



polymetron

"helping to make a safer world..."

On-Line **PHOSPHATE** Analyzer *HIGH RANGE*

- no filtration and sample preparation
- instant results with continuous performance validation
- manual sample entry system for spot-check analysis
- easy mode of operation

if your application is

- ✓ **MUNICIPAL WASTE WATER & WATER TREATMENT**
- ✓ **INDUSTRIAL WASTE WATER EFFLUENT**
- ✓ **POWER GENERATION**

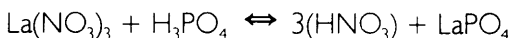
your solution is the

POLYMETRON Model 8810 PHOSPHATE Analyzer

THE METHOD

Utilizing the proven pH back- titration method, the 8810 will perform under severe process conditions reliably and accurately.

After capturing the sample, sulfuric acid is added to adjust the sample to pH 4.2 (the total alkalinity result can be obtained at this point). Next the Lanthanum Nitrate solution is injected to react with the Phosphate. This results in the release of Nitric Acid.



1ml NaOH = 0.1 mol/l = 1.5487mg P
or 3.5487mg P₃O₄ or 4.7486mg PO₄

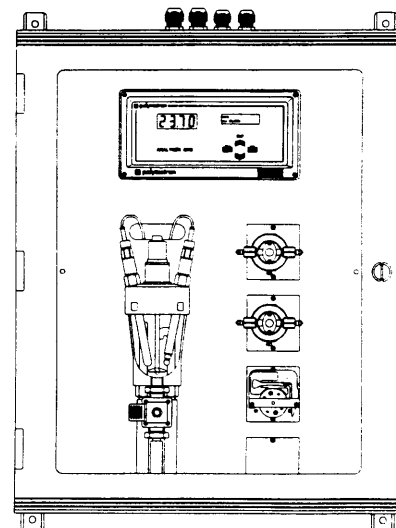
The liberated Nitric Acid is titrated to the endpoint of pH 4.2, for which the amount of NaOH consumed equals the concentration of PHOSPHATE.



application note

Technical Specifications

Lower detectable limit:	1 ppm PO ₄ / ± 0.2 ppm
Measuring range:	0...10 / 100 / 1000 ppm PO ₄
Detection Method:	pH Titration
Calibration:	Automatic / Manual / Process calibration
Chemical consumption:	10-20 ml/hr
Operating temperature:	40...130° F (5...55 °C)
Sample frequency:	typically 6...10/hr up to 25 application dependent
Sample streams:	1, up to 6 with sequencer Model 8811
Sample volume/cycle:	200...1000 ml
Sample temperature:	40...160° F (5...70 °C)
Sample pressure:	7...90 psi (0.5...6 bar)
Sample flow rate:	20 l/hr
Power:	110/220 VAC 50...60 Hz
Compressed air:	75...105 psi (5...7 bar)
Signal output:	2 0/4...20 mA Analog output 3 potential free relay contacts 1 RS 232/422 Serial output
Enclosure rating:	NEMA 12 / 4 / 4X or Ex proof



System Configuration

1 each	368810.40116	Analyzer Model 8810, pH base unit, 110V - 60Hz
	includes:	Measuring electrode, pH
		Reference electrode
		Temperature sensor, Pt100
		Titrant solution pump, micro piston, for: 0.1N Sulfuric Acid
1 each	368810.71060	Titrant solution pump, micro piston, for: 0.05N Sodium Hydroxide
1 each	368810.70060	Reagent pump, peristaltic, for: 10% w/v Lanthanum Nitrate

OPTIONS

1 each	368810.56000	Automatic chemical cleaning system
1 each	368810.60000	Automatic calibration system
1 each	368810.65000	Manual sample entry system
1 each	368810.76000	Automatic heating device / controller
1 each	359097.00160	Reagent / Calibration solution level sensor
1 each	368810.40000	NEMA 4X Fiberglass enclosure, wall mount
1 each	368810.45000	NEMA 12 Steel enclosure, floor mount

z zellweger analytics, inc.

Your local representative:

100 Park Avenue
League City, Texas 77573
U.S.A.
Tel: 713 / 332 - 2484
Fax: 713 / 554 - 6795

PML *Monitoring and Treatment
Systems for Industry.*
Process Technology
pmlprocess.com
Tel: (905) 206-9514 Fax: (905) 282-9903

This publication is not intended to form the basis of a contract, and the company reserves the right to amend the design of its instrument without notice.

z astro **z polymetron**

8810PHOS.APP