

HM CONNECT 2621



Instructions for use and installation

(English translation)

Hygiene Module HM Connect



Haustechnik mit System

Imprint

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Subject to technical changes.

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1 General

1.1 About the instructions for use and installation

These instructions are designed for a safe and efficient operation of the SYR Connect - Hygiene Module.

They are included in the delivery and users shall have access to them anytime.

Due to the technical development, figures and descriptions in these instructions may slightly vary from the delivered device.

The warranty does not cover damages caused by the non-observance of the present instructions for use and installation.

1.2 Symbols

All safety instructions in the present instructions for use and installation are marked with corresponding symbols. The signal words at the beginning of the safety instruction express the extent of the hazard.



Danger!

This combination of a symbol and a signal word refers to an imminent dangerous situation causing severe injuries or death, if it is not avoided.



Warning!

This combination of a symbol and a signal word refers to a possibly dangerous situation that may cause severe injuries or death, if it is not avoided.



Caution!

This combination of a symbol and a signal word refers to a possibly dangerous situation that may cause minor injuries, if it is not avoided.



Attention!

This combination of a symbol and a signal word stands for important information helping to avoid material or environmental damages.

1.3 Copyright

The present instructions for use and installation and all documents delivered with this device are protected by copyright and remain the property of the company Hans Sasserath GmbH & Co. KG.

Their use is permitted and desirable in the framework of the operation of the device.

These documents shall not be reproduced nor made available to third parties, competitors in particular, without the explicit authorization from SYR.

Note that the SYR Connect-Hygiene Module is protected by patent.

1.4 Warranty

The manufacturer assumes the warranty according to the General Terms and Conditions of Delivery.

Warranty claims will become void when:

- damages are caused by improper use,
- repair works or modifications are carried out by unauthorized people,
- using non original SYR accessories and spare parts.
- faulty components are not immediately repaired so that the extent of damage is minimized and the device's safety is not affected (repair obligation).

1.5 Standards

The development and construction of the SYR Connect Hygiene Module are based on the following European and national standards:

- DIN EN 802, part 2
- DIN EN 806-1 to 5
- DIN EN 1717
- DIN 1988, part 200, 300
- VDI 6023
- DVGW-TRWI (*Technical Regulations for Drinking Water Installations*)
- DVGW- Codes of practice W 551 and 553

2 Safety

2.1 Intended use

The SYR Connect - Hygiene Module flushes potable water installations according to specific criteria in order to prevent water stagnation. It can be used as combination module for the cold and hot water pipe as well as single module for cold or hot water pipes.

Any other use or use beyond what is specified is not considered as intended use.

The intended use also includes the observance of the present instructions for use and installation.

2.2 General danger

Note:

Observe the technical regulations for the technical safety of systems like fire-fighting pipelines, emergency showers etc.!

The contact with electric devices implies danger on a general basis. Observe the legal regulations for safety and health protection, other generally acknowledged safety and occupational health regulations as well as regulations for occupational insurance schemes.

Do not make any changes on the SYR Connect - Hygiene Module. The manufacturer's warranty does not cover damages caused by improper modifications.

2.3 Danger from electric energy



Warning!

Risk of crushing!

As soon as voltage is applied (power adapter, battery), the system goes to the closed position.

► Do not put body parts or objects in the valve opening.

Observe the required voltage and current values when installing the device (cf. technical specifications).

Only qualified electricians are authorized to carry out works on electric systems or the control unit.

Unplug the power adaptor and remove the batteries prior to starting works.

Verify the power adaptor on a regular basis and have it replaced by qualified electricians when damaged.

2.4 Maintenance and repair works

Only qualified personnel are authorized to carry out maintenance and repair works. Qualified personnel means people that have been authorized to carry out the respective required works due to vocational training, instructions or experience and that are able to recognize and prevent possible dangers in this context. They must be familiar with the relevant safety standards and regulations and employer's liability insurance schemes. They must have read the instructions for use and installation.

3 Structure and function

3.1 Scope of delivery

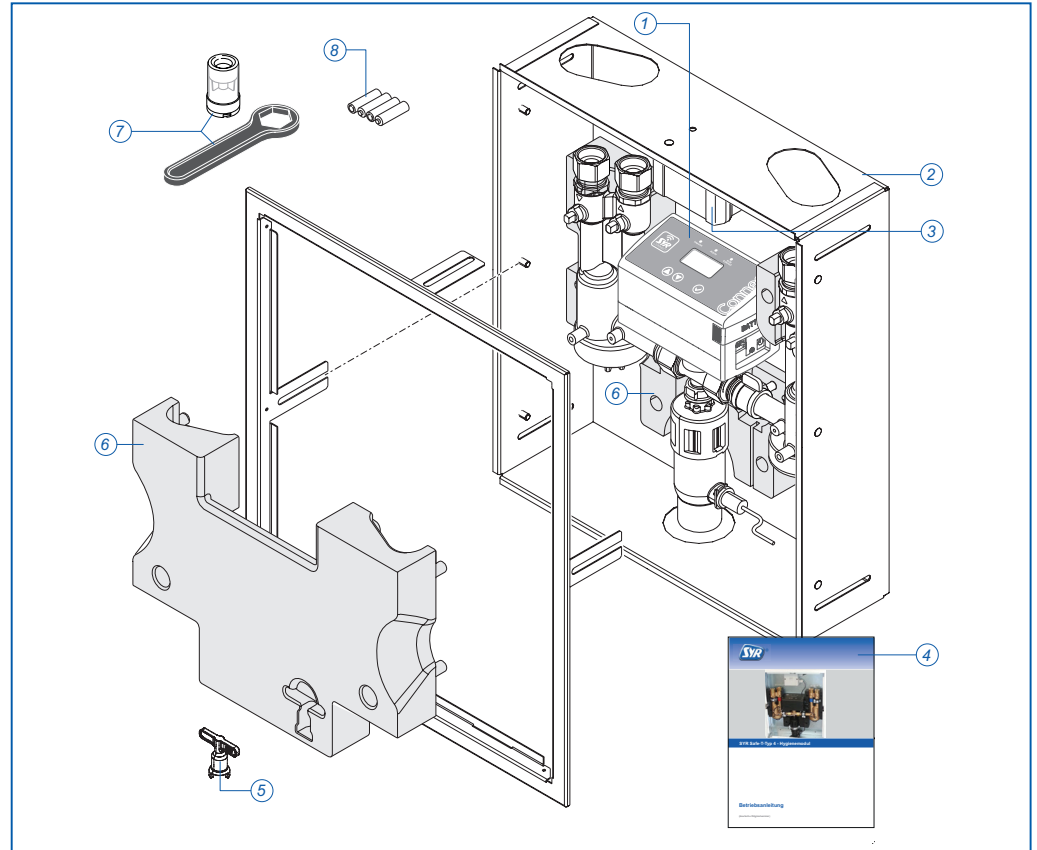


Fig. 1: Scope of delivery SYR Connect - Hygiene Module

Legend

- 1 Electronic unit (separately packed, not mounted)
- 2 Casing with cover frame and assembly bracket
- 3 Power supply/Distributor
- 4 Instructions for use and installation
- 5 Key for manual unlocking of the valve
- 6 Insulating shells back and front
- 7 Turbine(s) with assembly tool
- 8 Batteries
- 9 Protection cover

3.2 Optional accessories

The following accessory is available:

- Tile frame with magnetic holder (serial number: 2621.00.900)

