g. in correctional facilities, where time-controlled functions, possible usage restrictions and monitoring are required, the WEB server ensures you can control and program sequences for each individual fitting or group.

Overviews of network and fittings

The "Network" level shows all of the connected ECC2 function controllers. Here, the user can select an ECC island network and display it as a fittings overview. The "ECC" level shows the operating condition of every sanitary fitting, e.g. current temperature, operating mode and the state of connected sensors and actuators. From this screen the user can also select the "TD" tab to configure thermal disinfection processes.





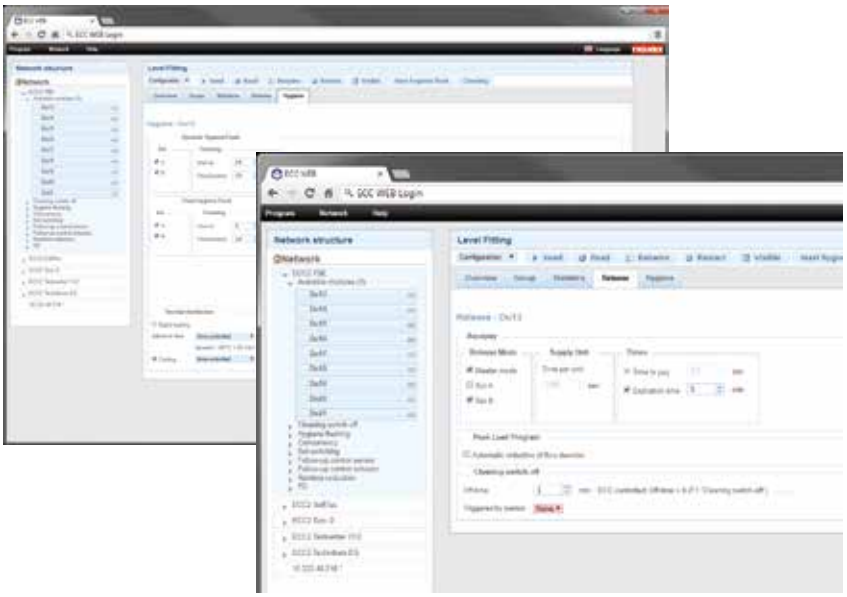
Overview of fittings with programme processes

An automatic overview is generated for each fitting. All of the important parameters that are necessary for operation can be viewed here at a glance.

The fittings function – e.g. shower with Piezo button – is displayed with a simple and understandable pictogram. Flow durations and sensor ranges can also be adjusted here.

Overviews of network and fittings

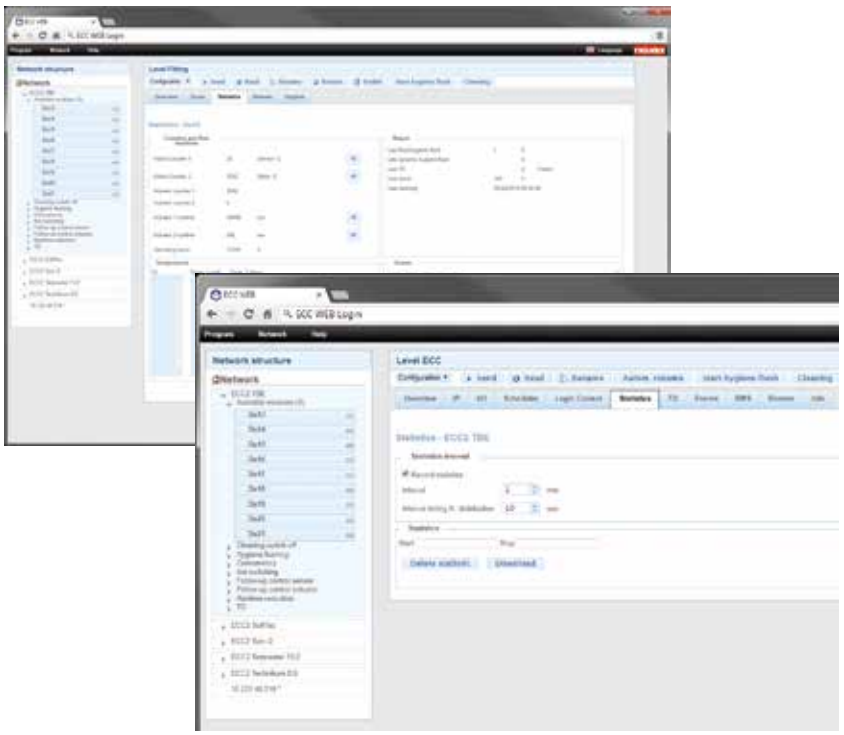
The "Release" and "Hygiene" tabs can be used to optimally adapt each fitting to the operating process. Hygiene flushes and thermal disinfection parameters such as treatment time and temperature can be configured for each individual fitting. Furthermore, the parameters for peak load programmes and deactivations of cleaning can also be entered here.



