



# Your perfect partner ...

... FOR AMMONIUM AND NITRATE MEASUREMENT

**Very easy  
Less costs  
More possible**



a xylem brand

# Proven quality surprisingly new!

Very easy

## The new matrix adjustment – Easier and faster than ever!

The accuracy of the measurement with ion-selective electrodes is dependent on the measured medium. For compensation of this effect a matrix adjustment is necessary. Benefit from our intuitive operation which makes the adjustment as easy as possible!

Less costs

## Cross compensation – One electrode several sensors

It is now possible to compensate several sensors simultaneously with one chloride or potassium electrode. With this new feature you have the opportunity to fully compensate your measurement and even save costs!

More possible

## Ammonium measurement – also in heavily polluted media

High  $\text{NH}_4\text{-N}$  concentrations up to 2000 mg/l can now be measured in centrate- and other process waters without the need of any chemicals!

## VARiON® Plus

- Multiparameter in situ  
response time, variably
- Ideal for the fast measu  
and Nitrate with dynam  
of potassium and/or ch



## AmmoLyt® Plus

- Single parameter in situ  
measuring of Ammonium  
compensation of potas

K<sup>+</sup> (Compensation) \_\_\_\_\_

**NH<sub>4</sub><sup>+</sup>** \_\_\_\_\_

Reference \_\_\_\_\_



## NitraLyt® Plus

- Single parameter in situ  
measuring of Nitrate w  
compensation of chloride.

Cl<sup>-</sup> (Compensation) \_\_\_\_\_

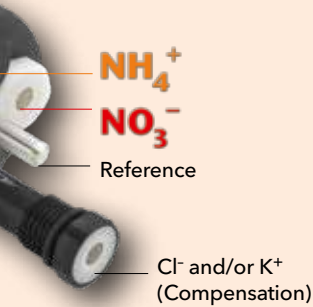
**NO<sub>3</sub><sup>-</sup>** \_\_\_\_\_

Reference \_\_\_\_\_



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## Proven quality

### More than 10 years experience in ion selective on-line measurement

- Control of intermitting nitrification/denitrification
- Optimization/monitoring of simultaneous nitrification/denitrification
- SBR (sequencing batch reactor) process control
- Measurement of high ammonium load in centrate- and process water

Based on our long term experience in the development and production of ion selective electrodes we guarantee a sophisticated and reliable measurement technique without compromises!

### Calibration free-easier than pH measurement!

WTW's ISE sensors measure directly in the process without the need of chemicals or sample taking. Thanks to the mature technology a calibration with standard solutions is obsolete. This ensures long-term stable measurement values without additional effort. Just screw in the electrodes - everything else takes place automatically!

### Single exchange of electrodes

The single electrode principle of WTW's ISE sensors ensures you to exchange what really has to be replaced.

### Robust electrodes

Thanks to WTW's robust ISE electrodes handling and cleaning of the sensor becomes a side issue!

### Direct connection to the IQ SENSOR NET

Benefit from ...

- Connection of up to 20 sensors
- Measurement of all important parameters
- Maximum variety of communication possibilities



For more detailed information please order free of charge our catalog "**On-line Instrumentation**" or visit our website:

[www.wtw.com/en/iqsn](http://www.wtw.com/en/iqsn)

(For convenience use our QR code).



# Technical Data VARiON<sup>®</sup> Plus • AmmoLyt<sup>®</sup> Plus • NitraLyt<sup>®</sup> Plus

Maximum configuration	VARiON <sup>®</sup> Plus: Common reference electrode, two measuring electrodes, one compensation electrode AmmoLyt <sup>®</sup> Plus: Common reference electrode, Ammonium measuring electrodes, one compensation electrode NitraLyt <sup>®</sup> Plus: Common reference electrode, Nitrate measuring electrodes, one compensation electrode	
	Ammonium measurement	Nitrate measurement
Integrable Electrodes: Reference electrode	VARiON <sup>®</sup> Plus Ref	
Measuring electrode	VARiON <sup>®</sup> Plus NH <sub>4</sub>	VARiON <sup>®</sup> Plus NO <sub>3</sub>
Compensation electrode	VARiON <sup>®</sup> Plus K	VARiON <sup>®</sup> Plus Cl
Measuring Ranges/ Resolution	NH <sub>4</sub> -N: 1 ... 2,000 mg/l / 1 mg/l; 0.1 ... 100 mg/l / 0.1 mg/l NH <sub>4</sub> <sup>+</sup> : 1 ... 2,580 mg/l / 1 mg/l; 0.1 ... 129.0 mg/l / 0.1 mg/l	NO <sub>3</sub> -N: 1 ... 1,000 mg/l / 1 mg/l; 0.1 ... 100 mg/l / 0.1 mg/l NO <sub>3</sub> <sup>-</sup> : 1 ... 4,500 mg/l / 5 mg/l; 0.5 ... 450.0 mg/l / 0.5 mg/l
Compensation Ranges	K <sup>+</sup> : 1 ... 1,000 mg/l / 1 mg/l	Cl <sup>-</sup> : 1 ... 1,000 mg/l / 1 mg/l
Temperature Measurement	Integrated NTC thermistor, Range 0 °C ... + 40 °C, Accuracy ± 0.5 K, Resolution 0.1 K	
Temperature Compensation	32 °F ... 104 °F (0 °C ... + 40 °C)	
Matrix adjustment	yes (adjustment against photometric measurement or other measurement technique)	
Calibration Procedures	Calibration against any reference value, 2-point-calibration possible with multiple standard solution	
Ambient Conditions	Operating temperature: 32 °F ... 104 °F (0 °C ... + 40 °C), storing temperature: 32 °F ... 104 °F (0 °C ... + 40 °C)	
pH Range	pH 4 ... pH 8,5	pH 4 ... pH 11
Measuring Accuracy in laboratory standard solutions	± 5 % of measured value ± 0,5 mg/l	
Working Life (typically)	All electrodes: 18 months (in typical application - sewage plants)	
Mechanical	Sensor body: V4A Stainless Steel 1.4571 Temp. sensor: V4A Stainless Steel 1.4571 Electrode connector: POM	Protective cap: POM Protection rating: IP 68 (0.2 bar, with installed electrodes)
Max. Pressure	Maximum 0.2 bar (incl. SACIQ sensor connection cable; with installed electrodes)	
Power Consumption	0.2 Watt	
Dimensions	15.43 x 1.57 in. (392 x 40 mm, length x diameter), incl. SACIQ sensor connection cable	
Weight	Approx. 1.48 lb (approx. 670 g, without electrodes, without SACIQ sensor connection cable)	
Guaranty	VARiON <sup>®</sup> Plus 700 IQ, AmmoLyt <sup>®</sup> Plus 700 IQ, NitraLyt <sup>®</sup> Plus 700 IQ: 2 years for defects of quality Electrodes: 12 month for defects of quality	

## Ordering information

Sets, including Probe, reference electrode, corresponding measuring- and compensation electrode

Model	Description	Order No.
AmmoLyt <sup>®</sup> Plus SET/Comp	for the measurement of Ammonium with compensation electrode	107 072
NitraLyt <sup>®</sup> Plus SET/Comp	for the measurement of Nitrate with compensation electrode	107 082
VARiON <sup>®</sup> Plus AN/A comp SET	for the measurement of Ammonium with compensation, plus Nitrate measurement	107 066
VARiON <sup>®</sup> Plus AN/N comp SET	for the measurement of Nitrate with compensation, plus Ammonium measurement	107 068



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