3.3 Structure

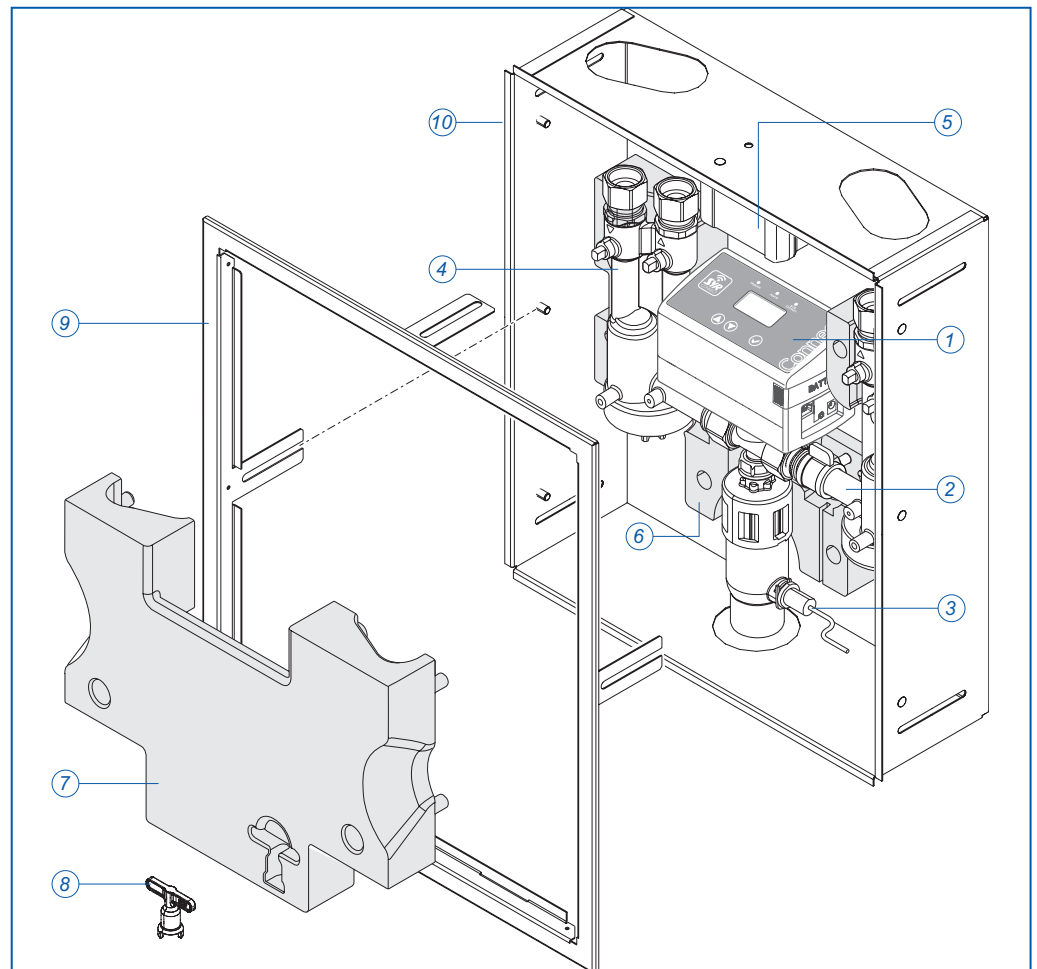


Fig. 2: Structure SYR Connect - Hygiene Module

Legend

- 1 Electronic unit/Control unit
- 2 Hydraulic unit (cold water side)
- 3 Odor trap with humidity sensor
- 4 Hydraulic unit (hot water side)
- 5 Power supply/Distributor
- 6 Insulating shell back
- 7 Insulating shell front
- 8 Key for manual unlocking of the valve
- 9 Cover frame for the door

3.4 Function

The SYR Connect - Hygiene Module protects areas and buildings where long-lasting interruptions of use (water stagnation) are likely to occur. It can be positioned anywhere in a closed circular pipeline or at the end of a serial pipe. At least one draw-off point has to be connected to the valve outlet (cf. fig. 3).

Water stagnation is identified by permanent monitoring and automatic hygiene flushes are carried out to prevent contamination.

The connected sensors permanently record the state of the drinking water installation and check the criteria applicable to a hygiene flush, like e.g. time or temperature.

The combination module is designed for the cold **and** hot water line. The single module flushes the cold **or** hot water line.

The SYR Connect - Hygiene Module with integrated LAN connection is equipped with an electronic water metering device (by means of a turbine), a temperature sensor, a humidity sensor and a multifunctional display.

When installed, it is permanently connected to a server via a coding. It automatically reports data from the drinking water installation to this server, such as volumetric flow rate, time-based flow quantity, time period of the flow rate, period of stagnation, pressure drop and temperature.

With SYR's Connect function, the maximally admissible parameters can be set or changed directly on the hygiene module or via software on a smartphone or PC. The parameters continue to be monitored even in case of an Internet breakdown. However, they are not communicated to the server during this period.

The power adaptor ensures the energy supply. Batteries for short-term protection against power failure are included in the delivery.

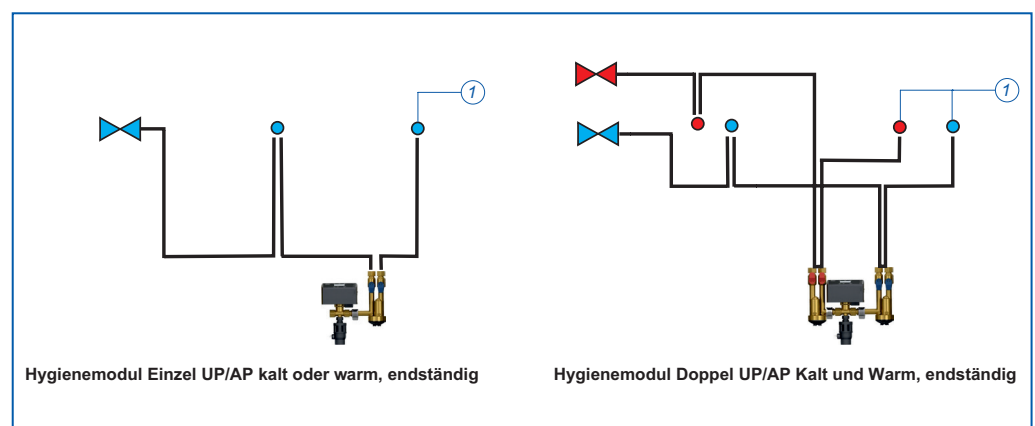


Fig. 3: Installation examples

Legend

1 Point of use

4 Transport and storage

4.1 Transport

The device is delivered in pre-assembled state.

The electronic unit is packed separately and not mounted.

The weight amounts to approximately 9.5 kg.



Attention!

Possible material damage by improper transport!

The packaging serves as protection during transport.

- ▶ **Should the packaging be severely damaged, do not install the device.**
- ▶ **When submitted to hard shocks, the synthetic part concerned shall be exchanged (even when damages are not visible).**

4.2 Storage

Store the device only under the following ambient conditions:

- Temperature: +4 up to +60 °C, relative air humidity: max. 80 %.



Attention!

Possible material damage by improper storage!

- ▶ **Protect the device and the electronic system against frost.**

5 Installation and start-up

5.1 Safety instructions for the installation and start-up

Only qualified and instructed personnel with relevant knowledge are authorized to install and start SYR's Connect - Hygiene Module.

Observe the general safety instructions for potable water installations such as::

- TRWI - DIN 1988-100 to 300, DIN EN 802, 806, DIN EN 1717, VDI 6023
- Regulations and provisions of local water supply.



Attention!

Possible material damage due to improper potable water installation!

The improper installation of SYR's Connect - Hygiene Module may lead to leakage in the potable water pipework.

- ▶ **Mount the hygiene module according to the instructions. Verify that the connection is leaktight.**
- ▶ **Avoid strong water hammers due e.g. to downstream solenoid valves.**



Attention!

Possible material damage due to improper electric installation!

- ▶ **Use only the power adaptor included in the delivery to connect the device to the mains.**

5.2 Installation

- ▶ Fulfil the acoustic protection requirements when mounting SYR's Connect - Hygiene Module. The following measures reduce noise generation in drinking water installations:
 - Use low-noise valves
 - Reduce the water pressure
 - Use pre-wall installations if possible
 - Fasten pipes and devices properly in order to prevent the transmission of water hammers.
 - Observe the minimum distances for the paneling in the pre-wall and dry wall construction.
 - Consider the thermal linear expansion of pipes.

Note:

Mount the hygiene module without applying stresses!

- ▶ Close the water supply prior to installation.
- ▶ Mount the device only in potable water installations complying with DIN 1988-100 to 300.

5.2.1 Installation in pre-wall systems (e.g. MEPA VariVIT)

Apart from the installation in the MEPA pre-wall installation system, the hygiene module may also be mounted in pre-wall installation systems of all common manufacturers.

