

## Conductivity Sensor Cube



Type MS03 can be combined with...



**Type 8905**  
Online Analysis  
System



**Type 8920**  
Communicator

- Fully compatible with büS systems and a wide range of further analysis sensor cubes
- Resistive 2-electrode sensor
- Modular sensor cube for hot swap (exchange during operation)
- Minimal sample water flow needed

The device is a conductivity measurement sensor. It is used within the Online Analysis System Type 8905 by being plugged into a spare fluidic backplane slot.

The conductivity of water follows in general the content of dissolved substances in the water. Not only the absolute value at each moment is an indicator for the continuity of the water quality, but quick changes in the conductivity may indicate unwanted change in the water. A rising or falling value can also be used as an indicator for process feedback in specific treatment steps.

The device contains a 2-electrode sensor for resistive measurement of conductivity.

The electrical and fluidic connections are made via the connection panel of the system. The sensor cube is communicating with the system via büS, allowing fully automatic login to the online analysis system. If the sensor is plugged into the system, it is included in the list of büS members and further adaptations to customer requirements can be made.

General data	
<b>Compatibility</b>	with Online Analysis System Type 8905 (see corresponding data sheet)
<b>Materials</b> Housing / Lever / Seal	PPE+PS / PC / EPDM
<b>Electrical connection</b>	Spring contacts in the fluidic backplane of the Type 8905
<b>Fluidic connection</b>	Via pinch valve in the fluidic backplane of the Type 8905
<b>Conductivity sensor</b>	Graphite 2-electrode system, C = 1
<b>Temperature sensor</b>	Pt1000 Class B, contact with the water sample
<b>Conductivity measurement</b> Measuring range Measurement deviation* Linearity Repeatability Response time (t90)	50 µS/cm...5000 µS/cm <sup>1)</sup> ±2 % of measured value ±0.2 % of full scale ±0.2 % of full scale < 5 s
<b>Temperature measurement</b>	0...+50 °C (+32...+122 °F)
<b>Maintenance</b>	12 months nominal, depending on the water quality
<b>Type of medium</b> pH value	Water without particles: drinking water, industrial water pH 4...pH 9
<b>Sample water temperature</b>	+3...+40 °C (+37...+104 °F)
<b>Sample water pressure</b>	PN3
<b>Sample water flow range</b>	> 6 l/h
<b>Measurement compensation</b>	Temperature compensated
Electrical data	
<b>Operating voltage</b>	24 V DC through the backplane of the system Type 8905 via büS
<b>Power consumption</b>	0.8 VA
<b>Internal communication</b>	through büS (Bürkert bus)
<b>External communication by status LED</b>	According to NAMUR NE 107

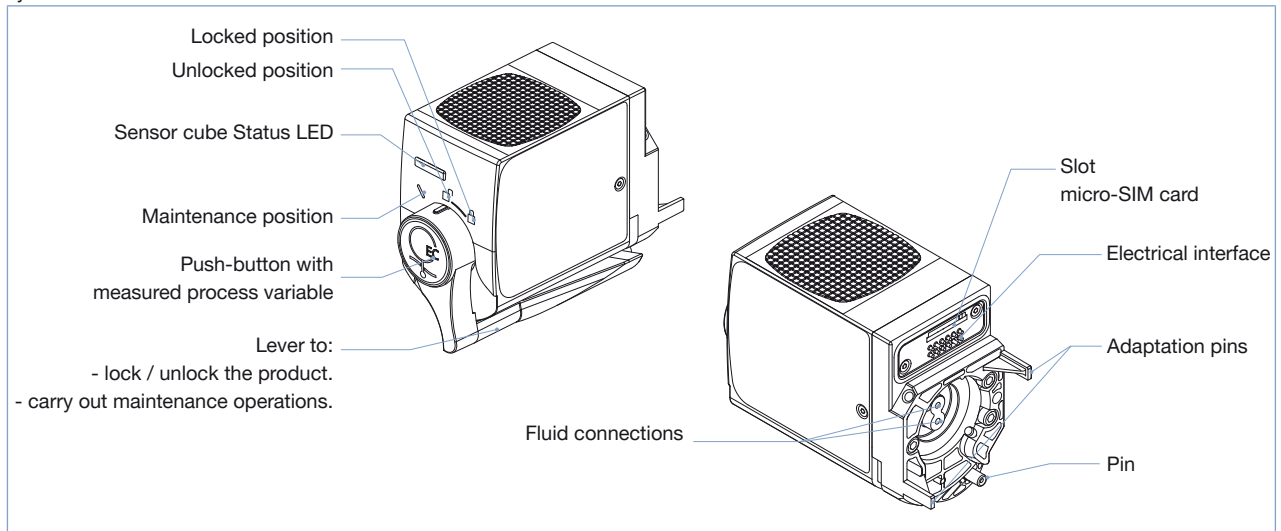
<sup>1)</sup> Measurement up to 10 mS/cm possible at limited measurement deviation

\* = "measurement bias" as defined in the standard JCGM 200:2012

Environment	
<b>Ambient temperature</b>	
Operating	0...+40 °C (+32...+104 °F)
Storage (only never used sensor cube)	-10...+60 °C (+14...+140 °F)
<b>Relative humidity</b>	< 90 %, without condensation
<b>Height above sea level</b>	max. 2000 m
Standards, directives and certifications	
<b>Protection class</b> (acc. to IEC/EN 60529)	IP65, when plugged in the fluidic backplane IP20, as standalone product
<b>Standard and directives</b> C €	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)

