KHS Hygiene Flush Boxes

// Actively support drinking water hygiene
// Log intended use for proof

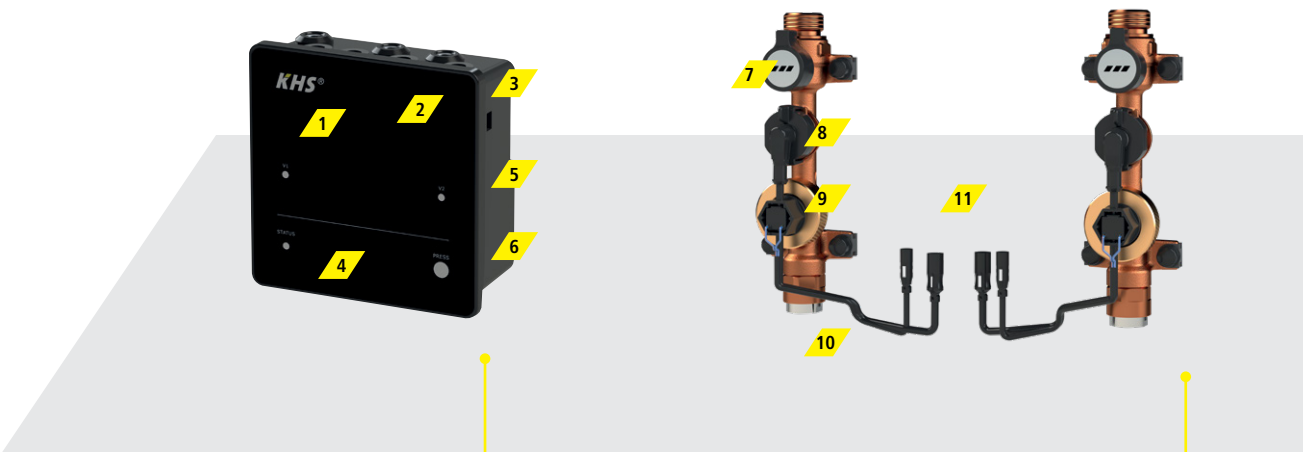
KEMPER
DRIVING PROGRESS

Stagnation Prevention

Drinking water hygiene has never been so convenient

To be able to ensure the proper functioning of a drinking water installation, the designer must take the maximum usage situation into account. In practice, however, this maximum usage is not the usual situation. Stagnating sections and insufficient hygiene in both the cold drinking water (PWC) and the hot drinking water (PWH) can be the consequence. Changes in the type of use or the behaviour of the building's users have a similar effect. Over a building's lifetime, the actual frequency of withdrawals and volumes deviates strongly from the originally intended values. In this case, too, the intended use is no longer guaranteed.

Our KHS Hygiene Flush Boxes help restore intended use through controlled 'forced withdrawals'. The time, temperature and volume parameters of the water exchange can be controlled.

