




Cleaning System

- Automatic cleaning for type MSxx sensor cubes
- Protection against clogging in the system and inside the sensor cubes for long time accurate measurements
- Different cleaning solutions for organic and inorganic contamination
- Application specific programmable cleaning cycle

Product variants described in the data sheet may differ from the product presentation and description.

Can be combined with

| | |
|---|--|
|  | Type 8905 Online Analysis System ▶ |
|  | Type ME24 ▶ |
|  | Type 8920 Bürkert Communicator ▶ |

Type description

The Cleaning Module MZ20 and the Control Module ME24 are fully compatible to type 8905 systems.

The Cleaning System is designed to clean the fluidic channels and the sensor surface in the connected sensor cubes using up to two cleaning liquids. The cleaning is proceeded fully automatically.

When a cleaning is requested e.g. by a timer within the Control Module, all necessary steps are started.

Sample water stop -> dosing of cleaning liquid -> duration when cleaning is active -> flush system -> in case: dose next cleaning solution -> a.s.o.

All timers and criteria are user defined and this allows optimized adjustment to the cleaning demand. The cleaning parameters might be set via 7" touch display at the 8905 Online-Analysis-System or by a Bürkert Communicator.

Using the automatic cleaning system allows reducing the manual cleaning of the sensors and improve the long term stability of the measurements. The cleaning system operates without maintenance except the change of empty tanks by new filled cleaning solutions.

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1. General technical data

Product properties

Material

Please make sure the device materials are compatible with the fluid you are using.

Detailed information can be found in chapter [“2.1. Chemical Resistance Chart – Bürkert resistApp” on page 4.](#)

This product incorporates valves Type 0331 and Type 0127, see [data sheet Type 0331](#) ► and [data sheet Type 0127](#) ► for further information.

Non wetted parts

| | |
|--------------|---|
| Housing | PC (anthracite, UV stabilized, UL94 V0) |
| Base block | PA 6C (black) |
| Cable glands | TPE (black) |

Wetted parts

| | |
|--------------------|-----------------|
| Seal | EPDM |
| Fluidics | PP, aluminium |
| Fluidic connection | Stainless steel |

Dimensions Detailed information can be found in chapter [“3. Dimensions” on page 4.](#)

Compatibility With Online Analysis System [Type 8905](#) ►

Weight 1.3 kg (with additional modules in the minimum configuration)

Sample water temperature +3 °C...+40 °C (+37...+104 °F)

Sample water pressure PN 3

Product accessories

Further accessories Detailed information can be found in chapter [“7. Product accessories” on page 7](#) and [“8.4. Ordering chart accessories” on page 8.](#)

Electrical data

| | |
|-------------------|---|
| Operating voltage | 24 V DC ± 10 % through the backplane of the system Type 8095 via bÜS or external power supply |
| Power consumption | 14 VA |

Medium data

| | |
|-------------------|---|
| Fluid | <ul style="list-style-type: none"> Water without particles: drinking water, industrial water Chemicals: all Bürkert approved and released cleaning solution |
| Fluid temperature | +3 °C...+40 °C (+37...+104 °F) (sample water) |
| Fluid pressure | PN 3 (sample water) |

Process/Port connection & communication

| | |
|------------------------|----------------------------------|
| Internal communication | Through bÜS (Bürkert System Bus) |
|------------------------|----------------------------------|

Approvals and certificates

Standards

| | |
|--|--|
| Degree of protection according to IEC/EN 60529 | <ul style="list-style-type: none"> IP20 (MZ20 cleaning module) IP65 (Cleaning System for 8905 consisting of MZ20, 3x BEF1, 2x ME29 and ME24) |
| EMC | EN 61000-6-4 |

Directives

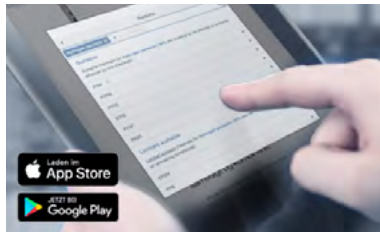
| | |
|---------------|--|
| CE directives | The applied standards, which verify conformity with the EU Directives, can be found on the EU Type Examination Certificate and/or the EU Declaration of conformity (if applicable) |
|---------------|--|

