

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 ability of showing the activity of the disinfectant, not just the applied dose or the current residual. The device contains an ORP measurement sensor.

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.

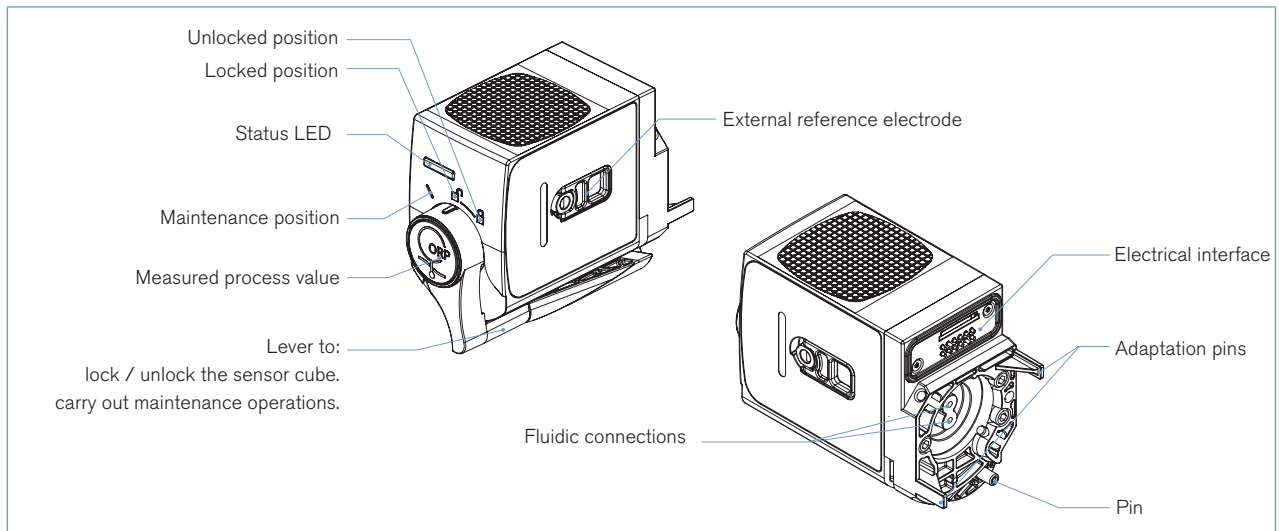
General data	
Compatibility	with Online Analysis System Type 8905 (see corresponding data sheet)
Materials Housing, plug / Lever / Seal	PPO / PC / EPDM
Electrical connection	Plugging/unplugging into backplane of the Type 8905
Fluidic connection	Plugging/unplugging into backplane of the Type 8905
ORP sensor	3-electrode potentiometry, reference system Ag/AgCl
Temperature sensor	PT1000 Class B, no contact with sample water
ORP measurement Measuring range Measurement deviation ("measurement bias" as defined in the standard JCGM 200:2012 Response time (t90)	-2000 to 2000 mV ± 10 mV < 10 s
Temperature measurement	0 to 50°C (32 to 122°F)
Electrolyte	3 mol KCL gel
Maintenance duration	12 months (external reference electrode) depending on applications
Type of medium pH value	Drinking water, industrial water 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	> 10 L/h
Environment	
Ambient temperature Operating Storage	0 to +40°C (-4 to 104°F) -20 to +60°C (-4 to 140°F), only for purged cube
Relative humidity	< 90%, without condensation
Max. height above sea level	max. 2000 m

MS04

Electrical data	
Operating voltage	24 V DC through backplane via bus
Power consumption	0.8 VA
Communication	bus
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