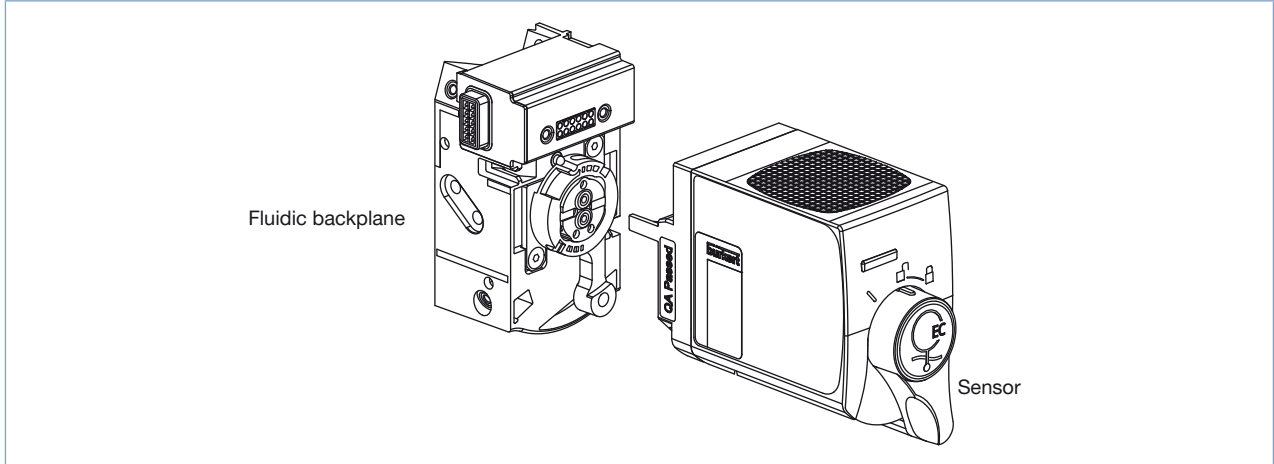
## Design and principle of operation

The sensor cube gets the sample water through the fluidic backplane, in which it is plugged in. The measurement is an graphite 2-electrode system.

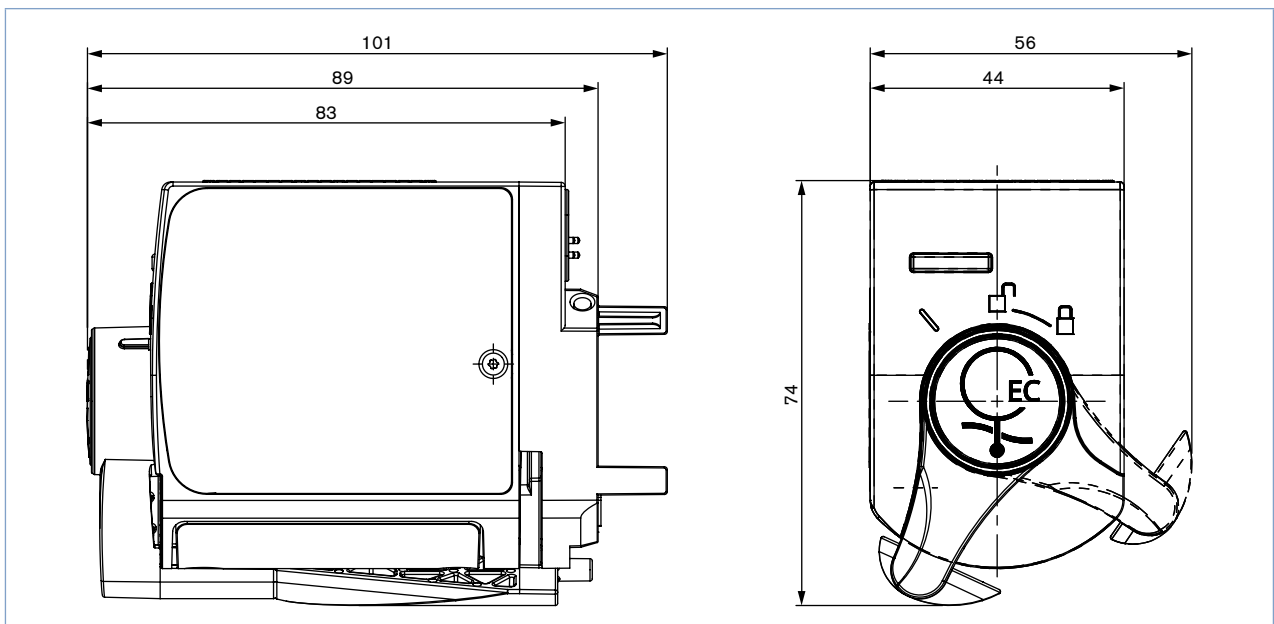


## Installation into the Online Analysis System Type 8905

To operate a conductivity sensor cube it is necessary that a spare fluidic backplane is available. It can be installed in a compact system Type 8905 or in a customized version.



## Dimensions [mm]



## Ordering information and chart - Conductivity sensor cube

The conductivity sensor cube must be operated within a system.

Please refer to the order information for Online Analysis System Type 8905 [More info.](#) or contact your Bürkert representative.

Description	Article no.
Conductivity sensor cube	567632 

## Ordering chart - accessories and spare parts

Description	Article no.
Calibration solution, 50 ml, 5 mS/cm	807199 



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