Statistical function for fittings

The "Fitting" level under the "Statistics" tab shows all counter values (number of times solenoid valve has triggered), operating hours, temperature courses, as well as the time that has elapsed since the last hygiene flushing operation of each individual fitting. It also displays status information relating to the last thermal disinfection process.

When the ECC's statistical recording function is activated, it continuously records the most important data, which can then be exported to a csv file for further analysis.



Applications for versatile public & semi-public rooms

AQUA 3000 open represents future-proof water management that can be easily expanded to accommodate the growing needs of a building. It is an open system that can be integrated into existing building management systems. The individual configuration options are as diverse as the conditions of the building itself and the water management system can learn from its users and adapt itself accordingly. Changes in building use are not a problem either, fittings can be easily added or removed, even years after the initial installation.

Recreation
indoor swimming pools,
fitness studios,
saunas & spas

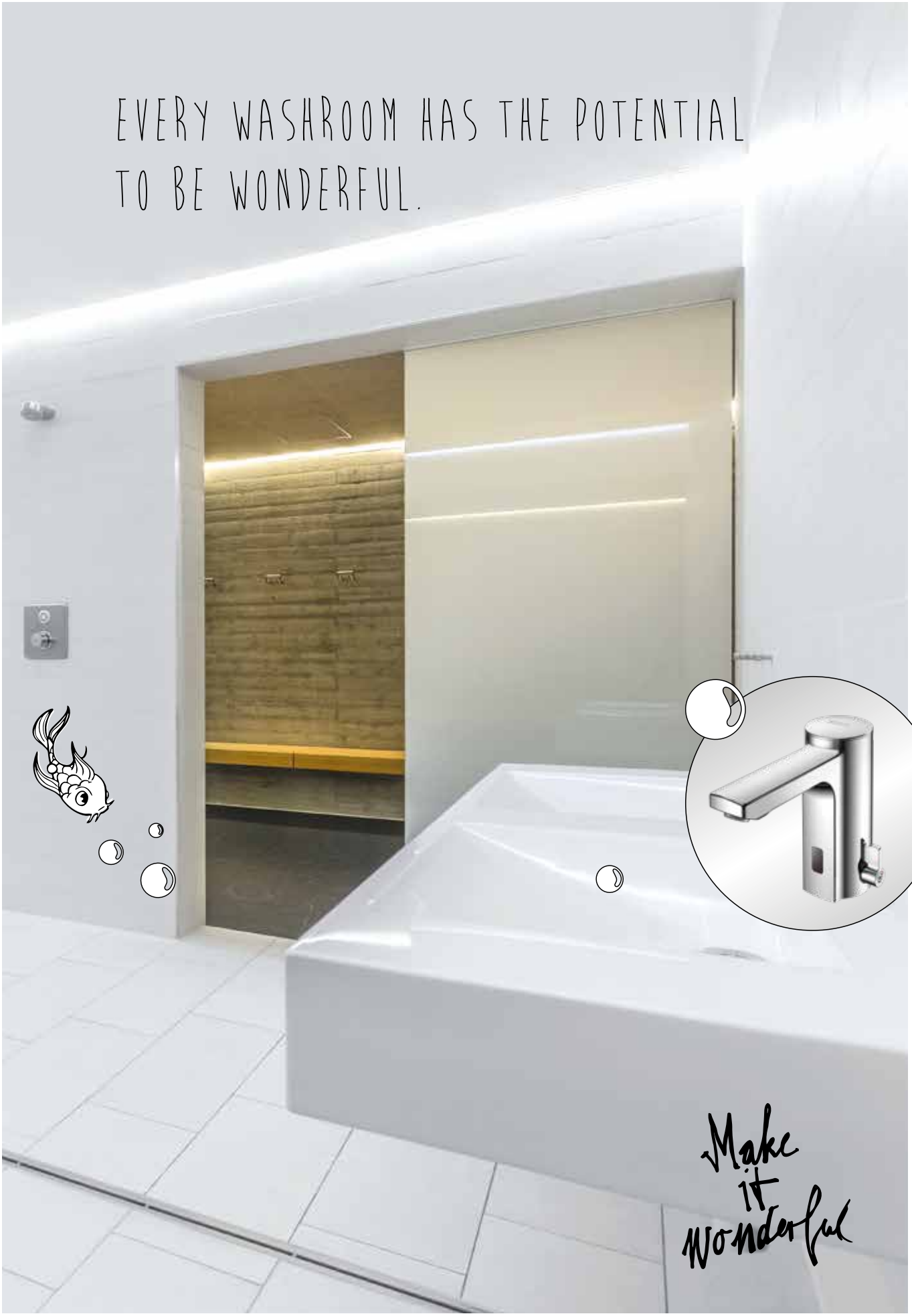
Education
schools, kindergartens,
educational and training
institutions