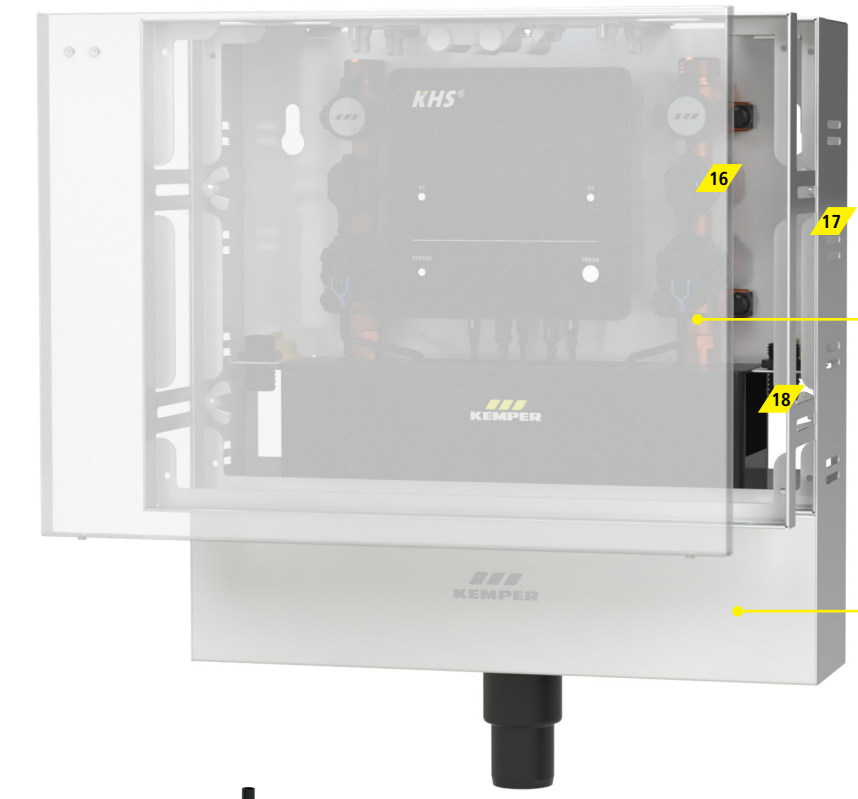


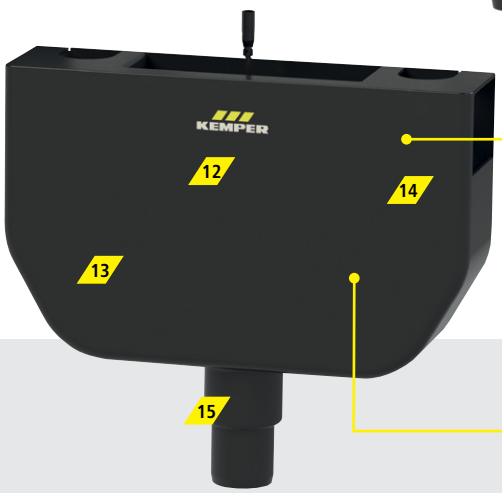
No two buildings are used in the same way!

An economically viable setup for every building: PRO/PURE/LITE

No frustration because of wrong tools!

No tools required for installation or maintenance.





Detailed view of the internal components

Beautiful bathrooms ... should stay that way!

Top Highlight: Invisible service opening thanks to innovative flush-mounted solutions!

One housing body for all purposes!

Compatible with all installation situations (flush or surface mounted).

Ultra-quiet water exchange!

Drinking water hygiene for noise-sensitive rooms.

Simply powerful!

High drainage capacity of the integrated trap > 45 l/min.

01 USB interface for convenient data transfer
02 Potential-free contact for fault messaging
03 PRO controller (external connections all as fixed connections inside the body)
04 LED status display
05 Buzzer for fault messages
06 Mass storage for event log (up to 100,000 entries)
07 Maintenance valve
08 Flow measurement valve and temperature sensor for detection of flushing volume (TOP ENTRY)
09 Solenoid valve with integrated fine strainer (TOP ENTRY)
10 Aerator set incl. flow limiter (variable flow volume 5, 10, 15 l/min)
11 Water exchange group (individual or double connection)
12 Overflow sensor
13 High-performance trap > 45 l/min
14 Air gap to DIN EN 1717
15 Flexibility extends to the nominal drainpipe diameter (DN 40 and DN 50)
16 Push-to-open reversible cover (incl. fall-out protection)
17 (Flush-mounted) mounting frame (incl. depth adjustment)
18 Flushing components for flushing during commissioning

Hygiene Flush Box PRO

for large buildings with special hygiene requirements

KHS Hygiene Flush Box PRO
Figure 689 03 007 (one connection)
Figure 689 03 008 (two connections)

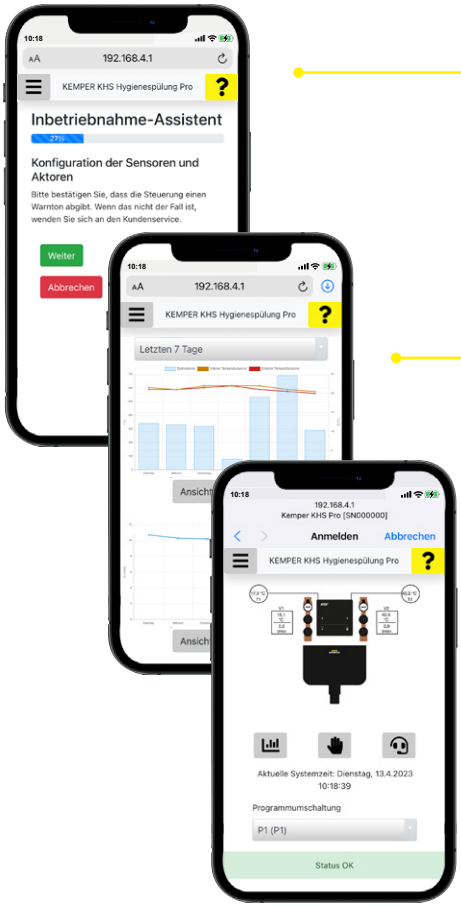
// Seven timers for customised flushing strategies in particularly hygiene-sensitive buildings
// Interval, time, volume, temperature and usage-controlled flushing
// Convenient and safe operation via WLAN (can be switched off) using the latest Access Point Technology
// Up to 100,000 event entries to verify use as intended
// Analysis and log readout via WLAN and USB
// Networking of up to 60 KHS Hygiene Flush Boxes using KHS Mini Control System possible

