xylem
Let's Solve Water

IQ
SENSOR NET

IQ SENSOR NET – the range

SECURE. MODULAR. FLEXIBLE.

WTW

a **xylem** brand

IQ Sensor Net – the System for Wastewater Treatment Plants and more applications

The digital and modular IQ Sensor Net from WTW provides many unique advantages. Since 2001 our customers have enjoyed making the most of the IQ Sensor Net modular design. It enables to easily expand the network with new members. This provides real flexibility and peace of mind that you are completely future proofed for all wastewater monitoring requirements.
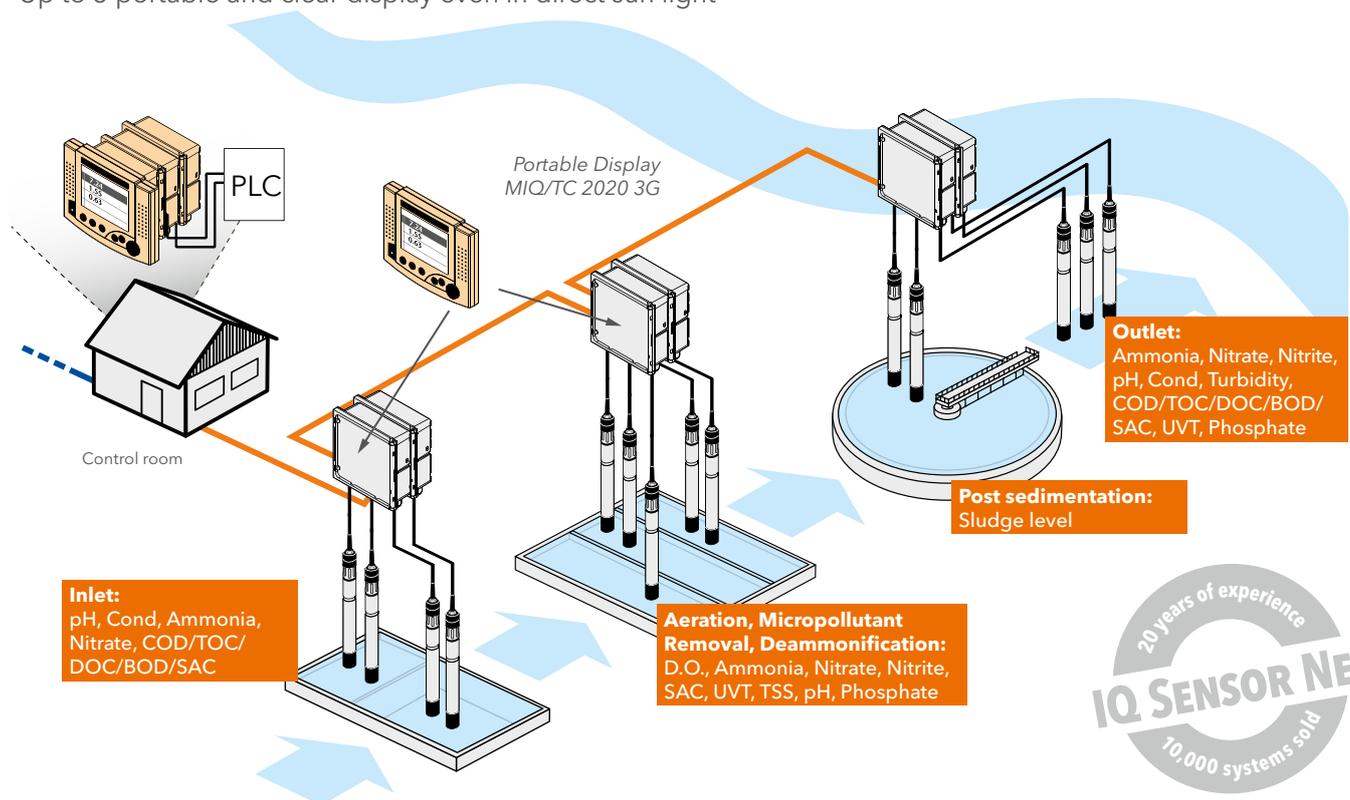
- Integrated overvoltage protection of all components (sensors, modules, cables)
- Reduce cost of installation with universal sensor connection and 2 wired cables rather than multiple power and output cables
- Intuitive design to operate and expand

At the beginning of your planning, make your decision between 3 systems:

1) IQ Sensor Network: System 2020 3G

- For up to 20 digital IQ sensors in any order
- Measuring network for large plants, BackUp controller function for higher operational safety
- Ethernet/LAN interface and integrated webserver for easy network connection
- Fast and easy saving of logbook data, measured values and configurations for additional safety and easy and safe software updates via USB stick
- Up to 3 portable and clear display even in direct sun light

PLC

Control room

Portable Display MIQ/TC 2020 3G

Outlet: Ammonia, Nitrate, Nitrite, pH, Cond, Turbidity, COD/TOC/DOC/BOD/SAC, UVT, Phosphate

Post sedimentation: Sludge level

Inlet: pH, Cond, Ammonia, Nitrate, COD/TOC/DOC/BOD/SAC

Aeration, Micropollutant Removal, Deammonification: D.O., Ammonia, Nitrate, Nitrite, SAC, UVT, TSS, pH, Phosphate

20 years of experience
IQ SENSOR NET
10,000 systems sold

Oxygen measurement with FDO® 700 IQ

- Calibration free sensor
- Reduces energy and operational costs
- Long lifetime of membrane cap
- Precise results without drift

