

## Conductivity Sensor Cube



Type MS03 can be combined with...



**Type 8905**

Online Analysis System



**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 via büS, so the configuration is fully automatic. When plugging into a system you will find the sensor in the list of büS members for further customized adjustments.

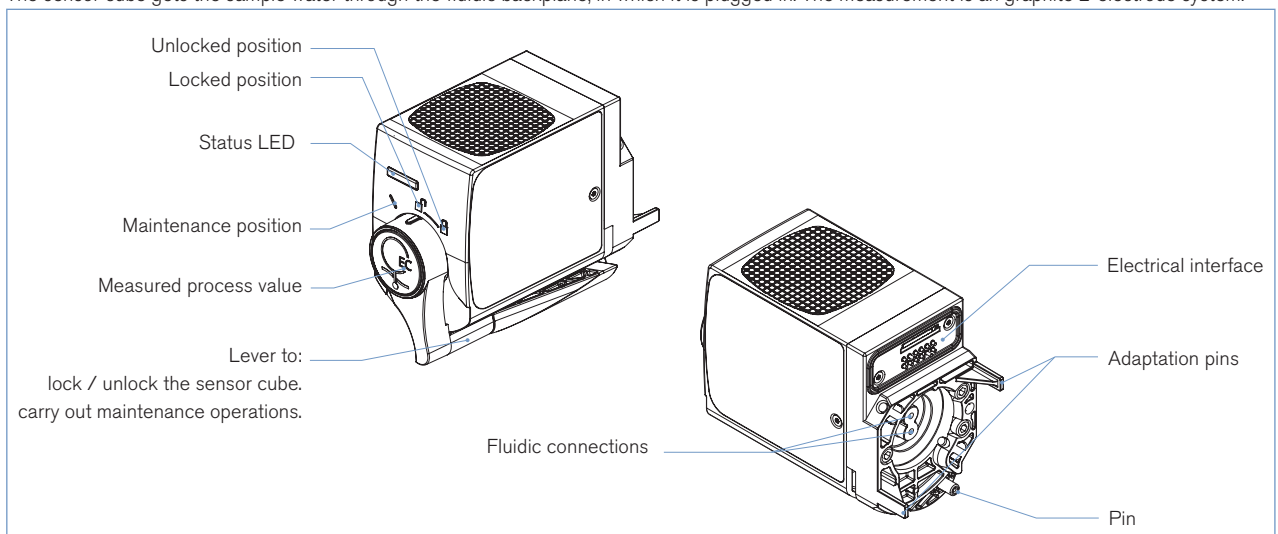
General data	
<b>Compatibility</b>	with Online Analysis System Type 8905 (see corresponding data sheet)
<b>Materials</b> Housing, plug / Lever / Seal	PPO / PC / EPDM
<b>Electrical connection</b>	Plugging/unplugging into backplane of the Type 8905
<b>Fluidic connection</b>	Plugging/unplugging into backplane of the Type 8905
<b>Conductivity sensor</b>	2-electrode system, graphite based C=1
<b>Temperature sensor</b>	PT1000 Class B, contact with sample water
<b>Conductivity measurement</b> Measuring range Measurement deviation ("measurement bias" as defined in the standard JCGM 200:2012 Linearity Repeatability Response time (t90)	50 µS/cm to 1000 µS/cm ±2% of measured value ±0.2% of full scale ±0.2% of full scale < 5 s
<b>Temperature measurement</b>	0 to 50°C (32 to 122°F)
<b>Maintenance duration</b>	12 months
<b>Type of medium</b> pH value	Drinking water, industrial water pH 4 to 9
<b>Sample water temperature</b>	0 to 40°C (32 to 104°F), not freezing
<b>Sample water pressure</b>	PN 6
<b>Sample water flow range</b>	> 10 L/h
<b>Measurement compensation</b>	Temperature compensated
Environment	
<b>Ambient temperature</b> Operating Storage	0 to +40°C (-4 to 104°F) -20 to +60°C (-4 to 140°F), only for purged cube
<b>Relative humidity</b>	< 90%, without condensation
<b>Max. height above sea level</b>	max. 2000 m

## MS03

Electrical data	
Operating voltage	24 V DC through backplane via bÜS
Power consumption	0.8 VA
Communication	bÜS
Status LED	Green for activation process, white for working process and red for error acc. to NAMUR NE 107
Standards, directives and approvals	
Protection class	IP65 acc. to EN 60529
Standard and directives	
EMC	EN 61000-6-3 EN 61000-6-2
Approvals	CE, UL pending