Travel
airports,
railway stations,
campsites,
rest areas

Security
prisons, police stations,
military installations

Health
hospitals,
nursing homes,
laboratories

Events
stadiums, cultural and
sports halls


EVERY WASHROOM HAS THE POTENTIAL
TO BE WONDERFUL.
Make
it
Wonderful

Integrating the water management system

Connecting the ECC2 to the fitting

The fittings are simply installed in series via a system cable providing a 24 V DC power supply. Factory commissioning is not necessary for standard water delivery functions, as the electronic modules which are integrated in the fittings are already factory-programmed and operate on a "plug and play" basis. Additional control functions, such as water hygiene flushing operations, are part of this basic programming. The system cable must be installed in an empty "pipe" leading all the way to the fittings.

Optional:
When integrating an ECC2 function controller into the overall system, the system cable has a dual function, power supply and data communication within the CAN island network. A terminating resistor on both sides ensures data communication between the ECC2 function controller and the individual fittings. Here, the ECC2 performs central management functions and supplies power to the fitting network. To adapt the control processes of the ECC2 and the electronic modules of the fittings to the specific conditions prevalent in a particular building, the customer service team can perform a commissioning service.

EM-D = Electronic module for drinking water heater

EM-C = Electronic module for circulation line

(PWH) = Drinking water heater

CAFM = Computer-aided facility management

PWC (cold drinking water)

PWC (hot drinking water)

