

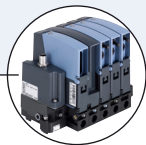
## Online Analysis System



Type 8905 can be combined with...



**Type MSxx**  
Analysis  
sensor cube



**Type ME2X**  
System Connect  
modules



**Type MZ20**  
Cleaning System



**Type MZ15**  
Manual calibration  
and cleaning module



**Type 8920**  
Communicator

- For analysis applications for drinking water and fresh water in industrial processes
- Modular sensor and electronic system:
  - up to 6 measurements in one housing
  - up to 30 analysis sensor cubes in one büS system
- Prepared for fieldbus connectivity, remote operation and remote maintenance
- MEMS technologies allows minimal footprint and minimum sample water demand

Type 8905 Online Analysis System is a compact and modular system for monitoring all important water parameters on one platform. The Type 8905 is a multichannel multifunction unit for the Bürkert sensor cubes and electronic modules from the EDIP platform. The efficient device integration platform (EDIP) allows the high flexibility by using modularity in the hardware as well as in the software of the system.

The 8905 is the device for continuous analysis of the most important water parameters:

- pH
- chlorine/chlorine dioxide
- conductivity
- ORP
- turbidity
- temperature

This modularity allows the measuring system to be assembled according to customer requirements and enables simple installation/configuration, operation and maintenance.

For maintenance, sensors can be removed without tools, while the remaining sensors continue to measure. The sensors are operated via an integrated 7" touch display or Bürkert Communicator. In addition to the display and storage of analysis parameters, further features such as

- Programming of simple control algorithms using f(x)
- Interventions in the process via analog and digital inputs and outputs
- Performing sensor calibrations can be done.

Type 8905 is available as a compact system in one housing. Please contact your Bürkert sales center for custom system configurations.

