Touchless sanitary equipments Presentation catalogue 2022 - 2023 APIS page 4-14 WBS page 15-29 SABA page 30-46 ASS page 47-50 SPECIAL DEVICE/ACCESSORIES



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Facility page 56-66

#### Dear customers,

We are addressing you with an offer of our modern automatic equipment for water management. These devices, developed and manufactured in SENZOR, combine progressive and economic opto-electronic operational principle with elegance and comfort. They offer their users a variety of advantages. Products are continuously developed and adapted to new trends and users' requirements.

SENZOR company has been intensively engaged in sensor technology since 1982 and thanks to a wide public interest the automatic water management equipment production has become its main program, which is developed and complemented with other products continuously. Due to SENZOR's vigorous efforts to maintain a high quality and accessible prices these products can be used in a wider range of applications. The current production program offers solutions for basically any task in the fields such as:

- spas, hotels
- swimming pools, open-air pools, sport facilities
- tourist industry (camping sites, accommodation facilities)
- health care, social institutions
- food industry
- public lavatories

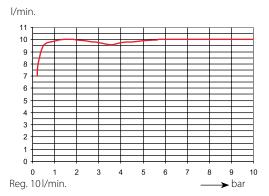
In relation to utility functions SENZOR's development employees put the greatest emphasis on water saving. Of course, in individual applications other aspects are important too, which these devices meet and which might be decisive when choosing a device.



#### SENZOR's products offer you the following advantages:

#### **Water saving**

The use of these devices ensures the consumption of inevitable, yet sufficient, volume of water. This makes it possible to achieve the savings of about 40-80%. Together with hot water saving it may result in a noticeable energy saving. Devices equipped with flow regulators allow a flow of a set water volume only, regardless the distribution system pressure. The process of water flow through the regulator is shown in the following figure:



#### **Environmental hygiene**

Parts of these devices have a smooth shiny chrome surface or they are made of stainless steel with rounded edges without sharp protrusions. Cover shields are without fixing screws or any other surface roughness so their cleaning is very easy. Their mechanisms work without being touched. For hygienic reasons due to the nature of the environment urinal flushing devices flush at automatically set times after the last use. Toilet bowl flushing devices are equipped with manual control enabling an additional flush during cleaning. Shower units and wash basin faucets allow hygienic flushing in various automatic modes against Legionella bacteria or thermal disinfection.



#### **Automatic operating principle**

It offers a user a high comfort. Water discharge is controlled by a microprocessor, which based on the information from an opto-electronic sensor according to the set program, opens or closes the electromagnetic valve built in the water distribution system. It is possible to change and set parameters by means of a remote control. The range of wash basin faucets is set automatically.

#### **Operation safety**

It is given by the design, low supply voltage (12 V, 6V), insensitiveness to other light sources, a protective function of the thermostatic valve against scalding or a microprocessor program which provides the protection against permanent valve opening during a constant shielding of the sensor.

#### **Protection against forcible damage**

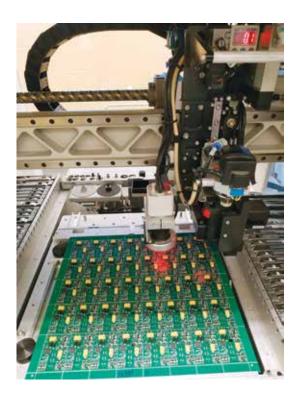
A flawless protection against forcible damage does not exist. The equipment design tries to reduce the chances. Basically, it is a smooth solid shielding cover, tightly fitted to the wall surface, a hidden anchorage and electronics hidden in wash basin drains.

#### Installation, maintenance

Fixtures are equipped with a threaded connection at inlet and outlet sides. A ball closing valve in front of the electromagnetic valve inlet is included in a delivery. Fixture parts, intended for wall mounting, are installed into plastic installation boxes. Additional access to all parts during maintenance or potential repairs is very good. Battery replacement in 6V versions is facilitated by means of a battery case attached to the device through a connector. The products are intended for installation onto light prefabricated wall systems too.

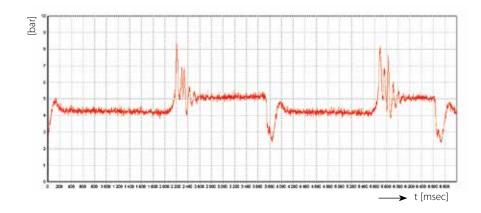
#### **Long life**

It is ensured by selection of high-quality components and cladding chosen due to a damp working environment. The electromagnetic valve is situated at the inlet side, protected by an easily accessible fine filter. The valve itself has a long life thanks to its subdued operation, not causing any surging in the piping. The surges are caused by opening and closing the valves according a diagram.



#### Dear customers,

Our experts are ready to provide all necessary information for you, cooperate in designing your applications and find the technically and financially best solution for you.







#### automatic urinal flushing

#### opto-electronic

- concealed
  - on-wall
  - group

#### conductivity

– for installation into urinals



#### APIS 7



# Min. 100 - max. 140 G1/2 Min. 1500

#### Characteristics

- · high level of hygiene
- · water saving.
- · comfortable operation
- high reliability
- automatic selection of flushing
- possible to supply from a lithium battery or mains power

#### Performance description

The device optoelectrically scans people in front of the device. It does not react to passers-by. Depending on the setting and position of the user, the flushing performance is selected (pre-flush, main flush, post-flush, hygienic flush, cleaning flush). It is possible to choose the colour of the light signalling. The welcome light function is adjustable.

#### Basic data

- power supply: 230V, AC (6V, DC) power supply or

6V, Li-CRP2 battery in a PB1 case

(special accessories).

Some light functions are limited

in the battery version.

- range: approx. 50cm (adjustable)

- possible pre-flush and post-flush

- front panel white, durable plastic with a black visor for scanning and light signalling. Dimensions: 125 x 145 x 8 mm.
   Other colour and material versions are available at request and at an additional cost.
- parameter setting using a DO-5.1 remote control (special accessories), selected functions mains selection (battery, visibility of signalling LED, flushing

#### **Specialties**

- archiving of operational statistics operating time, number of individual flushes, etc.
- possible to reset counters
- possible pre-flush and post-flush
- possible of hygienic rinsing according to the setting after the last use
- adjustable stagnation time for hygienic flush
- external inlet for hygienic flush
- possible cleaning flush
- long STOP function for the effectiveness of detergents and disinfectants
- welcome range setting

#### APIS 7 Order No. SE.01.32.41-000

The control part of the touchless urinal flushing device with the SANIT INEO BRIGHT white plastic cover, optoelectronics. Designed for mains power or battery supply (special accessories).

#### Special accessories

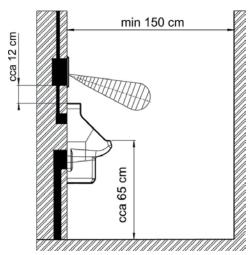
– power supply ZAS 230A/6DS30C Order No. SE.06.21.31-000 (for group supply, max. 5 pcs APIS)

- remote control DO-5.1 Order No. SE.09.02.12-210
- installation set APIS 6M-2 Order No. SE.10.06.04-025
- 6 V Li, CR-P2 battery Order No. SE.06.16.01-000

- case for PB-1 batteries Order No. SE.06.21.52-000

APIS 6.1 EXT APIS 6 M2





#### Characteristics

- · water saving
- high level of hygiene
- stainless steel anti-vandalism design
- smaller dimensions, easy maintenance
- two-way communication by means of DO 5.1

#### Performance description

The device opto-electronically scans a person standing in front of a urinal continuously for a period of at least 4 seconds. Water is discharged after the person leaves. It does not respond to passing persons. The water volume is adjustable by the length of the valve opening/closing period. It flushes automatically every 12 hours after the last flush.

#### Basic data

- range: min. 50 cm

adjustable by means of DO-5.1 remote control

– flushing period: approx. 4 sec., adjustable by means

of DO-5.1 (4-15 sec.)

– power supply: 6 V Li CR-P2 battery

ZAS230A/6DSC - max.1pc ZAS230A/6DS.30C - max.5 pcs

- battery life: at 4000 openings/closures a month

approx. 2 years

- water pressure: 0,05-1,0 MPa

(ideally 0,3-0,4 MPa)

- indications - LED

- parameter setting by means of DO-5.1

#### Special features

- side water supply
- hidden clamping of the front plate
- dirt filter, cylindrical closing valve
- especially small dimensions of the front stainless steel cover without sharp edges
- polystyrene defining cover for tiling with fixing screws

#### Dimensions

- electronics plate:  $150 \times 120 \times 16 \text{ mm (h x w x d)}$ 

installation boxes:
installation opening:
121 x 96 x 72 mm
130 x 130 x 75 mm

– connection sizes: G1/2" with a brass inside thread

#### APIS 6.1 EXT order No. SE.10.06.36–000

A concealed design, electronics with a fixing frame, finished with a connector for connecting a 6 V DC external power supply, a front stainless steel plate, an electromagnetic valve, fixing screws, a dirt filter. Without an installation box APIS 6 M2.

#### APIS 6 M2 order No. SE.10.06.04–025

An installation set for APIS 6 products, with a side water supply, suitable for installation in on-wall constructions and for bricking in with an installation box, inlet and outlet screwing, a cylindrical valve, a filter, a defining cover for tiling, with a valve seat plug for installation and flushing, a supply holder, an opening for an external power supply.

#### Special accessories

– ZAS230A/6DSC power supply order No. SE.06.21.30–000 (for individual supply, located in APIS 6 M)

- ZAS230A/6DS.30C power supply order No. SE.06.21.31-020

(for centralized supply, max. 5 pcs of APIS)

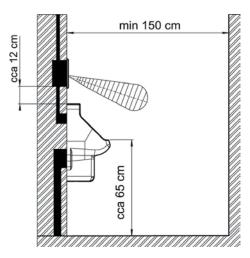
- 6 V Li CR-P2 battery
 - PB1 battery case
 - DO-5.1 remote control
 order No. SE.06.16.01-000
 order No. SE.06.21.52-000
 order No. SE.09.02.12-210

- DO-5.11 remote control order No. SE.09.02.12-210 order No. SE.09.02.07-110

 APIS 6–5 M (an installation set with a top water supply)
 order No. SE.10.06.04–021

#### APIS 6.1SOG





#### Characteristics

- · water saving
- · high level of hygiene
- glass front plate
- smaller dimensions, easy maintenance
- two-way communication by means of DO 5.1

#### Performance description

The device opto-electronically scans a person standing in front of a urinal continuously for a period of at least 4 seconds. Water is discharged after the person leaves. It does not respond to passing persons. The water volume is adjustable by the length of the valve opening/closing period. Hygienic flush 0 to 108 hours, adjustable by means of

DO-45.12 remote control, basic setting - 108 hours.

#### Basic data

- range: min. 50 cm (from A4 white paper)

adjustable by means of DO-5.1 remote control

- flushing period: approx. 4 sec., adjustable by means

of DO-5.1 (4-15 sec.)

– power supply: 6 V Li CR-P2 battery

ZAS230A/6DSC - max.1pc ZAS230A/6DS.30C - max.5 pcs

- battery life: at 4000 openings/closures a month

approx. 2 years

- water pressure: 0,05- 1,0 MPa

(ideally 0,3-0,4 MPa)

- indications - LED

- parameter setting by means of DO-5.1

#### Special features

- side water supply
- hidden clamping of the front plate
- dirt filter, cylindrical closing valve
- especially small dimensions of the glass front plate, in a stainless steel frame
- polystyrene defining cover for tiling with fixing screws

#### **Dimensions**

electronics plate:
installation boxes:
installation opening:
130 x 105 mm (h x w)
121 x 96 x 72 mm
130 x 130 x 75 mm

– connection sizes: G1/2" with a brass inside thread

#### APIS 6.1 SQG order No. SE.01.32.04–020

A concealed design, electronics with a fixing frame, finished with a connector for connecting a 6 V DC external power supply or with a PB-1 battery case, a glass front plate, an electromagnetic valve, fixing screws, a dirt filter. A supply from a 6 V DC external power supply or 6 V Li battery.

#### APIS 6 M2 order No. SE.10.06.04–025

An installation set for APIS 6, with a side water supply, suitable for installation to on-wall constructions and for bricking in with an installation box, inlet and outlet screwing, a cylindrical valve, a filter, a defining cover for tiling, a valve seat plug for installation and flush, a supply holder, an opening for an external power supply.

#### Special accessories

– ZAS230A/6DSC power supply order order No. SE.06.21.30–000 (for individual supply, located in APIS 6 M)

– tápegység ZAS230A/6DS.30C order No. SE.06.21.31–000 (for centralized supply, max. 5 pcs of APIS)

- 6 V Li, CR-P2 battery
 - DO-5.1 remote control
 - DO-5.1U remote control
 - APIS 6-5 M
 - Order No. SE.09.02.12-210
 - order No. SE.09.02.07-110
 - order No. SE.10.06.04-021

(an installation set with a top water supply)

APIS 6TL W, APIS 6TL Cr, APIS 6TL CrM, APIS 6 TLN



#### Characteristics

- water saving
- · various plate designs

#### Performance description

The device is switched on by pressing a button on the front plate. The flushing period is adjustable by means of a regulation screw.

#### Basic data

flushing period: approx. 6 sec.,

adjustable from 3 to 20 sec.

- water pressure: 0,05- 1,0 MPa (ideally 0,3-0,4 MPa)

#### Special features

- side water supply
- hidden clamping of the front plate
- especially small dimensions of the front plate without sharp edges
- mechanically resistant plastic plate in three designs
- polystyrene defining cover for tiling with fixing screws
- easy replacement for an opto-electronic version (approx. 5 min)

#### Dimensions

- electronics plate:  $162 \times 125 \times 11 \text{ mm (h x w x d)}$ 

installation boxes:
 installation opening:
 connection sizes:
 121 x 96 x 72 mm
 130 x 130 x 75 mm
 G1/2" brass external thread

#### APIS 6TLW order No. SE.10.06.04 –030

A concealed design, a white front plate with a push button, a cartridge pneumatic valve, a filter, a front cover holder and a wrench for cover removal. Without a APIS 6-M2 installation box.

#### APIS 6TL Cr order No. SE.10.06.04 –040

A concealed design, a glossy chrome front plate with a push button, a cartridge pneumatic valve, filter, a filter, a front cover holder and a wrench for cover removal. Without a APIS 6-M2 installation box.

#### APIS 6TL CrM order No. SE.10.06.04 –050

A concealed design, a matt chrome front plate with a push button, a cartridge pneumatic valve, a filter, a front cover holder and a wrench for cover removal. Without a APIS 6-M2 installation box.

#### APIS 6 TLN order No. SE.10.06.04 –070

A concealed design, a stainless steel front plate with a push button, a cartridge pneumatic valve, a filter, a front cover holder and a wrench for cover removal. Without a APIS 6-M2 installation box.

#### APIS 6 M2 order No. SE.10.06.04 –025

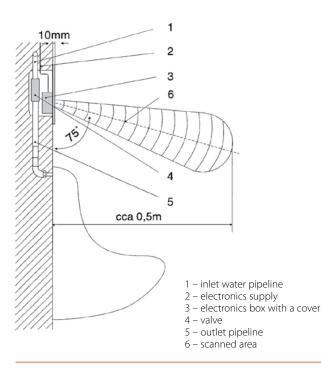
An installation set for APIS 6 products, suitable for installation to onwall constructions and for bricking in with an installation box, inlet and outlet screwing, a valve plug for rough installation, a ball valve, a defining cover for tiling.

#### Special accessories

- APIS 6–5 M order No. SE.10.06.04–021 (an installation set with a top water supply)

APIS 4.1 BGK APIS 4 GK1





#### Characteristics

- · water saving
- high level of hygiene
- stainless steel anti-vandalism design

#### Performance description

The device opto-electronically scans a person standing in front of a urinal continuously for a period longer than 5 seconds. Water is discharged after the person leaves. It does not respond to passing persons. The water volume is adjustable by the length of the valve opening/closing period. It flushes automatically every 12 hours after the last flush.

#### Basic data

– range: min. 50 cm

adjustable by means of DO-2 remote control

- flushing period: 10 sec., adjustable 5-15 sec.

by means of DO-2

power supply:
 battery life:
 12 V~, 8VA, 6 V Li, CR-P2 (4.1 BGK)
 at 4000 openings/closures a month

approx. 2 years

- water pressure: 0,05- 1,0 MPa
- indication that the device is ready - LED
- indication of a person presence - LED
- parameter setting by means of DO-2

#### Special features

- dirt filter at the valve inlet
- solid stainless steel front plate without sharp edges
- hidden clamping of the front plate anti-vandalism design

#### **Dimensions**

- electronics plate: 200 x 180 x 10 mm (h x w x d)

– installation boxes: 180 x 148 x 67 mm

– connection sizes: G1/2"

#### APIS 4GK1 order No. SE.01.30.26 –012

A concealed design with an electromagnetic valve, an installation box, with height-adjustable screws and a ball valve. 12  $V\sim$  power supply.

#### APIS 4.1 BGK 1 order No. SE.01.31.00 –000

A concealed design with an electromagnetic valve, a frame, fixing screws, adjustable screws and an installation box, a PB-1 battery case. 6 V Li power supply.

#### Special accessories

 ZAS 50/12t - 12 V power supply (for centralized supply, max. 5 pcs. of APIS)

- TR 8 - 12 V power supply order No. SE.06.14.01-000 (for individual supply)

- 6 V Li, CR-P2 battery order No. SE. 06.16.01-000
- DO-2 remote control order No. SE.09.02.04-000
- DO-2U remote control order No. SE.09.02.07-000
- ZAS230A/6DS.30C power supply order No. SE.06.21.31-000

 ZAS230A/6DS.30C power supply (for centralized supply, max. 5 pcs. of APIS)

#### **APIS RA**

electronics



#### Characteristics

- cost effective solution
- water saving
- environmental hygiene
- stainless steel design

#### Performance description

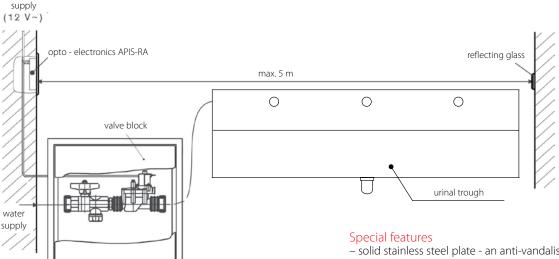
The device scans a person standing in front of a urinal using a reflecting glass. After the person leaves the scanning zone, the device triggers flushing in all concerned urinals. In case of a constant presence of persons on a scanning line it flushes every 60 seconds. It flushes automatically every 12 hours after the last flush.

#### Basic data

- range: 5 m

power supply: 12 V~, max 8VA 0,05- 1,0 MPa - water pressure: - flushing period: 10 sec., (adjustable) - indication of a person presence - LED

- indication that the device is ready LED flow control
- fixture gate
- setting of parameters by means of DO-2 remote control



#### - solid stainless steel plate - an anti-vandalism design with a hidden clamping

- mounting position of a reflecting glass indicated by LED
- a valve section shielded by means of a fixture gate

#### **Dimensions**

- valve block connection: G1"

200 x 180 x 10 mm (h x w x d) - cover:

150 x 300 mm - fixture gate: - installation boxes: 180 x 148 x 67 mm

#### order No. SE.01.30.05-020

A concealed group urinal flushing device, complete with a reflecting glass, an fixture gate, a valve block with a closing valve, a filter and screwing, a 12 V~ external.

