



# Alyza IQ: The Simple choice for PO<sub>4</sub> Analyzers



a xylem brand

# How much reagent does your analyzer use?

## Less Reagents

Minimized reagent consumption and waste

## Simple Service

Regular maintenance takes just 10 minutes every 3 months

## Better Data

Reliable results from low to high measuring levels

TresCon®

P700IQ

Alyza IQ



The Alyza IQ PO4 is fully integrated into the IQ SENSOR NET as a sensor. The new analyzer can be operated in the system 2020 and the System 282/284.

## Simple Service

Built with Service in mind, all service items can be quickly and easily exchanged without calling a service technician or service contracts.

## Long Life Reagents

Easy and safe reagent replacement with no-drip reagent pouches.

## Clear Information

Clear measurement menu - even for 2 channel versions and monitoring of reagent life time.

Learn more about IQ SENSOR NET on our website:

[www.IQ-Sensor.Net](http://www.IQ-Sensor.Net)



Learn more about Alyza IQ PO4 on our website:

[www.WTW.com/Alyza-IQ](http://www.WTW.com/Alyza-IQ)



# Orthophosphate measurement

## Method

Molybdate-Vanadate method (Yellow method)

In the Molybdate Vanadate process, Orthophosphate (dissolved  $\text{PO}_4^{3-}$ ) is detected. Thereby, a color reagent consisting of Molybdate and Vanadate is added to the sample. Under acid conditions, the  $\text{PO}_4^{3-}$  ions are integrated into the generated polyanions. The intensity of the occurring yellow color depends on the concentration of  $\text{PO}_4^{3-}$ . Subsequently, the sample is analyzed in the photometer at approx. 420 nm.

## Fields of application

### Precipitation control

- Automatic cleaning reduces maintenance effort and increases operational safety
- Reduction of precipitant costs without overdosing by reliable and fast measurement
- One instrument for up to two sample streams



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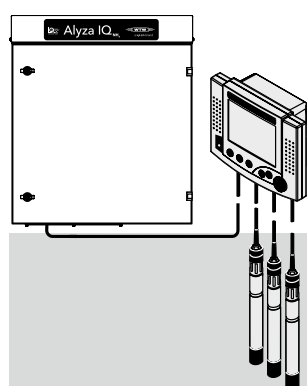
### Wastewater treatment plant effluent monitoring

- Precise results via automatic 1- and 2-point calibration
- Easier everyday life due to self diagnostics with display of reagent lifetime
- Requirements for further decreasing effluent values are not a problem due to low measuring range



# Configuration examples Alyza IQ PO<sub>4</sub> in IQ SENSOR NET

## Example 1 – System 2020



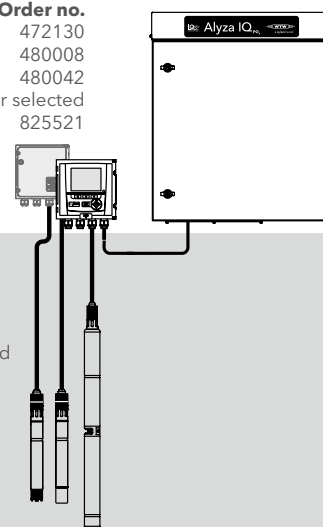
Example configuration	Order no.
MIQ/TC 2020 3G	470022
MIQ/JB	480008
SACIQ-7,0	480042
IQ Sensors	user selected
Alyza IQ PO <sub>4</sub> -112	825512

- MIQ/TC 2020 3G (terminal/controller)
  - MIQ/JB (module for system expansion)
  - Alyza IQ PO<sub>4</sub> (Analyzer incl. SSCIQ cable and power supply)
- Additional hardware required:
- 3 SSCIQ (sensor cables)
  - 3 IQ sensors (e.g. turbidity, NH<sub>4</sub>, oxygen)

## Example 2 – System 282/284

Example configuration	Order no.
DIQ/S 284-CR6	472130
MIQ/JB	480008
SACIQ-7,0	480042
IQ Sensors	user selected
Alyza IQ PO <sub>4</sub> -121	825521

- DIQ/S 284-CR6 (controller)
  - Alyza IQ PO<sub>4</sub> (analyzer incl. SSCIQ cable and power supply)
- Additional hardware required:
- 2 SSCIQ (sensor cables)
  - 2 IQ sensors (e.g. oxygen, NH<sub>4</sub>)
  - 1 IQ spectral sensor (e.g. COD)



Neither example 1 nor example 2 needs a power supply module MIQ/PS, as the Alyza IQ provides 10W to the systems.