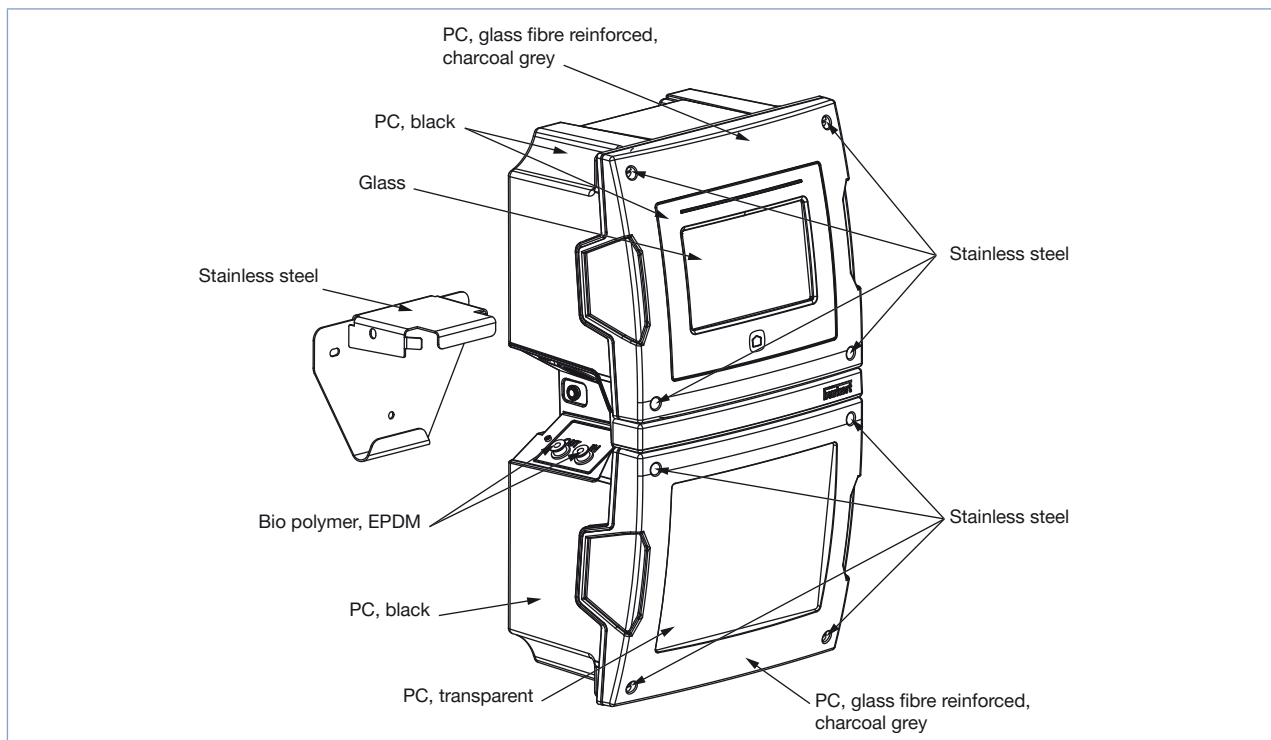
| General data  |  |
|---|--|
| <b>Mounting</b>                                     | Wall mount unit, clicksystem with wall-mounting bracket  |
| <b>Materials</b>                                    |  |
| Casings   | PC (black, UV stabilized, UL94 V0)   |
| Cover   |  |
| of the electronic module casing                     | PC (glass fibre reinforced, UV stabilized, UL94 V0, charcoal grey);<br>PC (black, UV stabilized, UL94 V0); Glass   |
| of the sensor cube casing                           | PC (glass fibre reinforced, UV stabilized, UL94 V0, charcoal grey);<br>PC (transparent)  |
| Studs / Cable entry plate                           | Stainless steel / Elastomer  |
| Fluid connection                                    | Biopolymer (EPDM seals)  |
| Wall-mounting bracket                               | Stainless steel  |
| Self-adhesive bumpers                               | Polyurethane   |
| <b>Display</b>                                      | 780 x 460 pixels resolution<br>Capacitive 7" Touchscreen; backlight  |
| <b>Data logger</b>                                  | Integrated Micro SD, 2 GB; adjustable logging interval;<br>external reading via USB or LAN port  |
| <b>Sensor cubes</b>                                 | Max. 6 internal sensor cubes;<br>max. connection of 30 external sensor-cubes via büS<br>max. büS length 100 m (without T connections)                            |
| <b>Type of medium</b><br>pH value* / Conductivity** | Water without particles: drinking water, industrial water<br>pH 4...pH 9 / > 50 µS/cm  |
| <b>Sample water temperature</b>                     | +3...+40 °C (+37...+104 °F)  |
| <b>Sample water pressure</b>                        | Refer to the data sheet of all the used sensor-cubes<br>and apply the most restrictive value given   |
| <b>Sample water flow range</b>                      | > sum of the min. flow quantity of each installed cube<br>(e.g.: 1 chlorine sensor cube, 1 pH sensor cube, 1 ORP sensor cube,<br>flow rate > 6 + 6 + 6 = 18 l/h) |
| <b>Weight</b>                                       | approx. 8 kg (if equipped with 1 x 100...240 V AC power supply<br>module + 1 x HMIU module + 5 sensor cubes), up to 12 kg (if<br>totally equipped)               |

\* when a chlorine sensor cube is present within the system: pH value is restricted to pH 5...pH 9