#### Special accessories

- ZAS 50/12t - 12 V power supply order No. SE.06.21.21-000 – TR 8 – 12 V power supply order No. SE.06.14.01-000 - DO-2 remote control order No. SE.09.02.04-000 - DO-2U remote control order No. SE.09.02.07-000

#### APIS P 3.1



# 1 – water supply on the wall finished with a 1/2" inside thread 2 – APIS-P3 3 – scanning zone 4 - inlet pipe 5 – decorative cover, sealing gasket 6 – urinal ceramic ware

#### Characteristics

- substitution of pressure mechanic valves
- water saving
- chrome finish
- easy installation
- two-way communication by means of DO 5.1

#### Performance description

The device scans a person standing in front of a urinal continuously for period longer than 4 seconds. Water is discharged after the person leaves. The device does not respond to passers-by. Periodical flushing adjustable from 0 to 108 hours.

#### Basic data

range: min. 60 cmpower supply: 6 V Li, CR-P2battery life: approx. 2 years

with 4000 openings/closures a month

– flushing period: approx 11 sec.,

- max. flow: adjustable by a closing valve

– water pressure: 0,05- 1,0 MPa– battery condition signalization -LED

- setting of parameters by means of DO-5.1 remote control

#### Special features

- dirt filter at the inlet closing valve
- use for urinals with an external top water supply
- inlet pipe diameter of 18 mm
- flow restrictor 20 l/min

#### Dimensions

- body: width - 45 mm, height - 135 mm

– connection: G 1/2"

#### APIS P 3.1 order No. SE.01.31.08–000

An on-wall flushing device with a closing valve, a dirt filter. An outlet pipe to the urinal - diameter of 18 mm with a rubber sealing and a chrome rosette. Supply with  $6\,\mathrm{V}$  Li battery.

#### Special accessories

 - 6 V Li, CR-P2 battery
 order No. SE.06.16.01-000

 - DO-5.1 remote control
 order No. SE.09.02.12-210

 - DO-5.1U remote control
 order No. SE.09.02.07-110

#### **APIS 1 VS 9.1**



#### Characteristics

- · water saving
- · high level of hygiene
- easy installation
- · long life
- · anti-vandalism design
- protection against siphon drying
- two-way communication by means of DO 5.1

#### Performance description

A conductivity sensor reacting to a change in water conductivity in a siphon. The conductivity change is indicated by a LED diode. After the last scanned conductivity change, the system waits for the period of approx. 14 seconds. Then it switches flushing. The amount of flushed water is adjustable by changing the flushing period. Hygienic flushing is adjustable from 0 to 108 hours following the last flush. It is performed by means of DO-5.1 remote control.

#### Basic data

- sensitivity: adjustable by means of DO-5.1

power supply: 6 V Li battery

ZAS230A/6DS30C - max.5 pc. ZAS230A/6DSC - max.1 pc

- battery life: approx. 4 years

with 4000 openings/closures a month

water pressure:
 flushing period:
 0,05- 1,0 MPa (ideally 0,3-0,4 MPa)
 approx.10 sec. (adjustable by means

of DO-5.1 within 3-23 s)

- parameter setting by means of DO-5.1 remote control,

through a scanning head, not necessary

to disassemble ceramic ware

#### Special features

- suitable for most ceramic ware with an exhaust siphon LED and acoustic signalling
- exhaust siphon water consumption approx. 1 l

- suitable for ceramic ware without openings

#### APIS 1 VS 9.1 order No. SE. 01.30.33–000

A universal conductivity sensor with a two-way communication with DO-5.1, suitable for installation under urinal ceramic ware. It consists of a scanning head, an electro-magnetic valve, a corner valve with a dirt filter, inlet fittings for ceramic ware, an exhaust siphon with electrodes. Supply from a 6V DC external power supply or from a 6V Li battery.

#### Special accessories

 - 6V Li CRP2 battery
 order No. SE.06.16.01–000

 - PB-1 battery case
 order No. SE.06.21.52–000

- PB-1 battery case
 - DO-5.1 remote control
 - DO-5.1U remote control
 - DO-5.1U remote control
 order No. SE.09.02.12-210
 order No. SE.09.02.07-110

 ZAS 230A/6DS30C power supply (for d supply, max. 1 pcs. of APIS)

- ZAS 230A/6DSC power supply order No. SE.06.21.30–000 (for d supply, max. 1 pcs. of APIS)

- connector with RAPP 600/2F cable order No. SE.14.00.01–900

order No. SE.06.21.31-020





example of parameter setting

#### **APIS 1 VS 9.2**







an installation example

#### Characteristics

- · water saving
- · high level of hygiene
- easy installation
- · Iona life
- anti-vandalism design
- protection against siphon drying
- two-way communication by means of DO-5.1

#### Performance description

A conductivity sensor reacting to a change in water conductivity in a siphon. The conductivity change is indicated by a LED diode. After the last scanned conductivity change, the system waits for the period of approx. 14 seconds. Then it switches flushing. The amount of flushed water is adjustable by changing the flushing period. Hygienic flushing is adjustable from 0 to 108 hours following the last flush. It is performed by means of DO-5.1 remote control.

#### Basic data

- sensitivity: adjustable by means of DO-5.1

- power supply: 6 V Li battery

ZAS230A/6DS30C - max.5 pc. ZAS230A/6DSC - max.1 pc

- battery life: approx. 4 years

with 4000 openings/closures a month

0,05- 1,0 MPa (ideally 0,3-0,4 MPa) - water pressure:

- flushing period: approx.10 sec.

(adjustable by means of DO-5.1 within 3-23 s)

- parameter setting by means of DO-5.1 remote control, - for parameter setting ceramic ware disassembly necessary

#### Special features

- suitable for most ceramic ware with an exhaust siphon LED and acoustic signalling

- exhaust siphon - water consumption approx. 1 l

- suitable for ceramic ware without openings

#### **APIS 1 VS 9.2**

#### order No. SE. 01.30.33-092

A universal conductivity sensor with a two-way communication with DO-5.1, suitable for installation under urinal ceramic ware. It consists of electronics without a scanning head, an electromagnetic valve, a corner valve with a dirt filter, inlet fittings, an exhaust siphon with electrodes. Supply from a 6V DC external power supply or from a 6V Li battery.

#### Special accessories

- 6V Li CRP2 battery order No. SE.06.16.01-000 - PB-1 battery case order No. SE.06.21.52-000 order No. SE.09.02.12-210 - DO-5.1 remote control - DO-5.1U remote control order No. SE.09.02.07-110 - ZAS 230A/6DS30C power supply order No. SE.06.21.31-020 (for centralized supply, max. 5 pcs. of APIS)

- ZAS 230A/6DSC power supply order No. SE.06.21.30-000 (for supply, max. 1 pcs. of APIS)

- connector with RAPP 600/2F cable order No. SE.14.00.01-900

#### APIS 1 VS 9.2-GOLEM, APIS 1 VS 9.2-GOLF APIS 1 VS 9.2-APOLLO, APIS 1 VS 9.2-O-NOVO



APIS 1 VS 9-APOLLO

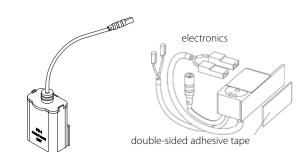
APIS 1 VS 9-GOLEM



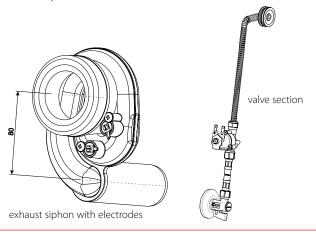




APIS 1 VS 9-O.NOVO



PB-1 battery case



#### Characteristics

- · water saving
- · high level of hygiene
- easy installation
- · long life
- anti-vandalism design
- protection against siphon drying

#### Performance description

A conductivity sensor reacting to a change in water conductivity in a siphon. The conductivity change is indicated by a LED diode. After the last registered conductivity change the system waits for a firmly set period of about 14 seconds. Then it switches flushing. The amount of flushed water is adjustable by changing the flushing period. Hygienic flushing is adjustable from 0 to 108 hours following the last flush. It is performed by means of DO-5.1 remote control.

#### Basic data

- sensitivity: adjustable by means of DO-5.1

– power supply: 6 V Li battery, CR-P2

ZAS230A/6DS30C – max.5 pcs ZAS230A/6DSC – max.1 pc approx. 2 years with 4000

- battery life: approx. 2 years with 4000 openings/closures a month

water pressure: 0,05-1,0 MPa (ideally 0,3-0,4 MPa)flushing period: approx.10 sec.

(adjustable by means of DO-5.1 within 3-23 s)

parameter setting by means of DO-5.1 remote control,for parameter setting ceramic ware disassembly necessary

#### Special features

- set with ceramic ware
- LED and acoustic signalling
- exhaust siphon water consumption approx. 1 l

#### APIS 1 VS 9-GOLEM APIS 1 VBS 9-GOLEM

A wall-mounted ceramic Golem urinal with electronics, a siphon with electrodes, a corner valve and an electromagnetic valve, a battery case. Supply from an external power supply or 6 V Li battery. With a battery version PB-11 battery case is included in a delivery.

#### Versions with different ceramic ware

APIS 1 VS 9.2-APOLLO

APIS 1 VBS 9.2-APOLLO

APIS 1 VS 9.2-GOLF

APIS 1 VBS 9.2-GOLF

APIS 1 VS 9.2-O.NOVO

APIS 1 VBS 9.2-O.NOVO

APIS 1 VS 9.2-VILA APIS 1 VBS 9.2-VILA

APIS 1 VS 9.2-CAPRINO - without a cover

APIS 1 VBS 9.2-CAPRINO - without a cover

APIS 1 VS 9.9.22-LIVO

APIS 1 VBS 9.2-LIVO

#### Special accessories

– 6 V Li, CR–P2 battery– ZAS 230A/6DS30C power supply

order No. SE.06.16.01–000 order No. SE.06.21.31–020

(for centralized supply, max. 5 pcs. of APIS)

– ZAS 230A/6DSC power supply
(for d supply, max. 1 pcs. of APIS)

order No. SE.06.21.30-000

- connector with RAPP 600/2F cable

order No. SE.07.21.01–000 order No. SE.09.02.12–210 order No. SE.09.02.07–110

DO-5.1 remote controlDO-5.1U remote control



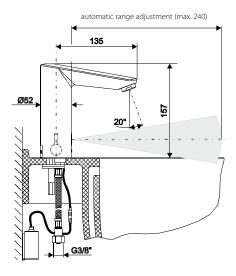
#### opto-electronic

- stand-type
- wall-mounted
  - on-wall
- stainless steel
- low pressure
- special fixtures
- thermostatic



WBS 2.1 G.1, WBS 2.2 G.1, WBS 2.2 GX.1





#### Characteristics

- water and energy saving
- comfortable operation
- · high level of hygiene
- chrome finish
- compact design with a mixer
- two-way communication with DO-5.1

#### Performance description

WBS optoelectrically scans the presence of hands in a washbasin. It switches off after 1–2 sec after taking hands out of the washbasin. In case an object remains in the scanning zone continuously for a period of approx. 1 min., it stops water automatically. The range is set automatically after connecting the power supply. This function can be switched off. Hygienic flush and thermal disinfection functions can be activated using the DO 5.1 remote control. Water temperature can be set using the mixer level on the faucet body, depending on the version.

#### Basic data

range: automatic setting, max. 24 cm
power supply: 6 V DC or 6 V Li, CR-P2 battery
faucet life: approx. 2 years at 6000 cycles a month

– max. water temperature: 70°C/80°C – 10 min.

during thermal disinfection

water pressure: 0.05 - 1.0 MPa
connection sizes: G3/8"
water flow: 6 l/min

#### Specialties:

- dirt filter and reverse valve at a connecting hose inlet
- protection against flooding
- easy access for faucet replacement
- fixing to a washbasin using a double fastener
- possible restriction of hot water flow
- hygienic flush can be activated from 0 to 108 hours
- duration of hygienic flush adjustable from 3 to 180 sec
- preset to 72 hours and 30 sec
- automatic correct hygienic flush
- possible activation of thermal disinfection

#### WBS 2.2 G.1 Order No. SE.02.61.12-000

Stand-type washbasin faucet with integrated electronics and an electromagnetic valve in the body, water mixer, connection hoses with dirt filters for hot and cold water. Termination using a RAPP connector. Supply from 6 V DC external power supply or 6V Li batteries.

#### WBS 2.1 G.1 Order No. SE.SE.02.61.12-100

Stand-type washbasin faucet with integrated electronics and an electromagnetic valve in the body, no water mixing, connection hoses with dirt filters for hot and cold water. Termination using a RAPP connector. Supply from 6 V DC external power supply or 6V Li batteries.

#### WBS 2.2 GX.1 Order No. SE.SE.02.61.12-200

Stand-type washbasin faucet with integrated electronics and an electromagnetic valve in the body, hidden mixer, connection hoses with dirt filters for hot and cold water. Termination using a RAPP connector. Supply from 6 V DC external power supply or 6V Li batteries.

#### Special accessories:

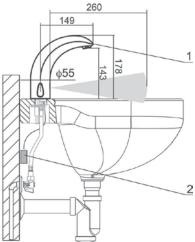
- 6 V Li, CR-P2 battery
 - case for PB-1 batteries
 - power supply ZAS 230A/6DS30C (for power, max. 1 pc WBS)
 Order No. SE.06.21.31 -000
 Order No. SE.06.21.31 -000

power supply ZAS 230A/6DS30COrder No. SE.06.21.31-000 (for group power, max. 5 pcs WBS)

connector with RAPP 600 / 2F cable
 remote control DO-5.1
 remote control DO-5.1
 remote control DO-5.1
 extender / extension
 Order No. SE.09.02.12 -210
 Order No. SE.09.02.12 -210
 Order No. PLU 14274

#### WBS 2.1 S.1 EURORA WBS 2.2 S.1 EURORA, WBS 2.2 SX.1 EURORA





- 1 wash basin faucet
- 2 battery case

#### Characteristics

- · water and energy saving
- comfortable operation
- high level of hygiene
- · chrome finish
- · compact design with a mixer
- two-way communication by means of DO 5.1

#### Performance description:

WBS opto-electrically scans the presence of hands in a wash basin. It switches off after 1-2 sec. after taking hands out of the wash basin. In case an object remains in the scanning zone continuously for a period of approx. 1 min., it stops water automatically. This function can be switched off. The range is set automatically after connecting the power supply. Hygienic flush and thermal disinfection functions can be activated by means of DO-5.1 remote control. Water temperature can be set using a mixer lever on a battery body, depending on a version

#### Basic data

range: automatic setting, max. 24 cmpower supply: 6 V DC or 6 V Li, CR-P2 battery

battery life: approx. 2 years at 6000 cycles a month
 max. water temperature: 70 °C/80 °C - 10 min. during thermal

disinfection

- water pressure: 0,05-1,0 MPa (ideally 0,3-0,4 MPa)

connection sizes: G3/8"water flow: 6 l/min

#### Special features

- dirt filter and reverse valve at a connecting hose inlet protection against flooding
- easy access for a battery replacement
- anti-vandalism construction
- fixing to a wash basin using a double fastener
- possible control of wash basin closure
- possible delivery with a hidden mixer, instead of a mixer lever
- possible restriction of hot water flow
- hygienic flush activated from 0-108 hours
- flushing period is adjustable from 5-180 seconds
- pre-set for 72 hours and 30 seconds
- possible activation of thermal disinfection

#### WBS 2.2 S.1 EURORA order No. SE.02.60.46–000

Stand-type wash-basin faucet with integrated electronics and an electromagnetic valve in the outlet, a water mixer, connection hoses with dirt filters for hot and cold water. Termination using a RAPP connector. Supply from 6 V DC external power supply or 6V Li batteries.

#### WBS 2.2 SX.1 EURORA order No. SE.02.60.46–020

Stand-type wash-basin faucet with integrated electronics and an electromagnetic valve in the outlet, a hidden water mixer, connection hoses with dirt filters for hot and cold water. Termination using a RAPP connector. Supply

#### WBS 2.1 S.1 EURORA order No. SE.02.60.46–010

Stand-type wash-basin faucet with integrated electronics and an electromagnetic valve in the outlet, for cold or mixed water with a connection hose and a dirt filter. Termination using a RAPP connector. Supply from 6 V DC external power supply or 6V Li battery.

#### Special accessories

 - 6 V Li, CR-P2 battery
 order No. SE.06.16.01-000

 - PB-1 battery case
 order No. SE.06.21.52-000

 - ZAS 230/6ST.1 power supply (for centralized supply, max. 1 pc. of WBS)
 order No. SE.06.21.34-010

– ZAS 230A/6DS30C power supply (for supply, max. 3 pcs. of WBS)order No. SE.06.21.31–020

connector with RAPP 600/2F cable
DO-5.1 remote control
DO-5.1U remote control
order No. SE.14.00.01-900
order No. SE.09.02.12-210
order No. SE.09.02.07-110

# WBS 3.1 EURORA, WBS 3.2 EURORA WBS 3.1B EURORA, WBS 3.2B EURORA



#### Characteristics

- · water and energy saving
- comfortable operation
- · high level of hygiene
- · chrome finish
- parameter setting by means of a remote control
- electronics integrated in the outlet

#### Performance description

WBS opto-electrically scans the presence of hands in a wash basin. It switches off after 1-2 sec. after taking hands out of the wash basin. In case an object remains in the scanning zone continuously for a period of approx. 1 min., it stops water automatically. The range is set automatically after connecting the power supply. Hygienic flush function can be activated by means of DO-2 remote control.

#### Basic data

range: automatic setting, max. 24 cm
power supply: 12 V DC or 6 V Li, CR-P2 battery
battery life: approx. 2 years at 6000 cycles a month

- max. water temperature: 70 °C
- water pressure: 0,05-1,0 MPa
- connection sizes: G3/8"

#### Special features

- setting of temperature or flow in corner valves
- dirt filter at a connection hose inlet
- protection against flooding
- protection against flooding
- hygienic flush activated from 0-108 hours
- flushing period is adjustable from 5-180 seconds
- pre-set for 108 hours and 5 seconds

- 1 wash basin faucet
- 2 electromagnetic valve
- 3 battery case

#### WBS 3.1 EURORA order No. SE.02.52.89–000

Stand-type wash-basin faucet with integrated electronics in the outlet, an electromagnetic valve, a connection hose and a dirt filter, for cold or mixed water.  $12\,V\sim$  external power supply.

#### WBS 3.2 EURORA order No. SE.02.52.90–000

Stand-type wash-basin faucet with integrated electronics in the outlet, an electromagnetic valve, a water mixer, connection hoses and dirt filters, for hot and cold water. 12 V~ external power supply.