24 V DC system cable

Thermal disinfection (TD), an overview

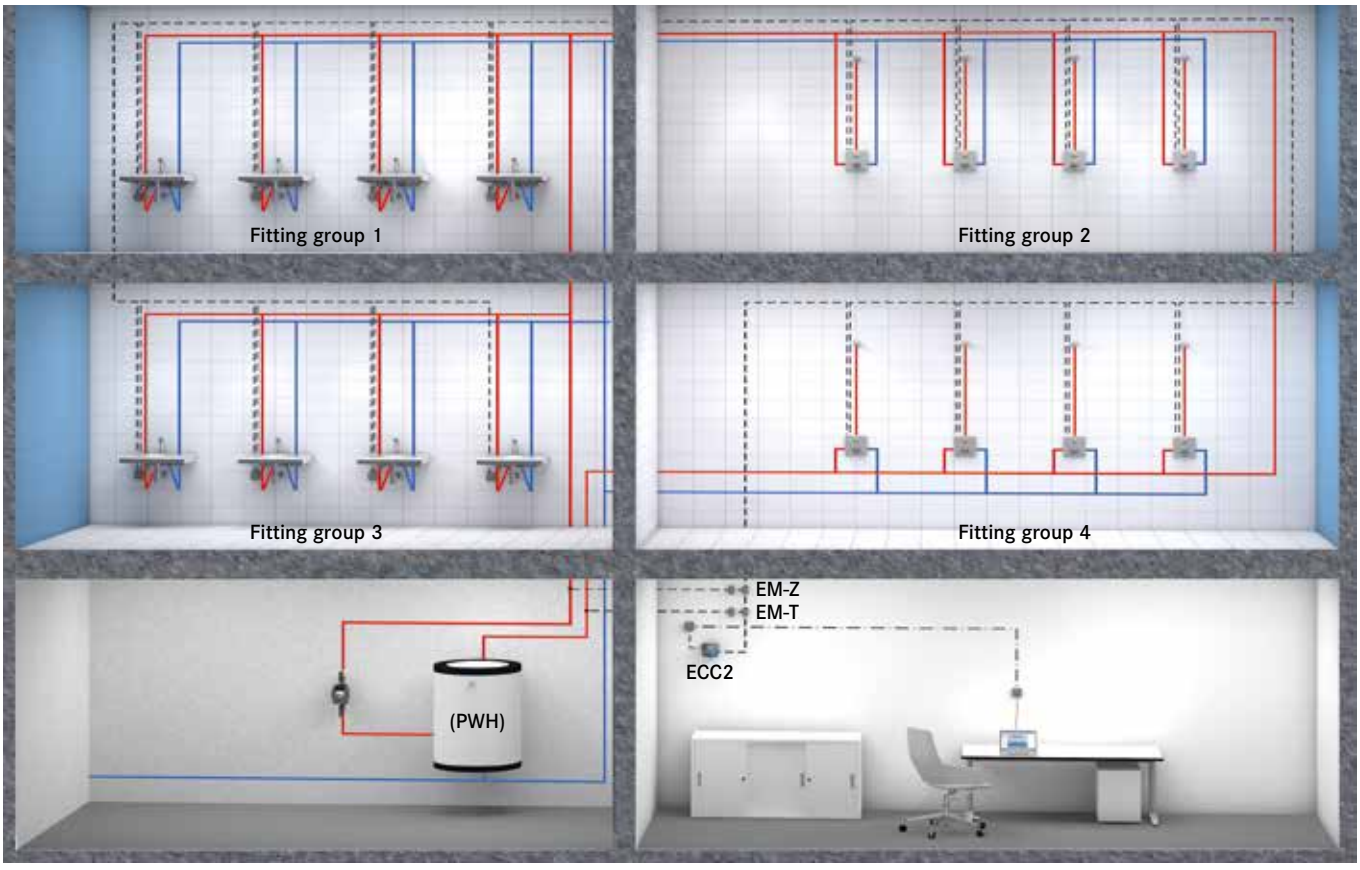
Fundamentals and models

The freely programmable digital inputs of the ECC2 or of the optional I/O add-on module and data protocols can be used to start and stop thermal disinfections (TD), group water hygiene flushes as well as deactivations of cleaning. Temperature sensors can also be integrated for each fitting to monitor the various processes.

Performing TD on thermostatic valves requires the use of a bypass solenoid valve cartridge in the function block of the fitting. Within a CAN island network with an ECC2, the fittings that are to be subjected to TD can be arranged in up to 8 successively opening groups. For example, with smaller drinking water heaters, this could be 8 groups of 4 fittings each that are thermally disinfected in succession, thereby providing the system with the chance to re-heat. Parallel to the factory-programmed functions, commissioning by the customer service team is also required for thermal disinfection.