\*\* only when a chlorine sensor cube is present within the system

| Electrical data                                |  |
|--|--|
| <b>Operating voltage</b><br>("SUPPLY")         | <ul style="list-style-type: none"> <li>•100...240 V AC 50/60 Hz<br/>current consumption at 100 V AC: 0,8 A<br/>current consumption at 240 V AC: 0,8 A<br/>Integrated protective fuse: a slow blow 2 A fuse.<br/>The fuse cannot be replaced and is integrated in the power supply.</li> <li>or</li> <li>•20...30 V DC, <math>\pm 10\%</math> tolerance, filtered and regulated,<br/>connection to main supply: permanent (through external SELV and LPS power supply)</li> </ul> |
| <b>Power consumption (DC)</b>                  | Max. 96 VA   |
| Environment                                    |  |
| <b>Ambient temperature</b>                     |  |
| Operation                                      | 0...+40 °C (-4...+104 °F)  |
| Storage  | -20...+70 °C (-4...+140 °F) (without sensor cube)  |
| <b>Relative humidity</b>                       | <95 %, without condensation  |
| <b>Height above sea level</b>                  | Max. 2000 m  |
| <b>Operating condition</b>                     | Continuous   |
| <b>Equipment mobility</b>                      | Fixed  |
| <b>Use</b>                                     | Indoor   |
| <b>Pollution degree</b>                        | Degree 2, according to UL/EN 61010-1 with closed and tight casings   |
| <b>Installation category of a system</b>       |  |
| With an AC switched-mode power supply          | Category II, according to UL/EN 61010-1  |
| With a direct DC power supply                  | Category I, according to UL/EN 61010-1   |
| Standards, directives and certifications       |  |
| <b>Protection class</b> (acc. to IEC/EN 60529) | IP65 with closed and tight casings   |
| <b>Standard and directives</b> $\text{CE}$     | 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)   |

## Materials view



## Construction

### Electronic module casing

The main parts of the electronic module casing are described in the opposite drawing.

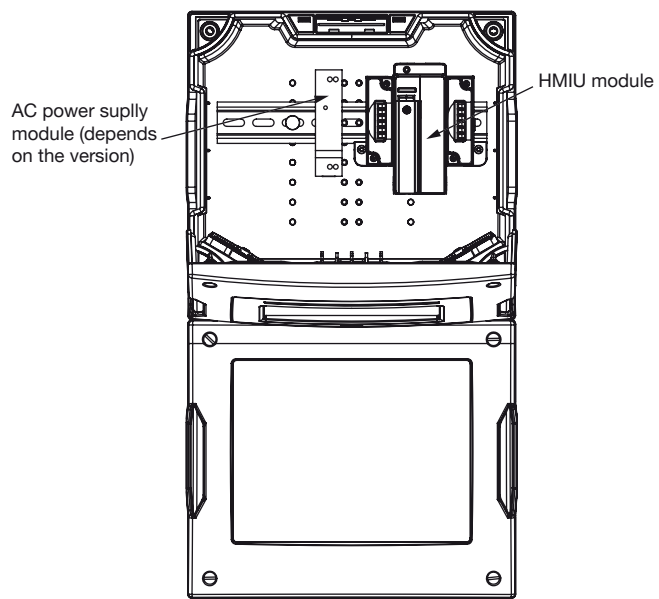
The device is always equipped with the following electronic modules:

- HMIU (Human Machine Interface Unit) incl. USB slot and Ethernet
- 7" touchscreen incl. USB slot
- Option: PSU mains supply 100...240 V AC
- 2 x bÜS connector

There are 7 slots (5 Slots with Option PSU) integrated for future modules:

- WiFi/UMTS communication module
- Input/output modules
- Fieldbus connection modules

Depending on the configuration of the device and for a complete description and for the technical data related to the electronic modules, refer to the data sheets of each electronic modules.