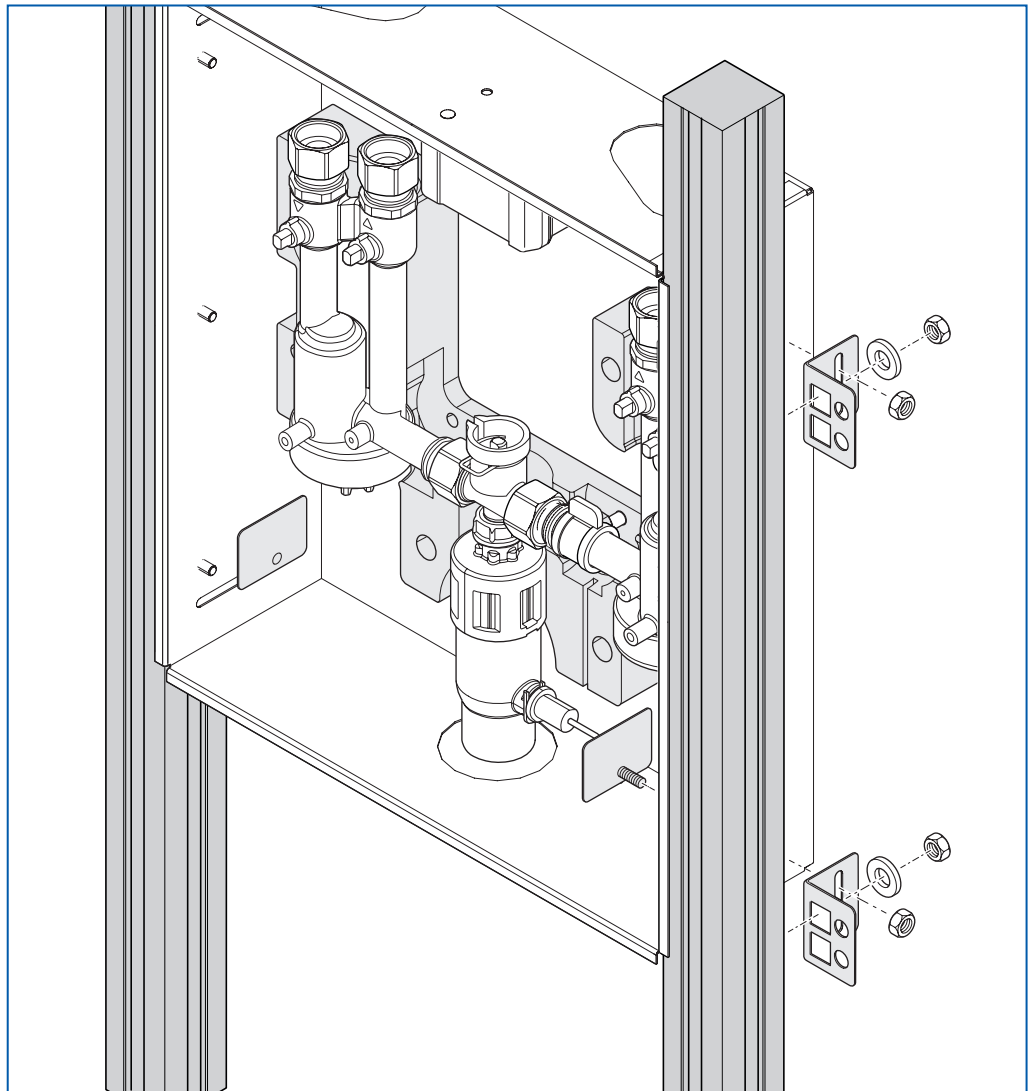


Fig. 4: Installation of the hygiene module in pre-wall systems

- ▶ If necessary, fasten the enclosed mounting brackets to the casing of the hygiene module.
- ▶ Place the hygiene module in the frame. **The profiles must abut on the rebates of the casing both on the left and right!**
- ▶ Fit the fastening screws (slot nuts) on the frame by hand.
- ▶ Align the hygiene module with a level.
- ▶ Tighten the fastening screws (wrench size 13).

5.2.2 Installation in light weight construction wall frames

The hygiene module may be mounted in all usual drywall systems.

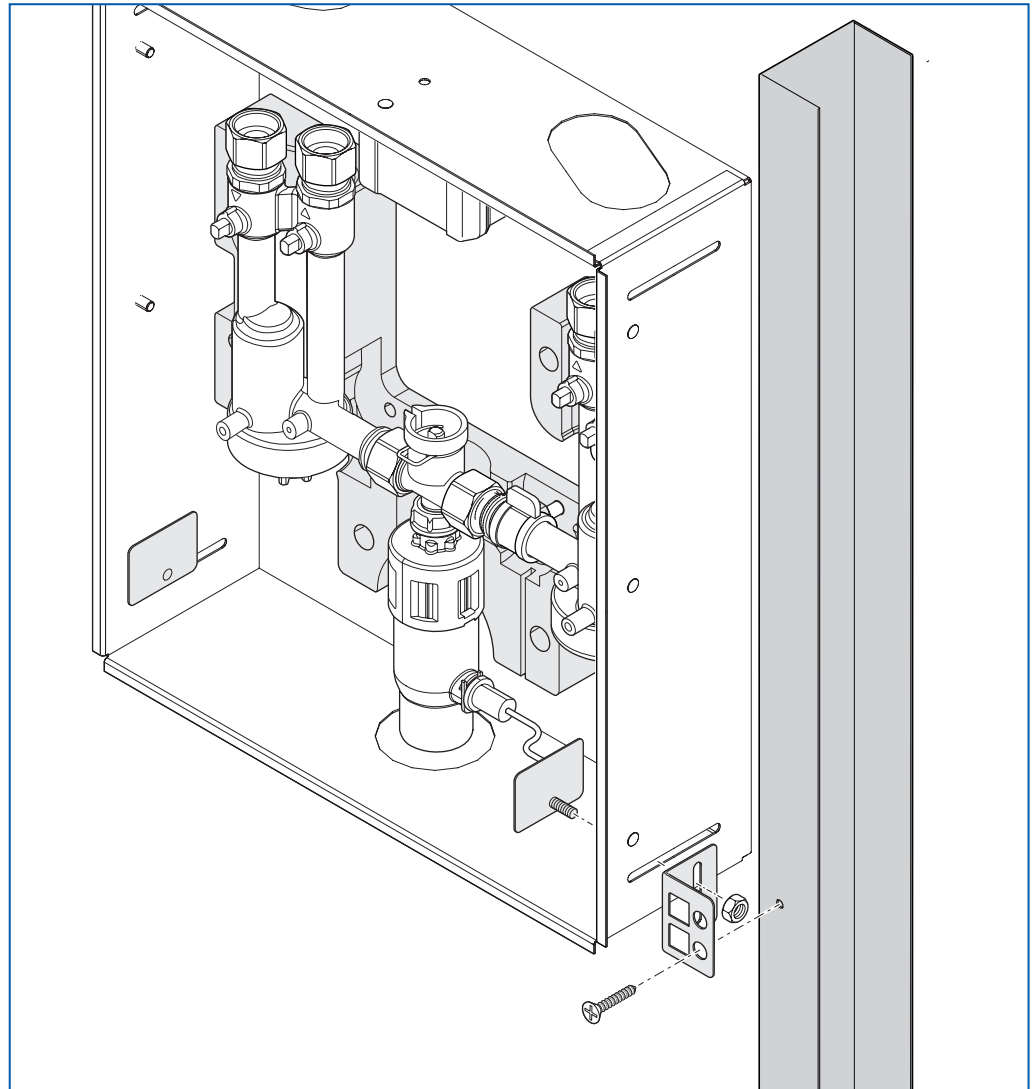


Fig. 5: Installation of the hygiene module in light weight construction wall frames

- ▶ If necessary, fasten the enclosed mounting brackets to the casing of the hygiene module.
- ▶ Place the hygiene module in the light weight construction wall frame. **The profiles must abut on the rebates of the casing both on the left and right!**
- ▶ Fit the fastening screws by hand.
- ▶ Align the hygiene module with a level.
- ▶ Tighten the fastening screws.

5.2.3 Installation on the wall

We recommend to use the enclosed mounting brackets when installing the hygiene module on the wall.

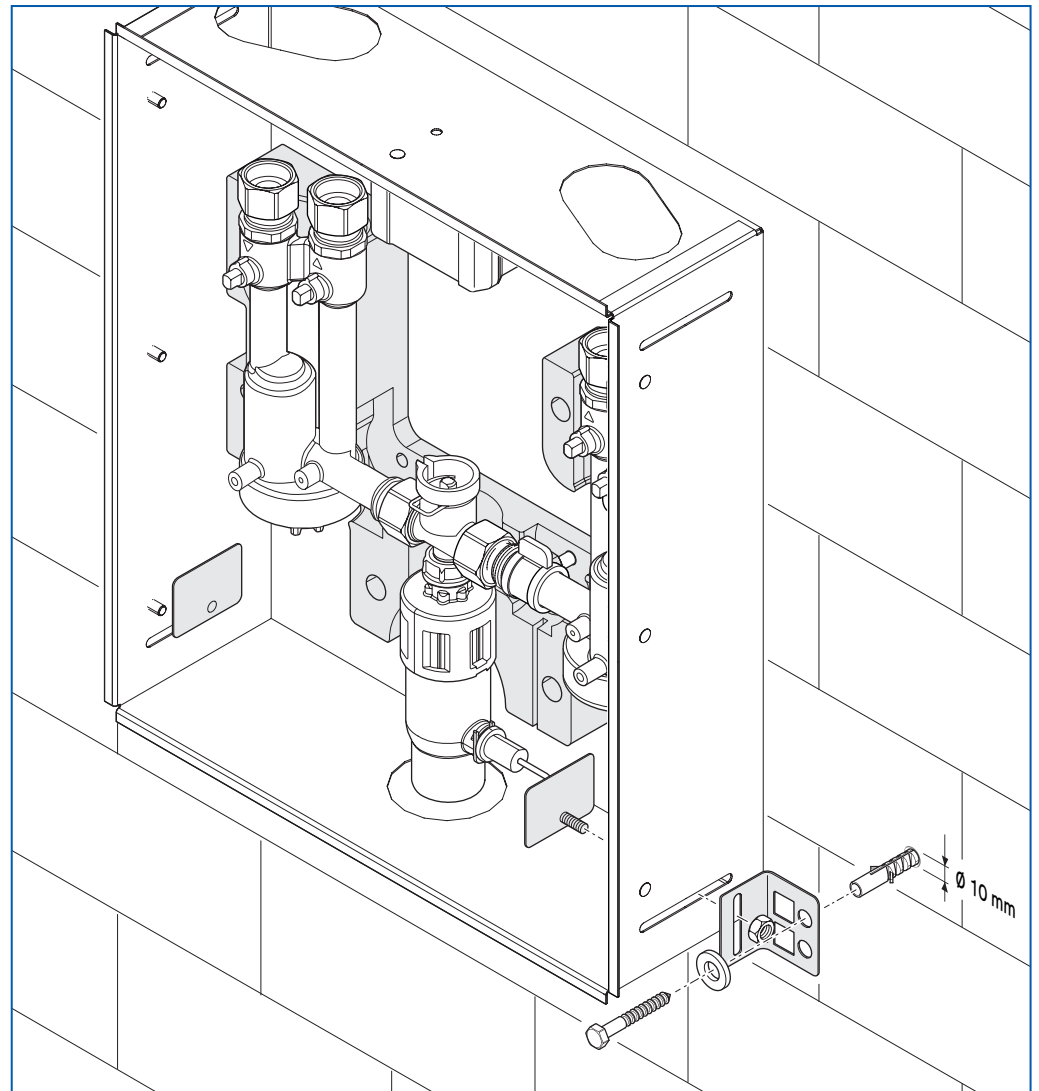


Fig. 6: Installation of the hygiene module on the wall (surface mounting)

- ▶ Fasten the enclosed mounting brackets to the casing of the hygiene module.
- ▶ Make sure that the wall's load-bearing capacity is sufficient for the weight of the hygiene module.
- ▶ Position the hygiene module where you wish to mount it and mark all spots required for the installation on the wall.
- ▶ Drill all required holes and insert dowels.
- ▶ Mount the hygiene module on the wall by tightening the fastening screws by hand.
- ▶ Align the hygiene module with a level.
- ▶ Tighten the fastening screws.