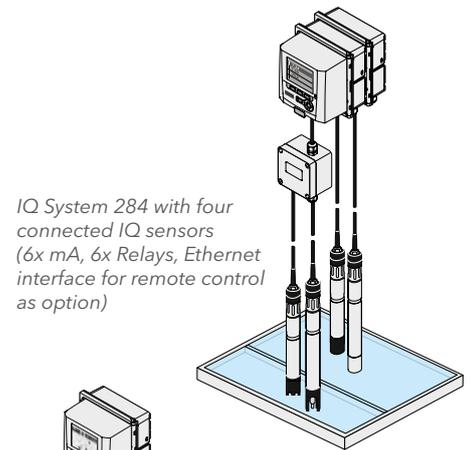## Ammonia & Nitrate measurement with ISE sensors (e.g. VARiON®^{Plus} 700 IQ)

- Easy and fast matrix adjustment
- Up to 2.000 mg/l NH_4
- Extremely robust electrodes
- Compensation with K and Cl

The wetchemistry revolution is now: Alyza IQ PO_4 and NH_4

- Minimized reagent consumption and waste
- Extremely low maintenance
- Reliable results also in low measuring ranges

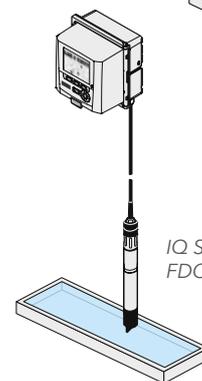## 2) Outstanding among the Compact: System 282/284

- Multi-channel controller for up to 4 IQ sensors provides easy and lowcost expansion
- Up to 20 parameters can be visualized at the same time
- Includes free-of-charge webserver for full remote control
- Perfectly suited to replace or add single measuring point
- Simple Data transfer and download with USB stick at every controller
- Optional: Ethernet and RS 485 interface for network connection and fieldbus communication (Profinet, etc.)

IQ System 284 with four connected IQ sensors (6x mA, 6x Relays, Ethernet interface for remote control as option)

3) The Single Parameter Measuring Point: System 281

- Low-cost entrance into the digital measuring technique
- For the parameters pH/ORP, Cond, D.O. and Turbidity
- Stable, robust and reliable measuring technique

IQ System 281 with FDO® 700 IQ

All Parameters at a Glance

Parameters / Sensors (TD D2.01 to D2.26)	TriOxmatic® 700 IQ	FDO® 700/701 IQ	SensoLyt® 700 IQ	TetraCon® 700 IQ	VisoTurb® 700 IQ	ViSolid® 700 IQ	AmmoLyt® 700 IQ	NitraLyt® 700 IQ	VARiON® 700 IQ	NitraVis® 701/705 IQ (TS)	NitraVis® 701/705 IQ NI	CarboVis® 701/705 IQ (TS)	NiCaVis® 705 IQ (TS/SF)	NiCaVis® 701/705 IQ (NI) SF	UV 701/705 IQ SAC	UV 701/705 IQ NOx	IFL 700 IQ	Alyza IQ PO$_4$	Alyza IQ NH$_4$
Usable with System 2020 3G and 282/284																			
Usable with System 281*																			
Parameter																			
Temperature																			
Dissolved Oxygen (electrochemical)																			
Dissolved Oxygen (optical)																			
pH/ORP																			
Conductivity																			
Salinity																			
TDS																			
Turbidity (optical)																			
TSS (optical)																			
Ammonia (ion-selective)																			
Ammonia (optical/wetchemical)																			
Nitrate (ion-selective)																			
Nitrate (optical/spectral)																†			
Nitrite (optical/spectral)																			
Potassium (ion-selective)																			
Chloride (ion-selective)																			
COD/BOD/TOC/DOC (optical/spectral)																			
SAC and UVT (optical/spectral)																			
Sludge Level																			
Orthophosphate (optical/wetchemical)																			

† Nitrite and Nitrate are included in the measured value.

Systems in Detail

Module	TD D1.01 to D1.10	MIQ/PS	MIQ/24V	MIQ/C6	MIQ/R6	MIQ/CR3	MIQ/IC2	MIQ/3-MOD	MIQ/3-PR	MIQ/JB	MIQ/JBR	MIQ/WL PS (SET)	MIQ/TC20203G	Terminal IQ	MIQ/MC3	MIQ/MC3-MOD	MIQ/MC3-PR	Cleaning Air Box - 230 VAC	Cleaning Air Box - 115 VAC	MIQ/CHV PLUS
Usable with System 2020 3G																				
Usable with System 282/284																				
Available IQSN connectors		3	3	2	2	2	2	2	2	4	4	3	✗	✗	2	2	2	✗	✗	2
Module features																				
Power supply																				
100…240 V AC																				
24 V AC/DC																				
Analog outputs/relays																				
6 x 0/4…20 mA																				
6 x Relais																				
3 x 0/4…20 mA, 3 x Relais																				
Analog inputs																				
2 x 0/4…20 mA																				
Interfaces																				
MODBUS																				
PROFIBUS																				
USB																				
Ethernet/LAN (Profinet, Ethernet/IP, Modbus TCP)																				
Intra-system connectivity																				
4 available IQSN connectors																				
4 available IQSN connectors including signal amplification for large distances																				
Radio transmission																				
Controller																				
Controller/Terminal (with Display)														*						
Controller in standard IQ module without display																				
Compensation																				
Air-pressure compensation for D.O. measurement																				
Compressed air cleaning																				
Air compressor 230 VAC																				
Air compressor 115 VAC																				
Valve for automatic cleaning																				

USB interface only for software updates
* *No controller or controller backup functionality*