






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.
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Compatibility	With Online Analysis System Type 8905 ►
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Weight	1.3 kg (with additional modules in the minimum configuration)
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Sample water temperature	+3 °C...+40 °C (+37...+104 °F)
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Sample water pressure	PN 3
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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.
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Electrical data

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

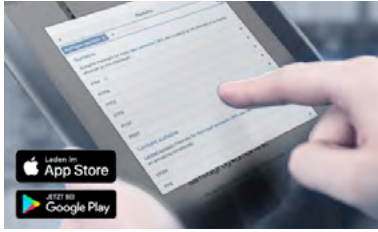
CE directives	The applied standards, which verify conformity with the EU Directives, can be found on the EU Type Examination Certificate and/or the EU Declaration of conformity (if applicable)
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Environment and installation

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

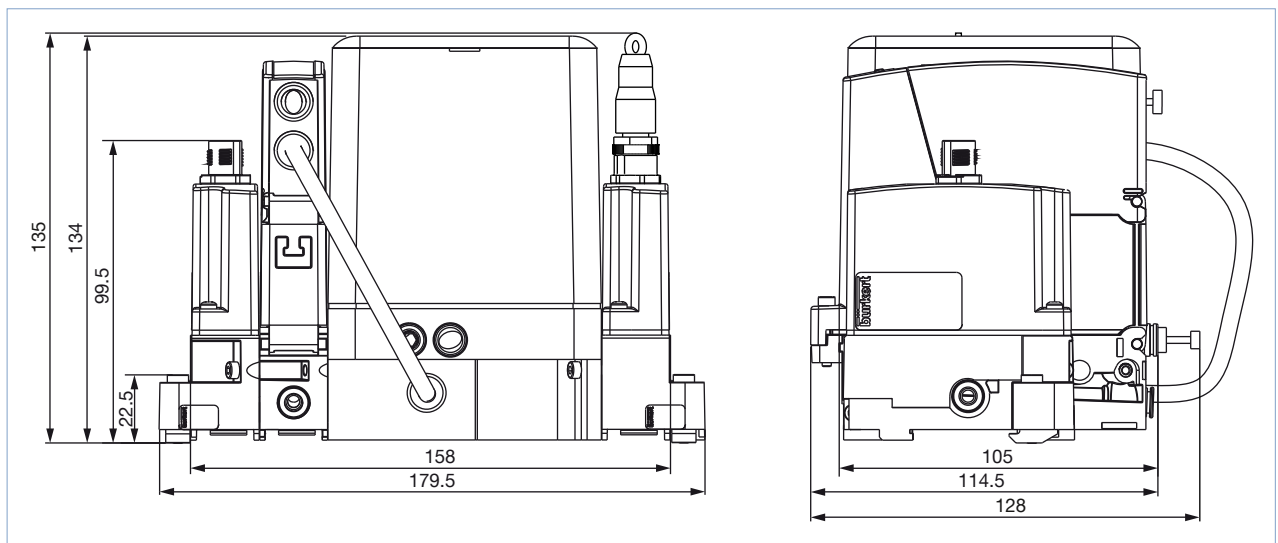


Bürkert resistApp – Chemical Resistance Chart

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](#)

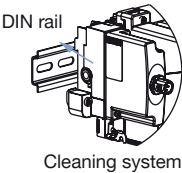
3. Dimensions



4. Product installation

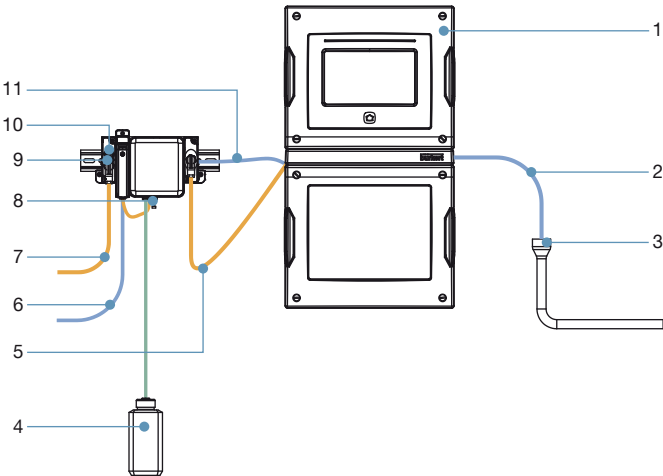
4.1. Installation notes

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.



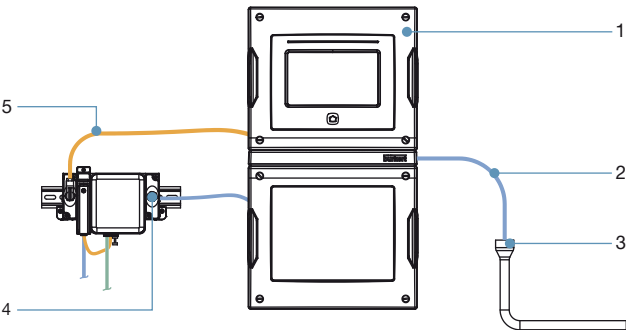
The fluid outlet of the cleaning system has to be connected to the fluid inlet of the Online Analysis System. As well the electrical connection has to be carried out.
The cleaning system must be connected to the bÜS through a relevant wiring. Depending on its position on the bÜS, it should or not be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

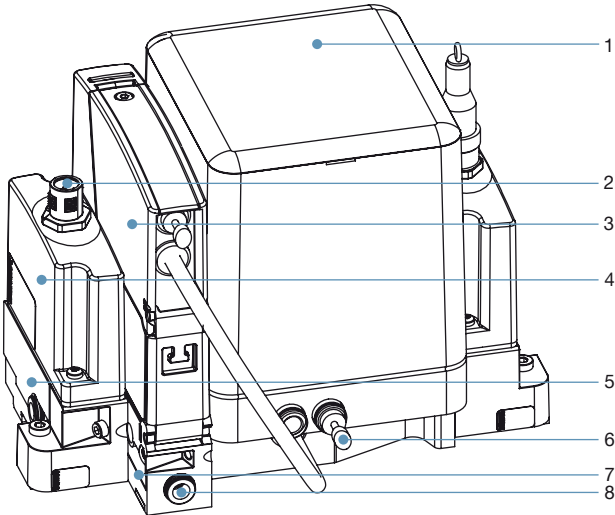
5. Product operation

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.

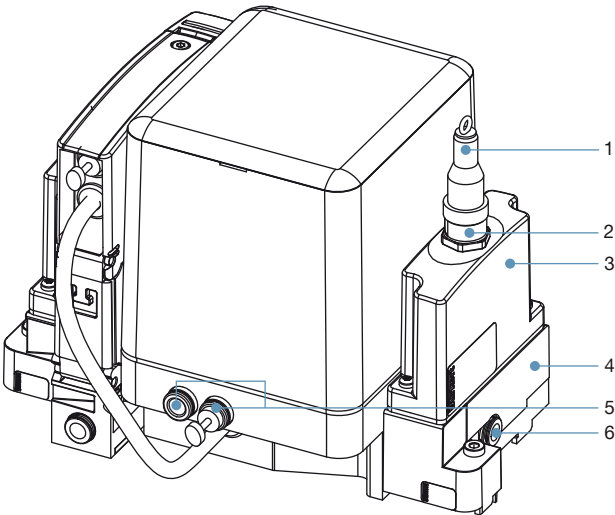
6. Product design and assembly

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



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8.2. Bürkert product filter



Bürkert product filter – Get quickly to the right product
























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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 ¼" 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 

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