

# AQUACON PO4-10/PO4-20

## Process analyzers for Orthophosphate measurement

The AQUACON PO4-10 and PO4-20 process photometers can be used for the monitoring and control of the concentration of orthophosphate ( $\text{PO}_4^{3-}$ ) in water. Measurement principle is the photometric detection of the color change of a water sample after the formation of a molybdoblue-phosphoric acid complex (PO4-10) or a molybdovanadate-phosphoric acid complex (PO4-20).

Main applications for the photometers are the monitoring of surface water, treated water, waste water or process water and the control of phosphate dosing plants.

The analyzers consist of a control unit with touchscreen and an analysis unit with measuring chamber, valve, dosing pumps and all required tube connections. The control unit includes a microprocessor which controls the automatic measurement incl. sampling, rinsing, reagent dosing and surveillance of the photodetection system.

### Your advantages:

- ⇒ Automatic measurement incl. self test and drift compensation
- ⇒ Easy operation via touchscreen
- ⇒ Adjustable limit value and alarm value
- ⇒ Programmable analog output (0/4-20 mA), optionally with USB port for easy data storage
- ⇒ Adjustable break time between two analysis
- ⇒ External start/stop of an analysis possible
- ⇒ No external calibration required
- ⇒ External plug connections (IP65) for alarm relay, limit relay, analysis relay, external start/stop, analog output 0/4-20 mA
- ⇒ Multi range power supply (110–230 Volt, 50–60 Hz)
- ⇒ Including polycarbonate wall cabinet



*Example for AQUACON analyzer*

### Order informations:

AQUACON PO4-10	(0,05 - 10 ppm $\text{PO}_4^{3-}$ )	Order No. 693 2784 01
AQUACON PO4-20	(0,5 - 50 ppm $\text{PO}_4^{3-}$ )	Order No. 693 2785 01
Reagent POB-R1003	(500 ml)	Order No. 103 2784 01
Reagent POB-R1004	(500 ml)	Order No. 104 2784 01
Reagent PO20-R1011	(500 ml)	Order No. 101 2785 03

## Technical Data

Current output	0/4 - 20 mA, max. load 500 ohm
Display	240 x 128 dots, touchscreen
Relays	1 x Alarm, potential-free 230 V/50 Hz, 3A 1 x Limit, potential-free 230 V/50 Hz, 3A 1 x Analysis state, potential-free 230 V/50 Hz, 3A
External Switching	potential-free contact, 18 V DC, ca. 4 mA
Power Supply	110 - 230 V -- 50/ 60 Hz
Power Consumption	approx. 16 VA
Dimensions	640 x 315 x 190 mm (H x W x D)
Protection	IP 65 (transmitter housing)
Connections	Plugs with circular connection 1,5 mm <sup>2</sup>
Temperature	5° to 45°C, at consumption of reagents within 6 months

Since it is company policy to continuously improve its product range, we reserve the right to make changes in the product design without notification to its users.

## Specifications

Parameter	Orthophosphate (PO <sub>4</sub> <sup>3-</sup> )																
Description	Automatic microprocessor controlled analyzer for the photometric determination of dissolved orthophosphate																
Typical Applications	Monitoring of surface, treated and clarified water Control of phosphate dosing plants																
Analysis Method:	Molybdobblue method	Molybdovanadate method															
Analyzer type	AQUACON PO4-10	AQUACON PO4-20															
Measuring Range	0,05 – 10 ppm	0,5 – 50 ppm															
Resolution	0,01 ppm	0,1 ppm															
Accuracy	2 % of end value																
Reproducibility	1 % of end value																
Zero-point Stability	automatic adjustment																
Number of Samples	1																
Sample	Operating Pressure 0,1 - 10 bar Temperature 5 - 30 °C Sample Volume 25 ml per analysis (excluding rinsing) Sample Condition clear, filtrated Chemical Demands pH 4-8 Drain pressure free into open drain																
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