

Total Chlorine Analysis in Liquid Hydrocarbons

Clora® is a compact analyzer to measure total chlorine in liquid hydrocarbons such as aromatics, distillates, heavy fuels, crude oils, and aqueous solutions. Clora delivers unprecedented accuracy and precision for petroleum and petrochemical applications where ease-of-use, reliability and measurement speed are critical.

Applications

- Total chlorine analysis from aqueous solutions and aromatic products to heavy fuels, crudes, and catalyst
- For refineries, petrochemical and additive plants, pipeline terminals, and test laboratories

Features and Benefits

- LOD: 0.13 ppm for hydrocarbons
- LOD: 0.3 ppm for aqueous samples
- Dynamic Range: 0.13 ppm to 3000 ppm
- Fits on any lab bench
- Easy to use
 - Intuitive touch screen
 - Just plug-in and measure
 - Measurement time: 30-900 s
- Extremely low maintenance: no conversion gasses, heating elements, columns, or quartz tubing

Options

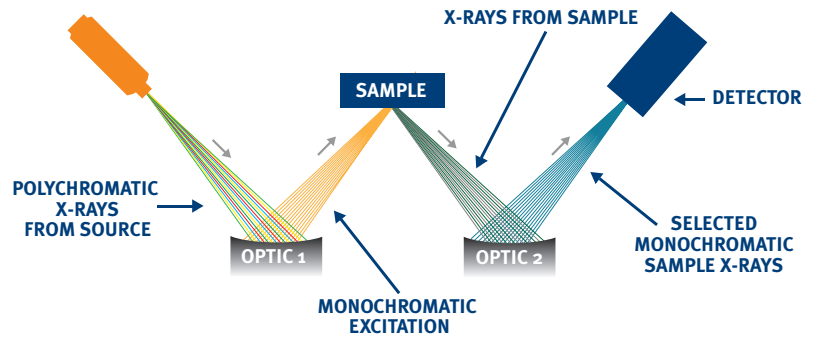
- LIMS data output compatible software
- Extended Range (XR): 0.13 ppm to 4 wt%
- Catalyst testing capability
- Accu-flow*
- 8-cell Autosampler*
- Accucell Sample Basket Available



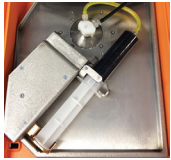
*Accu-flow and Autosampler options cannot be combined.

TRUSTED PRECISION

Monochromatic Wavelength Dispersive X-ray Fluorescence (MWDXRF®) utilizes state-of-the-art focusing and monochromating optics to increase excitation intensity and dramatically improve signal-to-background over high power traditional WDXRF instruments. This enables significantly improved detection limits and precision, and a reduced sensitivity to matrix effects. A monochromatic and focused primary beam excites the sample and secondary characteristic fluorescence X-rays are emitted from the sample. A second monochromating optic selects the chlorine characteristic X-rays and directs these X-rays to the detector. MWDXRF is a direct measurement technique and does not require consumable gasses or sample conversion.



NOW AVAILABLE WITH:

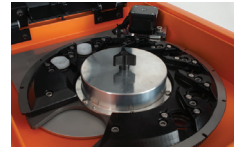


ACCU-FLOW

Accu-flow allows the sample to flow continuously during measurement. This continuous flow eliminates the settling of chlorine, producing accurate and precise total chlorine results.



-OR-



AUTOSAMPLER

- 8 sample cell capacity
- Increases productivity
- Uses Accucells for hassle-free sample prep

Precision

Typical repeatability (r) and reproducibility (R) values, at 95% confidence. Measurement time: 600 s xylene, 300 s crude oil and water.

Xylene			Crude Oil			Water	
Chlorine (ppm)	r	R	Chlorine (ppm)	r	R	r	R
1	0.17	0.29	5	0.4	0.8	0.6	1.0
5	0.31	0.53	10	0.8	1.4	1.0	1.5
10	0.50	0.90	50	1.2	2.4	1.6	3.2

Product Specifications

Model	Clora
Test Method	ASTM D7536 and D4929
Dimensions	37 cm (w) x 50 cm (d) x 34 cm (h)
Power	100-120 VAC, 47-63 HZ at 6.0 Amps/ 200-240 VAC, 47-63 HZ at 6.0 Amps
Sample Cup Volume	10 ml
Ambient Temperature Requirements	5-40° C (40-104° F)
Dynamic Range	Standard: 0.13 ppm to 3000 ppm Extended Range (XR): 0.13 ppm to 4 wt%
Measurement	30-900 s
Calibration	8 calibration curves. Automatic and manual calibration functionality



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