Environment and installation

| | |
|------------------------|--|
| Ambient temperature | <ul style="list-style-type: none"> Operating: 0 °C...+40 °C Storage: -20 °C...+70 °C |
| Relative air humidity | ≤95 %, without condensation |
| Height above sea level | Max. 2000 m |

2. Materials

2.1. Chemical Resistance Chart – Bürkert resistApp

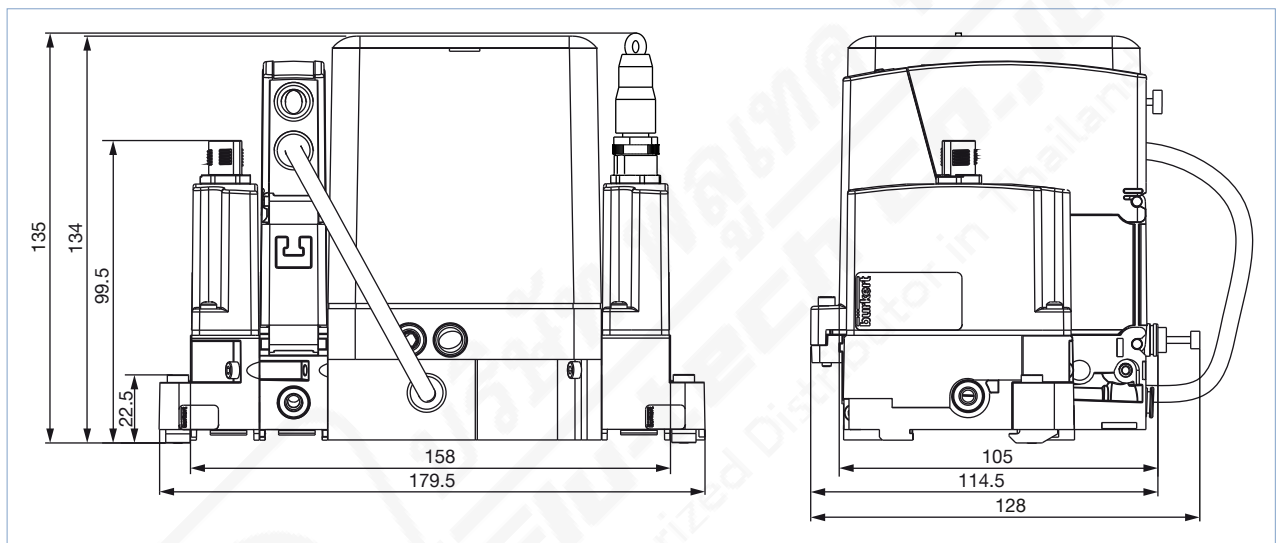


Bürkert resistApp – Chemical Resistance Chart

You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

[Start Chemical Resistance Check](#)

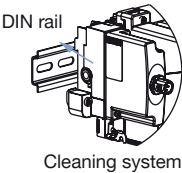
3. Dimensions



4. Product installation

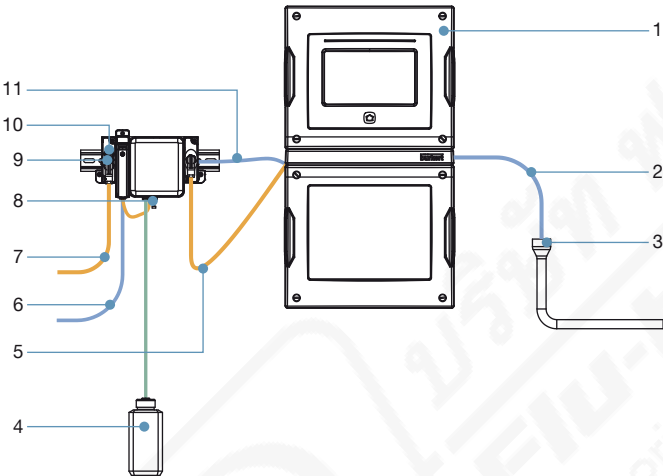
4.1. Installation notes

The cleaning system has to be placed before the Online Analysis System Type 8905. It is mounted on a DIN rail according to EN 50022.