#### WBS 3.1B EURORA order No. SE.02.52.91–000

Stand-type wash-basin faucet with integrated electronics in the outlet, an electromagnetic valve, a PB-1 battery case, a connection hose and a dirt filter, for cold or mixed water. 6 V Li battery power supply.

#### WBS 3.2B EURORA order No. SE.02.52.92–000

Stand-type wash-basin faucet with integrated electronics in the outlet, an electromagnetic valve, a PB-1 battery case a water mixer, connection hoses and dirt filters, for hot and cold water.  $6\,\mathrm{V}$  Li battery power supply.

#### Special accessories

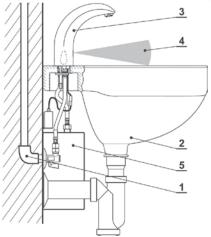
- 6 V Li, CR-P2 battery order No. SE.06.16.01-000 - ZAS 50/12t power supply order No. SE.06.21.21-000 (for centralized supply, max. 6 pcs. of WBS)

DO-2 remote control
 DO-2U remote control
 order No. SE.09.02.04-000
 order No. SE.09.02.07-000

#### automatic outlet fixture for low-pressure heaters

### WBS 2.2H.1 EURORA WBS 2.2HX.1 FURORA





- 1 inlet water piping
- 2 wash basin
- 3 wash basin faucet for low-pressure heaters
- 4 scanning zone
- 5 low-pressure heater

#### Characteristics

- · water and energy saving
- comfortable operation
- · high level of hygiene
- · chrome finish
- compact design with a mixer
- for use with a low-pressure heater
- two-way communication by means of DO 5.1

#### Performance description:

WBS opto-electrically scans the presence of hands in a wash basin. It switches off after 1-2 sec. after taking hands out of the wash basin. In case an object remains in the scanning zone continuously for a period of approx. 1 min., it stops water automatically. This function can be switched off. The range is set automatically after connecting the power supply. Hygienic flush and thermal disinfection functions can be activated by means of DO-5.1 remote control. Water temperature can be set using a mixer lever on a battery body, depending on a version.

#### Basic data

- range: automatic setting, max. 24 cm- power supply: 6 V DC or 6 V Li, CR-P2 battery

– battery life: approx. 2 years at 6000 cycles a month

- max. water temperature: 70 °C / 80 °C - 10 min.

during thermal disinfection

- water pressure: 0,05- 1,0 MPa- water flow: 4 l/min- connection sizes: G3/8"

#### Special features

- dirt filter and flow restrictor in front of the inlet hose
- protection against flooding
- easy access for a battery replacement
- anti-vandalism construction
- fixing to a wash basin using a double fastener
- aerator for low-pressure fixtures
- possible restriction of hot water flow
- hygienic flush activated from 0-108 hours
- flushing period is adjustable from 5-180 seconds
- pre-set for 72 hours and 30 seconds
- possible activation of thermal disinfection

#### WBS 2.2H.1 EURORA order No. SE.02.60.06–100

Stand-type wash-basin faucet with integrated electronics and an electromagnetic valve in the outlet, a water mixer, connection hoses with a dirt filter and a 4 l/min water flow restrictor. Termination using a RAPP connector for connecting PB-1 battery case or 6 V DC external power supply.

#### WBS 2.2 HX.1 EURORA order No. SE.02.60.06–110

Stand-type wash-basin faucet with integrated electronics and an electromagnetic valve in the outlet, a hidden water mixer, connection hoses with a dirt filter and a 4 l/min water flow restrictor. Termination using a RAPP connector for connecting 6 V DC external power supply or PB-1 battery case.

#### Special accessories

- 6 V Li, CR-P2 battery order No. SE.06.16.01-000
- PB-1 battery case order No. SE.06.21.52-000
- ZAS 230/6ST.1 power supply (for centralized supply, max. 1 pc. of WBS)

order No. SE.06.21.31-020

 ZAS 230A/6DS30C power supply (for supply, max. 3 pcs. of WBS)

connector with RAPP 600/2F cable
 DO-5.1 remote control
 DO-5.1U remote control
 order No. SE.14.00.01-900
 order No. SE.09.02.12-210
 order No. SE.09.02.07-110

WBS 2.2 A.1, WBS 2.2 A.1-150, WBS 2.1 A.1, WBS 2.1 A.1-150, WBS 2.2 AX.1, WBS 2.2 AX.1-150



# 4 2 1

- 1 inlet water piping
- 2 wash basin
- 3 wash basin faucet
- 4 scanning zone

#### Characteristics

- · water and energy saving
- comfortable operation
- · high level of hygiene
- chrome finish
- compact design with a mixer
- two-way communication by means of DO-5.1

#### Performance description:

WBS opto-electrically scans the presence of hands in a wash basin. It switches off after 1-2 sec. after taking hands out of the wash basin. In case an object remains in the scanning zone continuously for a period of approx. 1 min., it stops water automatically. This function can be switched off. The range is set automatically after connecting the power supply. Hygienic flush and thermal disinfection functions can be activated by means of DO-5.1 remote control. Water temperature can be set using a mixer lever on a battery body, depending on a version.

#### Basic data

– range: automatic setting, max. 24 cm - power supply: 6 V DC or 6 V Li, CR-P2 battery

approx. 2 years at 6000 cycles a month - battery life:

- max. water temperature: 70 °C/80 °C - 10 min.

during thermal disinfection

0,05-1,0 MPa - water pressure: - connection sizes: G3/8" - water flow: 6 l/min

#### Special features

- dirt filter and reverse valve at a connecting hose inlet
- protection against flooding
- easy access for a battery replacement
- anti-vandalism construction
- fixing to a wash basin using a double fastener
- possible restriction of hot water flow
- hygienic flush activated from 0-108 hours
- flushing period is adjustable from 5-180 seconds
- pre-set for 72 hours and 30 seconds
- possible activation of thermal disinfection
- possible delivery with a hidden mixer

#### WBS 2.2 A.1 order No. SE.02.60.10-110 WBS 2.2 A.1-150 order No. SE.02.60.10-130

Stand-type wash-basin faucet with integrated electronics and an electromagnetic valve in the body, a water mixer, connection hoses with dirt filters, for hot and cold water. Termination using a RAPP connector. 6 V DC power supply or 6 V Li battery.

#### WBS 2.1 A.1 WBS 2.1 A.1-150

order No. SE.02.60.10-120 order No. SE.02.60.10-140

Stand-type wash-basin faucet with integrated electronics and an electromagnetic valve in the body, not possible to mix water, connection hoses with a dirt filter for cold water. Termination using a RAPP connector. 6 V DC power supply or 6 V Li battery.

#### WBS 2.2 AX.1 WBS 2.2 AX.1-150

order No. SE.02.60.59-000 order No. SE.02.60.59-010

Stand-type wash-basin faucet with integrated electronics and an electromagnetic valve in the body, a hidden water mixer, connection hoses with dirt filters, for hot and cold water. Termination using a RAPP connector. 6 V DC power supply or 6 V Li battery.

#### Special accessories

- 6 V Li, CR-P2 battery – PB–1 battery case

- ZAS 230/6ST.1 power supply (for supply, max. 1 pc. of WBS)

- ZAS 230A/6DS30C power supply (for centralized supply, max. 3 pcs. of WBS)

- connector with RAPP 600/2F cable – DO–5.1 remote control

- DO-5.1U remote control

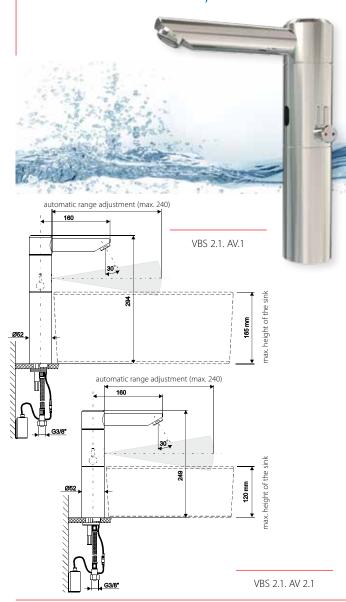
order No. SE.06.16.01-000 order No. SE.06.21.52-000

order No. SE.06.21.34-010

order No. SE.06.21.31-020

order No. SE.14.00.01-900 order No. SE.09.02.12-210 order No. SE.09.02.07-110

WBS 2.1AV.1-150, WBS 2.1AV 2.1-150 WBS 2.2 AV.1-150, WBS 2.2 AV 2.1-150 WBS 2.2 AV.1X-150, WBS 2.2 AV 2.1X-150



#### WBS 2.2 AV.1-150 Order No. SE.02.61.13-000 WBS 2.2 AV 2.1-150 Order No. SE.02.71.21-000

Stand-type washbasin faucet with integrated electronics and an electromagnetic valve in the body, water mixer, connection hoses with dirt filters for hot and cold water. Termination using a RAPP connector. Supply from 6 V DC external power supply or 6V Li batteries.

#### WBS 2.1 AV.1-150 Order No. SE.02.61.13-100 WBS 2.1 AV 2.1-150 Order No. SE.07.71.21-100

Stand-type washbasin faucet with integrated electronics and an electromagnetic valve in the body, no water mixing, connection hoses with dirt filters for hot and cold water. Termination using a RAPP connector. Supply from 6 V DC external power supply or 6V Li batteries.

#### WBS 2.2 AV.1X-150 Order No. SE.02.61.13-200 WBS 2.2 AV 2.1X-150 Order No. SE.02.71.21-000

Stand-type washbasin faucet with integrated electronics and an electromagnetic valve in the body, hidden mixer, connection hoses with dirt filters for hot and cold water. Termination using a RAPP connector. Supply from 6 V DC external power supply or 6V Li batteries.

- water and energy saving
- comfortable operation
- · high level of hygiene
- chrome finish
- · compact design with a mixer
- two-way communication with DO-5.1
- height extended by 165 mm or 120 mm for countertop washbasins

#### Performance description

WBS optoelectrically scans the presence of hands in a washbasin. It switches off after 1–2 sec after taking hands out of the washbasin. In case an object remains in the scanning zone continuously for a period of approx. 1 min., it stops water automatically. The range is set automatically after connecting the power supply. This function can be switched off. Hygienic flush and thermal disinfection functions can be activated using the DO 5.1 remote control. Water temperature can be set using the mixer level on the faucet body, depending on the version.

#### Basic data

- range: automatic setting, max. 24 cm 6 V DC or 6 V Li, CR-P2 battery - power supply: – faucet life: approx. 2 years at 6000 cycles

a month

- max. water temperature: 70°C/80°C - 10 min.

during thermal disinfection

- water pressure: 0.05 – 1.0 MPa G3/8" - connection sizes: - water flow: 6 l/min

#### Specialties

- can be used for countertop washbasins
- dirt filter and reverse valve at a connecting hose inlet
- protection against flooding
- easy access for faucet replacement
- fixing to a washbasin using a double fastener
- possible restriction of hot water flow
- hygienic flush can be activated from 0 to 108 hours
- duration of hygienic flush adjustable from 3 to 180 sec
- preset to 72 hours and 30 sec
- automatic correct hygienic flush
- possible activation of thermal disinfection
- possible delivery with a hidden mixer

#### Special accessories:

| – 6 V Li, CR-P2 battery                        | Order No. SE.06.16.01-000 |
|--|---------------------------|
| – case for PB-1 batteries                      | Order No. SE.06.21.52-000 |
| <ul><li>power supply ZAS 230A/6DS30C</li></ul> | Order No. SE.06.21.31-000 |
| (for power, max. 1 pc WBS)                     |                           |

power supply ZAS 230A/6DS30C

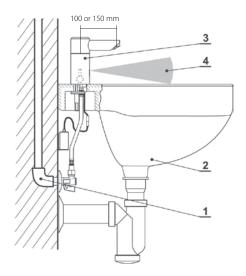
Order No. SE.06.21.31-000 (for group power, max. 5 pcs WBS) Order No. SE.14.00.01 -900

- connector with RAPP 600 / 2F cable - remote control DO-5.1 Order No. SE.09.02.12 - 210 - remote control DO-5.1 – extender / extension

#### automatic outlet fixture – stainless steel

WBS 2.1 N.1, WBS 2.1 N.1–150, WBS 2.2 N.1, WBS 2.2 N.1–150, WBS 2.2 NX.1, WBS 2.2 NX.1–150





- 1 inlet water piping
- 2 wash basin
- 3 wash basin faucet
- 4 scanning zone

#### Characteristics

- · water and energy saving
- comfortable operation
- · high level of hygiene
- stainless steel
- · compact design with a mixer
- two-way communication by means of DO 5.1

#### Performance description:

WBS opto-electrically scans the presence of hands in a wash basin. It switches off after 1-2 sec. after taking hands out of the wash basin. In case an object remains in the scanning zone continuously for a period of approx. 1 min., it stops water automatically. This function can be switched off. The range is set automatically after connecting the power supply. Hygienic flush and thermal disinfection functions can be activated by means of DO-5.1 remote control. Water temperature can be set using a mixer lever on a battery body, depending on a version.

#### Basic data

range: automatic setting, max. 24 cmpower supply: 6 V DC or 6 V Li, CR-P2 battery

- battery life: approx. 2 years at 6000 cycles a month

– max. water temperature: 70 °C/ 80 °C - 10 min.

during thermal disinfection

- water pressure: 0,05- 1,0 MPa- connection sizes: G3/8"- water flow: 6 l/min

#### Special features

- dirt filter and reverse valve at a connecting hose inlet
- protection against flooding
- easy access for a battery replacement
- anti-vandalism construction
- fixing to a wash basin using a double fastener
- possible restriction of hot water flow
- possible restriction of hot water flow
- hygienic flush activated from 0-108 hours
- flushing period is adjustable from 5-180 seconds
- pre-set for 72 hours and 30 seconds
- possible activation of thermal disinfection
- possible delivery with a hidden mixer

#### WBS 2.2 N.1 order No. SE.02.60.57–000 WBS 2.2 N.1–150 order No. SE.02.60.57–010

Stand-type wash-basin faucet with integrated electronics and an electromagnetic valve in the outlet, a water mixer, connection hoses with a dirt filter, for hot and cold water. Termination using a RAPP connector. 6 V DC power supply or 6 V Li battery.

#### WBS 2.2 NX.1 order No. SE.02.60.57–040 WBS 2.2 NX.1–150 order No. SE.02.60.57–050

Stand-type wash-basin faucet with integrated electronics and an electromagnetic valve in the outlet, a hidden water mixer, connection hoses with a dirt filter, for hot and cold water. Termination using a RAPP connector. 6 V DC power supply or 6 V Li battery.

#### WBS 2.1 N.1 order No. SE.02.60.57–020 WBS 2.1 N.1–150 order No. SE.02.60.57–030

Stand-type wash-basin faucet with integrated electronics and an electromagnetic valve in the outlet, for cold or mixed water with connection hoses with a dirt filter. Termination using a RAPP connector. 6 V DC power supply or 6 V Li battery.

#### Special accessories

- 6 V Li, CR-P2 battery order No. SE.06.16.01-000 - PB-1 battery case order No. SE.06.21.52-000 - ZAS 230/6ST.1 power supply (for supply, max. 1 pc. of WBS)

 ZAS 230A/6DS30C power supply (for centralized supply, max. 3 pcs. of WBS)

connector with RAPP 600/2F cable
DO-5.1 remote control
DO-5.1U remote control
order No. SE.14.00.01-900
order No. SE.09.02.12-210
order No. SE.09.02.07-110

#### automatic outlet fixture for low-pressure heaters

WBS 2.2 HN.1 WBS 2.2 HNX.1



# 4 2 5

- 1 inlet water piping
- 2 wash basin
- 3 wash basin faucet for low-pressure heaters
- 4 scanning zone
- 5 low-pressure heater

#### Characteristics

- · water and energy saving
- comfortable operation
- · high level of hygiene
- stainless steel
- compact design with a mixer
- for use with a low-pressure heater
- two-way communication by means of DO 5.1

#### Performance description:

WBS opto-electrically scans the presence of hands in a wash basin. It switches off after 1-2 sec. after taking hands out of the wash basin. In case an object remains in the scanning zone continuously for a period of approx. 1 min., it stops water automatically. This function can be switched off. The range is set automatically after connecting the power supply. Hygienic flush and thermal disinfection functions can be activated by means of DO-5.1 remote control. Water temperature can be set using a mixer lever on a battery body, depending on a version.

#### Basic data

- range: automatic setting, max. 24 cm - power supply: 6 V DC or 6 V Li, CR-P2 battery

- battery life: approx. 2 years at 6000 cycles a month

70 °C/80 °C - 10 min. – max. water temperature:

during thermal disinfection

0,05- 1,0 MPa - water pressure: – water flow: 4 l/min - connection sizes: G3/8"

#### Special features

- dirt filter and flow restrictor in front of the inlet hose
- protection against flooding
- easy access for a battery replacement
- anti-vandalism construction
- fixing to a wash basin using a double fastener
- aerator for low-pressure fixtures
- possible restriction of hot water flow
- hygienic flush activated from 0-108 hours
- flushing period is adjustable from 5-180 seconds
- pre-set for 72 hours and 30 seconds
- possible activation of thermal disinfection

#### WBS 2.2HN.1 order No. SE.02.60.80-010

Stand-type wash-basin faucet with integrated electronics and an electromagnetic valve in the outlet, a water mixer, connection hoses with a dirt filter and a 4 l/min water flow restrictor. Termination using a RAPP connector for connecting PB-1 battery case or 6 V DC external power supply.

#### **WBS 2.2 HNX.1** order No. SE.02.60.80-020

Stand-type wash-basin faucet with integrated electronics and an electromagnetic valve in the outlet, a hidden water mixer, connection hoses with a dirt filter and a 4 l/min water flow restrictor. Termination using a RAPP connector for connecting 6 V DC external power supply or PB-1 battery case.

#### Special accessories

- 6 V Li, CR-P2 battery order No. SE.06.16.01-000 – PB–1 battery case order No. SE.06.21.52-000 - power supply ZAS 230/6ST.1 order No. SE.06.21.34-010 (for supply, max. 1 pc. of WBS))

- power supply ZAS 230A/6DS30C order No. SE.06.21.31-020 (for centralized supply, max. 3 pcs. of WBS)

- connector with RAPP 600/2F cable order No. SE.14.00.01-900 - DO-5.1 remote control order No. SE.09.02.12-210 - DO-5.1U remote control order No. SE.09.02.07-110

WBS 2.2-L1.1, WBS 2.2-L2.1, WBS 2.1-L1.1, WBS 2.1-L2.1, WBS 2.2 X-L1.1, WBS 2.2 X-L2.1



- 1 inlet water piping
- 2 wash basin
- 3 wash basin faucet
- 4 scanning zone WBS-2.2-L1 - long range WBS-2.2-L2 - short range START/STOP function

#### WBS 2.2–L1.1 order No. SE.02.60.81–010 WBS 2.2–L2.1 order No. SE.02.60.81–000

Stand-type wash basin faucet with a fixed WBS L1 outlet, a rotating WBS L2 outlet, integrated electronics and an electromagnetic valve in the outlet, a water mixer, connection hoses with dirt filters for hot and cold water. Termination using a RAPP connector for connecting PB-1 battery case or 6 V DC external power supply. 6 V DC power supply or 6 V Li battery.