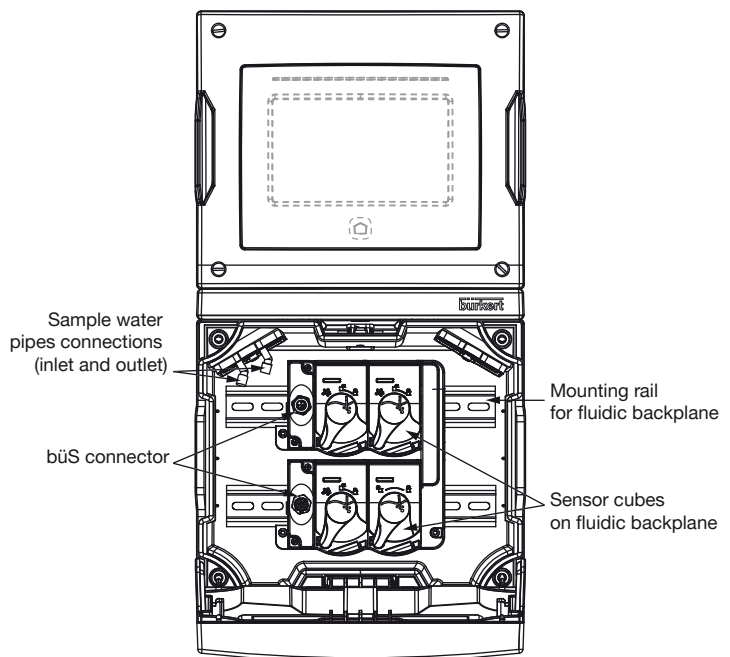
### Sensor cube casing

The main parts of the sensor cube casing are described in the opposite drawing.

The device can contain one to six sensor cubes.

Depending on the configuration of the device and for a complete description and for the technical data related to the sensor cubes, refer to the data sheets of each sensor cube.

- pH sensor cube, Type MS01 [More info.](#)
- Chlorine sensor cube, Type MS02 [More info.](#)
- Conductivity sensor cube, Type MS03 [More info.](#)
- ORP sensor cube, Type MS04 [More info.](#)
- Turbidity sensor cube, Type MS05 [More info.](#)



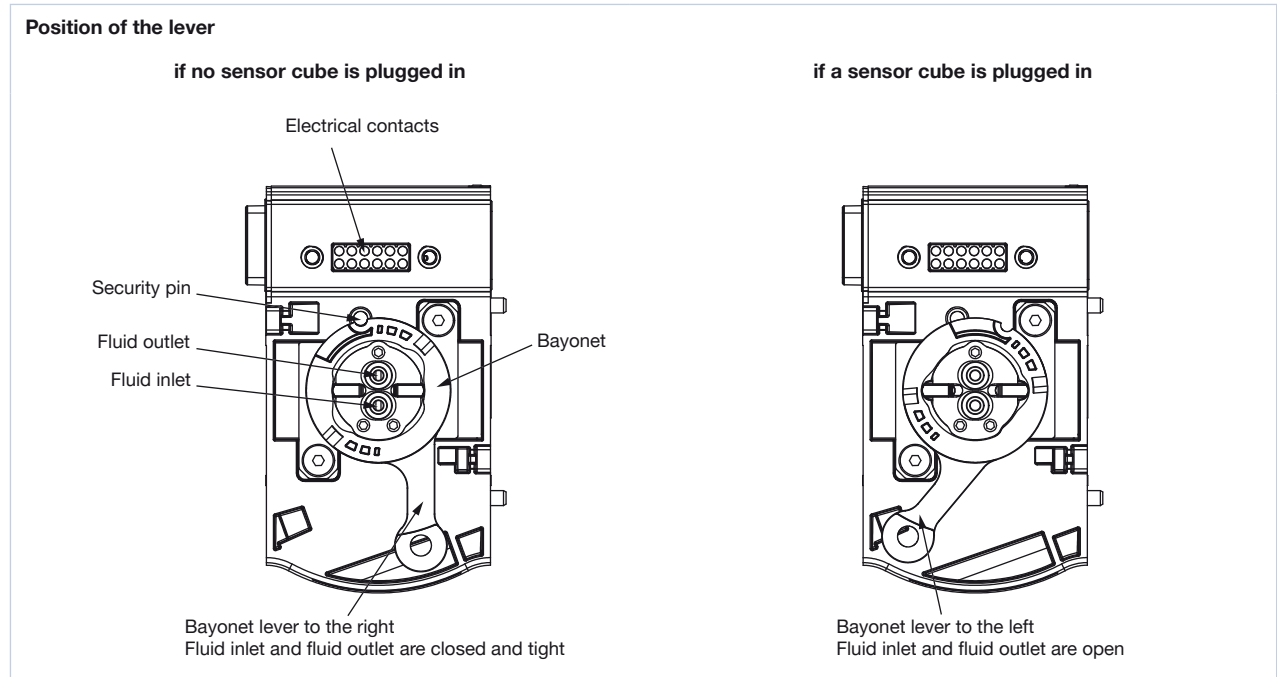
Logo marked on the pushbutton:

