

# Orthophosphate analyzer Liquiline System CA80PH

## Colorimetric system for wastewater monitoring and optimization of process control



More information and current pricing:  
[www.es.endress.com/CA80PH](http://www.es.endress.com/CA80PH)

### Benefits:

- Fast commissioning and plug & play thanks to Memosens technology and user-friendly operation
- Easy upgrade of functionality - even to a complete measuring station - simply by adding modules and connecting Memosens sensors
- Advanced diagnostics with remote access for increased process safety
- Reduced operating costs through automatic calibration and cleaning and long reagent shelf life with cooling module
- Available with both standardized measuring methods covering all applications: Molybdenum blue method and Molybdate Vanadate yellow method

### Specs at a glance

- **Measurement range** 0 to 2.5 mg/l PO<sub>4</sub>-P (blue method) 0.05 to 10 mg/l PO<sub>4</sub>-P (blue method) 0.05 to 10 mg/l with dilution function to maximum 2.5 to 500 mg/l PO<sub>4</sub>-P (blue method) 0.5 to 20 mg/l PO<sub>4</sub>-P (yellow method) 0.5 to 50 mg/l PO<sub>4</sub>-P (yellow method) 0.5 to 50 mg/l with dilution function to maximum 10 to 1000 mg/l PO<sub>4</sub>-P (yellow method)
- **Process temperature** 4 to 40 °C (39.2 to 104 °F)
- **Process pressure** At atmospheric pressure, < 0.2 bar

**Field of application:** Liquiline System CA80PH offers online orthophosphate measurement for precise dosing of precipitants in wastewater treatment. As all Liquiline System analyzers, it enables plug & play of up to 4 Memosens sensors - minimizing the installation effort. Automatic calibration and cleaning and the low consumption of reagents save you operating costs. Advanced diagnostics with remote access

ensure process safety and support you in providing process documentation to the authorities.

## Features and specifications

### Analyser

#### Measuring principle

Colorimetric

#### Characteristic

Process analyzer for orthophosphate in aqueous solutions  
Comply with standard colorimetric measuring principle, molybdenum blue method, following DIN EN 1189 or molybdate vanadate method

#### Size

Housing (open version):

793 x 530 x 417 mm

31.22 x 20.87 x 16.42 in

Housing (closed version):

793 x 530 x 463 mm

31.22 x 20.87 x 18.23 in

Housing with base:

1723 x 530 x 463 mm

67.83 x 20.87 x 18.23 in

#### Design

Open design, cabinet and stand housing

High-Performance plastic ASA-PC, additional stand coated steel

#### Process temperature

4 to 40 °C (39.2 to 104 °F)

#### Ambient temperature

5 to 40 °C (41 to 104 °F)

Outdoor version: - 20 to 40 °C (-4 to 104 °F)

#### Process pressure

At atmospheric pressure, < 0.2 bar

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**Analyser****Sample flow rate**

Min. 5 ml/min (0.17 fl.oz/min)

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**Consistency of the sample**

Suspended solids content

Turbidity < 50 NTU, aqueous, homogenized

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**Application**

Monitoring and optimization of the cleaning capacity of municipal and industrial waste water treatment plants

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**Power supply**

100 to 120 VAC / 200 to 240 VAC  $\pm$  10%

24 VDC  $\pm$  10%

50  $\pm$  1 or 60  $\pm$  1,2 Hz

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**Output / communication**

2x 0/4 to 20 mA

Modbus RS485/TCP

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**Input**

1 or 2 measuring channel

1 to 4 digital sensor inputs for sensors with Memosens protocol (optional)

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**Measurement range**

0 to 2.5 mg/l PO<sub>4</sub>-P (blue method)

0.05 to 10 mg/l PO<sub>4</sub>-P (blue method)

0.05 to 10 mg/l with dilution function to maximum 2.5 to 500 mg/l PO<sub>4</sub>-P (blue method)

0.5 to 20 mg/l PO<sub>4</sub>-P (yellow method)

0.5 to 50 mg/l PO<sub>4</sub>-P (yellow method)

0.5 to 50 mg/l with dilution function to maximum 10 to 1000 mg/l PO<sub>4</sub>-P (yellow method)

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## Analyser

### Consumables

Reagents and standard solutions CY80H as well as cleaner CY800 (blue method) are necessary for the operation

Regular maintenance is done with the parts of the maintenance kit CAV800

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