#### WBS 2.2X–L1.1 order No. SE.02.60.81–060 WBS 2.2X–L2.1 order No. SE.02.60.81–050

Stand-type wash basin faucet with a fixed WBS L1 outlet, a hidden rotating WBS L2 outlet, integrated electronics and an electromagnetic valve in the outlet, a hidden water mixer, connection hoses with dirt filters for hot and cold water. Termination using a RAPP connector for connecting PB-1 battery case or 6 V DC external power supply. 6 V DC power supply or 6 V Li battery.

#### Characteristics

- · water and energy saving
- comfortable operation
- high level of hygiene
- · chrome finish
- · compact design with a mixer
- two-way communication by means of DO 5.1

#### Performance description:

**WBS-L1** opto-electrically scans the presence of hands in a wash basin. It switches off after 1-2 sec. after taking hands out of the wash basin. In case an object remains in the scanning zone continuously for a period of approx. 1 min., it stops water automatically. The range is set automatically after connecting the power supply. Hygienic flush and thermal disinfection functions can be activated by means of DO-5.1 remote control. Water temperature can be set using a mixer lever on a battery body. **A fixed outlet in the body.** 

**WBS-L2** discharges water by a hand motion in the scanning zone or it stops water by a repeated hand motion in front of the sensor (START-STOP function). The flow period is standardly set to 20 seconds. Water temperature can be set using a mixer lever on a battery body. Hygienic flush and thermal disinfection functions can be activated by means of DO-5.1 remote control.

#### A rotating outlet in the body.

#### Basic data

range: automatic setting, max. 24 cm
power supply: 6 V DC or 6 V Li, CR-P2 battery
battery life: approx. 2 years at 6000 cycles a month

- max. water temperature: 70 °C/80 °C − 10 min.

during thermal disinfection

water pressure: 0,05- 1,0 MPaconnection sizes: G3/8"water flow: 6 l/min

#### Special features

- dirt filter and reverse valve at a connecting hose inlet
- protection against flooding
- easy access for a battery replacement
- possible restriction of hot water flow
- hygienic flush activated from 0-108 hours
- flushing period is adjustable from 5-180 seconds
- pre-set for 72 hours and 30 seconds
- possible activation of thermal disinfection

WBS 2.1–L1.1 order No. SE.02.60.81–040 WBS 2.1–L2.1 order No. SE.02.60.81–030

Stand-type wash basin faucet with a fixed WBS L1 outlet, a rotating WBS L2 outlet, integrated electronics and an electromagnetic valve in the outlet, a connection hose with a dirt filter for cold water. Termination using a RAPP connector for connecting PB-1 battery case or 6 V DC external power supply. 6 V DC power supply or 6 V Li battery.

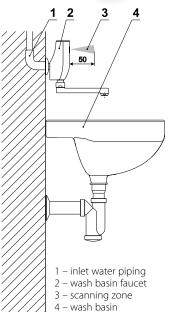
#### Special accessories

| – 6 V Li, CR–P2 battery                          | order No. SE.06.16.01-000 |
|--|---------------------------|
| – PB–1 battery case                              | order No. SE.06.21.52-000 |
| – ZAS 230/6ST.1 power supply                     | order No. SE.06.21.34-010 |
| (for supply, max. 1 pc. of WBS)                  |                           |
| <ul> <li>ZAS 230A/6DS30C power supply</li> </ul> | order No. SE.06.21.31-020 |
| (for centralized supply, max. 3 pcs. of WBS)     |                           |

connector with RAPP 600/2F cable
DO-5.1 remote control
DO-5.1U remote control
double-bent outlet for L2
order No. SE.14.00.01-900
order No. SE.09.02.12-210
order No. SE.09.02.07-110
order No. SE.07.20.23-000

WBS P3.1-160.1 WBS P3.1-200.1





#### Characteristics

- · on-wall fixture
- · high level of hygiene
- · water and energy saving
- comfortable operation
- easy installation
- · hygienic flushing
- parameter setting by means of a remote control
- two-way communication by means of DO 5.1

#### Performance description:

The device discharges water by a hand motion in the scanning zone or it stops it by a repeated hand motion in front of the sensor (START-STOP function). The flow period is standardly set to approx. 23 seconds. The hygienic flush function can be activated by means of DO-5.1 remote control.

#### Basic data

range: approx. 5 cm
 power supply: 6 V Li, CR-P2 battery
 max. water temperature: 70 °C/80 °C - 10 min.

during thermal disinfection

water pressure: 0,05- 1,0 MPaconnection sizes: G1/2"water flow: 6 l/min

#### Special features

- solid brass body with a chrome finish
- rotating outlet Î ~160 mm and I ~ 200 mm, suitable for double sinks too
- hygienic flushing adjustable from 0-108 hours
- flushing period adjustable from 5-180 seconds
- pre-set to 72 hours and 30 seconds
- possible thermal disinfection activation

#### WBS-P3.1–160.1 order No. SE.02.60.32–160

On-wall wash basin faucet for cold or pre-mixed water. With I  $\sim 160$  mm outlet. Chrome finish. 6 V Li battery supply.

#### WBS P3.1–200.1 order No. SE.02.60.32–200

On-wall wash basin faucet for cold or pre-mixed water. With I  $\sim$  200 mm outlet. Chrome finish. 6 V Li battery supply.

#### Special accessories

- 6 V Li, CR-P2 battery order No. SE.06.16.01-000
- DO-5.1 remote control order No. SE.09.02.12-210
- DO-5.1U remote control order No. SE.09.02.07-110
- outlet VTK-01-160 mm straight order No. SE.07.20.20-000
- outlet VTK-01-200 mm straight order No. SE.07.20.21-000

WBS P2/150.1-160, WBS P2.2-TLN -160 WBS P2/150.1-200, WBS P2.2-TLN -200



### 150 (100)9 150. 45 0 240

#### Characteristics

- · on-wall fixture
- · high level of hygiene
- water and energy saving
- comfortable operation
- easy installation
- · hygienic flushing
- parameter setting by means of a remote control
- · two-way communication by means of DO 5.1

#### Performance description:

The device discharges water by a hand motion in the scanning zone or it stops it by a repeated hand motion in front of the sensor (START-STOP function). The flow period is standardly set to approx. 23 seconds. It is possible to set water temperature using a thermostatic mixer. The hygienic flush function can be activated by means of DO-5.1 remote control.

#### Basic data

- range: approx. 5 cm

6 V DC or 6 V Li, CR-P2 battery - power supply: - battery life: approx. 2 years at 6000 cycles a month

- max. water temperature: 70 °C/80 °C - 10 min.

during thermal disinfection 0,05- 1,0 MPa

- water pressure: - connection pitch: 150 mm – connection sizes: 2 x G1/2" - water flow: 6 l/min

#### Special features

- solid brass body with a chrome finish
- rotating outlet I ~160 mm and I ~ 200 mm,
- suitable for double sinks too
- connection pitch 150 mm
- hygienic flushing adjustable from 0-108 hours
- flushing period adjustable from 5-180 seconds
- pre-set to 72 hours and 30 seconds
- possible thermal disinfection activation - possible thermal disinfection mode activation

WBS P2 /150.1-160 order No. SE.02.53.40-160 WBS P2 /150.1-200 order No. SE.02.53.39-200

On-wall wash basin faucet with thermostatic temperature setting. Connection pitch 150 mm. With I  $\sim$  160 mm or I  $\sim$  200 mm outlet. Chrome finish. 6 V Li battery power supply.

WBS P2.2-TLN-160 WBS P2.2-TLN-200

order No. SE.02.53.41–160 order No. SE.02.53.41-200

On-wall wash basin faucet with thermostatic temperature setting. Connection pitch 150 mm. With I ~ 160 mm or I ~ 200 mm outlet. Chrome finish. 6 V Li battery power supply. 6 V DC external power supply only.

#### Special accessories

- 6 V Li, CR-P2 battery

- DO-5.1 remote control

- DO-5.1U remote control

- outlet VTK-01-160 mm straight

- outlet VTK-01-200 mm straight

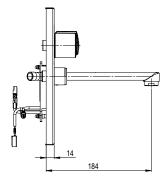
- ZAS 230A/6DS30C power supply (for centralized supply, max. 3 pcs. of WBS) order No. SE.06.16.01-000 order No. SE.09.02.12-210 order No. SE.09.02.07-110 order No. SE.07.20.20-000

order No. SE.07.20.21-000 order No. SE.06.21.31-020

## WBS R 1.2-TL EXT, WBS R 1.1-TL EXT WBS R 1.2-RK EXT, WBS R 1.1-RK EXT



# 



SABA R1.2-TL EXT

#### Characteristics

- concealed fixture
- high level of hygiene
- water saving
- · comfortable operation
- stainless steel finish

#### Performance description

The device optoelectrically scans the user's hands in the range zone (RK – under the outlet, TL – in front of the START – STOP sensor) and then starts or stops water. Version for pre-mixed water (1.1) and for thermostatically mixed water (1.2).

#### Basic data

– range: approx. 5 cm (TL), max. 27 cm (RK),

DO-5.1 adjustable

– power supply: 230V, AC (6V, DC) power supply

or 6V, Li-CRP2 battery in a PB1 case

(special accessories).

- faucet life: approx. 2 years at 6000 cycles a month

- water pressure: 0.05 - 1.0 MPa
- connection sizes: 2 X G1/2"
- water flow: 6 l/min at 1-5 bar
- dimensions: w 240 x h 240 x d 14 mm

(with outlet 170 mm - d 184 mm

- parameter setting using the DO-5.1 remote control (accessories)

– flow time (TL) or stop time (RK), hygienic flush, stop, disinfection flush

#### Specialties

- archiving of operational statistics - number of cycles, etc. possible

- hygienic flush after the last use according to the setting

- adjustable stagnation time for hygienic flush

- external inlet for hygienic flush and thermal disinfection

#### WBS R 1.1-TL EXT order No. SE.02.71.37-000

Wall-mounted faucet with a 170 mm straight outlet, connection hoses, installation kit. Designed for cold or pre-mixed water. Touchless START-STOP control. With external inlet for hygienic flush. 6V supply from mains supply or Li, CR-P2 battery (special accessories).

#### WBS R 1.2-TL EXT order No.SE.02.71.12-000

Wall-mounted faucet with a 170 mm straight outlet, connection hoses, installation kit. Thermostatic mixing of hot and cold water. Touchless START-STOP control. With external inlet for hygienic flush. 6V supply from mains supply or Li, CR-P2 battery (special accessories).

#### WBS R 1.1-RK EXT order No.SE.02.71.38-000

Wall-mounted faucet with a 170 mm straight outlet, connection hoses, installation kit Designed for cold or pre-mixed water. Touchless control with hand scanning under the outlet. With external inlet for hygienic flush. 6V supply from mains supply or Li, CR-P2 battery (special accessories).

#### WBS R 1.2-RK EXT order No. SE.02.71.13-000

Wall-mounted faucet with a 170 mm straight outlet, connection hoses, installation kit Thermostatic mixing of hot and cold water. Touchless control with hand scanning under the outlet. With external inlet for hygienic flush. 6V supply from mains supply or Li, CR-P2 battery (special accessories).

#### Special accessories:

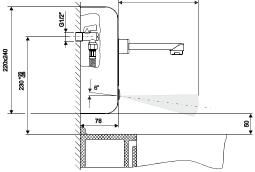
– power supply ZAS 230A/6DS30C Order No. SE.06.21.31-020 (for group supply, max. 3 pcs WBS)

remote control DO-5.1
 remote control DO-5.1U
 6 V Li, CR-P2 battery
 case for PB-1 batteries
 installation set WBS R1.2-M
 Order No. SE.09.02.07-110
 Order No. SE.06.16.01-000
 Order No. SE.06.21.52-000
 Order No. SE.02.71.10-000

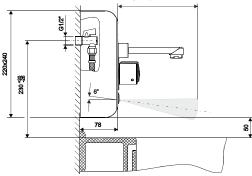
#### WBS Q5.1-TL EXT, WBS Q5.2-TL EXT WBS O5.1-RK EXT. WBS O5.2-RK EXT



automatic range adjustment (max. 240)



automatic range adjustment (max. 240)



#### Characteristics

- wall-mounted fittings
- high level of hygiene
- · water saving
- comfortable operation
- easy installation
- stainless steel finish

#### Performance description

The device optoelectrically scans the user's hands in the range zone (RK – under the outlet, TL – in front of the START – STOP sensor) and then starts or stops water. Version for pre-mixed water (5.1) and for thermostatically mixed water (5.2).

#### Basic data

approx. 5 cm (TL), max. 27 cm (RK), - range:

DO-5.1 adjustable

- power supply: 230V, AC (6V, DC) power supply or

6V, Li-CRP2 battery in a PB1 case

(special accessories).

– faucet life: approx. 2 years at 6000 cycles a month

0.05 - 1.0 MPa – water pressure: - connection sizes: 2 X G1/2" 6 I/min at 1-5 bar – water flow: w 200 x h 220 x d 78 mm – dimensions: (with outlet 120 mm - d 198 mm

– parameter setting using the DO-5.1 remote control (accessories) – flow time (TL) or stop time (RK), hygienic flush, stop, disinfection

#### Specialties:

- archiving of operational statistics - number of cycles, etc.

- possible hygienic flush after the last use according to the setting

- adjustable stagnation time for hygienic flush

- external inlet for hygienic flush and thermal disinfection

#### WBSQ 5.1 TL EXT order No. SE.02.71.17-000

Wall-mounted faucet with a 120 mm straight outlet, connection hoses, installation kit. Designed for cold or pre-mixed water. Touchless START-STOP control. With external inlet for hygienic flush. 6V supply from mains supply or Li, CR-P2 battery (special accessories).

#### WBSQ 5.2 TL EXT order No.SE.02.71.18-000

Wall-mounted faucet with a 120 mm straight outlet, connection hoses, installation kit. Thermostatic mixing of hot and cold water. Touchless START-STOP control. With external inlet for hygienic flush. 6V supply from mains supply or Li, CR-P2 battery (special accessories).

#### WBSQ 5.1 RK EXT order No.SE.02.71.15-000

Wall-mounted faucet with a 120 mm straight outlet, connection hoses, installation kit Designed for cold or pre-mixed water. Touchless control with hand scanning under the outlet. With external inlet for hygienic flush. 6V supply from mains supply or Li, CR-P2 battery (special accessories).

#### WBSQ 5.2 RK EXT order No. SE.02.71.16-000

Wall-mounted faucet with a 120 mm straight outlet, connection hoses, installation kit Thermostatic mixing of hot and cold water. Touchless control with hand scanning under the outlet. With external inlet for hygienic flush. 6V supply from mains supply or Li, CR-P2 battery (special accessories).

#### Special accessories:

power supply ZAS 230A/6DS30C Order No. SE.06.21.31-020 (for group supply, max. 3 pcs WBS)

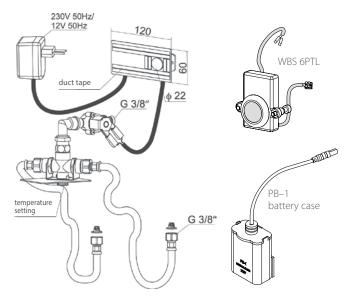
- remote control DO-5.1 Order No. SE.09.02.12-210 - remote control DO-5.1U Order No. SE.09.02.07-110 – 6 V Li, CR-P2 battery Order No. SE.06.16.01-000 - case for PB-1 batteries Order No. SE.06.21.52-000

#### automatic water discharge

#### WBS 6RRB | WBS 6RR.1 WBS PTL/E | WBS PTLB/E







#### Characteristics

- installation set for stainless steel wash basins
- · water and energy saving
- comfortable operation
- · high level of hygiene

#### Performance description

**WBS 6RR** is used for fitting in stainless steel wash basins. The device opto-electronically scans a person standing in front of the wash basin. After the person leaves the zone it stops water. Hygienic flush function can be activated by means of DO-2 remote control. Water temperature can be set using a mixer.

**WBS PTL/E** is used for a special wash basin sensor application. The device discharges water by a hand motion in the scanning zone or it stops it by a repeated hand motion in front of the sensor (START-STOP function). Flow period is standardly set to approx. 20 seconds. Hot water can be set using a thermostatic mixer. Hygienic flush function can be activated by means of DO-2 remote control.

#### Basic data

- range: WBS 6RR 35 cm pre-set, adjustable from 20 to 50 cm

- range: WBS PTL approx. 5 cm

– power supply: 12V~, DC, 6 V Li, CR-P2 battery

– max. water temperature: 70 °C

- water pressure: 0,05- 1,0 MPa- connection sizes: G3/8"

#### Special features

- dirt filter at the connection hose inlet
- protection against flooding
- WBS 6RR, WBS 6RRB with activated hygienic flush water is discharged every 12 hours for 30 seconds
- WBS PTL, PTLB hygienic flush adjustable from 0-108 hours

#### WBS 6RR order No. SE.02.52.88–001

Set for automatic water discharge – electronics with connection cables, an electromagnetic valve, a mixer, power supply 230 V/12 V $\sim$  and a connection hose.

#### WBS 6RRB order No. SE.02.52.88–030

Set for automatic water discharge – electronics with connection cables, an electromagnetic valve, a mixer, PB-1 battery case, a connection head. 6 V Li battery power supply.

#### WBS PTL/E order No. SE.02.52.89–900

Electronics with a special wash basin and sink sensor application. Power supply  $230V/12\ V\sim$ .

#### WBS PTLB/E order No. SE.02.52.89–910

Electronics with a special wash basin and sink sensor application. 6 V Li battery power supply.

#### Special accessories

- 6 V Li, CR-P2 battery order No. SE.06.16.01-000
- DO-2 remote control order No. SE.09.02.04-000
- DO-2U remote control order No. SE.09.02.07-000
- ZAS 50/12t power supply order No. SE.06.21.21-000
- ZAS 230A/12A.1 power supply (Termination using a RAPP connector)

 ZAS 230A/12A.2 power supply (Termination using a RAPP connector)
 order No. SE.06.21.34–900



#### automatic shower fixtures

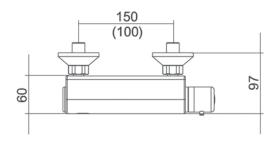
#### opto-electronic

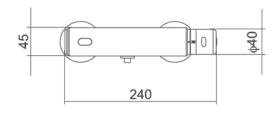
- concealed
- wall-mounted-panel
  - on-wall
  - thermostatic

#### automatic thermostatic shower faucet

SABA P2.1-150 SABA P2U.1-150







#### Characteristics

- · on-wall fixture
- · high level of hygiene
- · water and energy saving
- comfortable operation
- easy installation
- hygienic flushing
- parameter setting by means of a remote control
- two-way communication by means of DO 5.1

#### Performance description

The device discharges water by a hand motion in the scanning zone, the flow period is standardly set to approx. 20 seconds, or it stops it by a repeated hand motion in front of the sensor (START-STOP function). It is possible to set water temperature using a thermostatic mixer. Hygienic flush and thermal disinfection functions can be activated by means of DO-5.1 remote control.