TD when controlling drinking water heaters

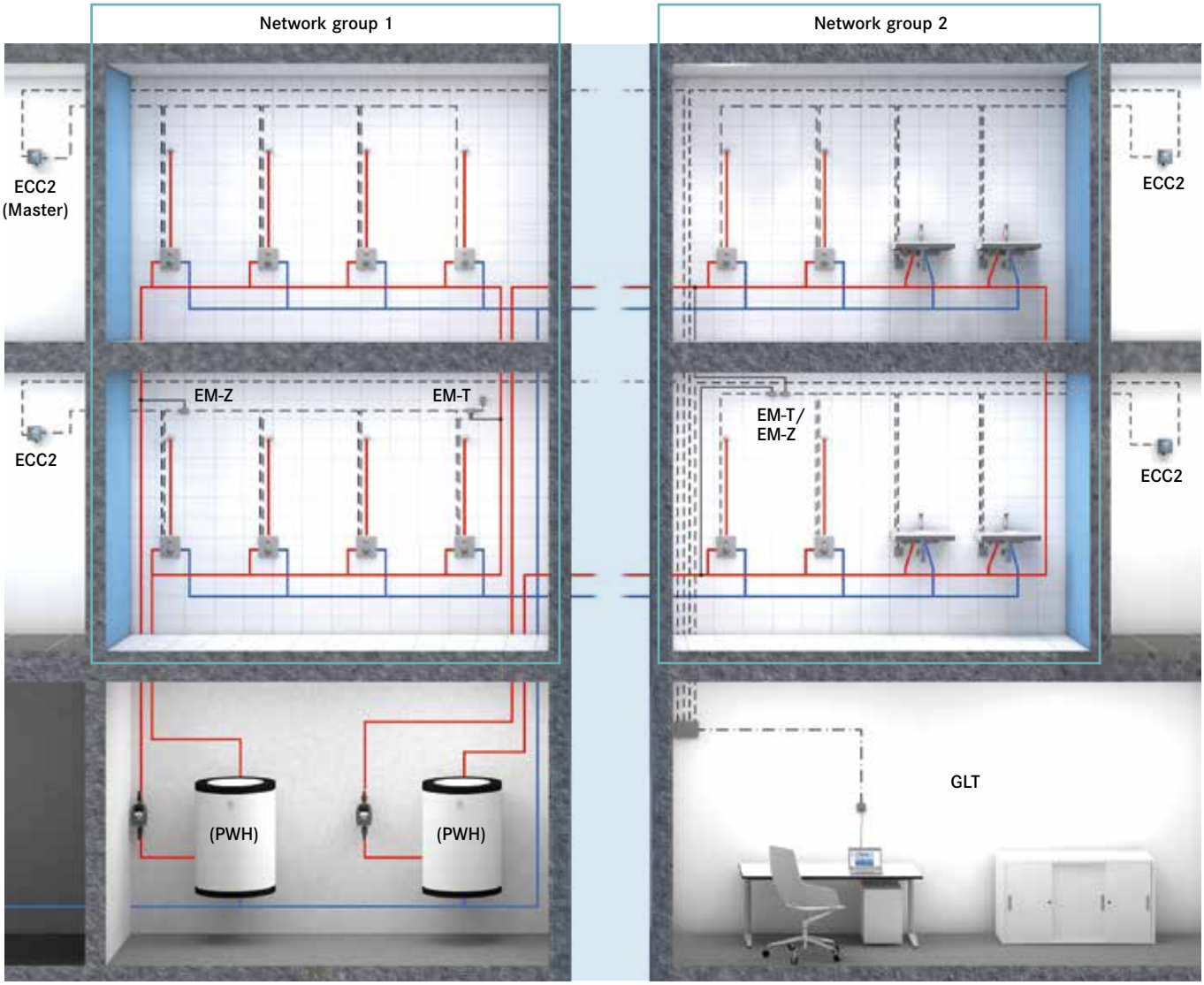
Forming fitting groups facilitates efficient performance of thermal disinfection, particularly for drinking-water heaters that have rather low storage capacities. In this system arrangement, the number of fittings is limited to 30. Added to the arrangement is a system electronic module to control the drinking water heater (EM-D) and a system electronic module for the circulation line (EM-C) for thermal disinfection. The latter ensures that heated drinking water is quickly supplied to the circulation line by selectively withdrawing water from the circulation feedback line.



