

Turbidity Sensor Cube



Type MS05 can be combined with...



Type 8905

Online Analysis System



Communicator

- Fully compatible with büS systems and a wide range of further analysis sensor cubes
- Optical sensor according to DIN EN ISO 7027, 90° scattered infrared light
- Modular sensor cube for hot swap (exchange during operation)
- Minimal sample water flow needed

The device is a turbidity measurement sensor. It is used within the Online Analysis System Type 8905 by being plugged into a spare fluidic backplane slot. The device contains an optical sensor following DIN EN ISO 7027.

The turbidity of water needs to be analysed continuously as indicator for unwanted undissolved content in the water. Measurement prior and post filtration indicates the effect of filtration and may help to optimise the filter backwash process. In the best case it can lead to water and energy savings.

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 plugged into a system you will find the sensor in the list of büS members for further customized adjustments.

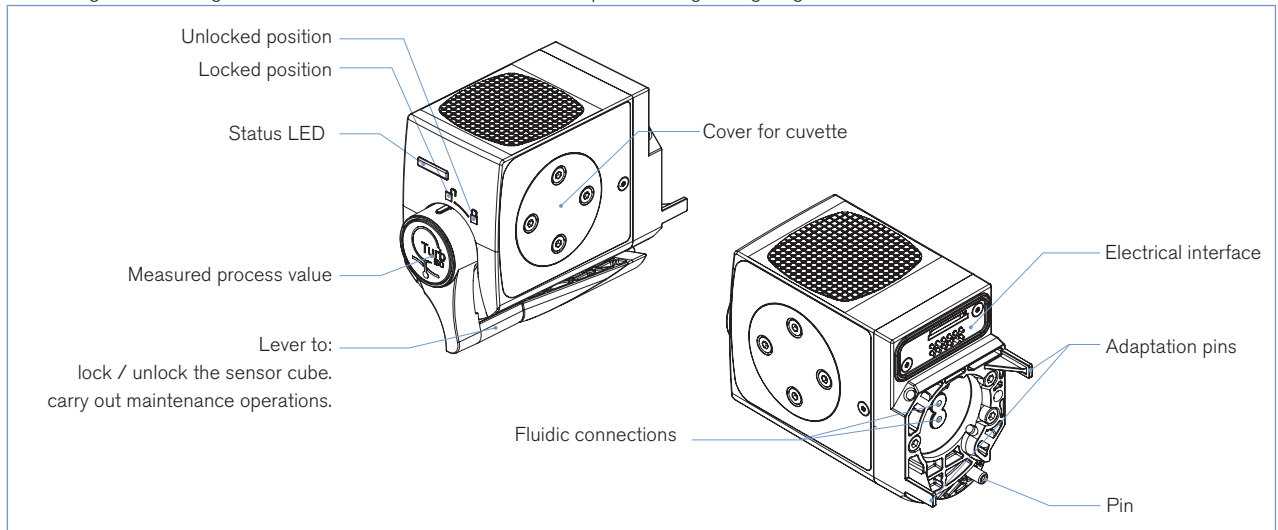
General data	
Compatibility	with Online Analysis System Type 8905 (see corresponding data sheet)
Materials	Housing, plug / Lever / Seal Cuvette / Valve PPO / PC / EPDM Glass / Silicone
Electrical connection	Plugging/unplugging into backplane of the Type 8905
Fluidic connection	Plugging/unplugging into backplane of the Type 8905
Turbidity sensor	Light scattering, exchangeable cuvette, DIN EN ISO 7027; IR LED
Turbidity measurement	Measuring range Resolution Measurement deviation ("measurement bias" as defined in the standard JCGM 200:2012 Linearity Repeatability Response time (t90)
	0 – 40 FNU +/- 0,0006 FNU 0,02 FNU or 2% of measured value, which ever is greater ±2% of full scale ±1% of full scale Depends on data filter
Maintenance duration	3 months, cleaning depend on water quality
Type of medium	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	> 10 L/h
Sample water filter/strainer	> 100 µm
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