#### Basic data

- range: approx. 5 cm - power supply: 6 V Li, CR-P2 battery

- battery life: approx. 2 years at 6000 cycles

a month

- max. water temperature: 70 °C/80 °C - 10 min. during

thermal disinfection

0,05-1,0 MPa - water pressure: 150 mm - pitch: - connection sizes: 2xG1/2" - shower head connection size: G1/2"

#### Special features

- solid brass body with a chrome finish
- connection pitch 150 mm
- hygienic flush adjustable from 0-108 hours
- flushing period adjustable from 5-180 seconds
- pre-set to 72 hours and 30 seconds
- possible thermal disinfection activation

#### SABA P2.1-150 order No. SE.04.14.70-100

On-wall shower faucet with thermostatic temperature setting. Connection pitch - 150 mm. The body finished with a 1/2" threaded connection. Without a shower hose and a shower head. Chrome finish. Connection of a shower hose from the bottom. 6 V Li battery power supply.

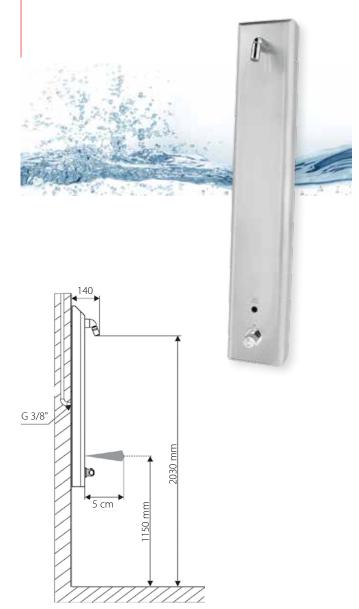
#### SABA P2U.1-150 order No. SE.04.14.70-200

On-wall shower faucet with thermostatic temperature setting. Connection pitch - 150 mm. The body finished with a 1/2" threaded connection. Without a shower hose and a shower head. Chrome finish. Connection of a shower hose from the bottom. 6 V Li battery power supply.

#### Special accessories

- 6 V Li, CR-P2 battery order No. SE.06.16.01-000 - DO-5.1 remote control order No. SE.09.02.12-210 - DO-5.1U remote control order No. SE.09.02.07-110

#### SABA O1.2-TL EXT



#### Characteristics

- · water and energy saving
- · easy installation
- · high level of hygiene
- stainless steel design
- comfortable operation
- grounded finish
- two-way communication by means of DO 5.1

#### Performance description

The device discharges water by a hand motion in the scanning zone. The water flow period is standardly set to approx. 23 s (adjustable from 3 to 83 by means of DO-5.1). It is possible to stop the shower during the water flow by a repeated hand motion in the scanning zone. Temperature setting using a thermostatic mixer. The device maintains a constant water temperature and ensures personal protection against scalding. Hygienic flush and thermal disinfection functions can be activated by means of DO-5.1 remote control.

#### Basic data

range: approx. 5 cmpower supply: 6 V Li, CR-P2 battery,

ZAS 230A/6DS30C power supply

- battery life: approx. 2 years at 6000 cycles a month

- max. water temperature: 70 °C- water pressure: 0,05- 1,0 MPa

- water flow period: approx. 20 s (adjustable 3-83 s)

parameter setting by means of DO 5.1 remote control

#### Special features

- SP-1 water saving shower head, 7 l/min.
- possible hygienic flush activation
- hygienic flush adjustable from 0-108 hours
- flushing period adjustable from 5-180 seconds
- pre-set to 72 hours and 30 seconds
- possible thermal disinfection activation

#### **Dimensions**

– stainless steel plate: 1250 x 220 x 78 mm

- connection sizes: G3/8"

- matt grounded finish

#### SABA Q1.2-TL EXT

#### order No. SE.04.14.39-000

Concealed stainless steel sensor device with a hand motion scanning /START-STOP function/ with a SP-1 chrome finish shower head (7 l/min). Temperature setting using a thermostatic mixer. Complete with an electromagnetic valve, interconnection hoses and a fixing set. 6 V Li battery power supply or 6V DC external power supply.

#### Special accessories

– 6 V Li, CR–P2 battery

– PB-1 battery case

DO-5.1 remote controlDO-5.1U remote control

 ZAS 230A/6DS30C power supply (for centralized supply, max. 3 pcs. of SABA) order No. SE.06.16.01-000 order No. SE.06.21.52-000

order No. SE.09.02.12-210 order No. SE.09.02.07-110

order No. SE.06.21.31-000

#### SABA O1.2 REXT.1 BYP



#### Characteristics

- · water and energy saving
- easy installation
- · high level of hygiene
- stainless steel design
- grounded finish
- comfortable operation
- double sensor
- two-way communication by means of DO-5.1

#### Performance description

The device discharges water by a hand motion in the scanning zone. The water flow period is standardly set to approx. 23 s (adjustable from 3 to 83 by means of DO-5.1). It is possible to stop the shower during the water flow by a repeated hand motion in the scanning zone. When a person leaves the range zone before the time passes (as a standard approx. 23 s), water stops as well. Temperature setting using a thermostatic mixer. The device maintains a constant water temperature and ensures personal protection against scalding. The shower is completed with a BYPAS side branch enabling automatic thermal disinfection.

The shower is completed with a BYPAS side branch enabling automatic thermal disinfection. Hygienic flush and thermal disinfection functions can be activated by means of DO-5.1 remote control.

#### Basic data

- range: approx. 70 cm for scanning

from a person approx. 5 cm for scanning

from a hand

– power supply: 6 V Li, CR-P2 battery,

ZAS 230A/6DS30C power supply

- battery life: approx. 2 years at 6000 cycles a month

– max. water temperature: 70 °C/80 °C - 10 min.

during thermal disinfection

– water pressure: 0,05- 1,0 MPa

– water flow period: approx. 23 s (adjustable 3-83 s)

#### Special features

- SP-1 water saving shower head, 7 l/min.
- hygienic flush adjustable from 0-108 hours
- flushing period adjustable from 5-180 seconds
- pre-set to 72 hours and 30 seconds
- possible automatic thermal disinfection activation

#### **Dimensions**

- stainless steel plate: 1250 x 220 x 78 mm (h x w x d)

– connection sizes: G3/8""

- matt grounded finish

#### SABA Q1.2 REXT.1BYP order

#### order No. SE.04.15.42–100

Concealed stainless steel sensor device with a hand motion scanning /START-STOP function/ with a double range, i.e. a person presence scanning. With a SP-1 chrome finish shower head (7 l/min.). Temperature setting using a thermostatic mixer. Complete with an electromagnetic valve, interconnection hoses and a fixing set. 6 V Li battery power supply or 6V DC external power supply.

#### Special accessories

- battery 6 V Li, CR-P2

– PB-1 battery case

– DO–5.1 remote control

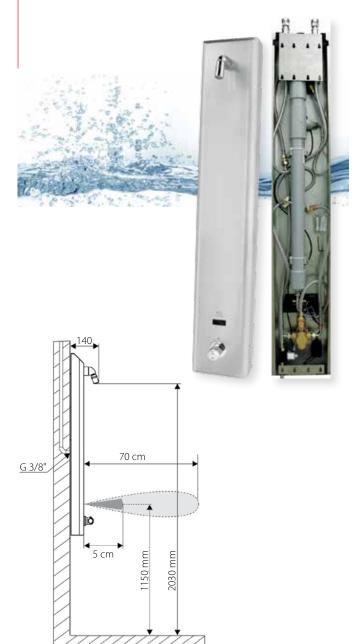
- DO-5.1U remote control

- ZAS 230A/6DS30C power supply (for centralized supply, max. 3 pcs. of SABA) order No. SE.06.16.01–000 order No. SE.06.21.52–000

order No. SE.09.02.12–210 order No. SE.09.02.07–110

order No. SE.06.21.31–000

#### SABA O1.2-REXT.1 FIL



#### Characteristics

- · micro filter
- · water and energy saving
- easy installation
- · high level of hygiene
- stainless steel design
- grounded finish
- comfortable operation
- double sensor
- two-way communication by means of DO 5.1

#### Performance description

The device discharges water by a hand motion in the scanning zone. The water flow period is standardly set to approx. 23 s (adjustable from 3 to 83 by means of DO-5.1). It is possible to stop the shower during the water flow by a repeated hand motion in the scanning zone. When a person leaves the range zone before the time passes (as a standard approx. 23 s), water stops as well.

Temperature setting using a thermostatic mixer. The device maintains a constant water temperature and ensures personal protection against scalding. A microfilter enables to remove Legionella bacteria from the water. Hygienic flush and thermal disinfection functions can be activated using DO-5.1 remote control or an external push-button.

#### Basic data

- range: approx. 70 cm for scanning

from a person approx. 5 cm for scanning from a hand

– power supply: 6 V Li, CR-P2 battery,

ZAS 230A/6DS30C power supply – battery life: approx. 2 years at 6000 cycles a month

max. water temperature: 70 °Cwater pressure: 0,05- 1,0 MPa

– water flow period: approx. 23 s (adjustable 3-83 s)

#### Special features

- SP-1 water saving shower head, 7 l/min.
- hygienic flush activation
- possible Legionella flushing activation

#### Dimensions

- stainless steel plate: 1250 x 220 x 78 mm (h x w x d)

– connection sizes: G3/8"

- matt grounded finish

#### SABA Q1.2–REXT.1 FIL order No. SE.04.16.02–000

Concealed stainless steel sensor device with a hand motion scanning /START-STOP function/ with a double range, i.e. a person presence scanning. With a SP-1 chrome finish shower head (7 l/min.). Temperature setting using a thermostatic mixer. Complete with a Legionella filter, an electromagnetic valve, interconnection hoses and a fixing set. 6 V Li battery power supply or 6V DC external power supply.

#### Special accessories

– 6 V Li, CR–P2 battery

- PB-1 battery case

- DO-5.1 remote control

- DO-5.1U remote control

 ZAS 230A/6DS30C power supply (for centralized supply, max. 3 pcs. of SABA) order No. SE.06.16.01–000

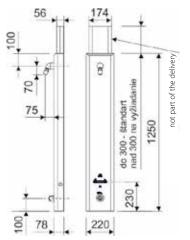
order No. SE.06.21.52–000 order No. SE.09.02.12–210

order No. SE.09.02.07-110

order No. SE.06.21.31-000

#### SABA O4.2-TL EXT/RFID





#### Characteristics

- · wall-mounted shower panel
- · high level of hygiene
- water saving
- comfortable operation
- stainless steel finish
- remote control using the Bluetooth mobile app

#### Performance description

The device optoelectronically scans the user in the range zone and enables touchless water control by bringing your hand in front of the scanned field - START-STOP. Bringing your hand back during the flow means STOP. The water temperature is set by means of a thermostat, which also provides protection against scalding. The device enables hygienic flush and thermic disinfection. The mobile app with Bluetooth communication via an external module enables you to read operational statistics, archive and print hygienic protocols, as well as adjust preset parameters.

#### Basic data

- range: approx. 70 and 5 cm - power supply: 12 V DC

- water flow time: 3 - 83 sec, preset to 23 sec - dimensions: w 220 x h 1250 x d 78 mm

(with overhead shower approx. 160 mm)

- water connection from the top or from the back 2 x G3/8"
- dirt filter at the thermostat inlet
- operating pressure 0.5-10 bar, recommended 1-5 bar, P1-P2 less than 2
- water flow 7 l/min at 1-5 bar
- water temperature: hot water max. 70 °C, cold water max. 25 °C, recommended difference 50 °C
- parameter setting using the Android mobile app with Blue-tooth communication

#### **Specialties**

- archiving of operational statistics a parameter setting using the Bluetooth mobile app
- double-action optical sensor scans control and persons
- possible hygienic flush according to the setting after the last use
- adjustable stagnation time for hygienic flush
- external inlet for hygienic flush and thermal disinfection
- STOP and LONG STOP function using a magnet
- time functions in real time
- removable, double-sided shower cover
- preparation for connecting RFID device

#### SABA Q4.2-TL EXT/RFID order No. SE.04.16.68-000

Wall-mounted stainless steel fitting with an overhead shower, handheld shower, touchless separate switching on and off. Adjustable automatic hygienic flush. START / STOP mode with switchable person sensing. Colour LED signalling. Inlets for external hygienic and thermal flush. Preparation for connecting RFID device. 12V DC mains supply (special accessory). Parameter setting, status check and archiving of hygienic records with the external, built.in Bluetooth module (special accessories).

#### Special accessories:

- power supply HDR 60-12 230V AC (12V DC) 4,5A JDC (for max 8 pcs SABA)

- BLES-4.01 Bluetooth adapter

Order No. PLU 1/14671 Order No. SE.26.00.01-000

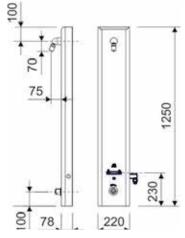
- Android App

(Android min. 7+, BT min. 4.2)

Order No. SE.04.16.80-000

#### SABA O4.2-2x TL EXT BS (RFID)





#### Characteristics

- · wall-mounted shower panel
- · high level of hygiene
- water saving
- comfortable operation
- stainless steel finish
- remote control using the Bluetooth mobile app

#### Performance description

The device optoelectronically scans the user in the range zone and enables touchless water control by bringing your hand in front of the scanned field - START-STOP. Bringing your hand back during the flow means STOP. The water temperature is set by means of a thermostat, which also provides protection against scalding. The device enables hygienic flush and thermic disinfection. The mobile app with Bluetooth communication via an external module enables you to read operational statistics, archive and print hygienic protocols, as well as adjust preset parameters.

#### Basic data

approx. 70 and 5 cm – range: - water flow time: 3 - 83 sec, preset to 23 sec - dimensions: w 220 x h 1250 x d 78 mm

(with overhead shower approx. 160 mm)

- water connection from the top or from the back 2 x G3/8" - dirt filter at the thermostat inlet
- operating pressure 0.5-10 bar, recommended 1-5 bar, P1-P2 less than 2
- water flow: 7 I/min at 1-5 bar
- water temperature: hot water max. 70 °C, cold water max. 25 °C,

recommended difference 50 °C

- parameter setting using the Android mobile app with Blue-tooth communication

#### Specialties:

- archiving of operational statistics a parameter setting using the Bluetooth mobile app
- double-action optical sensor scans control and persons
- possible hygienic flush according to the setting after the last use
- adjustable stagnation time for hygienic flush
- external inlet for hygienic flush and thermal disinfection
- STOP and LONG STOP function using a magnet
- time functions in real time
- removable, double-sided shower cover
- preparation for connecting RFID device

#### SABA Q4.2-2xTL EXT BS (RFID) Order No. SE.04.16.66-000

Wall-mounted stainless steel fitting with an overhead shower and an outlet for a side, handheld shower, touchless separate switching on and off of both showers. Adjustable automatic hygienic flush. START / STOP mode with switchable person sensing. Colour LED signalling. Inlets for external hygienic and thermal flush. Preparation for connecting RFID device. 12V DC mains supply (special accessory). Parameter setting, status check and archiving of hygienic records with the external, built.in Bluetooth module (special accessories).

#### Special accessories:

- power supply HDR 60-12 230V AC (12V DC) 4,5A JDC (for max 8 pcs SABA)

Order No. PLU 1/14671

- BLES-4.01 Bluetooth adapter

Order No. SE.26.00.01-000

- Android App

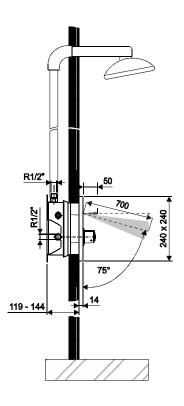
(Android min. 7+, BT min. 4.2)

Order No. SE.04.16.80-000

# automatic control for showers

# SABA R4.2-TL EXT (RFID)





### Characteristics

- concealed fixture final set
- · high level of hygiene
- water saving
- comfortable operation
- stainless steel finish
- remote control using the Bluetooth mobile app

### Performance description

The device optoelectronically scans the user in the range zone and enables touchless water control by bringing your hand in front of the scanned field - START-STOP. Bringing your hand back during the flow means STOP. The water temperature is set by means of a thermostat, which also provides protection against scalding. The device enables hygienic flush and thermic disinfection. The mobile app with Bluetooth communication via an external module enables you to read operational statistics, archive and print hygienic protocols, as well as adjust preset parameters. It is mounted in the appropriate SABA R1.2-M installation set-special accessories.

### Basic data

- range: approx. 70 and 5 cm – water flow time: 3 - 83 sec, preset to 23 sec - dimensions: w 240 x h 240 x d 14 mm

(with overhead shower approx. 160 mm)

- water connection 3 x G1/2"
- dirt filter at the thermostat inlet
- operating pressure 0.5-10 bar, recommended 1-5 bar, P1-P2 less than 2
- 7 l/min at 1-5 bar - water flow:
- water temperature: hot water max. 70 °C, cold water max. 25 °C, recommended difference 50 °C
- parameter setting using the Android mobile app with Blue-tooth communication

### **Specialties**

- archiving of operational statistics a parameter setting using the Bluetooth mobile app
- double-action optical sensor scans control and persons
- possible hygienic flush according
- adjustable stagnation time for hygienic flush
- external inlet for hygienic flush and thermal disinfection
- STOP and LONG STOP function using a magnet
- time functions in real time
- preparation for connecting RFID device

### SABA R4.2-TL EXT (RFID) Order No. SE.04.16.74-000

Concealed stainless steel fitting with an outlet for an overhead shower, touchless switching on and off. START / STOP mode with switchable person sensing. Adjustable automatic hygienic flush. Colour LED signalling. Inlets for external hygienic and thermal flush. Preparation for connecting RFID device. 12V DC mains supply (special accessory). Parameter setting, status check and archiving of hygienic records with the external, built.in Bluetooth module (special accessories).

The product is delivered without SABA R1.2M installation set.

### Special accessories:

- power supply HDR 60-12 230V AC (12V DC) 4,5A JDC (for max 8 pcs SABA)

- BLES-4.01 Bluetooth adapter

- Android App

(Android min. 7+, BT min. 4.2) installation set SABA R1.2-M

(for SABA R4)

Order No. PLU 1/14671

Order No. SE.26.00.01-000

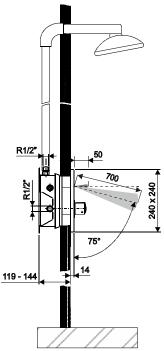
Order No. SE.04.16.80-000

Order No. SE.04.15.43-000

## wall-mounted shower fixture

# SABA R4.2-2x TL EXT BS (RFID)





### Characteristics

- concealed fixture final set
- · high level of hygiene
- water saving
- comfortable operation
- stainless steel finish
- remote control using the Bluetooth mobile app

### Performance description

The device optoelectronically scans the user in the range zone and enables touchless water control by bringing your hand in front of the scanned field - START-STOP. Bringing your hand back during the flow means STOP. The water temperature is set by means of a thermostat, which also provides protection against scalding. The device enables hygienic flush and thermic disinfection. The mobile app with Bluetooth communication via an external module enables you to read operational statistics, archive and print hygienic protocols, as well as adjust preset parameters. It is mounted in the appropriate SABA R1.2-M installation set-special accessories.