5.2.4 Pipe connection

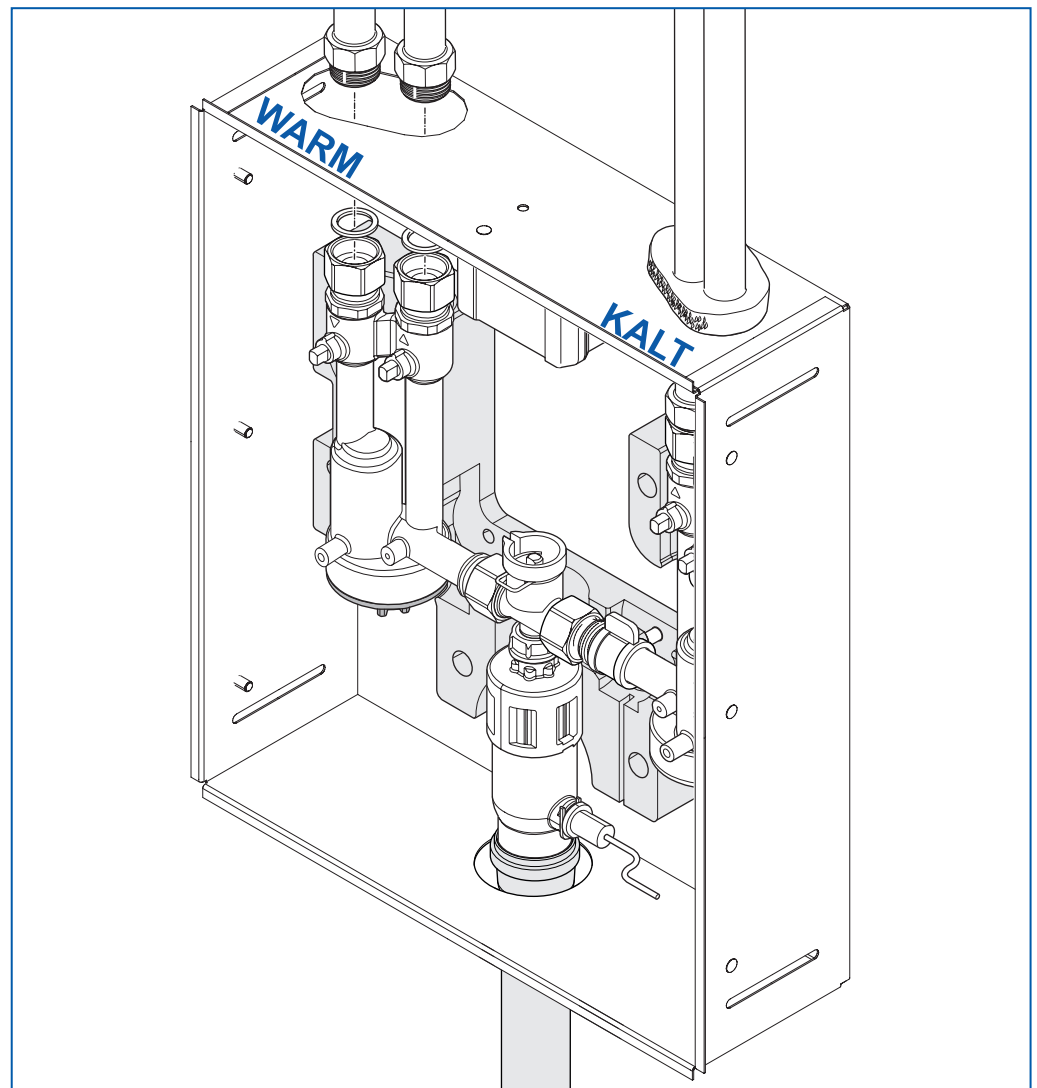


Fig. 7: Cold and hot water connections of the hygiene module

- ▶ Remove the plastic plugs from the connections.
- ▶ Guide the „pipes“ with insulation into the casing of the hygiene module. There are two connections on each side (cold and hot).
- ▶ Connect the cold (right) and/or hot water pipes (left) (3/4“ AG).
- ▶ Connect the drain pipe to the tundish (HT 40). The tundish is equipped with an odor trap, so that another one is not required on-site.
- ▶ Flush the pipes leading to the hygiene module.
- ▶ Make a pressure test.

Note:

Use clamps to fasten the pipe above the hygiene module and the drain pipe to the wall!

5.2.5 Electric connection

The distribution box in the casing ensures the power supply of the hygiene module.

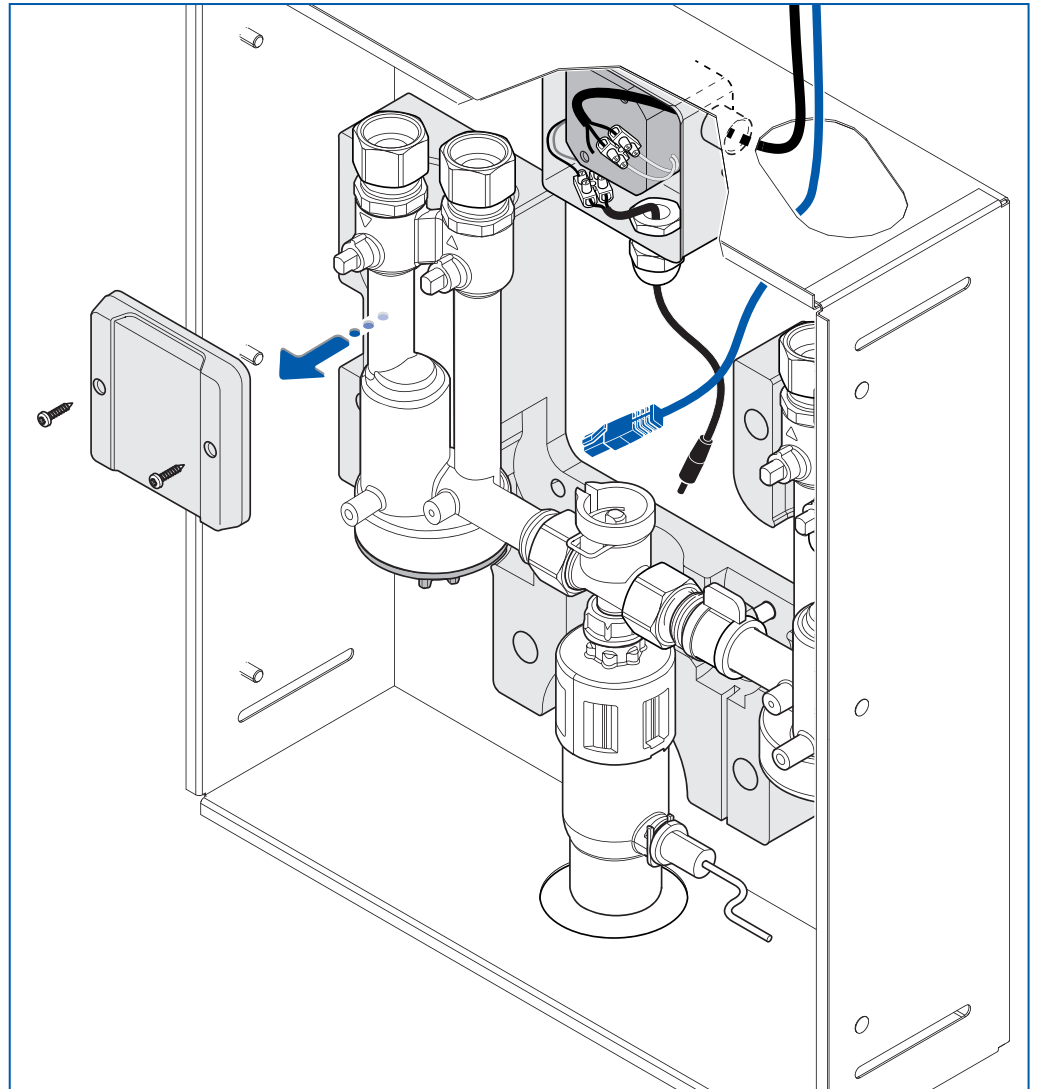


Fig. 8: Electric connection of the hygiene module

- ▶ Open the distribution box by loosening both screws in the cover and removing the latter.
- ▶ Connect two phases of the power line to the luster terminal in the distribution box. Do not connect the grounding cable (equipotential bonding).
- ▶ Close the distribution box.
- ▶ Close the openings designed for the pipes in the casing.
- ▶ Take the control unit out of the packaging.
- ▶ Insert four batteries (2, fig. 9; size AAA) in the battery compartment of the control unit. Observe the polarity!