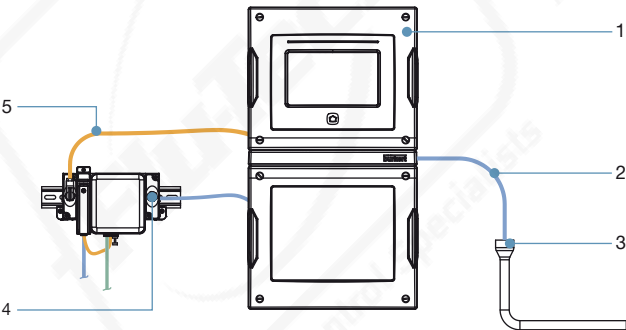
The fluid outlet of the cleaning system has to be connected to the fluid inlet of the Online Analysis System. As well the electrical connection has to be carried out.
The cleaning system must be connected to the bÜS through a relevant wiring. Depending on its position on the bÜS, it should or not be provided with a terminating resistor of 120 Ohm.

Installation for operation via an external power supply



| No. | Element |
|-----|---|
| 1 | Online Analysis System Type 8905 |
| 2 | Sample water discharge |
| 3 | Discharge funnel |
| 4 | Cleaning agent 1 |
| 5 | Electrical connection cable between the Cleaning System and the Online Analysis System |
| 6 | Inlet sample water |
| 7 | Connection to external power supply |
| 8 | Connection for cleaning agent 2 |
| 9 | Y-distributor with voltage interruption |
| 10 | Terminating resistor |
| 11 | Sample water connection hose between the Cleaning System and the Online Analysis System |

Installation for operation via a bÜS network



| No. | Element |
|-----|---|
| 1 | Online Analysis System Type 8905 |
| 2 | Sample water discharge |
| 3 | Discharge funnel |
| 4 | Terminating resistor |
| 5 | Electrical connection cable (power supply) between the Cleaning System and the Online Analysis System |

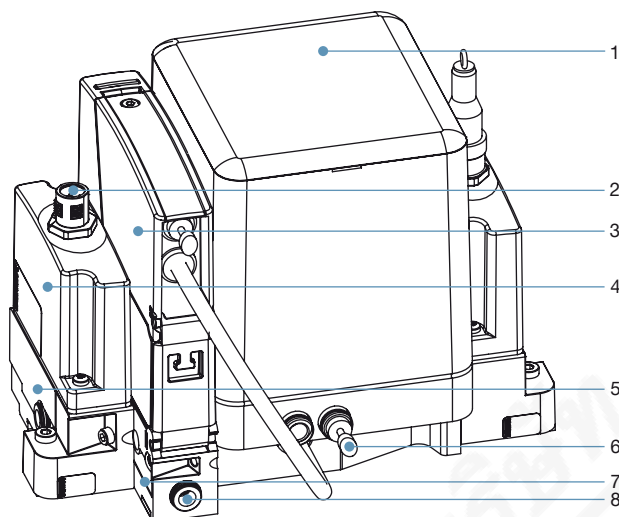
5. Product operation

5.1. Measuring principle

The sample water flows through the cleaning system and then into the online analysis system. Depending on the configuration 1 up to 2 connections for cleaning agents are available. During a cleaning cycle the sample water flow is interrupted and detergent will be circulated into the online analysis system. After the expiration of the programmed contact time, the sample water flow is released again.

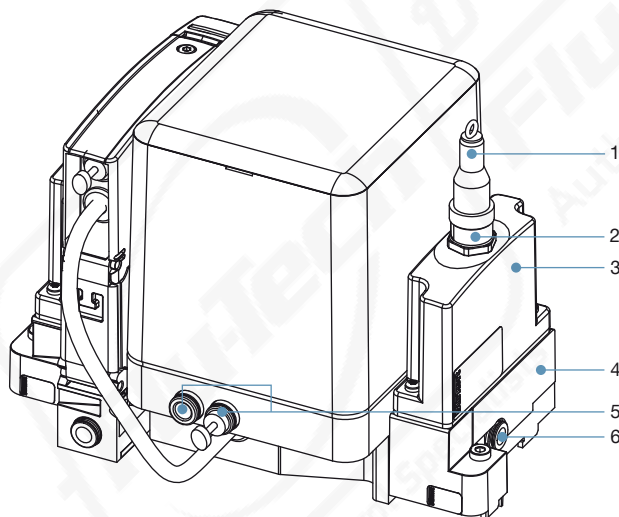
6. Product design and assembly

6.1. Product assembly



| No. | Element |
|-----|------------------------|
| 1 | Module MZ20 |
| 2 | bÜS connection (Input) |
| 3 | Module ME24 |
| 4 | Module ME29 |
| 5 | Module BEF1 |
| 6 | Plug ^{1.)} |
| 7 | Module BEF1 |
| 8 | Inlet sample water |

