

ORP Sensor Cube



Type MS04 can be combined with...



Type 8905
Online Analysis
System



Type 8920
Communicator

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


ORP value is one of the most important water parameters – it is an indicator for the activity of the disinfectant, with no measure of the applied dose but with measure of the remaining residual. The ORP measurement sensor cube contains a Pt electrode and an Ag/AgCl reference system.

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.

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

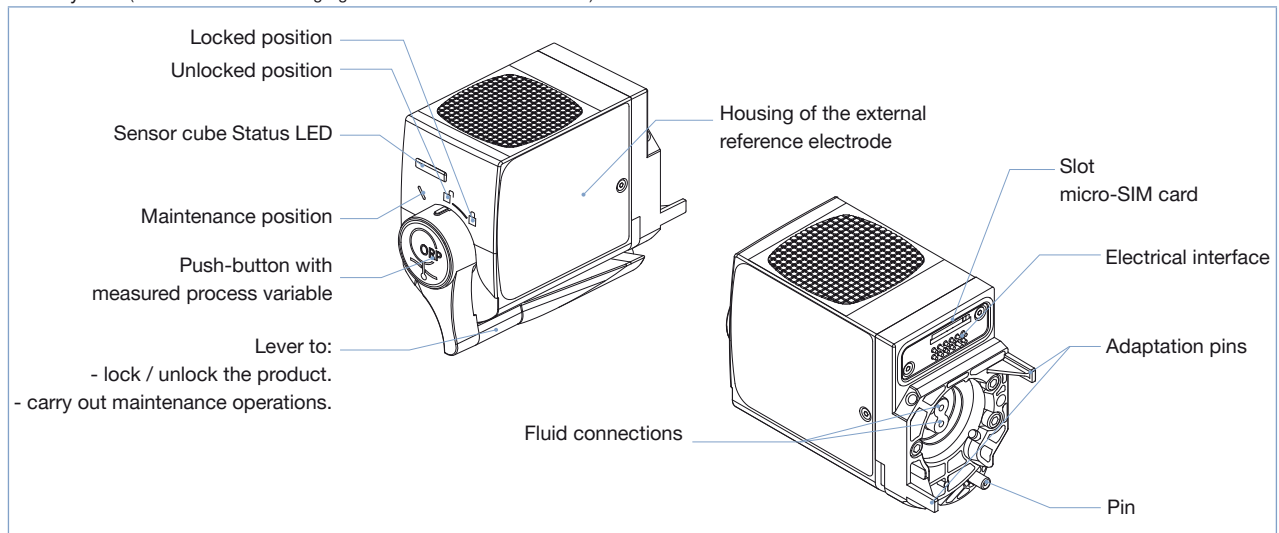
General data	
Compatibility	with Online Analysis System Type 8905 (see corresponding data sheet)
Materials Housing / Lever / Seal	PPE+PS / PC / EPDM
Electrical connection	Spring contacts in the fluidic backplane of the Type 8905
Fluidic connection	Via pinch valve in the fluidic backplane of the Type 8905
ORP sensor	Platinum electrode
ORP measurement Measuring range Measurement deviation* Response time (t90)	-2000...+2000 mV ±10 mV < 10 s
Electrolyte (reference electrode)	3 mol KCl
Maintenance	12 months nominal, depending on the water quality
Type of medium pH value	Water without particles: drinking water, industrial water pH 4...pH 9
Sample water temperature	+3...+40 °C (+37...+104 °F)
Sample water pressure	PN3
Sample water flow range	> 6 l/h
Electrical data	
Operating voltage	24 V DC through the backplane of the system Type 8905 via bÜS
Power consumption	0.8 VA
Internal communication	through bÜS (Bürkert bus)
External communication by status LED	According to NAMUR NE 107

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

Environment	
Ambient temperature	
Operating	0...+40 °C (+32...+104 °F)
Storage (only never used sensor cube)	-10...+60 °C (+14...+140 °F) without the reference electrode +3...+40 °C (+37...+104 °F) with the reference electrode
Relative humidity	<90 %, without condensation
Height above sea level	max. 2000 m
Standards, directives and certifications	
Protection class (acc. to IEC/EN 60529)	IP65, when plugged in the fluidic backplane IP20, as standalone product
Standard and 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)