Note:

Use insulating material like e.g. glass wool to close the openings.

Note:

Replace the batteries after two years at the latest. This requires the removal of the control unit. Do not use rechargeable batteries! Inform the operator accordingly!

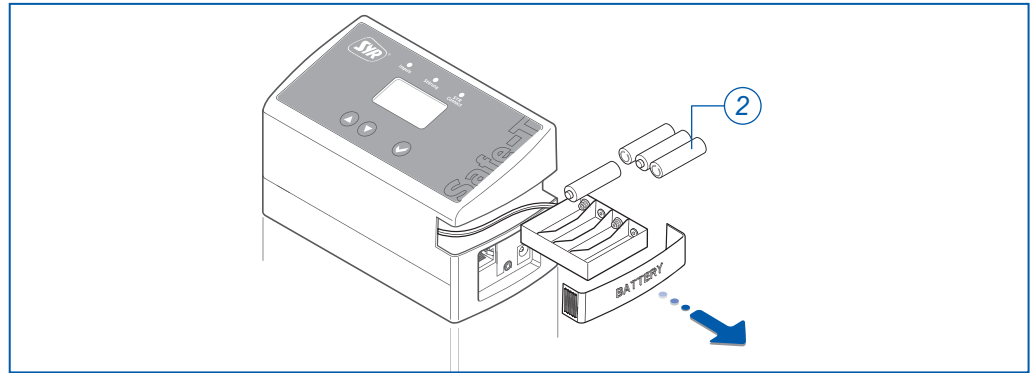


Fig. 9: Inserting batteries

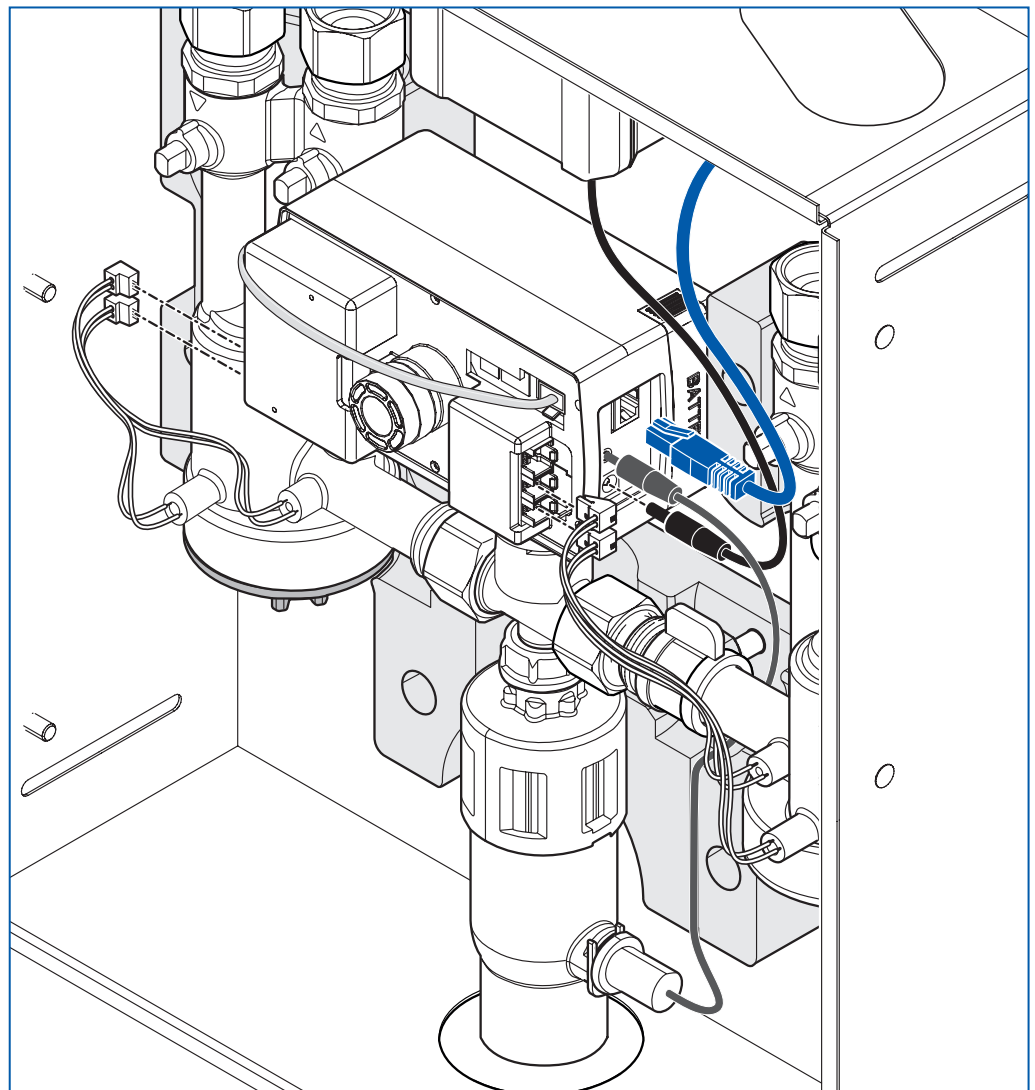


Fig. 10: Mounting the control unit

Note:

When using a PowerLine or a Gira network socket Home Plug AV for the Internet connection, observe the corresponding manufacturer's instructions!

- ▶ Connect the power adaptor cable, the sensor cables (pulse, temperature and humidity) and the LAN cable to the control unit.
- ▶ Mount the control unit in the hygiene module and secure the control unit with the clip.

5.3 Start-up

The turbines are not mounted upon delivery as they may be damaged by dirt when the pipes are flushed.

The tool required for the assembly of the turbines is included in the delivery.

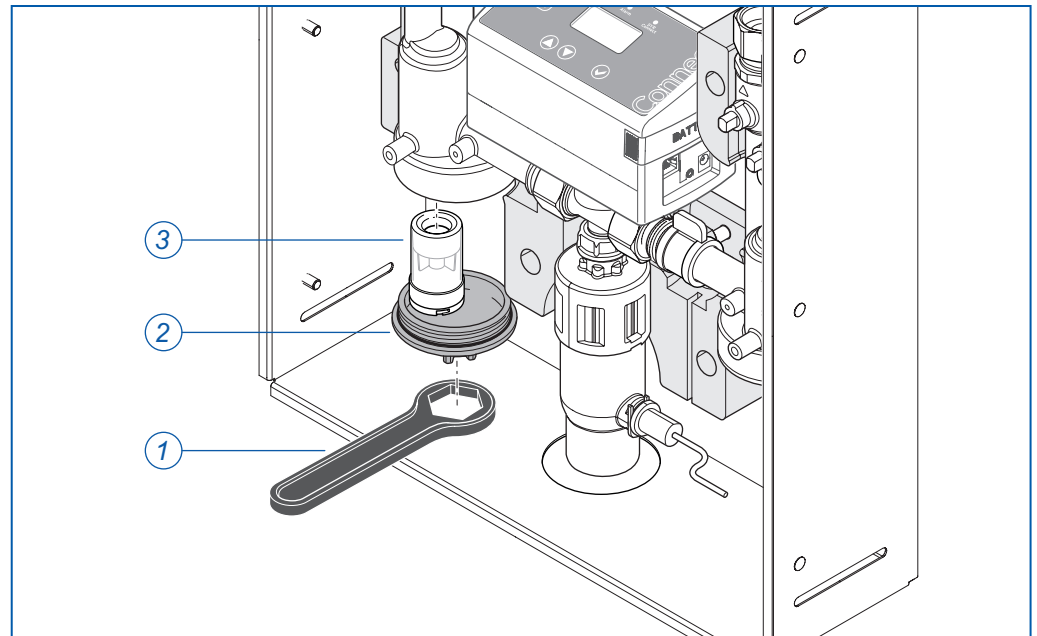


Fig. 11: Mounting the turbines

- ▶ Unscrew the synthetic lower part of the connection unit (2).
- ▶ Fit the turbine (3) in the casing.
- ▶ Screw the lower part back on the connection unit. Tighten the lower part with the tool (1) included in the delivery.

SYR's Connect - Hygiene Module starts to operate as soon as voltage is applied (power adaptor **and** batteries).

- ▶ Make a functional test. Check whether a turbine signal is emitted when water flows.

You can adjust all required settings directly on the control unit of SYR's Connect Hygiene Module, with the SYR-App on your smartphone or via a PC.

The SYR-App is free of charge and available in the App-Store and in the Play Store.

Also refer to <http://syrconnect.de> or <http://syrconnect.com>.

When connected to the Internet, settings are only possible via the SYR-App or web-browser for safety reasons.