Hotel

Hospital

Safety is a priority. Always!

Operational safety 24/7 thanks to continuous checking of all components.



It couldn't be easier!

Digital commissioning and maintenance assistant.

Know what's going on!

Graphical illustration of all sensor values for easy analysis thanks to visualised flushing history.

Everything at a glance

All operating states of the Hygiene Flush Box are displayed live in the overview

Hygiene Flush Box PURE

for time-controlled interval flushing operation in small buildings

KHS Hygiene Flush Box PURE
Figure 689 03 005 (one connection)
Figure 689 03 006 (two connections)

// Interval controlled flushing
// Commissioned in under a minute with 4 x PRESS
// Up to 100,000 event entries to verify use as intended (readout via USB)
// Automatic detection and checking of all functional components

School

Nursery

We know you don't have time – never mind!

Commissioned in less than a minute.

Hygiene Flush Box LITE

for safety-sensitive buildings

KHS Hygiene Flush Box LITE
Figure 689 03 009 (one connection)
Figure 689 03 010 (two connections)

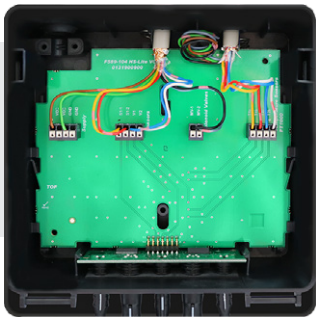
// No integrated controller logic
// Own control for direct connection to building management systems / BMS

Industry

Shopping centre

Don't want a separate control for the device?

Full direct control of all components!



