



ORP Sensor Cube

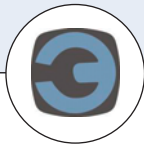
- Fully compatible with büS systems and a wide range of further analysis sensor cubes
- Modular sensor cube for hot swap (exchange during operation)
- Minimal sample water flow needed

Type MS04 can be combined with...



Type 8905

Online Analysis System



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 via büS, so the recognition at the Online Analysis System 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	
Compatibility	with Online Analysis System Type 8905 (see corresponding data sheet)
Materials	Housing, plug / Lever / Seal
Electrical connection	Plugging/unplugging into backplane of the Type 8905
Fluidic connection	Plugging/unplugging into backplane of the Type 8905
ORP sensor	Platinum electrode
ORP measurement	Measuring range Measurement deviation ¹⁾ Response time (t90)
Electrolyte (reference electrode)	3 mol KCl
Maintenance	12 months nominal, depending on the water quality
Type of medium	Water without particles: drinking water, industrial water
pH value	pH 4 to 9
Sample water temperature	0 to 40°C (32 to 104°F), not freezing
Sample water pressure	PN 6
Sample water flow range	> 3 l/h; recommended 6 l/h

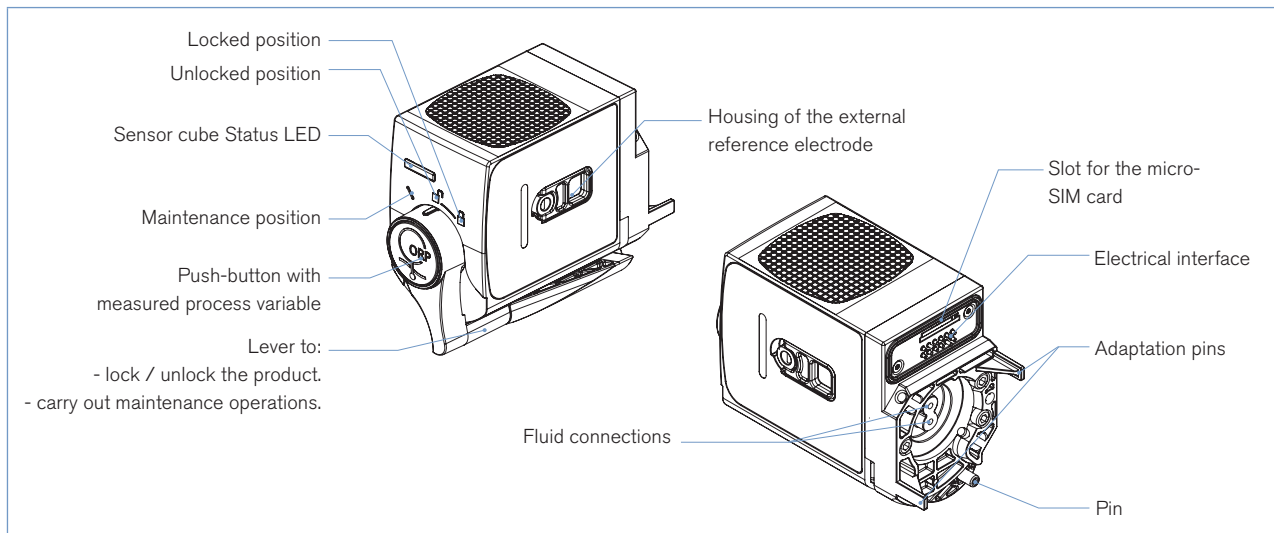
¹⁾ = "measurement bias" as defined in the standard JCGM 200:2012

Environment	
Ambient temperature	Operating Storage (only never used sensor cube)
Relative humidity	< 90%, without condensation
Max. height above sea level	max. 2000 m

Electrical data	
Operating voltage	24 V DC through the backplane of the system Type 8095 via büS
Power consumption	0.8 VA
Internal communication	through büS (Bürkert bus)
External communication by status LED	According to NAMUR NE 107
Standards, directives and approvals	
Protection class acc. to EN 60529	IP65, when plugged in the fluidic backplane IP20, as standalone product
Standard and directives	
EMC	EN 61000-6-3 EN 61000-6-2
Approvals	CE, UL pending

