



# New WTW Spectral Sensors – Optimized Performance.

ON-LINE MEASURING PARAMETERS: NO<sub>3</sub>, COD, BOD, TOC, DOC, SAC, TSS



a xylem brand

# Chemical-free Measurement directly

Whether influent, biological tank or effluent, the self-cleaning sensors NitraVis® / CarboVis® / NiCaVis® provide:

- High measurement reliability
- Low operating costs
- Simple handling
- Maximum durability

## Simple to Use

- Reagent-free measurement
- No sample treatment
- Integrated ultrasonic cleaning
- No routine-service

## Maximum Durability

- High-tech materials Titanium and PEEK
- Integrated shock absorbers

**Ultrasonic  
Cleaning**



# ectly in the Wastewater Process



**Accurate  
and Reliable**



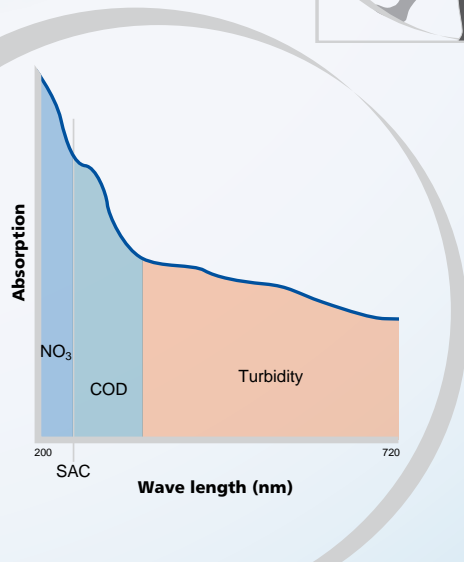
### Detector Optimization

- Wide, dynamic measuring range
- High measurement accuracy



### Innovative Optical Design

- Highest measurement repeatability
- High zero-point for long-term stability



### Spectral Measurement

- No interference from nitrate and COD
- No influence from turbidity

# Technical Data

Parameter	Carbon: COD/TOC/SAC			Nitrogen	
Measuring Principle	Spectral Measurement in the UV/VIS range (200-720 nm)				
	CarboVis® 705 IQ	CarboVis® 701 IQ	NiCaVis® 705 IQ	NitraVis® 701 IQ	NitraVis® 705 IQ
Applications	Municipal wastewater: inlet, effluent		Municipal wastewater: effluent	Municipal wastewater: inlet, aeration, outlet	
Measuring Ranges in Standard Solution (potassium-hydrogenphthalate)	COD: 0.1 ... 800.0 mg/l TOC: 1 ... 500.0 mg/l SAC: 0.1 ... 600.0 1/m	COD: 0.5 ... 4000.0 mg/l TOC: 5 ... 2500.0 mg/l SAC: 0.5 ... 3000.0 1/m	COD: 0.1 ... 800.0 mg/l TOC: 1 ... 500.0 mg/l SAC: 0.1 ... 600.0 1/m NO <sub>3</sub> -N: 0.01 ... 25.00 mg/l	NO <sub>3</sub> -N: 0.1 ... 100.0 mg/l (inlet, aeration)	NO <sub>3</sub> -N: 0.01 ... 25.00 mg/l (outlet)
Accuracy in standard solution	±3 % of the measured value ±2.5 mg/l			±3% of measured value ±0.5 mg/l	
Measuring Ranges TSS (Option)	Inlet: 0 ... 3000 mg/l TS Effluent: 0.0 ... 900.0 mg/l TS	Inlet: 0 ... 15 g/l TS Effluent: 0 ... 4.5 g/l TS	–	inlet, aeration: 0 ... 10.00 g/l TS	outlet: 0 ... 900.0 mg/l TS
Materials	Housing: Titanium 3.7035, PEEK Window: Sapphire glass				
Pressure Resistance	≤1 bar				
Ambient Conditions	Operating temperature: 0 °C ... +45 °C; Storage temperature: -10 °C ... +50 °C				
Flow velocity	≤3 m/s				
pH range	pH 4 ... pH 12				
Dimensions	802 x 59.9 mm (length x diameter)				
Weight	Approx. 4 kg				
Warranty	2 years				

## Ordering Information

Model	Description	Order No.
<i>Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately)</i>		
<b>NitraVis® 701 IQ</b>	Optical nitrate probe, with spectral processing of the UV/VIS range, for in-situ measurement in inlet/ BNR part of municipal wastewater treatment plants, with integrated ultrasonic cleaning.	481 044
<b>NitraVis® 701 IQ TS</b> <b>Double sensor</b>	Optical nitrate/TSS probe, with spectral processing of the UV/VIS range, for in-situ measurement in inlet/ BNR part of municipal wastewater treatment plants, with integrated ultrasonic cleaning.	481 045
<b>NitraVis® 705 IQ</b>	Optical nitrate probe, with spectral processing of the UV/VIS range, for in-situ measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning.	481 046
<b>NitraVis® 705 IQ TS</b> <b>Double sensor</b>	Optical nitrate/TSS probe, with spectral processing of the UV/VIS range, for in-situ measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning.	481 047
<b>CarboVis® 701 IQ</b>	Optical COD/TOC/DOC/BOD or SAC probe, with spectral processing of the UV/VIS range, for in-situ measurement in inlet/effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning.	481 048
<b>CarboVis® 701 IQ TS</b> <b>Double sensor</b>	Optical COD/TOC/DOC/BOD/SAC and TSS probe, with spectral processing of the UV/VIS range, for in-situ measurement in inlet/effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning.	481 049
<b>CarboVis® 705 IQ</b>	Optical COD/TOC/DOC/BOD or SAC probe, with spectral processing of the UV/VIS range, for in-situ measurement in inlet/effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning.	481 050
<b>CarboVis® 705 IQ TS</b> <b>Double sensor</b>	Optical COD/TOC/DOC/BOD/SAC and TSS probe, with spectral processing of the UV/VIS range, for in-situ measurement in inlet/effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning.	481 051
<b>NiCaVis® 705 IQ</b> <b>Double sensor</b>	Optical nitrate and COD/TOC/DOC/BOD/SAC probe, with spectral processing of the UV/VIS range, for in-situ measurement in effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning.	481 052

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