Note:

If batteries are inserted but the power adaptor is not connected, the message „Connect the power adaptor“ will be displayed.

6 Operation

6.1 User interface of the SYR Connect - Hygiene Module

The user interface of the device shows a four-line LCD display, three LED indicating the status (pulse, malfunction and SYR Connect) as well as three control buttons (▲, ▼ and ✓).



Fig. 12: User interface with display, LED and control buttons

Symbol	Button/LED	Meaning
✓	Confirm	Confirming and saving the entries or for changing the menus.
▼	Decreasing	Changing the values
▲	Increasing	Changing the values
yellow LED	Pulse	Indicating flow rate (LED flashes)
red LED	Malfunction	Indicating malfunction (LED flashes)
green LED	SYR Connect	Connection to server is made (LED flashes)

The graphics below show extracts from the menu structure of the SYR Connect - Hygiene Module:

Betriebszustände die im Basis-Menü angezeigt werden

Hauptmenü (MODE)			
PARAMETER/INFO	Hygienemodul	Hygienemodul	Hygienemodul
Basiseinstellungen	18°C (K) 65°C (W)	Stagnation KALT	Manuell WARM
Experteneinstellungen	Absperrung: zu	Spülung: 5 L 60 s	Spülung: 5 L 120 s
Geräteinfo	Meldetexte	Ventil öffnet	Ventil öffnet
zurück	Geschlossen-Stellung	Spülung "Kalt" (Stagnation)	Spülung "Warm" (Manuell)

Basis-Einstellungen

Basiseinstellungen	Basiseinstellungen	Basiseinstellungen	Basiseinstellungen
Stagnation	Stagnation	Zyklisch	Manuell
KALT spülen	WARM spülen	KALT spülen	WARM spülen
nach 3 Tag(en)	nach 3 Tag(en)	AUS	NEIN
1	1	AUS	Ja
2	2	1	Nein
.	.	.	
6	6	29	
7	7	30	

Basiseinstellungen	Basiseinstellungen
Stop	Stop
KALT spülen	WARM spülen
nach 30 Sek.	nach 5 Liter

Basiseinstellungen	Basiseinstellungen
Stop	Stop
KALT spülen	WARM spülen
nach 5 Liter	nach 5 Liter

Basiseinstellungen	Basiseinstellungen
Stop	Stop
WARM spülen	WARM spülen
nach 5 Liter	nach 5 Liter

10	AUS
20	1
.	.
980	98
990	99

AUS	AUS
1	1
.	.
98	98
99	99

AUS	AUS
1	1
.	.
98	98
99	99

Erweiterte Einstellungen Anwender

Experteneinstellung	Experteneinstellung	Experteneinstellung	Experteneinstellung
Sprache/Language	Anzahl Warnungen	3 Warnungen pro	Akustisches Signal
Deutsch	bis Alarm/Störung	Woche	bei Alarm/Störung
	3		EIN
Deutsch	Einheiten	Tag	AUS
Englisch	°C/Liter	Woche	Schließer (Schalter)
	°F/US liq gal	Monat	Öffner (Schalter)
		Jahr	Impuls (Taster)

Fig. 13: Excerpts from the menu structure (part 1)

Erweiterte Einstellungen Anwender

Experteneinstellung Notabschaltung 15 Minuten	Experteneinstellung Ablaufsensor Ein	Experteneinst LCD-Kontrast 45 %	Experteneinst LCD-Helligkeit 90 %
15 20 . 55 60	Ein Aus	LCD Kontrast 0% 5% . 100%	LCD Helligkeit 0% 5% . 100%

Info- und Analyse

Geräteinfo Firmware V 1.0	Geräteinfo Serien-Nummer 12345678	Geräteinfo Code-Nummer xyxyxyxyxyxyxyxy	Geräteinfo Nächste Wartung 01.01.2016	Geräteinfo Temperatur KALT: 27 °C WARM: 62 °C
Geräteinfo Durchfluß KALT: 0 L/h WARM: 0 L/h (150 L/h)	Geräteinfo Stagnation Spülung KALT: WARM:	Geräteinfo Zyklische Spülung KALT: WARM:	Geräteinfo Manuelle Spülung KALT: WARM:	Geräteinfo Spülvolumen KALT Zuletzt: 50 L Gesamt: 200 L
Geräteinfo Spülvolumen WARM Zuletzt: 50 L Gesamt: 200 L	Geräteinfo Keine Entnahme seit Kalt: hh:mm Warm: hh:mm	Geräteinfo Nächste zykl.-Spülung Kalt: tt:hh:mm Warm: tt:hh:mm	Geräteinfo Fehlerspeicher 1: AC Fehler ext. Modul	Geräteinfo Sasserath SYR http://syrconnect.de

Fig. 14: Excerpts from the menu structure (part 2)

6.1.1 Description of the menu items

The table below explains important detail functions of the hygiene module.

Function	Explanation
Basic settings	
Flushing in case of stagnation	If stagnating water is identified in a drinking water system within a specified period of time or if water is drawn off in a quantity remaining below the defined volume limit, the corresponding line will be automatically flushed for hygiene reasons.
Cyclic flushing	Irrespective of stagnation-based flushes, periodic flushes can be carried out at specified intervals. This function works independently of the actual amount of water drawn off and flushes the relevant line at cyclic intervals.
Manual flushing	If immediate flushes are desired in addition to the automatic hygiene flushes, the user can trigger them manually. A manual hygiene flush stops automatically after a flushing time stored in the control unit.
Duration of flushes	An automatically started hygiene flush stops after an adjustable period of time that can be changed in 10 seconds steps..
Volume-dependent duration of flushes	An automatically started hygiene flush can also be stopped after the throughput of an adjustable water quantity. The limit value can be adjusted in 1 liter steps.

Notes:

All start and stop conditions of a hygiene flush described here are available once in a single module. In case of a combination module all settings are available twice. Thus, different flushing criteria can be set for cold and hot water. If various start and stop criteria are set, they will work in parallel. As an example, if a flushing time of 30 seconds and a flushing volume of 10 liters are set, the first applicable criterion will stop the hygiene flushing process.

In addition to the flushing criteria specified above, a temperature-dependent flush is carried out, if the temperature in the cold water line increases too much or if the temperature in the hot water line is not reached. In these cases, the hygiene flush will be stopped as soon as the required temperature is reached again. The limit values are securely stored in the device and **cannot** be changed by the user.

Experts settings	
Language	The following languages are available: German, English
Units	Regardless of the selected language, the following units can be set: °C/Liter, °F/US liq.gal.
Warnings	With this setting, the user has the possibility to tolerate a defined number of hygiene flushes within a specified period of time until the device will identify this as a malfunction. A warning is displayed for information of the user, but it requires no confirmation.
Acoustic signal	If the system identifies a malfunction, an acoustic signal can be emitted in addition to the message in the display (buzzer). This function can be deactivated.
External OUT	If the system identifies leakage or a malfunction, a potential-free relay contact can report it in addition to the displayed message or the buzzer. This signal can be read at the external outlet OUT. The potential-free contact is externally supplied with a voltage of max. 24 V. The maximum load amounts to 2 A.
Emergency shutdown	Should a malfunction occur during a volume-based flushing process (e.g. due to a faulty flow rate turbine), the flush will be stopped after a predefined emergency shutdown time. This parameter cannot be deactivated.

Function	Explanation
Drain sensor	The hygiene module has a drain connection equipped with a drain sensor for monitoring purposes. Should backwater build up in the waste water system, so that the flushing water cannot be drained, this will be identified by the drain sensor and reported to the user.

Information about the device	
	In addition to the system information like serial number, firmware version or code number, the sensors also provide information about the flow rate, the temperature and meter readings for the frequency of hygiene flushes. The last and total flushing volume can also be read.

6.1.2 Adjustable parameters

The table below shows the adjustable parameters.

Parameters	Setting range	Factory setting
Basic settings		
Stagnation COLD flushing	1 ... 7 days	3 days
Stagnation HOT flushing	1 ... 7 days	3 days
Cyclic COLD flushing	Off, 1 ... 30 days	Off
Cyclic HOT flushing	Off, 1 ... 30 days	Off
Manual COLD flushing	Yes/No	No
Manual HOT flushing	Yes/No	No
Stop COLD flushing after	10 ... 990 seconds	30 seconds
Stop HOT flushing after	10 ... 990 seconds	30 seconds
Stop COLD flushing after	Off, 1 ... 99 liters	5 liters
Stop HOT flushing after	Off, 1 ... 99 liters	5 liters
Extended settings (experts setting, user)		
Language	German, English	German
Units	°C/liters, °F/US liq gal	°C/liters
Number of warnings until alarm/malfunction	Off, 2 ... 10	3
Warnings per	Day, week, month, year	Week
Acoustic signal in case of alarm/malfunction	On, Off	On
External malfunction message	Off, close contact, open contact, pulse	Off
Emergency shutdown	15 ... 60 minutes	15
Drain sensor	On, Off	On
LCD-contrast	0 ... 100 %	45 %
LCD-brightness	0 ... 100 %	90 %

Parameters	Setting range	Factory setting
Device information (User)		
Firmware version		
Serial number		
Code number		
Next maintenance		
Battery voltage		
Temperature cold, hot		
Flow rate cold, hot		
Stagnation flushing cold, hot		
Cyclic flushing cold, hot		
Manual flushing cold, hot		
Temperature flushing cold >-- °C, hot <--°C		
Flushing volume cold, last/to- tal		
Flushing volume hot, last/total		
No water drawn off since (d:h:min), cold, hot		
Cyclic flushing in (d:h:min), cold, hot		
Error memory (1-10)		
SYR-Hotline (www.syrconnect.de)		

Other device information is available in the system.