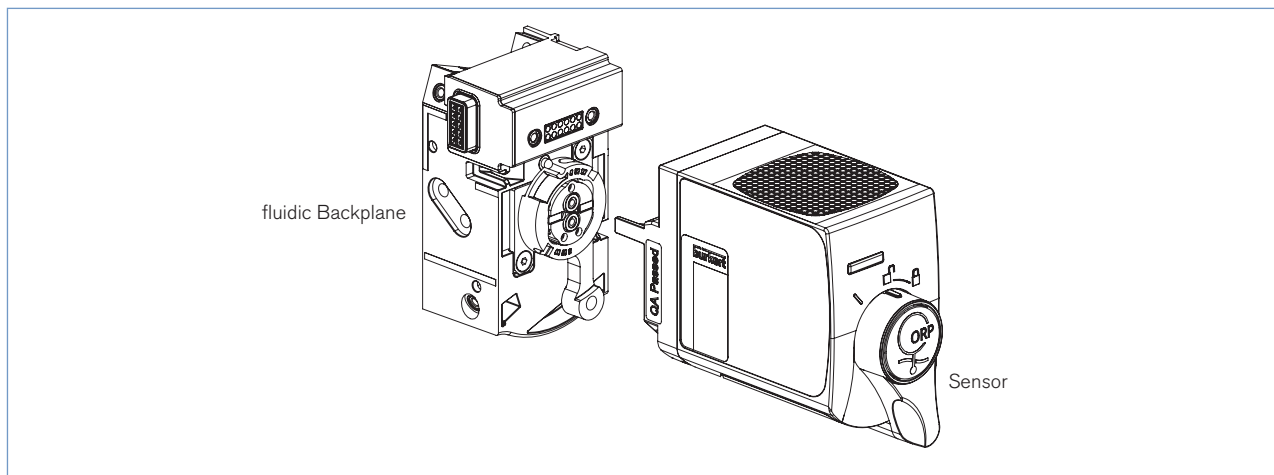
Design and principle of operation

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

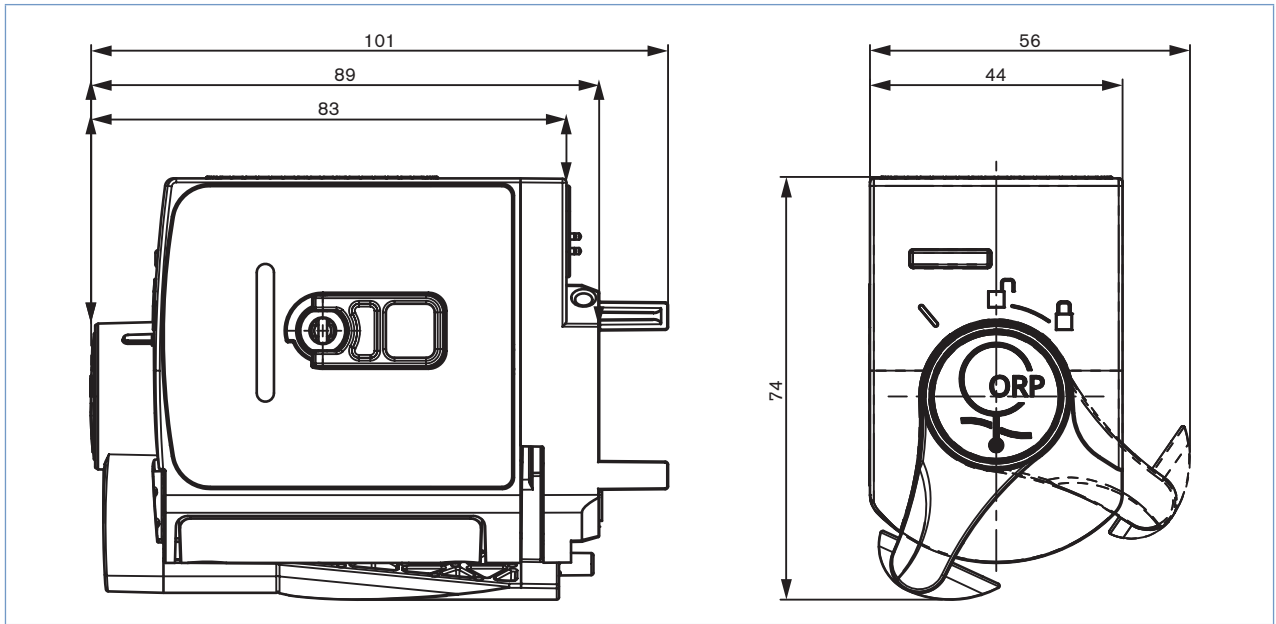


Installation into the Online Analysis System Type 8905

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 [More info.](#)
 or contact your Bürkert representative.

Description	Item no.
ORP sensor cube	564 833

Ordering chart - accessories

Description	Item no.
Buffer solution 475 mV	418 555
External reference electrode	566 084



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

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