One KHS Hygiene Flush Box for all purposes

Installation and assembly options

Installation options

Series installation

A

// One KHS Hygiene Flush Box each **per bathroom**

Loop installation with KHS Venturi Flow-Splitter

B

// One KHS Hygiene Flush Box **centrally** on the lower ground floor

// Incl. downstream fixtures with high usage

C

// Only one KHS Hygiene Flush Box **decentrally** on the floor

// Incl. downstream fixtures with high usage

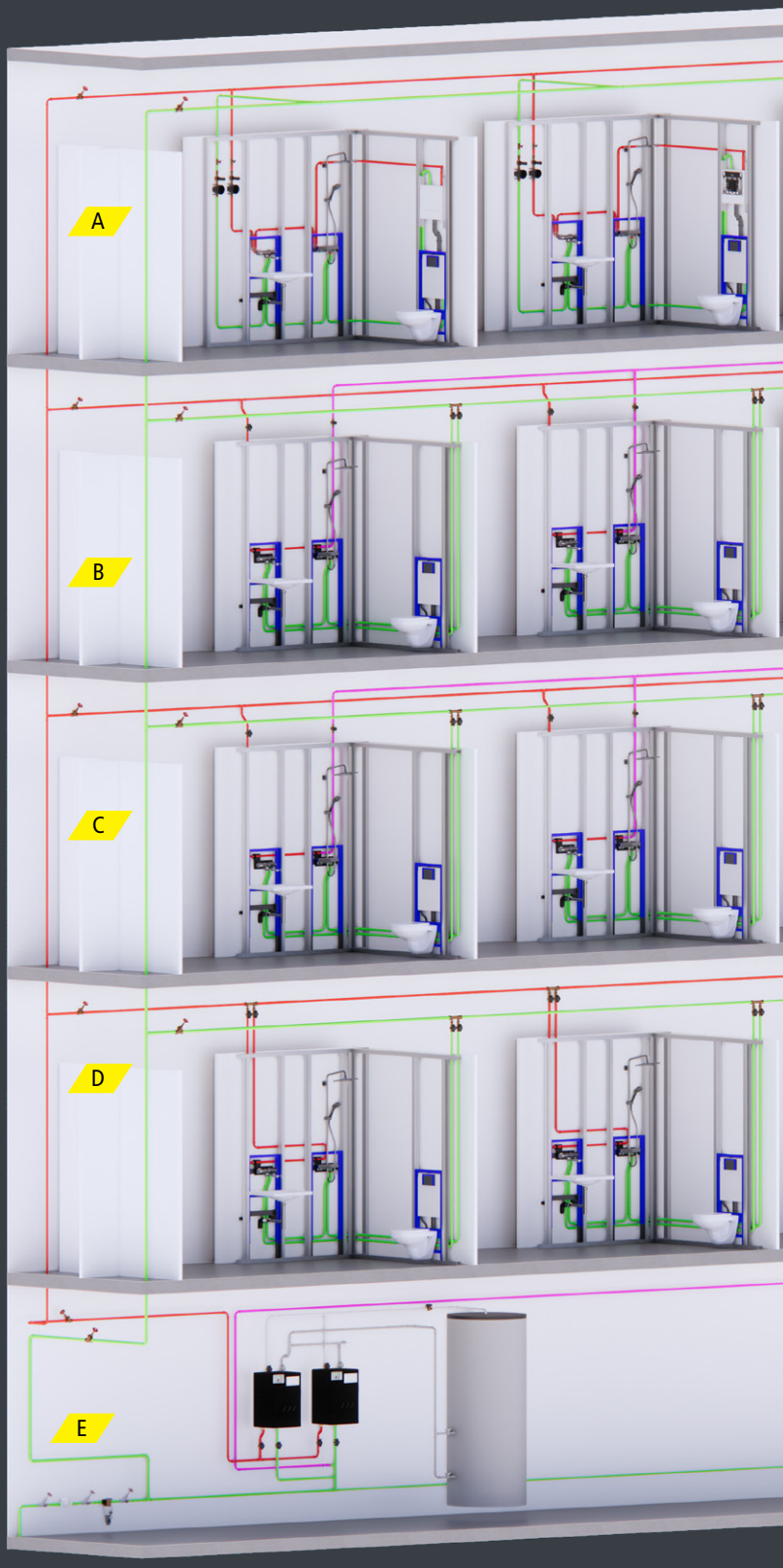
D

// Only one KHS Hygiene Flush Box **decentrally** in the plantroom

Rarely used fixtures

E

// One KHS Hygiene Flush Box **downstream** on the lower ground floor



Assembly options

The KHS Hygiene Flush Boxes can be installed surface-mounted or flush-mounted without additional accessories. Thanks to the innovative housing concept, all three product versions can either be installed practically invisibly in the wall structure (flush-mounted) or elegantly on the solid wall (surface-mounted).

What's more, the sophisticated technology behind the KHS Hygiene Flush Boxes ensures that comfort is not impaired – to maintain intended use, the controlled water exchange is ultra-quiet.

Practically invisible when flush mounted

// Incorporated in the tiled backsplash

// Incorporation in the drywall

YouTube

Flush-mounted installation

Elegant when surface-mounted

// Due to compact design
// No accessories necessary
// Networking several KHS Hygiene Flush Boxes using KHS Mini Control System MASTER

YouTube

Surface-mounted installation

Managing operator duties: with transparent drinking water hygiene.