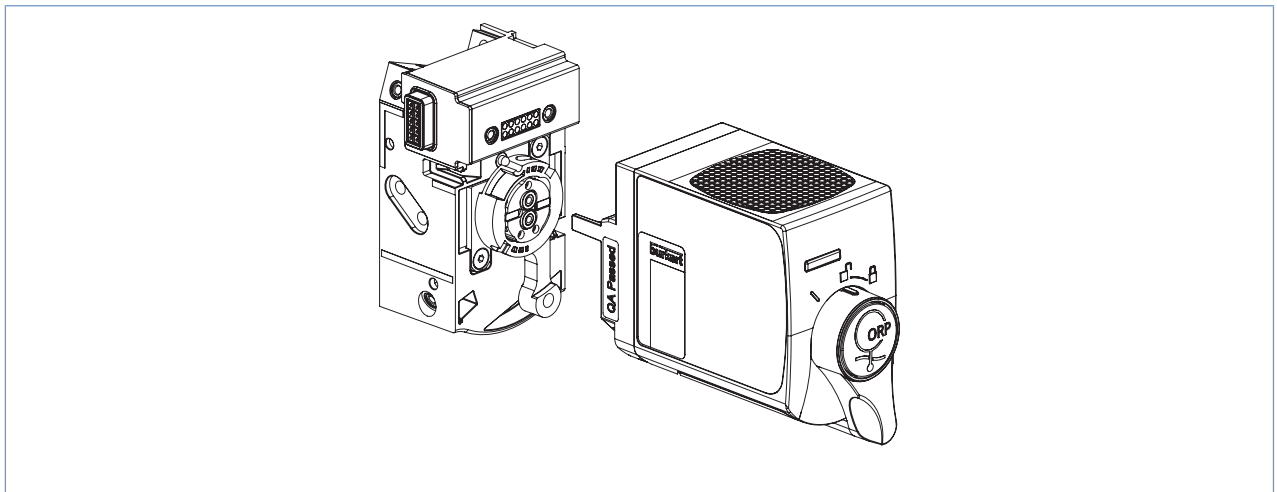
Design and principle of operation

The sensor cube gets the sample water through the fluidic backplane, in which it is plugged in. The measurement is an potentiometric 3-electrode system.



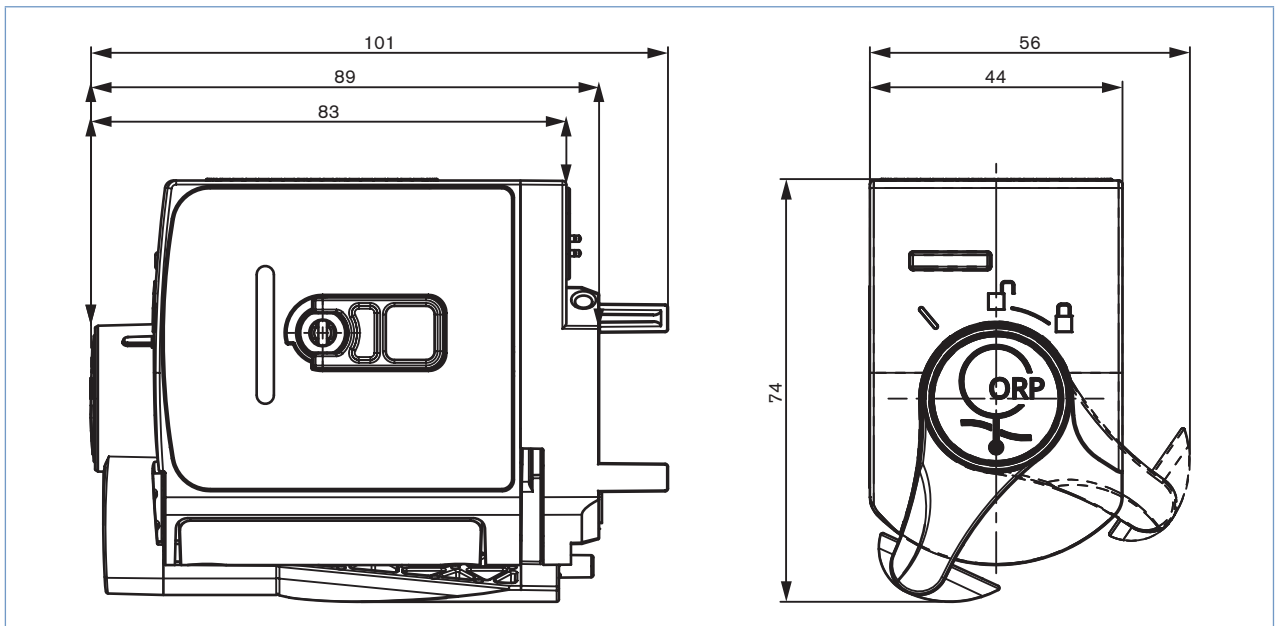
Installation into the Online Analysis System Type 8905

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.



MS04

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