1.) If a cleaning solution connection is not used, it must be sealed with the supplied plug.



| No. | Element |
|-----|---------------------------------------|
| 1 | Terminating resistor |
| 2 | bÜS connection (Output) |
| 3 | Module ME29 |
| 4 | Module BEF1 |
| 5 | Inlets cleaning agents ^{1.)} |
| 6 | Outlet sample water |


1.) If a cleaning solution connection is not used, it must be sealed with the supplied plug.

7. Product accessories

Note:

To set up a device, please use the USB-büS interface set, Type 8923.

See “8.4. Ordering chart accessories” on page 8 for ordering information.

| Accessories | No. | Description |
|---|-----|--|
|  | 1 | Quick-Start |
| | 2 | Power supply: 100...240 V AC/ 24 V DC 1 A and adaptors for power supply worldwide use |
| | 3 | büS terminating resistor on büS Y-splitter |
| | 4 | 5 pin M12 male connector wired on free end cable |
| | 5 | büS connection cable with 5 pin M12 plug, micro USB B plug |
| | 6 | büS adapter with 5 pin M12 plug, A-coded to 5 pin M12 plug, A-coded |
| | 7 | büS stick (USB to büS/CANopen adaptor) |
| | 8 | büS service cable with 5 pin M12 plug, mini USB and circular plug-in connectors for power supply |
| | 9 | Magnetic key |
| | 10 | CD - Communicator (30-day license without registration, update and licensing over Bürkert home page) |

8. Ordering information

8.1. Bürkert eShop – Easy ordering and quick delivery



Bürkert eShop – Easy ordering and fast delivery

You want to find your desired Bürkert product or spare part quickly and order directly? Our online shop is available for you 24/7. Sign up and enjoy all the benefits.

[Order online now](#)

8.2. Bürkert product filter



Bürkert product filter – Get quickly to the right product
























You want to select products comfortably based on your technical requirements? Use the Bürkert product filter and find suitable articles for your application quickly and easily.

[Try out our product filter](#)

8.3. Ordering chart

| Description | Article no. |
|------------------------------|--|
| Cleaning system, 2 solutions | 567124  |

8.4. Ordering chart accessories

| Description | | Article no. |
|--|--|--|
| Cleaning solution | | |
| Acidic | 250 ml | 807478  |
| | 1000 ml | 807479  |
| | 5000 ml | 807480  |
| Basic | 250 ml | 807486  |
| | 1000 ml | 807487  |
| | 5000 ml | 807489  |
| Electrical connection technology | | |
| bÜS cable extension, straight male connector/straight female connector | 1 m | 772404  |
| | 3 m | 772405  |
| | 5 m | 772406  |
| bÜS cable extension, free end/straight female connector | 1 m | 772409  |
| | 3 m | 772410  |
| | 5 m | 772411  |
| bÜS male connector M12, angled | | 772419  |
| bÜS Y-junction | | 772420  |
| bÜS Y-junction with voltage interruption | | 772421  |
| USB-bÜS-Interface (see chapter "7. Product accessories" on page 7.) | | 772426  |
| USB-bÜS-Interface, Stick and cable | | 772551  |
| Other installation materials | | |
| Sample-water pipe 4/6 mm | 5 m | 567793  |
| | 10 m | 567701  |
| | 25 m | 567794  |
| Set with a pressure reducer (including a 100 µm strainer, a sampling point and two G 1/4" connections), a wall-mounting bracket with nut (for the pressure reducer), a pressure gauge (for the pressure reducer) and two quick-connect couplings | | 566319  |
|  | USB-bÜS-Interface Set 1, Type 8923 Detailed information can be found in chapter "7. Product accessories" on page 7. | |
| | | 772426  |