MS05

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

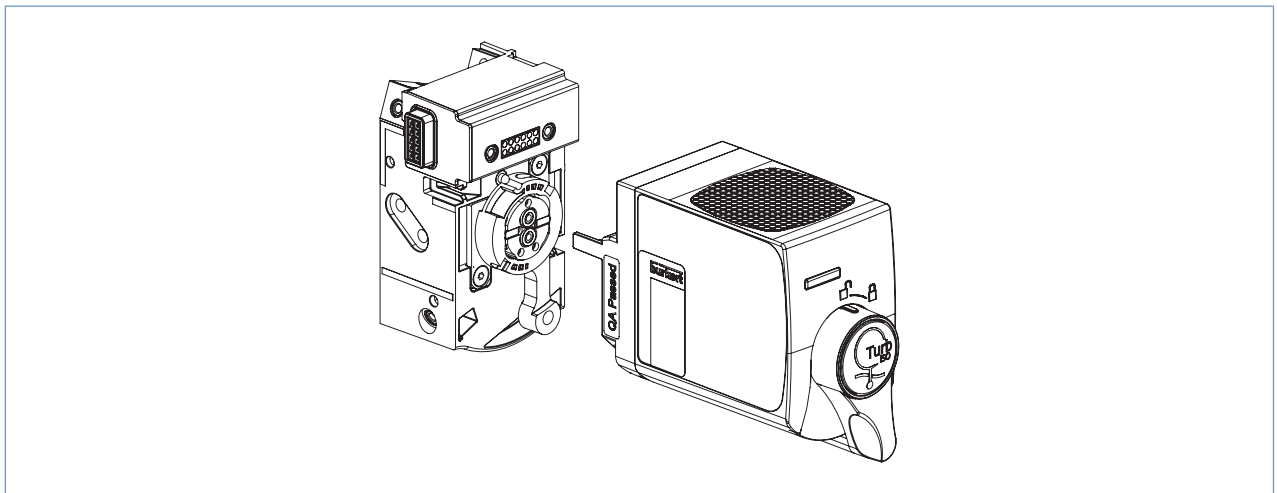
Design and principle of operation

The sensor cube gets the sample water through the fluidic backplane, in which it is plugged in. The measurement is based on the detection of scattered IR-light in an arrangement of 90° to the incident beam. The sample is flowing through a glass cuvette.



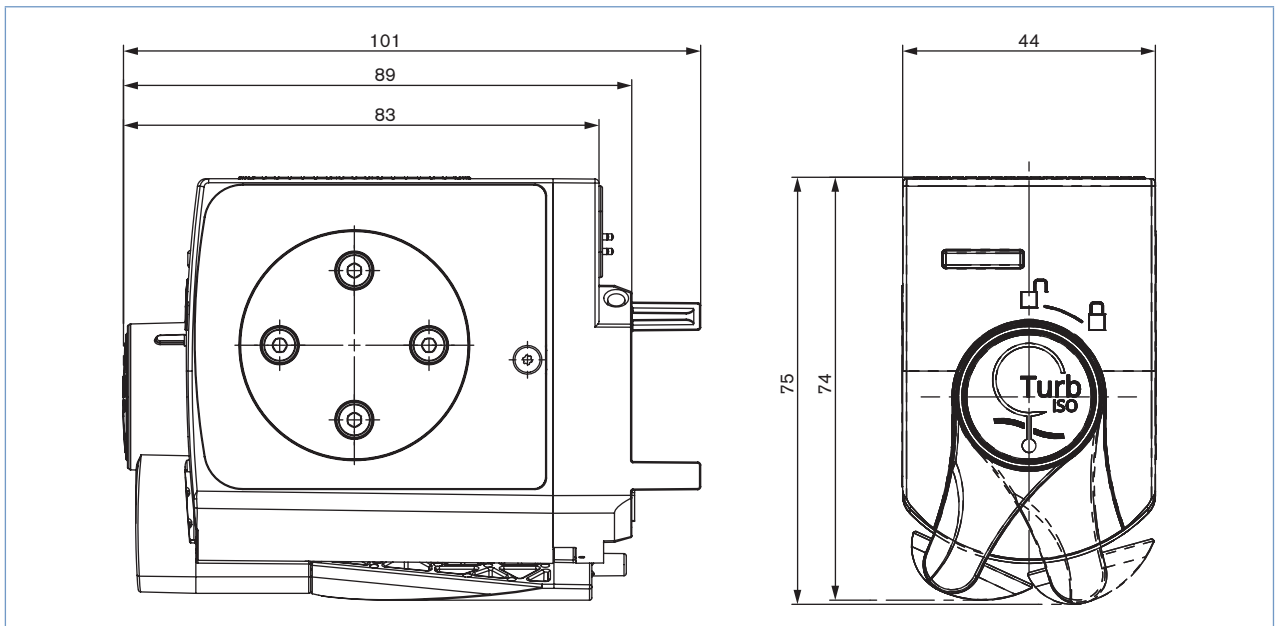
Installation into the Online Analyse System Type 8905

To operate a turbidity sensor cube it is necessary that a spare fluidic backplane site is available. It can be installed in a compact system Type 8905 or in a customized version.



MS05

Dimensions [mm]



Ordering information and chart - Turbidity sensor cube

The turbidity 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.
Turbidity sensor cube - DIN EN ISO 7027	564 834

Ordering chart - accessories and spare parts

Description	Item no.
Cuvette	566 084