Network-wide thermal disinfection

This plan version is suitable for buildings with different distances between the hydraulic line system and the A3000 open system cables. In this system configuration, the fittings are subdivided into a maximum of 8 groups. One of the ECC2 function controllers used in a building is defined as the "Master" via the data protocol and therefore serves to provide reliable communication with the defined areas. The programme processes taking place during thermal disinfection (TD) are freely programmable; the fittings can be selected and the individual TD zones can be started.

With this system architecture, the TDs can be easily adapted to the specific conditions within a building and to changing parameters. These network-wide TDs for up to 8 network groups can be started in any selectable order via the digital inputs.



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EM-C = Electronic module for circulation line

(PWH) = Drinking water heater

CAFM = Computer-aided facility management

PWC (cold drinking water)

PWC (hot drinking water)

24 V DC system cable

Transparency ensures optimum efficiency

Building integration with AQUA 3000 open

Fittings installed within a building can be made visible on a PC or brought online to the existing CAFM via the ECC2 function controller and the data protocol connections.

Forming logical function units, e.g. arranging fittings in groups based on building floors or user zones, simplifies the specific optimisation of water delivery functions within these units. These functions include water flow durations, water hygiene flushes, thermal disinfections, deactivations of cleaning, day and night switching operations, paid/unpaid supply of water as well as sequential controls in shower facilities.

With the help of monitoring and control functions, it is possible to analyse usage frequencies and control maintenance management on a demand basis. The network level also serves to monitor the system and facilitates rapid corrective measures in the event of any malfunctions.

Perfect combination for optimum sanitary facilities

Simple and flexible, from conception to implementation

Franke Water Systems

The basis for an optimum sanitary facility design is solid preliminary planning. This planning phase is oriented towards the specific conditions of the building and the user-dependent requirements for the sanitary facilities.

Qualified and proper building consulting to comply with technical standards and requirements is the most important component for driving a conceptual idea to its final planning stage. The specialists at Franke Water Systems accompany you in all phases of planning and implementation – particularly when dealing with more complex system solutions. In addition, we supervise commissioning and are also available as a contact person at any time during every day operation.

We are happy to pass our know-how on to you in our specific training sessions.

AQUA 3000 open

The AQUA 3000 open system is based on the principle of a clear and simple system architecture.

To accomplish this, only components that are actually necessary for the specific application requirements are used. An optimised water management system can be accomplished with just a few system components.

All the main components of AQUA 3000 open are shown on the following pages.

AQUA 3000 open-compatible
All fittings with this symbol can be integrated into the AQUA 3000 open water management system with the suitable electronic module from the accessory range. As standalone fittings, they also offer many hygiene and statistical functions.

AQUA 3000 open
All fittings with this symbol are already network-compatible, since the necessary electronic module is included with the product.