### Basic data

- range: approx. 70 and 5 cm - water flow time: 3 - 83 sec, preset to 23 sec - dimensions: w 240 x h 240 x d 14 mm

(with overhead shower approx. 160 mm)

- water connection 3 x G1/2"
- dirt filter at the thermostat inlet
- operating pressure 0.5-10 bar, recommended 1-5 bar, P1-P2 less than 2
- water flow: 7 I/min at 1-5 har
- water temperature: hot water max. 70 °C, cold water max. 25 °C,

recommended difference 50 °C

- parameter setting using the Android mobile app with Blue-tooth communication

### **Specialties**

- archiving of operational statistics a parameter setting using the Bluetooth mobile app
- double-action optical sensor scans control and persons
- possible hygienic flush according
- adjustable stagnation time for hygienic flush
- external inlet for hygienic flush and thermal disinfection
- STOP and LONG STOP function using a magnet
- time functions in real time
- preparation for connecting RFID device

### SABA R4.22x -TL EXT BS (RFID) Order No. SE.04.16.71-000

Concealed stainless steel fitting with an outlet for an overhead shower and an outlet for a side handheld shower, touchless separate switching on and off of both showers. START / STOP mode with switchable person sensing. Adjustable automatic hygienic flush. Colour LED signalling. Inlets for external hygienic and thermal flush. Preparation for connecting RFID device. 12V DC mains supply (special accessory). Parameter setting, status check and archiving of hygienic records with the external, built, in Bluetooth module (special accessories).

The product is delivered without SABA R1.2M installation set.

### Special accessories

- power supply HDR 60-12 230V AC (12V DC) 4,5A JDC (for max 8 pcs SABA)

- BLES-4.01 Bluetooth adapter

Android App

(Android min. 7+, BT min. 4.2)

– installation set SABA R1.2-M

(for SABA R4)

Order No. PLU 1/14671

Order No. SE.26.00.01-000

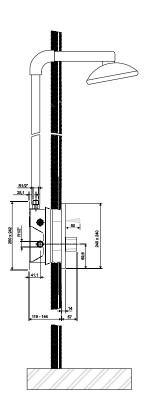
Order No. SE.04.16.80-000

Order No. SE.04.16.75-000

# automatic control for showers

## SABA R1.2-TI FXT





### Characteristics

- water saving
- comfortable operation
- START-STOP function
- Suitable for public applications
- two-way communication by means of DO 5.1

### Performance description

The device discharges water by a hand motion in the scanning zone. The water flow period is standardly set to approx. 23 s (adjustable from 3 to 83 by means of DO-5.1). It is possible to stop the shower during the water flow by a repeated hand motion in the scanning zone. Temperature setting using a thermostatic mixer.

The device maintains a constant water temperature and ensures personal protection against scalding. Hygienic flush and thermal disinfection functions can be activated using DO-5.1 remote control or an external push-button.

### Basic data

– range: approx. 5 cm 6 V Li, CR-P2 battery, - power supply:

ZAS 230A/6DS30C power supply

- battery life: approx. 2 years at 6000 cycles a month

max. water temperature: 70 °C

- water pressure: 0,05-1,0 MPa

- water flow period: approx. 23 s (adjustable 3-83 s) - parameter setting by means of DO 5.1 remote control

### Special features

- possible hygienic flush activation
- hygienic flush adjustable from 0-108 hours
- flushing period adjustable from 5-180 seconds
- pre-set to 72 hours and 30 seconds
- possible thermal disinfection activation

### **Dimensions**

- cover: 240 x 240 x 14 mm (h x w x d)

- connection sizes: R1/2'

### SABA R1.2-TL EXT

### order No. SE.04.15.44-000

A concealed stainless steel sensor device with a hand motion scanning /START-STOP function/. Temperature setting using a thermostatic mixer. Complete with an electromagnetic valve, interconnection hoses and a fixing set. 6 V Li battery or 6 V DC external power supply.

The product is delivered without SABA R1.2M installation set.

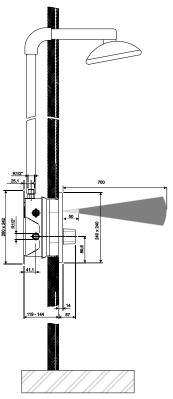
| Special accessories                              |                           |
|--|---------------------------|
| – 6 V Li, CR–P2 battery                          | order No. SE.06.16.01-000 |
| – PB-1 battery case                              | order No. SE.06.21.52-000 |
| – SP 1 shower rose                               | order No. SE.07.04.01-000 |
| – SP 3 shower rose                               | order No. SE.07.08.01-000 |
| <ul> <li>DO–5.1 remote control</li> </ul>        | order No. SE.09.02.12-210 |
| <ul> <li>DO–5.1U remote control</li> </ul>       | order No. SE.09.02.07-110 |
| <ul> <li>ZAS 230A/6DS30C power supply</li> </ul> | order No. SE.06.21.31-000 |
| (for centralized supply, max. 3 pcs. of SABA)    |                           |

order No. SE.04.15.43-000 SABA R1.2-M installation set

# automatic control for showers

## SABA R1.2-RFXT.1 BYP





### Characteristics

- · water and energy saving
- · high level of hygiene
- stainless steel design
- comfortable operation
- two-way communication by means of DO 5.1

### Performance description

The device discharges water by a hand motion in the scanning zone. The water flow period is standardly set to approx. 23 s (adjustable from 3 to 83 by means of DO-5.1). It is possible to stop the shower during the water flow by a repeated hand motion in the scanning zone. When a person leaves the range zone before the time passes (as a standard approx. 23 s), water stops as well.

Temperature setting using a thermostatic mixer. A shower is completed with BYPAS enabling automatic thermal disinfection. Hygienic flush and thermal disinfection functions can be activated using DO-5.1 remote control or an external push-button.

### Basic data

- range: approx. 70 cm for scanning

from a person approx. 5 cm for scanning from a hand

power supply: 6 V Li, CR-P2 battery,

ZAS 230A/6DS30C power supply

- battery life: approx. 2 years at 6000 cycles a month

– max. water temperature: 70 °C/80 °C - 10 min.

during thermal disinfection

- water pressure: 0,05- 1,0 MPa

- water flow period: approx. 23 s (adjustable 10-70 s)

### Special features

- hygienic flush adjustable from 0-108 hours

- flushing period adjustable from 5-180 seconds

- pre-set to 72 hours and 30 seconds

### **Dimensions**

- cover: 240 x 240 x 14 mm (h x w x d)

– connection sizes: R1/2"

### SABA R1.2–REXT.1 BYP order No. SE.04.15.48–100

A concealed stainless steel sensor device with a hand motion scanning /START-STOP function/. Temperature setting using a thermostatic mixer. Complete with an electromagnetic valve, interconnection hoses and a fixing set. 6 V Li battery or 6 V DC external power supply.

The product is delivered without SABA R1.2M installation set.

### Special accessories

| Special accessories                              |                            |
|--|----------------------------|
| – 6 V Li, CR–P2 battery                          | order No. SE.06.16.01-000  |
| – PB-1 battery case                              | order No. SE.06.21 .52-000 |
| – SP 1 shower rose                               | order No. SE.07.04.01-000  |
| – SP 3 shower rose                               | order No. SE.07.08.01-000  |
| – DO-5.1 remote control                          | order No. SE.09.02.12-210  |
| – DO-5.1U remote control                         | order No. SE.09.02.07-110  |
| <ul> <li>ZAS 230A/6DS30C power supply</li> </ul> | order No. SE.06.21.31-000  |
| (for centralized supply, max. 3 pcs. of SABA)    |                            |

- SABA R1.2-M installation set order No. SE.04.15.43-000

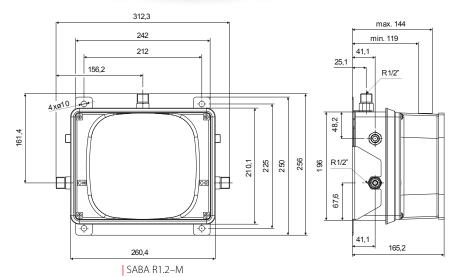
# installation set

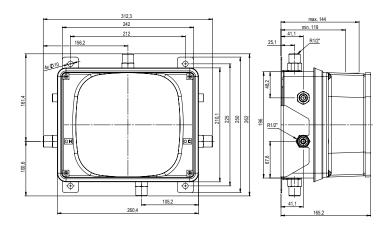
SABA R1.2-M SABA R1.2-M BS



### **Dimensions**

- installation box: see the drawing
- connection dimensions: R1/2", possible to connect GEBERIT MEPLA





SABA R1.2-M Bs

### SABA R1.2-M

### Order No. SE.04.15.43-000

### Order No. SE.04.16.75-000

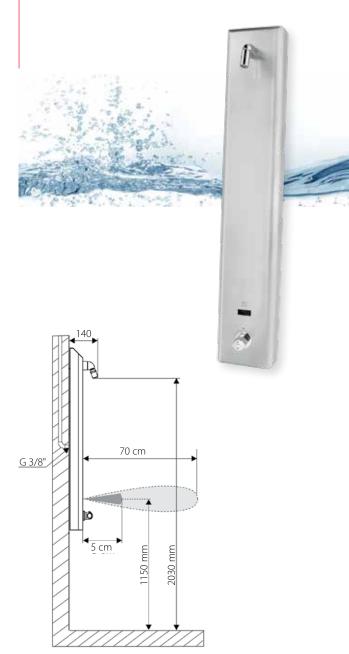
Installation set for SABA R1.2 and SABA R4.2 without a side shower, with a side water inlet and a top water outlet. Suitable for bricking in or plasterboard walls, with inlet and outlet screwing, flushing pipe, sealing sleeve and installation tunnel.

Installation set for SABA R1.2 and SABA R4.2 with a side shower, a side water inlet, a bottom water outlet for a side shower. Suitable for bricking in or plasterboard walls, with inlet and outlet screwing, flushing pipe, sealing sleeve and installation tunnel.

SABA R1.2-M BS

# wall-mounted shower fixture

# SABA O1.2-LIN.2



### Characteristics

- · water and energy saving
- easy installation
- · high level of hygiene
- stainless steel design
- comfortable operation
- ground finish
- two-way communication by means of DO 5.1

### Performance description

The device discharges water by a hand motion in the scanning zone. The water flow period is standardly set to approx. 23 s (adjustable from 3 to 83 by means of DO-5.1). It is possible to stop the shower during the water flow by a repeated hand motion in the scanning zone. When a person leaves the range zone before the time passes (as a standard approx. 23 s), water stops as well. Temperature setting using a thermostatic mixer. The device maintains a constant water temperature and ensures personal protection against scalding. The shower is completed with a BYPAS side branch enabling automatic thermal disinfection. Hygienic flush and thermal disinfection functions can be activated by means of DO-5.1 remote control.

### Basic data

- range: approx. 70 cm for scanning

from a person approx. 5 cm for scanning from a hand

– power supply: 12 V DC

– max. water temperature: 70 °C/ 80 °C - 10 min.

during thermal disinfection

– water pressure: 0,05- 1,0 MPa

- water flow period: approx. 23 s (adjustable 10-70 s)

### Special features

- SP-1 water saving shower head, 7 l/min.
- hygienic flush adjustable from 0-108 hours
- flushing period adjustable from 5-180 seconds
- pre-set to 72 hours and 30 seconds
- possible automatic thermal disinfection activation
- water saving during thermal disinfection

### **Dimensions**

- stainless steel plate: 1250 x 220 x 78 mm (h x w x d)

- connection sizes: G3/8"

- matt grounded finish.

### SABA Q1.2–LIN.1 order No. SE.04.15.19–000

Concealed stainless steel sensor device with a hand motion scanning /START-STOP function/ with a double range, i.e. a person presence scanning. With a SP-1 chrome finish shower head (7 l/min.). Temperature setting using a thermostatic mixer. Automatic sequencing of thermal disinfection process and thermal disinfection assessment. Possible sequencing into a group using SNS-2LIN-PTK. Complete with an electromagnetic valve, interconnection hoses and a fixing set. 12 V DC power supply.

### Special accessories

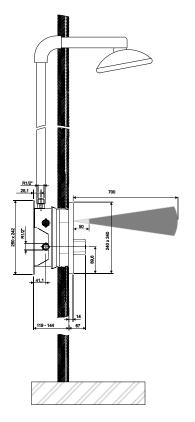
- SNS-2LIN-PTK order No. SE.19.00.14-000 - DO-5.1 remote control order No. SE.09.02.12-210

- DO-5.1U remote control order No. SE.09.02.07-110

# automatic control for showers

## SABA R1.2-I IN.2





### Characteristics

- · water and energy saving
- · high level of hygiene
- stainless steel design
- comfortable operation
- two-way communication by means of DO 5.1

### Performance description

The device discharges water by a hand motion in the scanning zone. The water flow period is standardly set to approx. 23 s (adjustable from 3 to 83 by means of DO-5.1). It is possible to stop the shower during the water flow by a repeated hand motion in the scanning zone. When a person leaves the range zone before the time passes (as a standard approx. 23 s), water stops as well.

Temperature setting using a thermostatic mixer. A shower is completed with BYPAS enabling automatic thermal disinfection. Hygienic flush and thermal disinfection functions can be activated using DO-5.1 remote control or an external push-button.

### Basic data

- range: approx. 70 cm for scanning

from a person approx. 5 cm for scanning from a hand

– power supply: 12 V DC

- max. water temperature: 70 °C/80 °C - 10 min.

during thermal disinfection

- water pressure: 0,05- 1,0 MPa

- water flow period: approx. 23 s (adjustable 10-70 s)

### Special features

- hygienic flush adjustable from 0-108 hours

- flushing period adjustable from 5-180 seconds

- pre-set to 72 hours and 30 seconds

- possible automatic thermal disinfection activation

- water saving during thermal disinfection

### **Dimensions**

- cover: 240 x 240 x 14 mm (h x w x d)

- connection sizes: R3/8"

### SABA R1.2-LIN.1 order No. SE.04.15.46-000

A concealed stainless steel sensor device with a hand motion scanning /START-STOP function/. Temperature setting using a thermostatic mixer. Automatic sequencing of thermal disinfection process and thermal disinfection assessment. Possible sequencing into a group using SNS SNS-2LIN-PTK. Complete with an electromagnetic valve, interconnection hoses and a fixing set. 12 V DC power supply.

The product is delivered without SABA R1.2M installation set.

### Special accessories

| – SNS–2LIN–PTK                                   | order No. SE.19.00.14-000 |
|--|---------------------------|
| – SP 1 shower rose                               | order No. SE.07.04.01-000 |
| – SP 3 shower rose                               | order No. SE.07.08.01-000 |
| – DO–5.1 remote control                          | order No. SE.09.02.12-210 |
| – DO–5.1U remote control                         | order No. SE.09.02.07-110 |
| <ul> <li>SABA R1.2-M installation set</li> </ul> | order No. SE 04 15 43-000 |

# LIN central control unit (CLC)

# SNS-MLU-12V-6LIN-EXP-GSM



### Characteristics

- LIN sanitary network system
- CLC control unit with an expander and a GPRS/SIM communication module
- for showers with a LIN communication bus max. 84 pcs (SLU)
- with an expander for fittings with an external potential-free inlet max. 36 pcs (SEU)
- bus extension possible with several repeaters LIN Repeater-1
- WEB Manager program for the sanitary network system management

### SNS-MLU-12V-6LIN-EXP-GSM Order No. SE.19.00.19-000

The CLC control unit with an expander and a GPRS communication module for showers with a LIN communication bus, with an expander for fittings with an external potential-free inlet. WEB Manager program for the sanitary network system management.

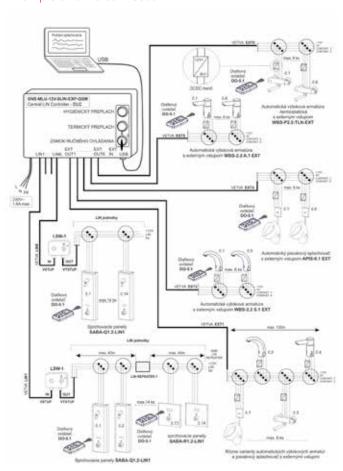
### Special accessories:

- LSW-1 Order No. SE.19.00.309-000
- LIN REPEATER-1 Order No. SE.09.05.25-000

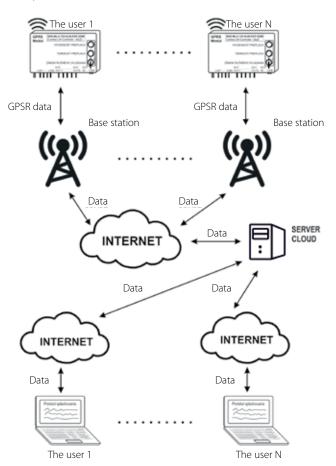
### Specialties:

- print/export to pdf protocol of summary information about thermal or hygienic flushing for archiving
- LIN communication, three-wire connection

### Example of GPRS connection



### Example of USB connection



### Performance description

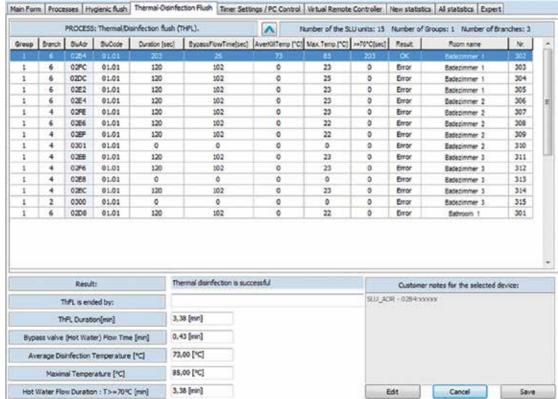
SNS-MLU via LIN bus connects, controls and evaluates the showers with LIN connection and fixtures with EXT inlet in one system as a whole while maintaining their autonomous operation. It enables the control and monitoring of thermal disinfection and hygienic flush (manual, external). In addition, it communicates with the user via the Web Manager and with the administrator via the USB interface or via the GPRS module with a SIM card, either locally or remotely. The Web Manager provides:

- detailed overview of the entire system configuration timer setting for hygienic and thermal flushing
- virtual remote control function for SLU parameter setting
- summary information on thermal or hygienic flushing
- detailed information on thermal or hygienic flushing
- statistical module for estimating water consumption and monitoring the number of valve cycles
- SNS-MLU has a simple manual control on the cabinet door to start processes with status indication.
- secured with a key switch. Special accessories according to the project needs include LIN REPEATER-1 for bus extension (+ 40m), max. 2 pcs / per branch and local branch switches with a LSW-1 pro Service key

### Basic data

- max. number of branches 6
- weight/dimensions/protection: 14.4 kg/460x415x136mm / IP42
- max. cable length for LIN branch: 40 m (120 m 2x LIN REPEATER)
- max. cable length for EXT branch: 120 m
- input nominal voltage: 100-240V AC/50-60Hz
- input nominal current: 1.6A (at 230V AC)
- efficiency: 88%
- connection: 3 x 1.5 mm2
- output voltage: 12V DC (adjustable to 10.8-13.8V)
- max. output current 6x for LIN branch: 4.5A (at 12V DC)
- max. output current 6x for EXT branch: 4.5A (at 12V DC)
- max. ripple: 120 mVpp (at 20MHz)
- connection: 3M Scotchlok 314 series, 3 x 1.5 mm2, 4 x 1.5 mm2
- digital connection: USB2.0-miniUSB cable M / M, 2.0m

Detailed information on thermal or hygienic flushing



### PROTOCOL

Hygienic and Thermal / Disinfection flush

MLU\_UPDATE: MLU\_eco V5.80E MAC\_ADR: FFF0 Date-Time:

Date-Time:

Summary information on thermal or hygienic flushing

| Index | Process | Date - Time<br>Start | Process<br>Duration<br>(hhmm.ss) | Summary |         |       |       |       |  |
|-------|---------|----------------------|----------------------------------|---------|---------|-------|-------|-------|--|
|       |         |                      |                                  | All SLU | OK_HgFL | OK_55 | OK_70 | ио_ск |  |
| 584   | HgFL    | 13/01/2022 8:10:00   |                                  | 15      | 15      |       |       | 0     |  |
| 583   | EpHgFL  | 13/01/2022 8:05:00   |                                  | 1       | 1       |       |       | 0     |  |
| 582   | ThFL    | 12/01/2022 8:15:00   |                                  | 15      |         | 1     | 1     | 14    |  |
| 581   | HgFL    | 12/01/2022 8:10:00   |                                  | 15      | 15      |       |       | 0     |  |
| 580   | EpHgFL  | 12/01/2022 8:06:00   |                                  | 1       | 1       |       |       | 0     |  |
| 579   | ThFL    | 11/01/2022 8:15:00   |                                  | 15      |         | 1     | 1     | 14    |  |
| 578   | HgFL    | 11/01/2022 8:10:00   |                                  | 15      | 15      |       |       | 0     |  |
| 577   | EpHgFL  | 11/01/2022 8:05:00   |                                  | 1       | 1       |       |       | 0     |  |

Administrator Name:

Phone: ----

E-mail: Signature:

# local LIN power switch

I SW-1



### LSW–1 order No. SE.19.00.30–000

Local switch, special accessories for SNS-2LIN-PTK.

