

Refining and Petrochemical Industry Monitoring Solutions

Faced with unprecedented demands to meet increasing customer process expectations, as well as clean air regulations while optimizing plant performance...you need a partner that understands the challenges you face and offers instrument and service solutions that work.

Refining

- Fuel Products Analysis
- Stack Gas / Emissions Monitoring
- Process Gas Analysis
- Particulate Measurement
- Flow Measurement and Control
- Leak Detection
- Field Service & Application Expertise

Petrochemical manufacturing

- Liquid & Gas Flow Measurement
- Field Service & Application Expertise

Common applications

- Opacity Monitoring
- Gas Analysis for Reaction
- Kinetics/Catalytic Cracking
- Sulfur Recovery Units
- Total Sulfur Analysis
- Flare Gas Monitoring
- Fence Line Ambient Air Quality Monitoring
- Fugitive Emissions Detection (EPA Method 21)

Common applications contd.

- SO₂, NO_x, CO & Acid Measurement
- Olefins (Ethylene) & Poly Olefins (PE, PP)
- Ethylene Oxide (EO/EG)
- Fuel Gas Processing
- Ammonia & Methanol Measurement
- Fischer Tropsch (gas-to-liquid)
- Coal Gasification/Coal Chemical
- Catalyst Cracking & Research
- Process Development & Catalyst Research
- Distillation Units
- Chemical Rearrangement Units
- Alkylation
- Continuous Platformers
- Purification Units
- Knock Out Drum Pump Out Vessels
- High Density Polyethylene Loop Reactor
- And many more!

Additional Thermo Scientific solutions

- Sulfur Analyzers
- X-Ray Fluorescence
- Electron & Infrared Microscopes
- Gas Chromatographs for Hydrocarbons
- Laboratory Equipment & Consumables
- Lab Information
- Management System (LIMS)
- Unity Lab Services™
- Furniture and Fume Hoods
- Water Analyzer, Monitors & Sensors
- Handheld X-Ray Fluorescence



**Thermo Scientific
AutoXP
Flow Computer**

Thermo Scientific™ product solutions



Thermo Scientific Prima PRO 710 Process Analyzer

Mass spectrometry

- Sentinel PRO 710 Environmental Analyzer
- Prima PRO 710 Process Analyzer
- Prima BT Benchtop Process Analyzer

Flow measurement and control

- AutoPILOT PRO Multi-run Flow Computer
- AutoFLEX Flow Computer
- AutoXP Gas and Liquid Flow Computer

Emission monitoring systems

Total sulfur

- SOLA iQ Sulfur On-line Analyzer
- SOLA iQ Trace Sulfur On-line Analyzer
- SOLA iQ Flare Sulfur On-line Analyzer

Continuous emissions monitoring systems (CEMS)

- Dilution CEMS
- Extractive CEMS
- Particulate Matter CEMS



Thermo Scientific SOLA iQ Sulfur On-line Analyzer



Thermo Scientific AutoFLEX Flow Computers

Tailored service plans

- Customizable to match your specific needs
- Focus on minimizing downtime and managing your budget
- Genuine spare parts for enhanced reliability, optimal performance, and cost savings

On-demand services

- Preventive and corrective maintenance
- Depot repair
- Calibration and certification
- Factory Acceptance Testing (FAT)

Customizable training programs

- Available at our factory training Centers, at your site, or online through e-learning
- Designed to enhance the reliability, performance, and longevity of your instruments.

Partner with Thermo Fisher Scientific to ensure the success of your refining and petrochemical operations.



Opgal EyeCGas Multi OGI Camera



Thermo Scientific iQ Series Gas Analyzer

Gas & particulate monitors

Nitrogen Oxide (NO_x)

42iQ Gas Analyzers

Sulfur Dioxide (SO₂)

43iQ Gas Analyzers

Carbon Monoxide (CO)

48iQ Gas Analyzers

Carbon Dioxide (CO₂)

410iQ Gas Analyzers

Hydrogen Sulfide/Sulfur Dioxide Analyzer (H₂S/SO₂)

450iQ Gas Analyzers

Total Hydrocarbon

51i Gas Analyzer

Methane (NMHC)

55i Gas Analyzer

Toxic vapor leak detection

- Opgal EyeCGas Multi Optical Gas Imaging camera
- TVA2020 Toxic Vapor Analyzer MIC-6 (Multi-Instrument Calibrator)

Continuous ambient particulate

- 5014i Beta Attenuation Monitor
- 5014iQ Beta Attenuation Monitor
- 5030i Sharp Monitor
- 5030iQ Sharp Monitor



Thermo Scientific TVA2020 Toxic Vapor Analyzer

Learn more at thermofisher.com/airquality

thermoscientific

For current certifications, visit thermofisher.com/certifications

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