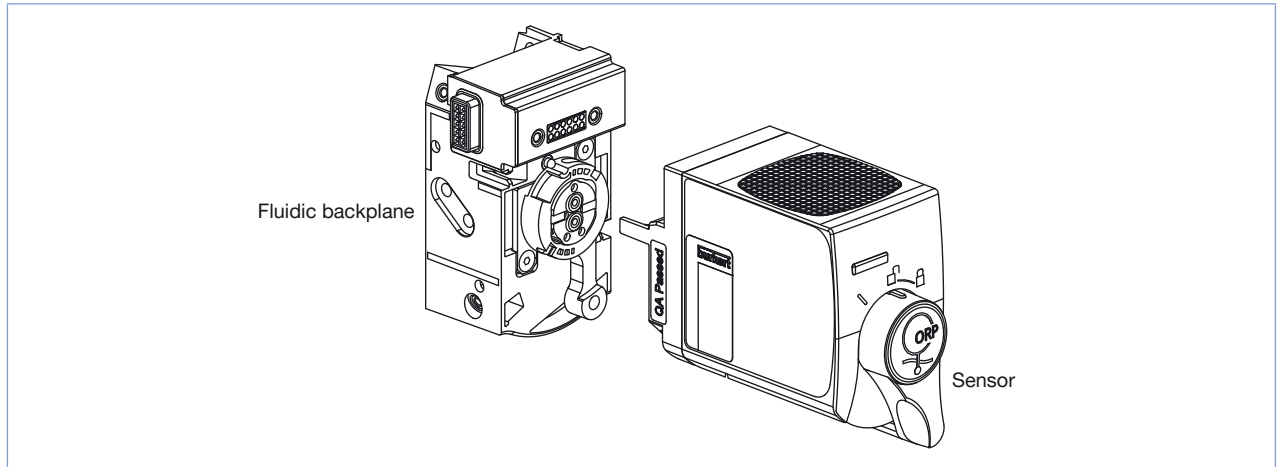
Design and principle of operation

The sensor cube gets the sample water through the fluidic backplane, in which it is plugged in. The measurement is an potentiometric 2-electrode system (Platinum electrode and Ag/AgCl 3-mol KCl/l reference electrode).

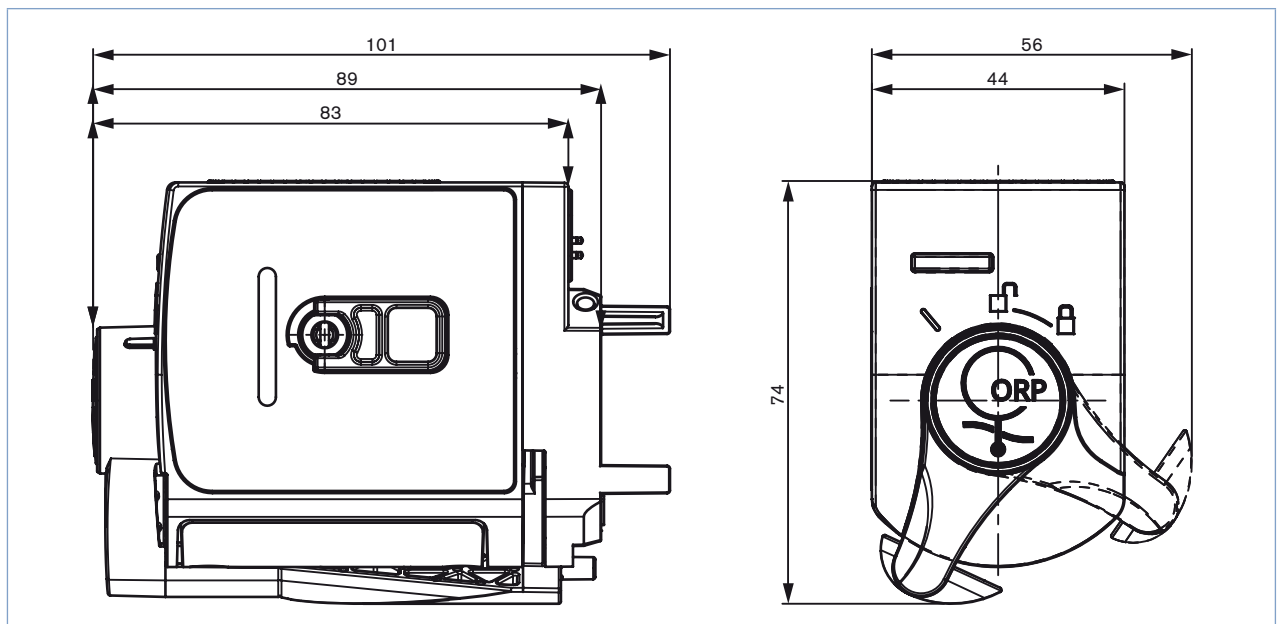


Installation into the Online Analysis System Type 8905

To operate a ORP 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 - ORP sensor cube

The ORP sensor cube must be operated within a system.

Please refer to the order information for Online Analysis System Type 8905 or contact your Bürkert representative.

[More info.](#)

Description	Article no.
ORP sensor cube	567633 

Ordering chart - accessories and spare parts

Description	Article no.
Buffer solution 475 mV	418555 
External reference electrode	566084 



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

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