|                         |                    |                 |                              |                         |  |
|-------------------------|--------------------|-----------------|------------------------------|-------------------------|--|
| Logo                    |                    |                 |                              | <br>                    | <br>                                       |
| Measured physical value | pH and temperature | redox potential | Conductivity and temperature | Turbidity (ISO and EPA) | Chlorine, chlorine dioxide and temperature |

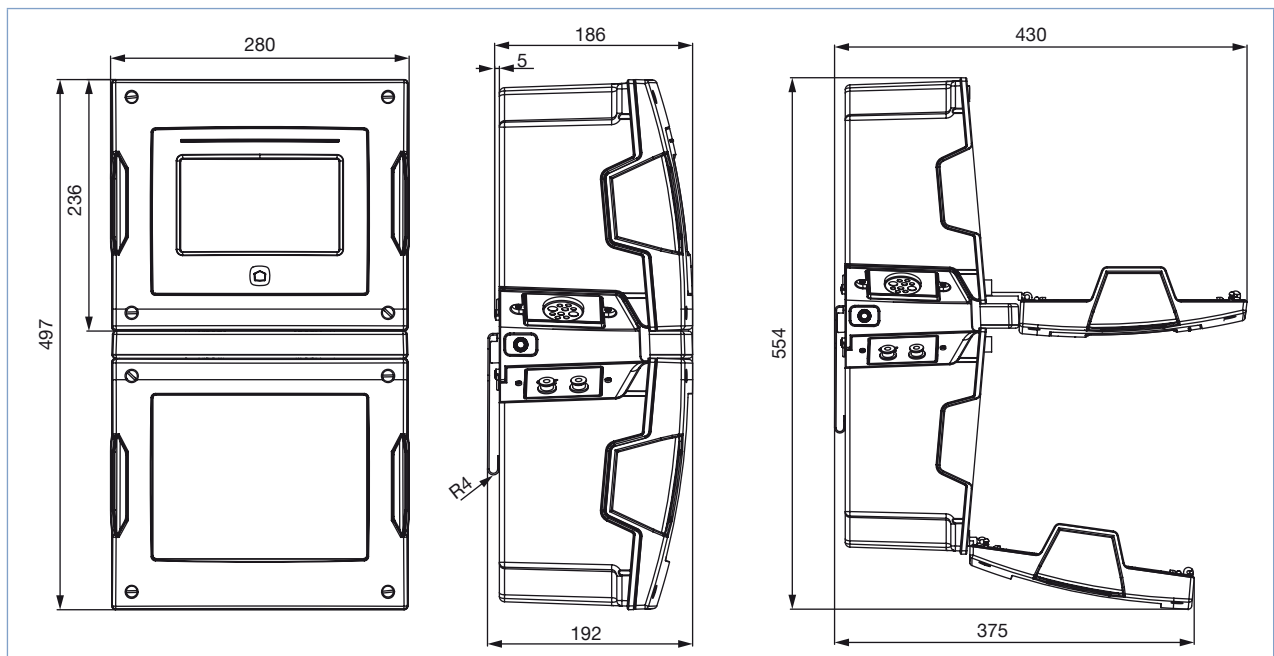
## Additional modules

### Mechanical interfaces of the sensor cubes

All the fluidic backplanes for the sensor cubes have the same design. Thus any sensor cube can be plugged on any mechanical interface. The backplanes are connected to each other and feed the sensor cubes parallel with the power supply and the sample water and provide the serial bus connection.