### Performance description

Used to disconnect the control system from a shower group (service, maintenance, cleaning).

### Basic data

- LED condition signalling

### Dimensions

- dimension:  $120 \times 80 \times 56 \text{ mm} (l \times w \times d)$ 

# bus extender LIN

I IN RFPFATFR-1

### LIN REPEATER-1 order No. SE.09.05.25-000

Bus extender for SNS-MLU-12V-6LIN-EXP-GSM.

### Performance description

Used to extend the bus by additional 40 m. Max. number of LIN REPETER-1 for one branch is 2 pcs, i.e. max. length 120 m.

### **Dimensions**

- dimension:  $56 \times 27 \times 20 \text{ mm (l x w x d)}$ 

### Special features

- necessary to follow the directional connection (possible damage of a controller)





# opto-electronic

concealed

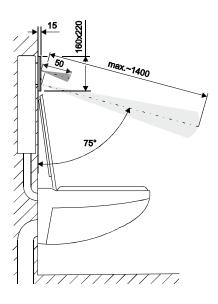
– pressure

– zone scanning



ASS 4M





### Characteristics

- high level of hygiene
- comfortable operation
- high reliability
- intelligent recognition
- light functions

### Performance description

The device optoelectrically scans the surroundings in four zones in front of the device. According to the setting and selection of the user, the flushing performance is selected /small, big, automatic/. It is possible to choose the colour of the light signalling. The welcome light function can be customized individually at request by engraving.

### Basic data

- range: zones 5, 50, 80,140 cm

- front panel: tempered glass, black tinted with central

and side backlight

- dimensions: 160x200x15 mm

- supply: 6 VDC - 1pc ASS 4M, ZAS 230A/6DS30C

power supply (special accessories)

parameter setting with the DO-5.1 remote control (special accessories), selected functions - welcome, auto flush, colours, default, stop - possible manual setting

- The device is compatible with flush tanks

SANIT CC-121-S-F0-2V-2C

(Installation modules SANIT 90 721 00 0000 and 90 721 00 T000)

### Specialties:

- archiving of operational statistics operating time, number of individual flushes, interval between flushes, daily averages, etc.
- possible automatic flush after use
- possible hygienic flush according to the setting after the last use
- external inlet for hygienic flush
- control range testing
- possible to correct the small flush setting
- welcome range setting

ASS 4M Order No. SE.031444-200

The control part of the touchless automatic flushing system for toilets with optoelectronics, motor drive and glass front panel.

### Special accessories

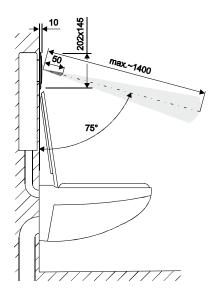
– power supply ZAS 230A/6DS30C for 1pc ASS 4M

- remote control DO-5.1 Order No. SE.09.02.12-210

Order No. SE.06.21.31 -000

ASS 6M, ASS 6Mi





### Characteristics

- high level of hygiene
- comfortable operation
- high reliabilityintelligent recognition
- automatic flush selection
- possible to supply from battery or mains power

### Performance description

The device optoelectrically scans the surroundings in four zones in front of the device. According to the setting and selection of the user, the flushing performance is selected /small, big, automatic /. It is possible to choose the colour of the light signalling. The welcome light function can be customized individually at request by engraving

### Basic data

supply: 230VAC/6 V DC mains supply (special accessory)

ASS 6Mi supply from 4 1,5V LR14 batteries

– ASS 6M – some light functions are limited

in the battery version.

- range: zones 5, 50, 65, 80,140 cm

- front panel: white durable plastic with a black visor for scanning

and light signalling. Manual white push button

for manual control.

- dimensions: 145x220x8 mm

- other colours and material versions are available at request.

parameter setting with the DO-5.1 remote control (special accessories), selected functions - welcome, auto flush, colours, default, stop – possible manual setting

- the device is compatible with flush tanks

SANIT CC-121-S-F0-2V-2C

(Installation modules SANIT 90 721 00 0000 and 90 721 00 T000)

- possible to reset counters

### Specialties:

- archiving of operational statistics operating time, number of individual flushes, interval between flushes, daily averages, etc.
- possible to reset counters
- possible automatic flush after use
- possible hygienic flush according to the setting after the last use
- external inlet for hygienic flush
- control range testing
- welcome range setting

### ASS 6M Order No. SE.03.10.52-000

The control part of the touchless flushing system for toilets with the SANIT INEO BRIGHT white plastic cover, optoelectronics and motor drive. With a battery case and 4 LR14 batteries.

### ASS 6M Order No. SE.03.10.52-100

The control part of the touchless flushing system for toilets with the SANIT INEO BRIGHT white plastic cover, optoelectronics and motor drive. Designed for mains power ZAS 230A / 6DS.30C for 1pc ASS 6Mi (special accessories).

### Special accessories:

- power supply Order No. SE.06.21.31 -000

ZAS 230A/6DS30C for 1pc ASS 6Mi

- DO-5.1remote control Order No. SE.09.02.12-210
- electronic push buttons Order No. SE.03.10.50-000

for big/small flush ETL2.-ASS-MOT 6

YR-3 MOT 6 5-pin hub
 5-pin cable 200 cm / 3 X WAGO
 Order No. SE.14.00.22 -000
 Order No. SE.14.00.23 -000

for push buttons on the handle RAPP5K3-200

- 5-pin hub/2-pin external flush from RS Order No. SE.14.00.24 -000

# ASS 3M, ASS 3M TL ASS 3MN, ASS 3MN TL



### Characteristics

- · high level of hygiene
- comfortable operation
- high reliability
- flushing not dependent on water pressure

### Performance description

The device scans a person standing in the scanning zone for at least 14 s. After approx. 4 s after leaving the scanning zone the opto-electronics activates the mechanism which activates flushing. A remaining mechanic push-button function is an advantage in case of a power supply failure or cleaning.

### Basic data

- range: 55 cm
- power supply: 6 V, ZAS 230A/6DSC, ZAS 230A/6DS30C

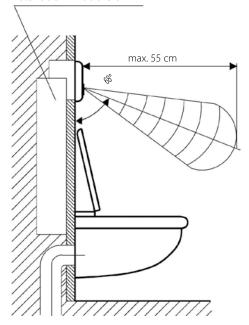
possible connection of 1 pc of ASS

 parameter setting by means of DO 2 remote control the device is designed for selected flushing devices SANIT: CC-121-S-FO-2V-2C

### Special features

possible combination of opto-electrical and electrical push-button flushing or several push-button flushings using a Y-connector







### ASS 3M obj. č. SE.03.10.08–000

Automatic water closet flushing device with a motor part, an optical head and S 703 plastic plate.

### ASS 3M TL obj. č. SE.03.10.18–000

Automatic toilet flushing device with a motor part, an optical head with a push button and a \$703 plastic cover with person scanning.

### ASS 3MN obj. č. SE.03.10.09–000

Automatic water closet flushing device with a motor part, an optical head with a push-button and S705 stainless steel plate.

### ASS 3MN TL obj. č. SE.03.10.19–000

Automatic toilet flushing device with a motor part, an optical head with a push-button and a S705 stainless steel plate.

### Special accessories

- ZAS 230A/6DSC for 1 db ASS

- ZAS 230A/6DS30C for 1 db ASS

- RAPP 600/2F connector with cables

- Y-connector

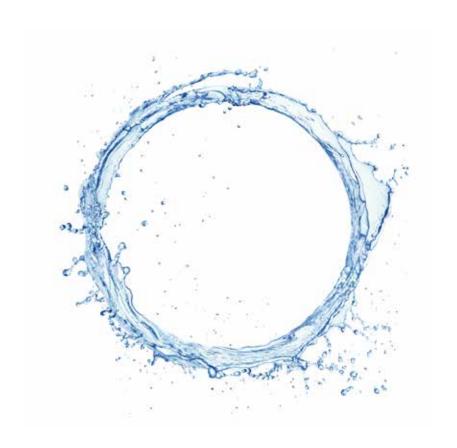
- DO-2 2 remote control

- DO-2U 2 remote control

order No. SE.06.21 30.-000 order No. SE.06.21.31-000

order No. SE.14.00.01–900 order No. SE.14.00.03–000

order No. SE.09.02.04–000 order No. SE.09.02.07–000



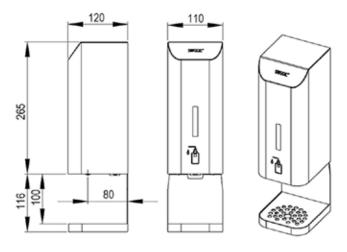
# special equipments

- dispensers
- compacts

# optoelectronic touchless dispenser

# OED-UN-01 OFD-UN-02





### Characteristics

- high level of hygiene and comfortable
- · anti-vandal stainless steel construction
- · simple operation and assembly
- 6V battery or 6V DC power supply
- parameter setting with the DO-5.1 remote control
- drip tray and stainless steel stand in special accessories

### Performance description

The dispenser is designed for touchless dosing of liquid soap or disinfectant. After bringing your hand in the scanning zone, the device dispenses one dose. The sensor range is approx. 6 cm.

The preset dose lasts 0.75 sec, which corresponds to the volume of approx. 1 ml depending on the liquid viscosity.

The device has a robust construction with a swivelling cover made of stainless steel external material, lockable with a key, with a locking sensor, also suitable for semi-public use.

### Basic data

LED signalling:

- hand removal (2 x flash)
- low batteries (1 x flash, after 2 seconds)
- discharged batteries (1 x flash every second until the battery is completely discharged)
- The amount of the liquid can be checked through the sight glass on the front cover.
- The product is factory set. Any parameter adjustments, such as sensor range, liquid flow time, automatic flush when not in use in order to prevent drying, device operation monitoring (time of use, number of cycles), can be made with the DO-5.1 remote control (special accessories).
- wall-mounted by means of screws and fasteners (included)

### OED-UN-01

### Order No. SE.23.00.02-000

- 6V DC battery version with a battery case, 4 x 1,5V C (LR14) batteries. Battery life approx. 50 000 cycles at a dose setting 0.75 sec. Tank volume 1 litre.

### OFD-UN-02

### Order No. SE.23.00.03-000

- power supply version, without power supply (optional special accessories). Tank volume 1.5 litre.

### Special accessories:

- drip tray OD-01 Order No. SE.23.00.06-000 - stainless steel stand 120 CM ST-1 Order No. SE.23.00.07-000 - concealed source 230V, 50Hz/6V DC Order No. SE.06.21.31 -020

ZAS 230A/6DS.30C – power supply 230V, 50Hz/V DC

ZAS 230A / 6ST.1 - extension cable 3 m

RAPPKAB-1L300

- DO-5.1 remote control

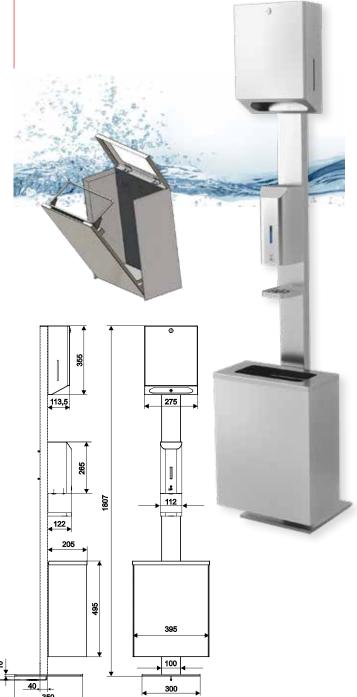
Order No. SE.06.21.34-010

Order No. SE.14.00.25-000

Order No. SE.09.02.12-210

# free-standing disinfection column

**KSD-01** KSD-02



### Characteristics

- all-stainless steel matt finish
- · column height 180cm
- · with a disinfectant dispenser
- with a hand towel dispenser
- · with a swivelling paper bin
- · high level of hygiene and comfort
- anti-vandal construction
- simple operation
- 6V battery supply or 6V DC power supply
- parameter setting with the DO-5.1 remote control

- OED-UN-01 or OED-UN-02 optoelectrical disinfectant dispenser with a drip tray
- swivelling paper bin with a concealed bag fastening. Dimensions: 490 x 400 x 205 mm
- lockable dispenser of folded hand towels, volume 300 400 pcs according to the design and folding. Dimensions: 355 x 275 x 112 mm

### Performance description

The dispenser is designed for touchless dosing of liquid soap or disinfectant.

After bringing your hand in the scanning zone, the device dispenses one dose. The sensor range is approx. 6 cm.

The preset dose lasts 0.75 sec, which corresponds to the volume of approx. 1 ml depending on the liquid viscosity.

The device has a robust construction with a swivelling cover made of stainless steel external material, lockable with a key, also suitable for semi-public use.

### Basic data

LED signalling:

- hand removal (2 x flash) low batteries (1 x flash, after 2 seconds)
- discharged batteries (1 x flash every second until the battery is completely discharged)
- the amount of the liquid can be checked through the sight glass on the front cover.
- the product is factory set.
- any parameter adjustments, such as sensor range, liquid flow time, automatic flush when not in use in order to prevent drying, device operation monitoring (time of use, number of cycles), can be made with the DO-5.1 remote control (special accessories).
- suitable for floor mounting.

### Order No. SE.23.00.04-000

Disinfection column, 6V DC battery version with a battery case, 4 1.5VC

Battery life approx. 50 000 cycles at a dose setting 0.75 sec. Tank volume 1 litre.

### KSD-02

### Order No. SE.23.00.05-000

Disinfection column, 6V DC power supply version, without power supply (optional special accessories).

Tank volume 1.5 litre, with a 3m extension cable.

### Special accessories:

- concealed source 230V, 50Hz/6V DC ZAS 230A/6DS.30C

– power supply 230V, 50Hz/V DC ZAS 230A / 6ST.1

- DO-5.1 remote control

Order No. SE.06 .21 .31 -020

Order No. SE.06 .21 .34 -010

Order No. SE.09 .02 .12 -210

# touchless hand washing device

# COMPACT 3in1E with electric dryer



### Compact 3in1E with electric dryer

Order No. SE.02.71.19-000

Compact all-stainless steel sanitary device – soap dispenser, water faucet, electrical hand dryer – in white powder colour RAL 9016, with a polished stainless steel mirror, touchless, electronically controlled.

### Characteristics

- · high level of hygiene
- comfortable operation
- high reliabilityintelligent recognition
- compact spatial and functional solution
- · ambient and welcome lighting
- simple preparation and installation

### Performance description

The all-stainless steel wall-mounted device in white colour RAL 9016, with a polished stainless steel mirror offers a compact solution of touchless hand washing together with liquid soap dosing and efficient hand drying. The optoelectrical sensing of the hand presence determines the triggering of individual functions. The function is controlled electronically. The electronics also provides the mutual blocking of the device, parametrization, as well as access to statistical data on the device operation.

### Basic data

- range: approx. 10 cm, welcome approx.60cm.

- dimensions: 600 x 900 x 227 mm

magnetic door locksupply: 230V, 50Hz

- parameter setting and function control with the DO-5.1 remote control (special accessories), e.g.: light setting, stop, counter reset, default values, tests, ranges, hygienic flush, flush to prevent drying,
- recommended water pressure 1 5 bar, flow 2.8 l / min
- automatic range adjustment
- soap dose setting
- setting of the dryer hot air speed 75 -100 m/s, input power 350 - 700 W. Heating element 900 W. Drying time less than 15 seconds at full capacity 1600 W.
- auto switch-off of the dryer after 60 sec.

### Specialties:

- archiving of operational statistics operating time, lighting time, cycle counters, current reach, hygienic rinsing, dosing time, etc.
- white, tempered glass panel with backlit pictograms
- possibility of engraving a backlit logo to measure
- auto water shutdown in case of permanent obstacle in range
- sensing and signaling of soap filling
- storage space for spare filling
- possibility of hygienic rinsing according to the settings after the last use
- preparation for thermal disinfection
- control impact testing

### Special accessories:

– DO-5.1 remote control

Order No. SE.09.02.12-210

# touchless hand washing device

# COMPACT 3in1 P with hand towel dispenser



### Characteristics

- · high level of hygiene
- comfortable operation
- high reliabilityintelligent recognition
- compact spatial and functional solution
- · ambient and welcome lighting
- simple preparation and installation

### Performance description

The all-stainless steel wall-mounted device with a polished stainless steel mirror offers a compact solution of touchless hand washing together with liquid soap dosing and a hand towel dispenser. The optoelectrical sensing of the hand presence determines the triggering of individual functions. The function is controlled electronically. The electronics also provides the parametrization, as well as access to statistical data on the device operation.