6.1.3 Criteria for triggering and stopping hygiene flushes

Hygiene flushes are based on various criteria summarized in the table below:

Criterion	Cold		Hot	
	Start	Stop	Start	Stop
Criterion 1	Stagnation after 3 days without flow rate (adjustable 3 - 7 days)	Time adjustable time window between 10 and 990 s	Stagnation after 3 days without flow rate (adjustable 3 - 7 days)	Time adjustable time window between 10 and 990 s
Criterion 2	Time whether water has been drawn off or not, flushes can be carried out at defined intervals (1 - 30 days)	Volume Adjustable in a ran- ge from 1 to 99 liters	Time whether water has been drawn off or not, flushes can be carried out at defined intervals (1 - 30 days)	Volume Adjustable in a ran- ge from 1 to 99 liters
Criterion 3	Manual by user	Manual by user (time as of 10 s)	Manual by user	Manual by user (time as of 10 s)
Criterion 4		Emergency shut- down after 15 - 60 min		Emergency shut- down after 15 - 60 min

- Each criterion to start / stop flushes can be set individually.
- Start and stop criteria do not depend on each other. For example, a flush can be started according to criterion 1 and stopped according to criterion 2 or 3.
- If more than 1 criterion is set to start flushes, each single condition will trigger the process.
- When flushes are started manually, they can also be stopped manually or according to the stop criteria 1, 2.
- The time-based emergency shutdown offers protection against excessive flushing, for instance when a preset parameter (e.g. time or temperature) has not been reached.






6.1.4 Setting of stagnation-based flushes on the device (no LAN cable plugged in)

Note:

Follow the same procedure when setting all other parameters.

The menu settings are explained with the example of stagnation-based flushes COLD.

Proceed as follows:

- ▶ Activate the button .
The first line of the display reads „Hygiene Module“.
- ▶ Activate the button  again
The first line of the display reads „Basic settings“.
Below „Stagnation COLD flush after 4 day(s)“.
- ▶ Change the value (from 1 day to 7 days in 1 day steps) by means of the buttons  and .
- ▶ Confirm the setting by pressing the button .

6.1.5 Manual unlocking of the valve

The valve has to be unlocked manually if the SYR Connect - Hygiene Module has shut off the system and a power failure has occurred at the same time (no batteries or dead batteries).

The access is located under the control unit.

- ▶ Remove the front insulating shell.

The key for the manual unlocking is located in the external side of the front insulating shell.

- ▶ Remove the clamp below the control unit and remove the control unit by pulling upwards.

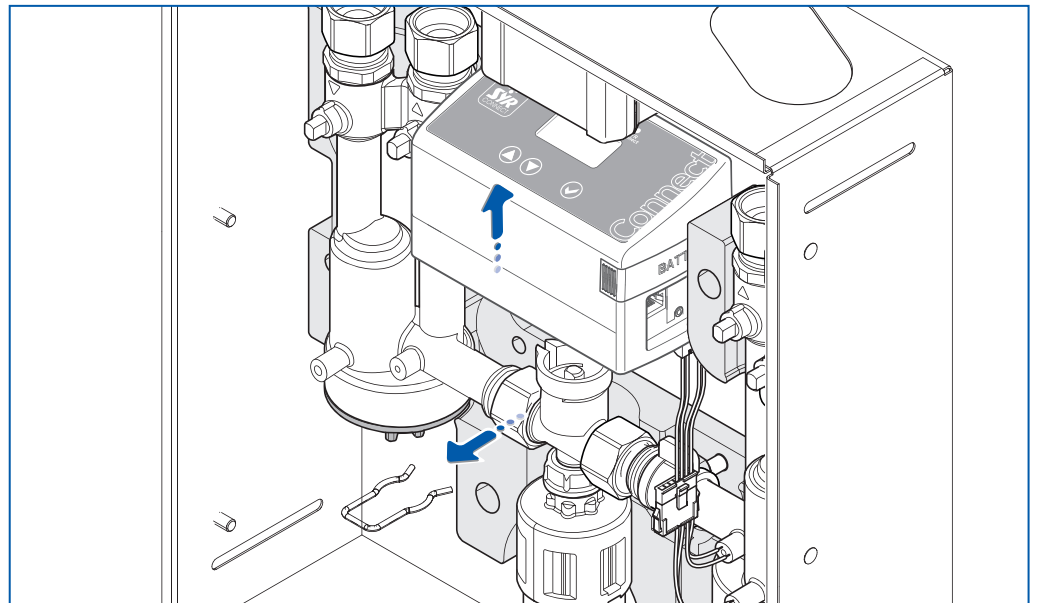


Fig. 15: Disassembling the control unit



Attention!

Possible material damage by improper removal of the control unit!

- ▶ **Consider the cable routing!**

- ▶ Position the key and turn in the direction of the arrow until water flows again.

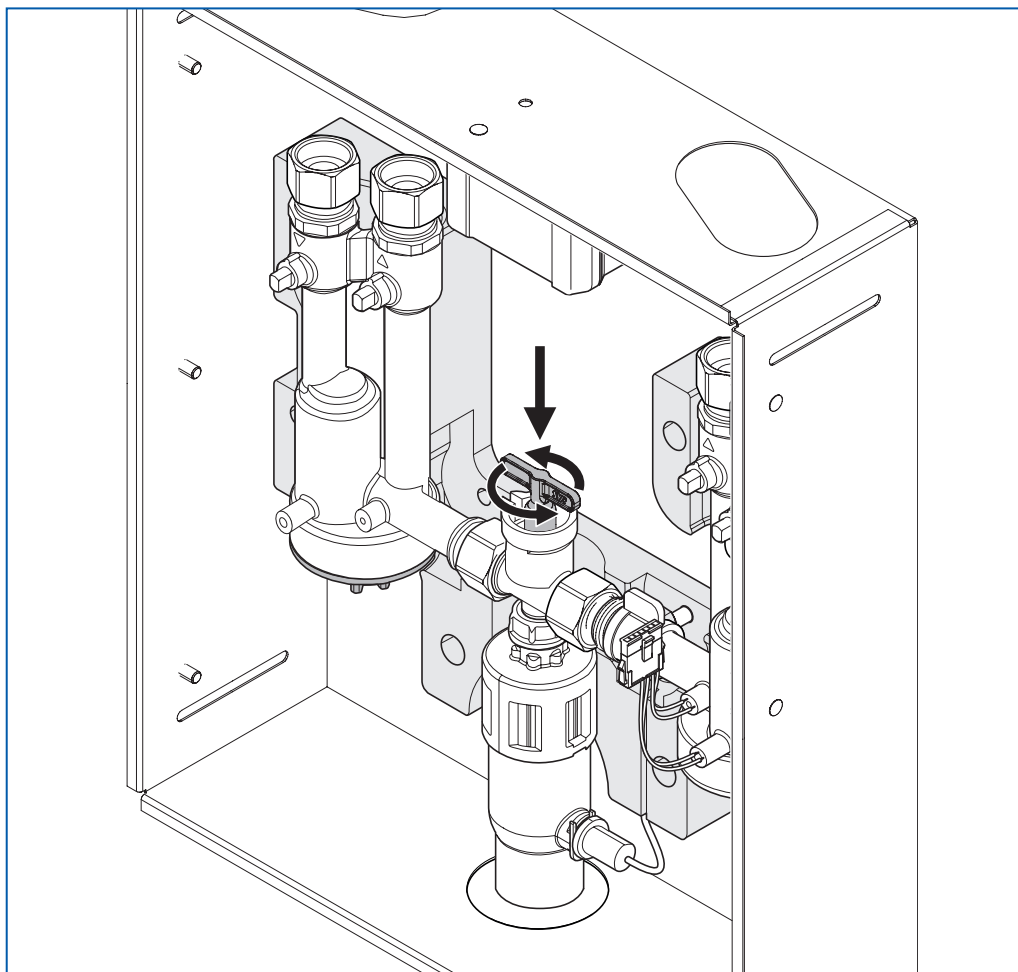


Fig. 16: Opening the shut off valve



Attention!

Possible material damage by improper installation!

The control unit cannot be fitted back in the device yet!

- ▶ **Do not mount the control unit to restart the device!**

- ▶ Connect the control unit to the mains or insert batteries.
- ▶ Select the open position on the control unit and wait until the control unit has reached the open position.
- ▶ Remove the key.
- ▶ Then, mount the control unit and fit it securely with the clamp.
- ▶ Put the insulating shell back into place.

The device is now ready for operation.

6.2 SYR-App as user interface

- ▶ As an alternative to the user interface of the device, you may also use your smartphone for the basic settings. Download the SYR-App on your smartphone or use your web-browser (<http://syrconnect.de>) and follow the instructions.



