



# 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



## 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.



The Alyza IQ PO<sub>4</sub> 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.

Learn more about IQ SENSOR NET on our website:  
[www.IQ-Sensor.Net](http://www.IQ-Sensor.Net)

Learn more about Alyza IQ PO<sub>4</sub> 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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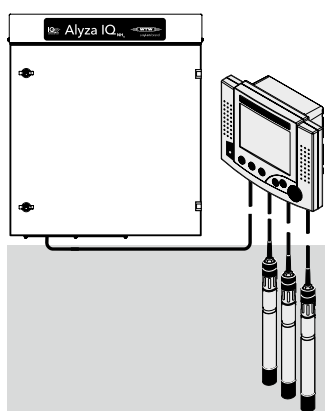
### Wastewater treatment plant effluent monitoring

- 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

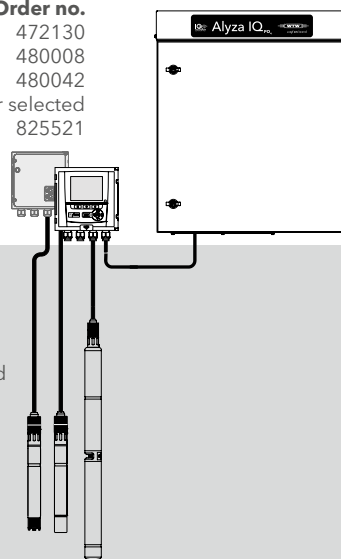
## Example 1 – System 2020



| 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. SNCIQ cable and power supply)
- Additional hardware required:
- 3 SACIQ (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. SNCIQ cable and power supply)
- Additional hardware required:
- 2 SACIQ (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>                   |
|-------------------------|--|
| Measurement method      | Molybdate-Vanadate method (Yellow method)  |
| Measurement range       | One measuring range                        |
| Sample streams/channels | 1- and 2-channel versions available        |
| Cleaning                | Automatic cleaning with cleaning solutions |
| Calibration             | Automatic 1- and 2-point calibrations      |
| Operational temperature | -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                       |



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## 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 SNCIQ 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 SNCIQ 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 SNCIQ 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 SNCIQ 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    |