Basin taps

F5E electronic pillar tap
F5EV1004
Electronic module with ID 02010
ACEX1002

F5E Mix Electronic pillar mixer
F5EM1004
Electronic module with ID 02010
ACEX1002

F5E-Therm electronic thermostat wall-mounted mixer
F5ET1005
Necessary accessories: Mounting bar
F5BTX001
Electronic module with ID 02050
ACET1001

F5E-Therm electronic thermostat wall-mounted mixer with pre-mounted disinfection unit
F5ET1020
Necessary accessories: Mounting bar
F5BTX001
Electronic module with ID 02050
ACET1001

F5E-Therm electronic thermostat in-wall mixer as a finished installation kit
F5ET1014
Necessary accessories: R5 Franke system box
F5BX1001
Electronic module with ID 02030
ACET1003

PROTRONIC - A3000 open washbasin tap with opto-electronic sensor, for concealed mounting
AQUA109

Flush valves

PROTRONIC - A3000 open urinal flush valve with opto-electronic sensor, for in-wall installation
AQUA401 Finished installation kit
AQUA400 Mounting material

AQUATIMER - A3000 open WC controller with piezo button, for concealed cistern
AT3O0051

PROTRONIC - A3000 open WC controller with opto-electronic sensor, for concealed cistern
PR3O0027

EXOS - A3000 open WC controller with opto-electronic sensor, for concealed cistern
EXOS0027

PROTRONIC - A3000 open urinal flush valve with opto-electronic sensor, for concealed mounting
AQUA402

AQUATIMER - A3000 open toilet flushing valve with piezo button, for in-wall installation
AQUA501 Finished installation kit
AQUA500 Mounting material

PROTRONIC - A3000 open WC toilet flushing valve with opto-electronic sensor, for in-wall installation
AQUA502 Finished installation kit
AQUA500 Mounting material

PROTRONIC - A3000 open toilet flushing valve with opto-electronic sensor, for concealed mounting
AQUA505

Selection of products from the comprehensive Franke range – additional products and versions can be found on our website, www.franke.com – Water Systems.

Shower fittings

F5E-Therm electronic thermostat wall-mounted mixer

F5ET2005

Version with pre-installed disinfection unit
F5ET2009

Necessary accessories: Mounting bar
F5BTX001

Electronic module with ID 07040
ACET2001

F5E-Therm electronic thermostat wall-mounted mixer with hand shower connection

F5ET2006

Version with pre-installed disinfection unit
F5ET2010

Necessary accessories: Mounting bar
F5BTX001

Electronic module with ID 07040
ACET2001

F5E-Therm electronic thermostat in-wall mixer

F5ET2011

Necessary accessories: R5 Franke system box
F5BX2001

Electronic module with ID 07040
ACET2001

Shower panels

F5E-Therm shower panel made of stainless steel, with button sensor, thermostatic mixer and connecting nozzles for the shower head.

F5ET2020

Necessary accessories: shower head for F5 shower panels (optionally)

SHAC0011 / SHAS0011 / SHMU0011

Accessorie: Shower gel dish for push-in installation on F5 shower panels

ACXX2021

F5E-Therm shower panel made of stainless steel, with button sensor, thermostatic mixer and hand shower fitting.

F5ET2021

Accessorie: Shower gel dish for push-in installation on F5 shower panels

ACXX2021

F5E-Therm shower panel made of MIRANIT, with button sensor, thermostatic mixer and connecting nozzles for the shower head.

F5ET2024

Version with seamless moulded shower gel shelf

F5ET2026

Necessary accessories: shower head for F5 shower panels (optionally)

SHAC0011 / SHAS0011 / SHMU0011

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Coin-operated controllers

AQUATIMER - A3000 open shower fitting with piezo button, for concealed mounting

AQUA629

PROTRONIC - A3000 open shower fitting with opto-electronic sensor, for concealed mounting

AQUA615

AQUAPAY coin-operated controllers for paid supply of water, for controlling 2-31 showers

AQUA802 for tokens
AQUA803 for 0.50 €

for single shower unit

AQUA800 for tokens
AQUA801 for 0.50 €

Note: The ACET2006 electronic module is necessary when combining the AQUA800/801 with an F5 tap

Accessories: Z-AQRP001 token (50 units)

Shower heads

F5E-Therm shower panel made of MIRANIT, with button sensor, thermostatic mixer and hand shower fitting.