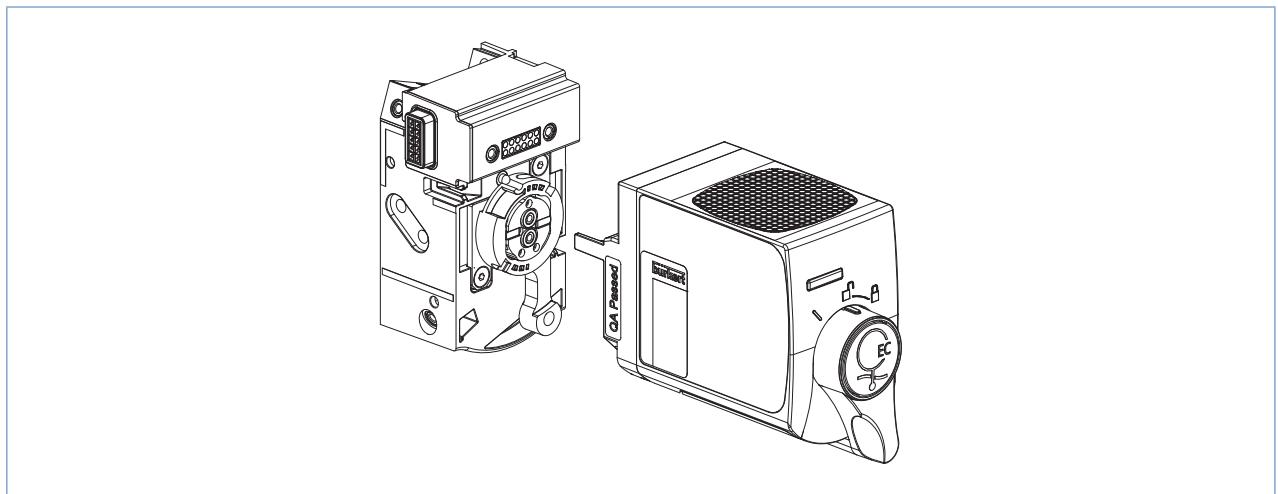
### Design and principle of operation

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.



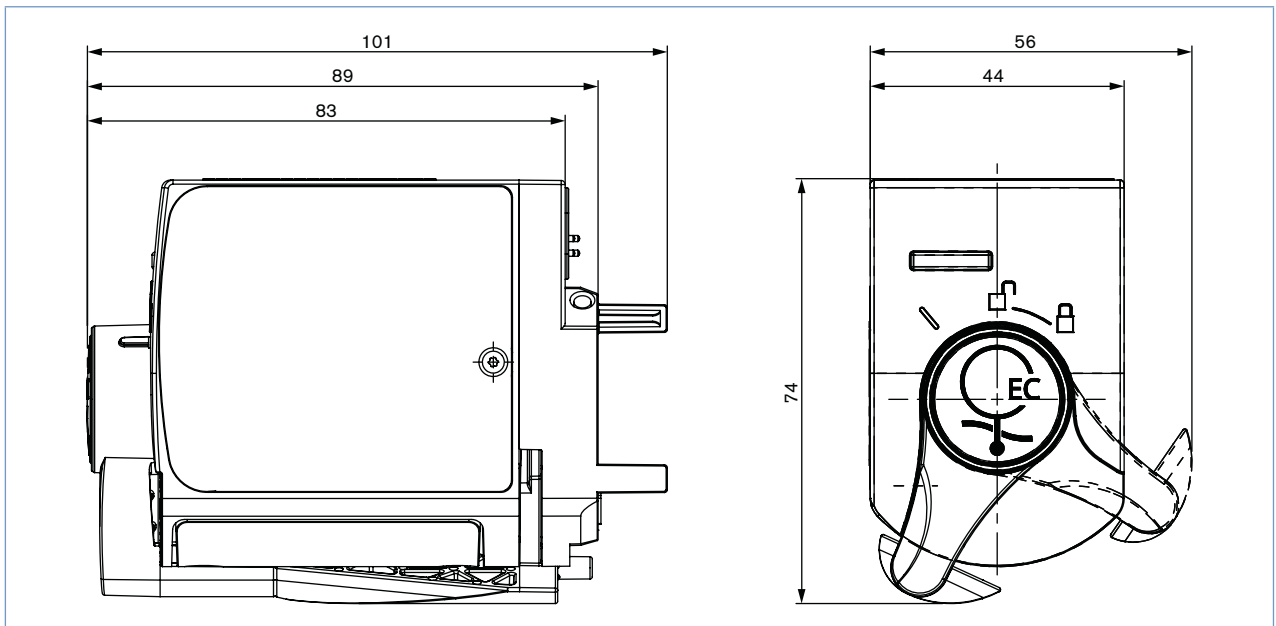
### Installation into the Online Analysis System Type 8905

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.



## MS03

### 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	Item no.
Conductivity sensor cube	564 832



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