



# polymetron

*"helping to make a safer world..."*

## On-Line **UREA** Analyzer

- 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

- ✓ **FERTILIZER MANUFACTURING**
- ✓ **WATER MONITORING**
- ✓ **MUNICIPAL WASTE WATER EFFLUENT**

your solution is the

### **POLYMETRON Model 8810 UREA Analyzer**

#### THE METHOD

Utilizing the proven potentiometric measurement in combination with the dual standard addition calibration, the 8810 will perform under severe process conditions reliably and accurately.

After capturing the sample, a Sodium Hydroxide solution is added to condition the sample pH, followed by the introduction of the Urease solution. The sample now is ready for measurement with the Ammonium Ion Selective Electrode.

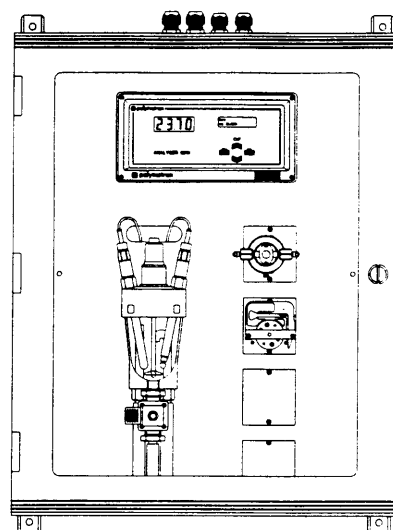
Following the measurement the measuring cell is rinsed out and cleaned. An additional chemical cleaning step can be introduced to insure higher analyzer up-time. Finally, to improve the service life of the electrode, the sensor is maintained in a solution of analyzer standard and conditioning reagent between sample measurements.



application note

## Technical Specifications

Lower detectable limit:	0.5 mg/l UREA / $\pm 0.2$ mg/l UREA
Measuring range:	0...10 / 50 / 100 mg/l UREA
Detection Method:	Potentiometric Measurement
Calibration:	Automatic / Manual / Process calibration
Chemical consumption:	20-40 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	368810.36116	Analyzer Model 8810, ISE base unit, 110V - 60Hz
	includes	Measuring electrode, Ammonia
		Temperature sensor, Pt100
		Reagent pump, peristaltic, for:
		3.75M Sodium Hydroxide solution
1 each	368810.70060	Reagent pump, peristaltic, for:
		Urease solution
1 each	368810.71060	Calibration pump, micro piston, for:
		Calibration solution 1000mg/l NH <sub>3</sub>
1 each	368810.76000	Automatic heating device / controller

### OPTIONS

1 each	368810.56000	Automatic chemical cleaning system
1 each	368810.65000	Manual sample entry system
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

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