

2029 Phosphate Analyzer

From Metrohm Process Analytics

Elemental phosphorus is highly reactive and thus binds easily to oxygen, forming phosphates (ortho-phosphates o-PO_4 , poly-phosphates, and organic phosphates). Phosphates in water sources can come from minerals, detergents, agricultural (fertilizer) runoff, and other anthropogenic influents. Environmental agencies have strict regulations regarding industrial phosphate emissions. In the treatment facility it is important to know the phosphate concentration in the influent stream either to feed the bacteria for biological treatment or to calculate the amount of reagents needed for chemical treatment.

Because of its role in many different production and environmental processes, it is of vital importance to closely monitor the concentration. The **2029 Phosphate process analyzer** from Metrohm Process Analytics is the most straightforward and easy-to-use tool to do so online.

About the Phosphate application

Depending on the desired measurement range ($\mu\text{g/L}$ to mg/L), o-PO_4 can be determined photometrically with the Vanadate-molybdate method (405 nm), or with the Molybdenum blue method (875 nm).



Benefits for online analysis

- Protect expensive company assets by monitoring your processes
- Process data available at your fingertips 24/7 means no waiting for slow, manual laboratory methods
- Increased safety for employees – no manual sampling necessary, no exposure to unsafe, hazardous environments
- Save money by reducing downtime: analyzer sends alarms for out-of-specification values which inform the operator sooner

Applications for o-PO_4

- ... in boiler feed and cooling water / (energy/power)
- ... in fertilizer production / (chemical)
- ... in development of soft drinks / (food/beverage)
- ... in the production of detergents / (chemical)
- ... in drinking water treatment / (potable water)
- ... in surface water monitoring / (environmental)
- ... in effluent streams (WWTP) / (several industries)

o-PO_4 analysis performed safely online

- Ortho-phosphate can be measured in 1 or 2 sample streams
- Compact footprint for tight industrial spaces: 326 x 273 mm
- Safe, rugged enclosure designed to IP66 specifications is ideal for process environments
- A 7" full color touchscreen shows trend graphs and allows action modifications
- Remote access and control via Ethernet and Modbus TCP/IP, with USB for data export
- Easy maintenance due to simplicity of the layout
- Automatic data and/or alarm transfer to a DCS system



For more information, visit our website: www.metrohm.com

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