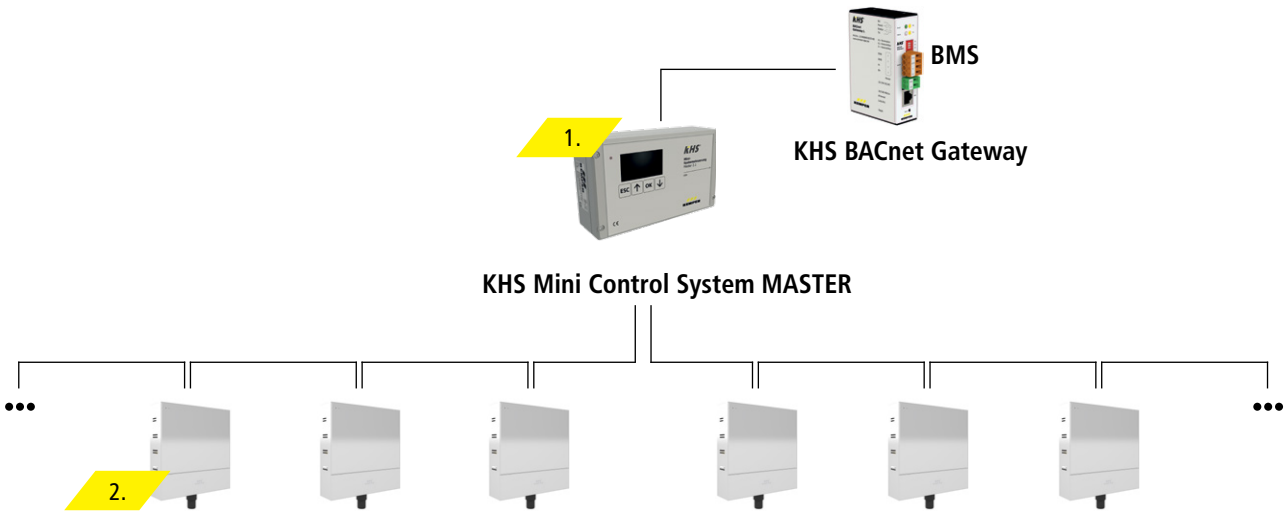
The KHS Mini Control System makes it easier to comply with operator duties. The control system is used to control and evaluate all connected actuators and sensors in the drinking water installation at a central point and log all of the results and operating data to prove correct use.

Monitoring ensure transparency in the drinking water installation. Furthermore, water can be exchanged in order to maintain drinking water hygiene for cold drinking water (PWC) individually for each building type. The planned water exchanges can be saved and therefore documented in a flushing log including flow and temperature as well as flushing duration.

Up to 62 control systems can be connected to the systems via CAN bus. The control system is operated via the integrated display – or even more conveniently via the web interface in the internet browser.

The building management system can be connected via the standard logs Modbus TCP/IP, BACnet IP or BACnet MS/TP. This makes access to the datapoints of all of the flush valves and sensors connected possible – for example, to enable visualisation, evaluation and control of the components by a higher command level.

Water exchange, controlled by building automation



Quick overview KHS Hygiene Flush Boxes

Compare models at a glance

		PRO	PURE	LITE
		KHS Hygiene Flush Box PRO	**KHS Hygiene Flush Box PURE**	**KHS Hygiene Flush Box LITE**
Operating modes	Time control	✓		✓*
	Interval control	✓	✓	✓*
	Volume control	✓		✓*
	Temperature control	✓		✓*
	Usage-based control	✓		✓*
Control	Operation via WLAN (can be deactivated) using Access Point Technology	✓		
	Operation via the controller		✓	
	CAN bus networking possible	✓		
	Incorporation into BMS (BACnet & Modbus) via KEMPER Hygiene System, KHS	✓		
	Direct control via BMS (24V/420 mA)			✓
	BMS interface via digital i/o	✓		
	Dry contact for fault messaging	✓	✓	✓
Features	Digital assistants for commissioning and maintenance	✓		
	Automatic functional testing of all components (24/7)	✓		
	Data storage (up to 100,000 event entries)	✓	✓	
	data transfer via USB interface	✓	✓	
	data transfer via WLAN	✓		
	visualised flushing history	✓		
An economically viable setup for every building:				
	Hospitals	✓		(✓)
	Care homes	✓		
	Geriatric care	✓		
	Residential buildings	✓	✓	
	Residential homes	✓	✓	
	Hotels	✓		
	Detention centres	✓		(✓)
	Accommodation blocks (e.g. military)	✓		(✓)
	Schools	✓	✓	
	Sports facilities	✓	✓	
	Nurseries	✓	✓	
	Laboratories	✓		
	Industrial buildings	✓		(✓)
	Department stores	✓		(✓)
	Swimming pools	✓		
	Interim solutions		✓	

Approvals:

(✓) No internal flushing logic

* depending on external flushing logic

Read our references if you need any more convincing!

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DRIVING PROGRESS

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