### Dimensions [mm]



## Ordering chart for Online Analysis System Type 8905

| Description   | Operating voltage | Equipment                     |                                     |  |                                |   | PSU:<br>incl. 100...240 V AC<br>mains power | Article no. |
|---|-------------------|-------------------------------|-------------------------------------|--|--------------------------------|---|---|-------------|
|   |                   | MS01<br>sensor<br>cube,<br>pH | MS02<br>sensor<br>cube,<br>Chlorine | MS03<br>sensor<br>cube,<br>Conduc-<br>tivity | MS04<br>sensor<br>cube,<br>ORP | MS05<br>sensor<br>cube,<br>Turbid-<br>ity |   |             |
| Online Analysis System -<br>pH, Conductivity, Turbidity                   | 24 V DC           | 1                             | -                                   | 1  | -                              | 1   | -   | 566090      |
|   | 100...240 V AC    | 1                             | -                                   | 1  | -                              | 1   | 1   | 566091      |
| Online Analysis System -<br>pH, Chlorine, Turbidity                       | 24 V DC           | 1                             | 1                                   | -  | -                              | 1   | -   | 566092      |
|   | 100...240 V AC    | 1                             | 1                                   | -  | -                              | 1   | 1   | 566093      |
| Online Analysis System -<br>pH, ORP, Conductivity, Tur-<br>bidity         | 24 V DC           | 1                             | -                                   | 1  | 1                              | 1   | -   | 566094      |
|   | 100...240 V AC    | 1                             | -                                   | 1  | 1                              | 1   | 1   | 566095      |
| Online Analysis System -<br>pH, Chlorine, ORP, Turbidity                  | 24 V DC           | 1                             | 1                                   | -  | 1                              | 1   | -   | 566096      |
|   | 100...240 V AC    | 1                             | 1                                   | -  | 1                              | 1   | 1   | 566097      |
| Online Analysis System -<br>pH, Chlorine, Conductivity,<br>ORP, Turbidity | 24 V DC           | 1                             | 1                                   | 1  | 1                              | 1   | -   | 566098      |
|   | 100...240 V AC    | 1                             | 1                                   | 1  | 1                              | 1   | 1   | 566099      |

## Ordering chart for accessories for Type 8905

| Description  | Article no. |
|--|-------------|
| Sample water pipe 4/6 mm, 5 m  | 567793      |
| Sample water pipe 4/6 mm, 10 m   | 567701      |
| Sample water pipe 4/6 mm, 25 m   | 567794      |
| Strainer 100 µm  | 772703      |
| Pressure reducer   | 772437      |
| Cleaning system, 2 solutions   | 567124      |
| Set including the wall-mounting bracket with four self-adhesive bumpers  | 566363      |
| 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-bus-Interface (see drawing below)  | 772426      |

## USB-bus-Interface

|   |  |   |
|---|--|---|
| <p>CD - Communicator<br/>(30-day license without registration, update and licensing over Burkert home page) </p> |  | Quick-Start                                   |
| Cable with 5 pin M12 plug, mini USB and circular plug-in connectors for power supply  |  | Power supply<br>100...240 V AC/ 24 V DC 1 A   |
| büS Stick -<br>(Adaptor USB - büS/CANopen)  |  | Adaptors for power supply<br>worldwide use    |
| 5 pin M12 male connector<br>wired on free end cable   |  | büS terminating resistor on<br>büS Y-splitter |
|   |  |   |



powered by  
**EDIP**

To find your nearest Bürkert facility, click on the orange box →

[www.burkert.com](http://www.burkert.com)

In case of special application conditions,  
please consult for advice.

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