Fig. 17: User interface of the SYR-App

7 Maintenance

We recommend maintenance intervals of 2 years.

Make use of our maintenance contracts.



Attention!

Possible material damage due to improper cleaning!

- ▶ **Do not clean the synthetic parts with solvent-based detergents!**

Replace the batteries after two years at the latest.

The control unit has to be disassembled to replace batteries (cf. Fig. 15, „Disassembling the control unit“).

8 Malfunctions

Note:

The buzzer function has to be activated in the menu „Extended settings for users“. This function requires an external power supply i.e. the power adaptor.

Malfunctions are indicated by optical and acoustic signals (buzzer). In addition, malfunctions are reported to a smartphone or a PC via e-mail.

Malfunctions may be due for example to the following:

- Reaching maximum values (e.g. cyclic intervals)
- Malfunctions of the device
- Dead batteries

Code	Cause	Remedy
A0	The batteries' capacity is exhausted.	- Replace batteries.
A1	System failure of engine/limit switch Impossible to operate the shut off valve, possibly due to dirt or a defect of the engine or the limit switch..	- Carry out a manual hygiene flush (COLD or HOT). The system makes another attempt to reach the position. - Contact the SYR customer service.
A2	Failure of flow sensor (COLD) Flow sensor fails to send signals.	- Carry out a manual hygiene flush (COLD) and check whether there are any LED signals. - Check whether the plug is fully inserted (until it blocks). - Contact the SYR customer service. .
A3	Failure of flow sensor (HOT) Flow sensor fails to send signals.	- Carry out a manual hygiene flush (HOT) and check whether there are any LED signals. - Check whether the plug is fully inserted (until it blocks). - Contact the SYR customer service.
A4	Excessive flushing (stagnation COLD) Admissible number of hygiene flushes (COLD) has been exceeded, possibly due to stagnation or because the limit value selected had been too low.	- Make sure water is periodically drawn from the respective line or - Adjust the number of warnings within the selected time range according to your needs.
A5	Excessive flushing (stagnation HOT) Admissible number of hygiene flushes (HOT) has been exceeded, possibly due to stagnation or because the limit value selected had been too low..	- Make sure water is periodically drawn from the respective line or - Adjust the number of warnings within the selected time range according to your needs.
A6	Excessive flushing (temperature COLD) The admissible temperature (COLD) has been exceeded, possibly due to insufficient insulation or because the limit value selected had been too low..	- Make sure that the respective line is sufficiently insulated or - Adjust the number of warnings within the selected time range according to your needs.
A7	Excessive flushing (temperature HOT) The admissible temperature (HOT) has been exceeded, possibly due to insufficient insulation or because the limit value selected had been too low..	- Make sure that the respective line is sufficiently insulated or - Adjust the number of warnings within the selected time range according to your needs.
A8	Emergency shutdown The flushing process has been stopped by the emergency shutdown.	- Make sure that the shutdown parameters have been activated and the limit values for volume and time are sufficient. Should the error recur, extend the shutdown time or contact the SYR customer service.

Code	Cause	Remedy
A9	Drain sensor Flushing is prevented because the drain sensor indicates occurrence of humidity.	- Check whether the drain sensor detected the occurrence of humidity that prevents (another) flushing and eliminate it - Contact the SYR customer service. .
AA	Temperature sensor COLD The temperature sensor (COLD) fails to receive a signal.	- Check whether the plug is fully inserted (until it blocks). - Contact the SYR customer service.
AB	Temperature sensor HOT The temperature sensor (HOT) fails to receive a signal..	- Check whether the plug is fully inserted (until it blocks). - Contact the SYR customer service.
AC	Expansion module (combination module) No connection to combination module	- Check whether both plugs are fully inserted (until they block). - Contact the SYR customer service.
M1	Batteries nearly spent	- Replace batteries.

9 Disassembly and disposal

9.1 Disassembly

Disassemble the SYR Connect - Hygiene Module if it no longer works and ensure environment-friendly disposal.

- ▶ Unplug the device.
- ▶ Disassemble the SYR Connect - Hygiene Module.

9.2 Disposal

Insofar as no return or disposal agreement has been made, ensure that the disassembled components will be reused.

- ▶ Have metals scraped
- ▶ Have synthetic parts recycled

10 Technical specifications

10.1 SYR Connect - Hygiene Module

	Unit	Hygiene module
Voltage power adaptor	V DC	9
Batteries		4 x AAA
Protection class		IP 21
Max. load of external potential-free contact		
External inlet IN2	V / mA	min. 12 / 20
External outlet (Out)	V / A	max. 24 / 2
Operating temperature	°C	10...80
Max. torque required	Nm	2
Pressure sensor	bar	0...16

10.2 Flow rate

	DN 20
Δp 0.2 bar	1.69 m ³ /h
Δp 0.5 bar	2.68 m ³ /h
Δp 1.0 bar	3.80 m ³ /h

10.3 Dimensions and connections

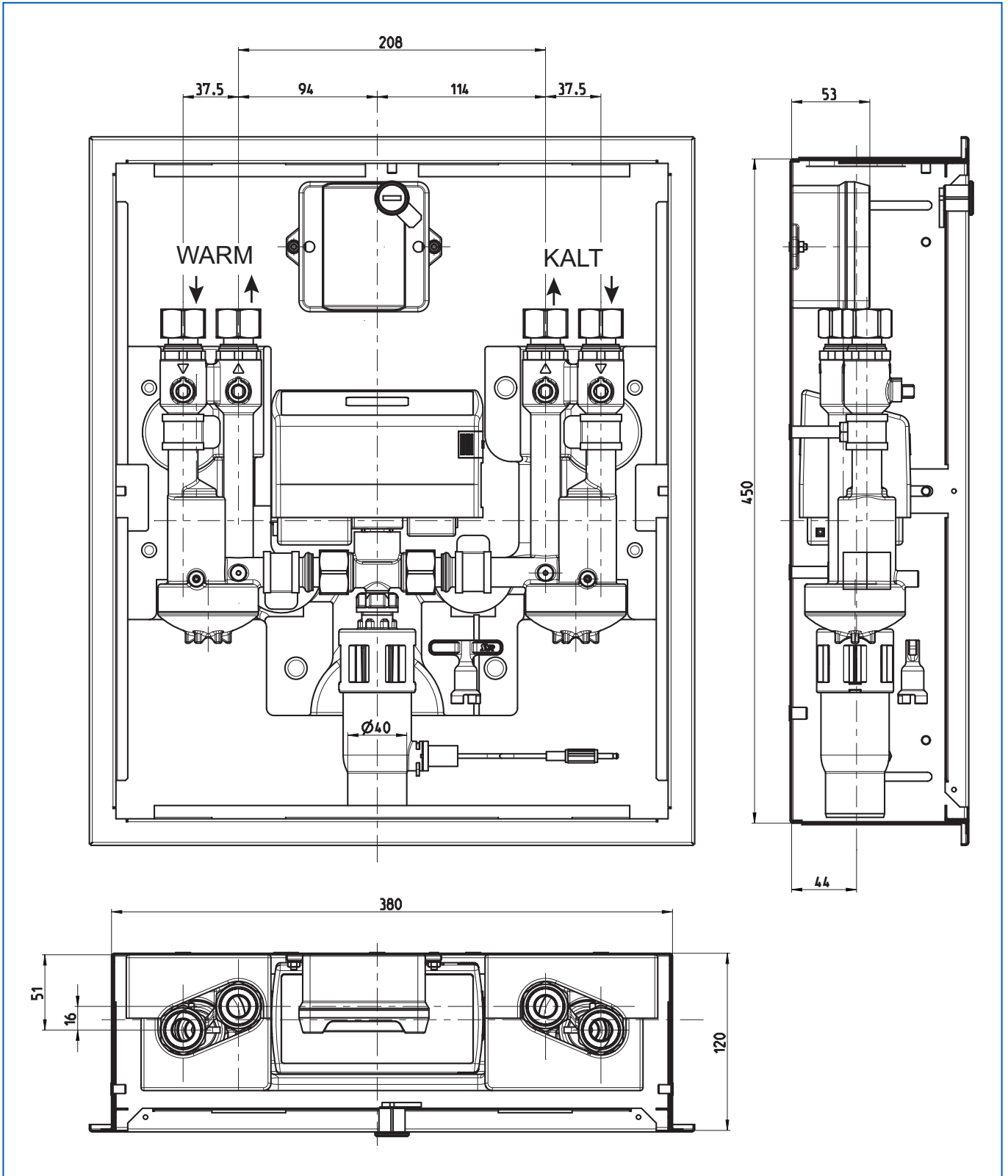


Fig. 18: Dimensional drawing SYR Connect - Hygiene Module

10.4 Water content in pipes - Interpretation aid

Copper tubes	Content per m (liter)	3 liters pipe length (m)
15	0.13	22.6
18	0.20	14.9
22	0.31	9.6
28	0.49	6.1
35	0.80	3.7
42	1.198	2.5
54	1.96	1.5
Multilayer composite pipes	Content per m (liter)	3 liters pipe length (m)
16	0.11	26.5
20	0.18	17.0
26	0.31	9.6
32	0.53	5.7
40	0.86	3.5
50	1.32	2.3
63	2.04	1.5

