



# polymetron

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

## On-Line **ACCELERATOR** 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

- ✓ **AUTOMOTIVE PRETREATMENT**
- ✓ **METAL SURFACE TREATMENT**
- ✓ **PLATING INDUSTRY**

your solution is the

## **POLYMETRON Model 8810 ACCELERATOR Analyzer**

### THE METHOD

Utilizing the proven ORP oxidation titration method, the 8810 will perform under severe process conditions reliably and accurately.

After capturing the sample, a Sulphuric Acid solution is added to condition the sample pH, and a Ferrous Sulphate solution to react with the Sodium Nitrite.

Next the Ceric Sulphate solution is injected to react with the Nitrite. This reaction results in the mV potential change, which is detected by the Platinum ORP electrode.

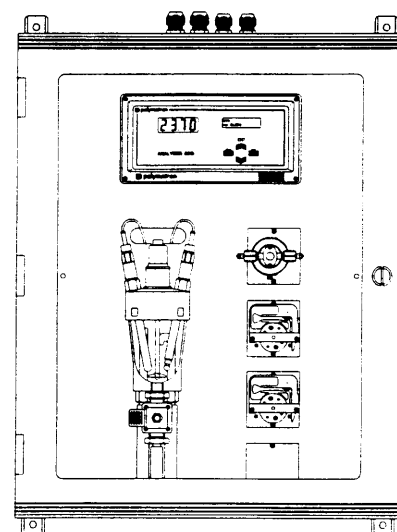
By tracking the mV changes versus the amount of titrant solution consumed, the point of inflection or the endpoint will equal the concentration of Sodium Nitrite, respectively the ACCELERATOR.



application note

## Technical Specifications

Lower detectable limit:	0.02 g/l NO <sub>2</sub> / ± 0.01 g/l NO <sub>2</sub>
Measuring range:	0...1 / 2 / 5 / 10 g/l NO <sub>2</sub>
Detection Method:	ORP 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	368810.50116	Analyzer Model 8810, ORP base unit, 110V - 60Hz
	includes:	Measuring electrode, Platinum
		Reference electrode
		Titration solution pump, micro piston, for:
		1.6g/l Ceric Sulphate / 0.01% Sulphuric Acid titrant solution
1 each	368810.70060	Reagent pump, peristaltic, for:
		10g/l Ferrous Sulphate / 0.01% Sulphuric Acid Conditioning solution
1 each	368810.70060	Reagent pump, peristaltic, for:
		0.03% Sulphuric Acid Conditioning solution
1 each	368810.52000	Automatic sample dilution system

### 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	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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