MS03





Conductivity Sensor Cube

- 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

Туре 8905	Communicator

Type MS03 can be combined with ...

Online Analysis System

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 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	PPE+PS / PC / EPDM	
Electrical connection	Plugging/unplugging into backplane of the Type 8905	
Fluidic connection	Plugging/unplugging into backplane of the Type 8905	
Conductivity sensor	graphite 2-electrode system, C=1	
Temperature sensor	Pt1000 Class B, contact with the water sample	
Conductivity measurement		
Measuring range	50 μS/cm to 1000 μS/cm	
Measurement deviation ¹⁾	±2% of measured value	
Linearity	±0.2% of full scale	
Repeatability	±0.2% of full scale	
Response time (t90)	< 5 s	
Temperature measurement	0 to 50°C (32 to 122°F)	
Maintenance	12 months nominal, depending on the water quality	
ype 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	
Ieasurement compensation Temperature compensated		
() = "measurement bias" as defined in the standard JCGM 200:2012		
Environment		
Ambient temperature		
Operating	0 to +40°C (-4 to 104°F)	
Storage (only never used sensor cube)	-10 to +60°C (14 to 140°F)	
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



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 or contact your Bürkert representative.

Description	ltem no.
Conductivity sensor cube	564 832

Ordering chart - accessories and spare parts

Description	ltem no.
Calibration solution, 300 ml, 100 µS	440 017
Calibration solution, 300 ml, 706 µS	440 018

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