### Basic data

- range: approx. 10 cm, welcome approx.60cm.
- dimensions: 600 x 900 x 227 mm
- magnetic door lock
- supply: 230V, 50Hz
- parameter setting and function control with the DO-5.1 remote control (special accessories), e.g.: light setting, stop, counter reset, default values, tests, ranges, hygienic flush, flush to prevent drying,
- recommended water pressure 1 5 bar, flow 2.8 l / min
- automatic range adjustment
- soap dose setting
- dimensions of folded paper towels 229 x213 mm
- capacity of the dispenser approx. 375 pieces of towels
- internal dimensions of the container 229 x 119 mm

### Specialties:

- archiving of operational statistics operating time, lighting time, cycle counters, current reach, hygienic rinsing, dosing time, etc.
- white, tempered glass panel with backlit pictograms
- possibility of engraving a backlit logo to measure
- auto water shutdown in case of permanent obstacle in range
- sensing and signaling of soap filling
- sensing and signaling the filling of the towel dispenser
- storage space for spare filling
- possibility of hygienic rinsing according to the settings after the last use
- preparation for thermal disinfection
- control impact testing

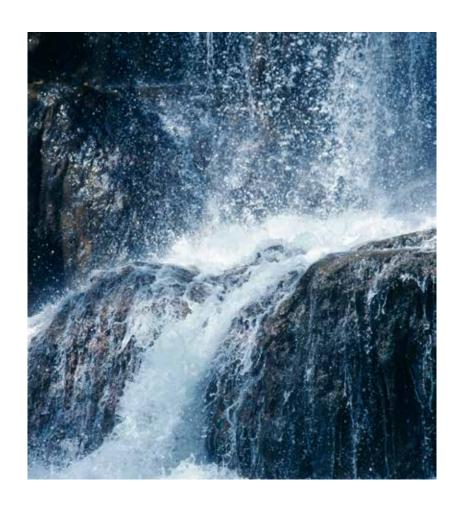
### Compact 3in1 P with hand towel dispenser Order No. SE.02.71.19-100

Compact all-stainless steel sanitary device – soap dispenser, water faucet, hand towel dispenser – in white powder colour RAL 9016, with a polished stainless steel mirror, touchless, electronically controlled.

### Special accessories:

– DO-5.1 remote control

Order No. SE.09.02.12-210



# accessories

- power supplies
- shower outlets
- remote control



# ZAS 50/12t



### Characteristics

- accessories
- safe voltage source
- plastic box
- switch
- LED signaling

### Basic data

- inlet: 230 V, 50 Hz

- outlet: 12 V~, max. 50 VA - ZAS 50/12t

– ZAS 50/12t– power switch

– LED - switch on signalling

– IP40 protection

– T5A fuse

### Special features

 ZAS - recommended installation position approx. 2,25 m above the floor.

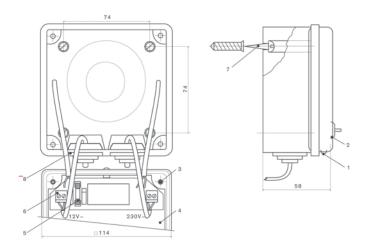
### Dimension

– ZAS: 114 x 114 x 58 mm

### ZAS 50/12t

Order No. SE.06.21.21-000

- power supply 230 V, 50Hz/12V AC, 50 VA



# ZAS 230A/6DSC



### Characteristics

- accessories
- safe voltage source with 6-7 V DC power supply
- plastic box

### Basic data

- inlet: 230 V/50 Hz- outlet: 6-7 V DC

### Performance description

Transformer is used for supplying 1 pc urinal flushing devices with 6 V power supply or for supplying 1 pc ASS 3M, or for supplying 1-3 pcs WBS.B.

Not possible to use it for shower devices.

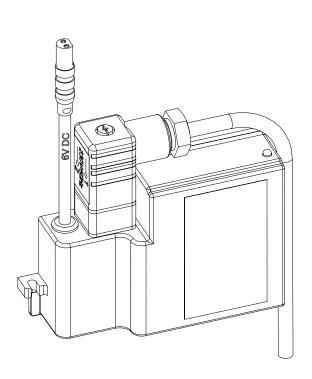
### **Dimensions**

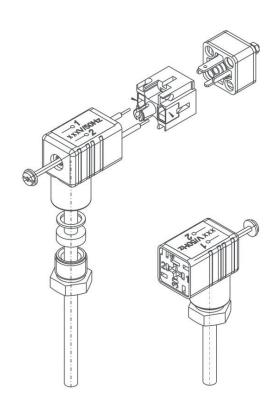
- 66 x 60 x 49 mm

### ZAS 230A/6DSC

- power supply

Order No. SE.06.21.30-000





# ZAS 230A/6DS.30C



### Characteristics

 $\bullet$  safety voltage source for appliances with 6 V, DC power supply, with accessories

### Basic data

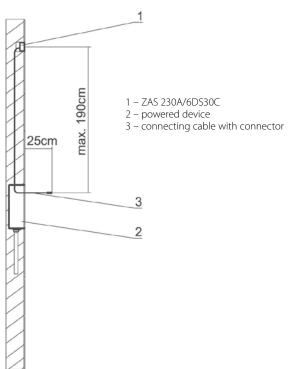
- inlet: 230 V, 50 Hz- outlet: 6 V DC

dimensions source: 58,5 x 45 x 19,8 mmdimensions box: 0 72 x 72 mm

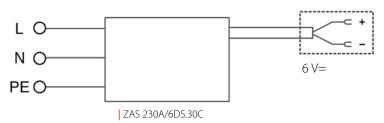
### Performance description

The transformer is used to supply max. 5 pcs urinal sensors or 3 pcs WBS fixtures with 6 V DC power supply (necessary to purchase RAPP 600/2F connectors), or to supply 1 pc ASS 3M. SABA products - possible to supply max. 3 pcs.

The power supply box must be placed outside the bathtub and shower area, according to STN 33 2000-7-701 standard.



### WIRING DIAGRAM



### ZAS 230A/6DS30C

### Order No. SE.06.21.31-020

Power supply in a plastic box with a cable, WAGO terminals at the inlet, a RAPP connector at the outlet, an installation box and an installation box lid.

### Special accessories

- RAPP 600/2F connector with a cable Order No. SE.14.00.01–900

### ZAS 230A/6DS30C

### Order No. SE.06.21.46-000

Power supply in a plastic box with a cable, WAGO terminals at the inlet, an installation box and an installation box lid.

# ADAPTER ZAS 230A/6ST.1 ADAPTER ZAS 230A/12A.1 | ADAPTER ZAS 230A/12A.2



### Characteristics

- accessories
- · safety voltage source
- plastic box

### Basic data

- ZAS 230/6ST.1
- inlet: 230 V, 50 Hz
  outlet: 6 V DC
  ZAS 230A/12A.1, ZAS 230A/12A.2
  inlet: 230 V, 50 Hz
  outlet: 12 V~

### Performance description

ZAS 230/6ST.1

The adapter is used to supply max. 1 pc urinal sensors or 1 pc WBS fixtures with 6 V DC power supply, or 1 pc ASS 3M. It cannot be used for shower sensors where direct flooding with water might occur!!! ZAS 230A/12A.1, ZAS 230A/12A.2

The adapter is used to supply max. 1 pc urinal sensor or 1 pc WBS fixture with  $12 \, \text{V} \sim$  power supply.

### **Dimensions**

ZAS 230/6 ST.1 adapter: 26 x 50 x 60 mm (v x š x h)
 230V/12 V adapter: 72 x 56 x 67 mm



### ZAS 230/6ST.1 Order No. SE.06.21.34–010

6 V DC power supply with a cable - 240 cm, terminated with RAPP connector.

### ZAS 230A/12A.1 Order No. SE. 06.21.32–900

 $12\ \mbox{V}$  power source with a cable -  $250\ \mbox{cm},$  for a connection to the terminal board.

### ZAS 230A/12A.2 Order No. SE. 06.21.34–900

12 V power supply with a cable - 55 cm, terminated with RAPP connector

### Special accessories

- RAPP 600/2F connector with a cable Order No. SE.14.00.01–900

# CR P2, PB-1, PB-3S ZAS 24AD/6D



PB-1 Plastic CR-P2 battery case.

Order No. SE.06.21.52-000



PB-3S Order No. SE.06.21.16-900 Plastic case for 4 C-LR-14 batteries, terminated with a RAPP connec-



# Bateria 6 V CR P2 Order No. SE.06.16.01–000 6 V lithium battery to supply 6 V devices. Supplier change is reserved.



### ZAS 24 AD/6D Order No. SE.06.21.39–000

Adapter of power supply from 12 V  $\div$  24 V AC/DC to 6 V DC with connection cables.

### Characteristics

• easy to adapt the existing power supply to 6 V DC

### Basic data

– adapter of power supply from 12 V  $\div$  24 V AC/DC to 6 V DC

### Dimension:

 $-27 \times 20 \times 56 \text{ mm (h x w x d))}$ 

# shower outlets

SP 1 SP 3





- head with a small reliefresistant to clogging

### Characteristics

accessories for automatic showers

### Basic data

- flow: SP 1, SP 3: cca 7 l/min. - SP 1 - adjustable direction

### Special features

SP 1, 3 – small dimension, solid, short shape

anti-vandal versioncomplet with cover rosette

### **Dimensions**

SP 1: cca 70 mm - lenght

SP 3: cca 60 mm – connection: G 1/2"

SP 1 Order No. SE.07.04.01-000 SP 3 Order No. SE.07.08.01-000

# water outlets

# VTK



### VTK-03-120

Outlet P2, P3, 120mm With aerator and flow regulator 6l. Order No. SE.07.20.22-000

### VTK-03-160

Outlet P2, P3, 160mm With aerator and flow regulator 6l. Order No. SE.07.20.20-000

### VTK-03-200

Outlet P2, P3, 200mm With aerator and flow regulator 6l. Order No. SE.07.20.21-000



### VTK-PR-120

Slip-on outlet, direct, 120mm With aerator and flow regulator 6l. Order No. SE-07.20.15-000

### VTK-PR-170

Slip-on outlet, direct, 170mm With aerator and flow regulator 6l. Order No. SE.07.13.01-000



### VTK-OH 120

Slip-on outlet, bent, 120mm With aerator and flow regulator 6l. Order No. SE.07.20.18-000

### VTK-OH-170

Slip-on outlet, bent, 170mm With aerator and flow regulator 6l. Order No. SE.07.20.19-000



### VTK-05-185

Order No. SE.07.2024-000 Standard outlet, L1, L2, discharge 185mm

With aerator and flow regulator 6l.

VTK-04-245 Order No. SE.07.20.23-000

Double-bent outlet, L2, discharge 245mm With aerator and flow regulator 6l.

## remote control

# DO-2 DO-2U



### Characteristics

- · optics range setting
- · water flow period setting
- hygienic flush setting
- switching a device on and off

### Performance description

A control is used to set or change factory-set parameters of individual devices of APIS, WBS, SABA, ASS types.

### Basic data

- range: max. 30 cm

- function indication: LED

power supply:battery life:2 x 1,5 V alkaline AA approx. 2 years

### Dimensions

- 80 x 60 x 25 mm

### OO – 2 Order No. SE.09.02.04–000

A remote control for parameter setting, possible to switch off a device, 4 buttons.

### DO – 2U Order No. SE. 09.02.07–000

A remote control for a cleaning service using START - STOP function. It switches a device on and off, two buttons.



DO – 2U

### Parameter setting for sensor types:

### **APIS**

- range
- water flow period
- pre-flushing
- sensitivity

### **WBS**

- range
- water flow period
- switching off delay time
- hygienic flushing cycle
  - time
- thermal disinfection
- maximum range restriction

### SABA

- range
- short, long range
- water flow period
- hygienic flushing cycle
  - time
- thermal disinfection

### ASS

- range
- water flow period

Specific options of parameter setting for individual products are stated in the instruction manual. The installation process is described in DO-2 instruction manual.

### remote control

DO-5.1, DO-5.1U



Characteristics

- optics range setting
- · water flow period setting
- hygienic flush setting
- · switching a device on and off
- two-way communication
- · multi-line display
- easy operation

### Performance description

A control is used to set or change factory-set parameters of individual devices with electronics for parameter setting by means of DO-5.1 remote control.

### Basic data

range: max. 30 cmfunction indication: LED

power supply: 2 x 1,5 V alkaline AAbattery life: approx. 2 years

### DO<sub>-5</sub> 1

### Order No. SE.09.02.12-210

A remote control for parameter setting, product condition loading, product data change, product diagnostics, START - STOP function.

### **Dimensions**

- 118 x 80 x 25 mm



DO - 5.1U

### DO-5.1 U

### Order No. SE.09.02.07-110

A remote control for a cleaning service with START - STOP function. It switches a device on and off, two buttons.

Pushing both buttons at the same time enables shifting from DO-2U mode to DO-5.1U mode, which is indicated by LED.

### **Dimensions**

- 80 x 60 x 25 mm

Specific options of parameter setting for individual products are stated in the instruction manual. The installation process is described in DO – 5.1 instruction manual.

# installation box

# STS 0502C APIS 6-5 M



### **Dimensions**

- $-180 \times 148 \times 67 \text{ (h x w x d)}$
- G1/2"

### STS 0502C

### Order No. SE.10.06.07-000

An installation set for APIS 4.1, suitable for installations to on-wall constructions as well as for bricking in, with an installation box, inlet and outlet screwing, a valve adapter, a ball valve with a filter, a defining cover for tiling, a battery and source holder or with an opening for an external power supply.



### **Dimensions**

installation box:installation opening:121 x 96 x 72 mm130 x 130 x 75 mm

- connection sizes: G1/2" with a brass inside thread

### APIS 6-5 M

### Order No. SE.10.06.04-021

An installation set for APIS 6 products, with a water inlet from the top, suitable for installations to on-wall constructions as well as for bricking in, with an installation box, inlet and outlet screwing, a cylindrical valve, a filter, a defining cover for tiling, with a valve seat plug for installation and flushing, a battery and source holder or with an opening for an external power supply.

# Legionella bacteria in water distribution systems and protection against them

98/93/EG Directive of the European Union Council on quality of water for human use implemented a binding qualitative standard for the European Union member state. The water quality issue is up-to-date from several new points of view. It concerns not only drinking water, but also water used for personal hygiene, use in the household (preparation of food, cooking, cleaning especially in relation to food). Already valid regulations (e.g. in Germany VDI 6023, DVGW W551 and in the Czech Republic Decree No.

252/2004 Coll.) specify, among others, maximum permissible Legionella bacteria concentrations. Legionella bacteria was first detected in relation to lung diseases at a convention of American legionnaires in Philadelphia in 1976. Later, more than 39 kinds of Legionella bacteria were known, whereby Legionella pnemophila species is involved in approximately 90 % infections in humans.

### Legionella cause two known diseases:

| legionnaires' disease with an incubation period of 2 - 10 days, which without adequate antibiotic therapy might result in severe complications, even death.

| Pontiac fever with an incubation period of 1 - 2 days, curable with medication.
Diseases caused by Legionella are characterised by the same symptoms as other bacterial lung diseases (pneumonia) and they cannot be diagnosed without laboratory tests. Plenty of antibiotics used for treatment of common bacterial pneumonia have only limited or no effect on Legionella bacteria. An annual number of diseases caused by Legionella bacteria in the USA is approximately 10 000 - 20 000 cases, in Germany approx. 6 000 - 10 000 cases. In fact the number of cases is higher, as a result of the absence of microbiological tests of the undiagnosed. Anybody can be infected. Risk groups involve people with immunodeficiency conditions, patients after surgeries, with chronical diseases, etc. The risk is increased by alcohol and nicotine use or advanced age (more than 65). The disease is not very common for children. Legionella bacteria can be found in water distribution systems. They occupy mostly peripheral parts of pipelines together with other microorganisms and sediments enabling them to grow. An optimal condition for their growth is the water temperature within 25 - 42 °C. It is possible to get infected by breathing in water aerosol, e.g. while having a shower, but for risk groups even when drinking water with a high concentration of Legionella. The disease transmission from one person to another is excluded. Due to unique Legionella bacteria features it is not possible to exclude their presence in water distribution systems, especially in a hot water distribution. All efforts are aimed to keep the Legionella bacteria microbiological concentration at an acceptable level (DVGW W551).

### There are several disinfection procedures:

| chlorination thermal disinfection ultrafiltration ultra-violet radiation copper and silver ionizing

Local delivery points can be treated by means of microfiltration. Chlorination and thermic disinfection appear to be universal methods for the whole distribution system. Due to relative insensitivity of Legionella bacteria to permissible concentrations of chemical disinfectants containing chlorine and chlorine dioxide, this simplest disinfection cannot be performed (effective concentration starting at 10 mg/l, permissible concentration for drinking water 0.3 or 0.4 mg/l).

An overall increase of the temperature in water distribution systems is a much more effective way. With the increase to 55°C Legionella bacteria concentration decreases to one third in 1 hour and with the water temperature of more than 60°C the bacteria are destroyed immediately. Experience shows that, in practice, it is not possible to maintain the existing distribution networks at this temperature to the full extent permanently, especially in such cases where it is necessary to consider a protection against scalding, such as retirement homes, psychiatric clinics and correctional-educational institutions. This problem also covers hospitals, hotels, sports facilities, recreational and rehabilitation facilities, etc. Thermal disinfection is one of the solutions. It is based on an discontinuous process of heating the water in distribution systems over 70 °C and flushing the distribution systems with opened outlet fixtures (showers, water faucets) for a period of at least 3 minutes.



# SENZOR products in the battle against Legionell bacteria

Touchless armatures are especially suitable for effective support of the fight against Legionella. They are programmable and therefore suitable to perform special, automatic functions i.e. controllable from a master center.

Periodical **thermal disinfection** – the armatures must enable the open position for the cycle of thermal disinfection and must be resistant to flushing water with temperature over 70 °C. The shower armatures SABA 2NTB.11R, SABA 1NTB.11R, SABA P2 with thermostat bypass BYPAS.11BR fulfill these requirements. Operating is possible by a foot control or by a led-out potential free input, while the return into the initial mode is automatic after 10 minutes. For safety reasons, any detection within the sensor reach during the thermal disinfection cycle causes its immediate interruption. Similar possibilities are offered by the lavatory faucet WBS 2.2 Eurora in a special version with an external potential free input.

**Hygienic flushing**. In the case of the following showers: e.g. SABA 2NTB.11, SABA 2NTB.11R, SABA 2TLT, SABA 1TL and in case of following washbasin faucet: e.g. WBS 2.2 Eurora, WBS 2.2, WBS 5.1BS, the hygienic flushing is activated by a remote control device. It serves for regular armature flushing, i.e. discharging the water, that has stayed in the piping for a long time. It refreshes the volume of water in the pipes and keeps the concentration of legionella low. Hygienic flushing is not disinfection! The interval between the flushes is adjustable by the remote control device within the range from 12 to 108 hours.

Devices with the **EIB communication**. Senzor also produces certain products according to the European Installation Bus standard, useable in building management systems. The devices feature, besides autonomic function, also ability to communicate with a master system according to a special protocol. Within the given system it is possible to conformly meet the microbiological hygiene requirements by this devices. At present, the washbasin faucet WBS 2.2 EIB and the urinal flusher APIS 4 EIB incorporate this device.