F5ET2025

AQUAJET-Comfort shower head for wall connector, continuously adjustable angle from 13° - 23°, 9 l/min (6.0 l/min and 12.0 l/min enclosed)
SHAC0007

Version for surface pipe mounting
SHAC0008

Version for F5 shower panels
SHAC0011

AQUAJET-Slimline shower head for wall connector
AQUA751 9 l/min
AQUA752 12 l/min

Version for surface pipe mounting
AQUA757

Version for F5 shower panels
SHAS0011

MÜNCHEN shower head for wall connector continuously adjustable angle from 9° - 21°
AQRM962 9 l/min
AQRM963 12 l/min

Version for F5 shower panels
SHMU0011

WC washbasin combinations

HEAVY-DUTY WC wash basin combination unit with electronic components for installation in the utility room, version with WC pan, left, 45°
HDTX806L

HEAVY-DUTY WC wash basin combination unit with integrated, electronic components, version with WC pan, left, 45°
HDTX816L

Necessary installation accessories/mounting material for F5 taps

R5 Franke system box with sliding adhesive flange as mounting material for in-wall mixers for sanitary facilities
F5BX1001

R5 Franke system box with sliding adhesive flange as mounting material for in-wall mixers for shower facilities
F5BX2001

Mounting bar for F5E-Therm electronic wall-mounted mixers for sanitary facilities and shower facilities
F5BTX001

AQUA 3000 open - System accessories

ECC2 function controller
ZA3OP0011

Version including
CAFM data protocols
ZA3OP0022

I/O extension module
ZA3OP0012

GSM wireless module
ZA3OP0013

Necessary accessories (optional):

ZA3OP0015	rod antenna
ZA3OP0016	wall antenna
ZA3OP0017	antenna with amplifier

Uninterruptible power supply
ZAQUA006

Compact system power supply unit
ZAQUA007

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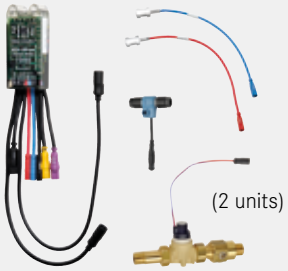
Electronic module for F5 taps
ACEX1002 / ACET1001 / ACET1002 / ACET1003 / ACET1004 / ACET2001 / ACEV2004



Electronic module for system flushing
ZAQUA029

Electronic module for circulation line
ZAQUA030

Electronic module for drinking water heater
ZAQUA031

System cable
ZAQUA077 100 m/ring
ZAQUA078 25 m/ring
Halogen-free version
ZAQUA011 100 m/ring
ZAQUA012 25 m/ring

Terminating resistor
ZAQUA014

Coupling for system cable
ZAQUA013

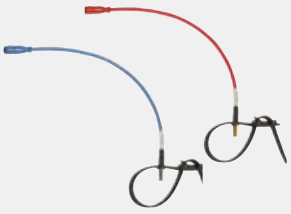
Electrical T junction
ZAQUA075

Bypass solenoid valve cartridge DN 7
24 V DC/2 W
ZAQUA015

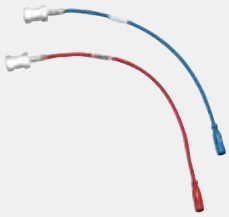
Bypass solenoid valve cartridge DN 5
6 V DC
EAQFU0001

Key switch, button
ZAQUA022

Screw-in temperature sensor for function block
ZAQUA017



Temperature sensor insert for control of water quantity
ZAQUA018 hot water side
ZAQUA019 cold water side



Surface temperature sensor
ZAQUA020 hot water side
ZAQUA021 cold water side

3-way valve
ZAQUA023 DN 20
ZAQUA024 DN 25
ZAQUA025 DN 32
ZAQUA090 DN 40

Electronic module for 3-way valve
ZAQUA076

Circuit breaker
ZAQUA026

Safety transformer
230/24V AC, 100 VA
ZFLSY0003

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Franke Water Systems

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