

## better analysis counts





# TWO critical measurements, ONE push of a button, ZERO hassle

Sindie +Cl is a two-in-one instrument enabling trace analysis of both sulfur and chlorine with one push of a button. It is the ideal solution to certify sulfur levels in finished products, assess chlorine for corrosion mitigation, and optimize process parameters.

### **Application Areas:**

- Total sulfur analysis from ultra low sulfur fuels to crudes.
- Total chlorine analysis from aqueous solutions and aromatic products to heavy fuels, crudes, and catalyst.
- For use in refinery labs, pipeline terminals, additive plants and inspection laboratories.
- Complies with ASTM D2622, D7039, D7536, and SH / T 0842.

#### **Features and Benefits:**

- Sulfur
  - LOD: 0.4 ppm at 300 s.
  - Dynamic Range: 0.4 ppm to 5%
- Chlorine
  - LOD: 0.3 ppm at 300 s.
  - Dynamic Range: 0.3 ppm to 3000 ppm
- Extremely low maintenance: no conversion gasses, heating elements, columns, or quartz tubing.
- Automatic sulfur correction for chlorine.
- Easy to use
  - Intuitive touch screen
  - Just plug-in and measure
  - Measurement time: 30-900s
- Fits on any bench:
  37 cm (w) x 50 cm (d) x 34 cm (h).

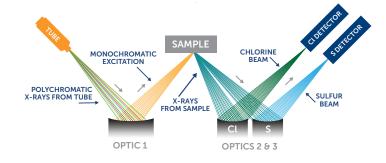
#### **Options:**

• LIMS data output software capability.

#### **Trusted Precision**

Using the industry's most advanced optics, doubly curved crystals, Sindie +Cl achieves a high signal-to-background ratio for the most reproducible results.

Monochromatic Wavelength Dispersive X-Ray Flourescence (MWDXRF) using doubly curved crystal optics has the advantage of very high sensitivity and precision. This technique has been successfully used to deliver very precise measurements of low levels of sulfur and chlorine.



#### **Two Critical Measurements**



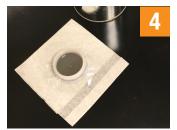
Sindle +Cl performs trace analysis of both sulfur and chlorine with one push of a button. You can measure both elements in one sample, or measure each separately by simply inserting a new sample.

#### **Zero Hassle**









Sindie +Cl analyzes a broad range of liquid samples from aqueous solutions to the heaviest of hydrocarbons (e.g. VGO or crude oil), all without the need for dilution, combustion gasses, or other hassles like changing detectors, boats, injectors, furnaces, etc.

Test Method	ASTM D7039, D2622, D7536, and SH / T 0842
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
I/O Ports	Ethernet 10/100 base T, RS232
Ambient Temperature Requirements	5-40° C (40-104° F)
Dynamic Range	Sulfur: 0.4 ppm - 5% Chlorine: 0.3 ppm - 3000 ppm
Measurement	User selectable: 30-900 s
Calibration	8 calibration curves. Automatic and Manual Calibration functionality



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