## Technical data

Model	Alyza IQ PO <sub>4</sub>
<b>Measurement method</b>	Molybdate-Vanadate method (Yellow method)
<b>Measurement range</b>	One measuring range
<b>Sample streams/channels</b>	1- and 2-channel versions available
<b>Cleaning</b>	Automatic cleaning with cleaning solutions
<b>Calibration</b>	Automatic 1- and 2-point calibrations
<b>Operational temperature</b>	-4 ... 104 °F (-20 ... +40) °C

<b>MR1:</b>	0.02 ... 15.00 mg/l PO <sub>4</sub> -P
Displayed:	0.00 ... 15.00 mg/l PO <sub>4</sub> -P
Resolution:	0.01 mg/l PO <sub>4</sub> -P
Accuracy:	± 2 % ± 0.02 mg/l
<b>MR2:</b>	0.2 ... 50.0 mg/l PO <sub>4</sub> -P
Displayed:	0.0 ... 50.0 mg/l PO <sub>4</sub> -P
Resolution:	0.05 mg/l PO <sub>4</sub> -P
Accuracy:	± 2 % ± 0.2 mg/l



D2.25

## Order information

Model	Description	Order no.
<b>Alyza IQ PO<sub>4</sub>-111</b>	PO <sub>4</sub> analyzer, 1-channel, with MR1, yellow method, connectable to IQ SENSOR NET Systems 2020 and 282/284, provides 10 W to the IQ SENSOR NET; including 2 m SSCIQ cable; reagents need to be ordered separately	825511
<b>Alyza IQ PO<sub>4</sub>-112</b>	PO <sub>4</sub> analyzer, 2-channel, with MR1, yellow method, connectable to IQ SENSOR NET Systems 2020 and 282/284, provides 10 W to the IQ SENSOR NET; including 2 m SSCIQ cable; reagents need to be ordered separately	825512
<b>Alyza IQ PO<sub>4</sub>-121</b>	PO <sub>4</sub> analyzer, 1-channel, with MR2, yellow method, connectable to IQ SENSOR NET Systems 2020 and 282/284, provides 10 W to the IQ SENSOR NET; including 2 m SSCIQ cable; reagents need to be ordered separately	825521
<b>Alyza IQ PO<sub>4</sub>-122</b>	PO <sub>4</sub> analyzer, 2-channel, with MR2, yellow method, connectable to IQ SENSOR NET Systems 2020 and 282/284, provides 10 W to the IQ SENSOR NET; including 2 m SSCIQ cable; reagents need to be ordered separately	825522
<b>Reagent sets</b>		
<b>R-Set PO<sub>4</sub>/1-1</b>	Reagents for Alyza IQ PO <sub>4</sub> -X1X with MR1	827550
<b>R-Set PO<sub>4</sub>/1-2</b>	Reagents for Alyza IQ PO <sub>4</sub> -X2X with MR2	827551
<b>SC-Set PO<sub>4</sub>/1-1_0/1</b>	Calibration standards and cleaning solution for Alyza IQ PO <sub>4</sub> -X1X with MR1; Calibration standards with 0 mg/l and 1 mg/l	827555
<b>SC-Set PO<sub>4</sub>/1-1_0/10</b>	Calibration standards and cleaning solution for Alyza IQ PO <sub>4</sub> -X1X with MR1; Calibration standards with 0 mg/l and 10 mg/l	827556
<b>SC-Set PO<sub>4</sub>/1-2_10/40</b>	Calibration standards and cleaning solution for Alyza IQ PO <sub>4</sub> -X2X with MR2; Calibration standards with 10 mg/l and 40 mg/l	827557

