

ABB MEASUREMENT & ANALYTICS | ANALYTICAL MEASUREMENT

Analyzer products

Precisely what you expect



Measurement made easy

Producers, gatherers, processors, transporters, suppliers, industrial and commercial consumers—we had everyone along the natural gas supply chain in mind when developing the comprehensive line of ABB Totalflow analyzer products. These extraordinarily precise and reliable natural gas chromatographs and accessories provide everything you need to know about the quantity and quality of natural gas streams.

NGC8200 Series

Natural gas chromatographs

The NGC8200 series represents the most rugged, economical, versatile, and high-precision on-line gas chromatographs in the industry.

Designed with flow computer and chromatograph capabilities for energy metering, the NGC8200 series provides not only best-in-class, on-site analysis, but also offers a highly versatile platform that integrates many of the functions you need to deliver greater productivity.

NGC8200 models provide accurate and reliable knowledge of gas composition and other vital parameters to ensure the quality of the product, and to determine precise quantity when transferring the product for sale. With its custody-transfer/metrology-quality chromatography, the NGC8200 delivers all of the measurement information you need, including:

- Relative density
- Heating value
- VOS (velocity of sound)
- GPM (gallons of liquid per thousand cubic feet)
- Wobbe index
- HCDP (hydrocarbon dew point)
- API 21.1 EFM capability
- AGA8 compressibility calculations
- H₂S measurement d



Right on the pipe

Right on the money

Built for superior efficiency and profitability.

For virtually any natural gas application, the NGC8200 series is easy to use, install, and maintain, thanks to each unit's compact size and streamlined, modular design. Built with standardized, easily replaceable, electro-mechanical modules, the user-friendly NGC8200 can be maintained by personnel with little or no prior knowledge of gas chromatography, which can significantly reduce your overall maintenance expenses.

The NGC8200 platform combines flow computer and chromatograph capabilities in one compact unit that is easier to install, operate and maintain than conventional gas chromatographs. Coupled with a multivariable transmitter and primary volumetric device, the NGC8200 platform becomes your complete energy measurement solution.

With its explosion-proof rating, embedded controller, wide operating temperature, and small footprint, the NGC8200 can be installed either on or very close to the sample probe site, which helps reduce sample transport times and the overall cost of ownership. Because these sampler sites are often in remote areas, the NGC8200 is designed to operate on very little power, and can be solar powered. The chromatograph valve is designed to operate without instrument air—the GC's carrier gas can activate the needed valve movement — and the unit features an integrated, stream-switching system that enables the NGC8200 to perform automatic calibrations that further reduce field maintenance.

For long-term reliability, the NGC8200 is designed with parts that are easy to troubleshoot in the field and replace, so you can be back up and running in short order.

Simply put, NGC8200 models are easier to install and commission, and require considerably less investment of time, money and effort than traditional gas chromatographs.



The great idea meets the great outdoors



The NGC8206

The NGC8206 enables you to remotely analyze natural gas composition from N₂ to C₆+ (optional H₂S separation), and format this information for output to most third-party software systems.

The unit's integrated, 32-bit Windows® CE controller seamlessly processes all chromatograms, performs all needed calculations, and reports results in real time, for accurate and timely information on the product in process. The NGC8206 retains this as historical data, to be referred to later for custody transfer, or to verify transmitter operation performance.

The NGC8206 requires not only very little space (a mere 1.1 cubic feet) but also very little power (less than 7 watts), so it can be left continuously running.

The NGC8206—one simple-to-operate device providing total energy measurement at every point along the natural gas supply chain, from the wellhead to the distribution market and everywhere in between.



The Portable NGC

When gas volumes are too low to justify a continuous on-line solution. When the overall cost and maintenance of gas samplers becomes too high. When your business evolves to require real-time information and avoid the accounting inefficiencies inherent with waiting for time-consuming lab analysis.

These situations and many others demand the on-site analysis capabilities of the Portable NGC.

The Portable NGC provides precise, reliable on-site measurement of natural gas samples in a compact, affordable package that is easy to operate and maintain. When the spot sample needs to be run, the unit is already powered up and stable, eliminating the wait at the meter site.



The staff at your branch office is working diligently



More values: The NGC8209

The NGC8209 provides precise and reliable measurement of an extensive range of natural gas values, from C6+ to C9+. This range includes hydrocarbon dew point, a complex and traditionally difficult-to-measure parameter. But this is just one of the many ways the NGC8209 defies tradition.

After installing the NGC8209, information is readily accessible for use by other programs. The unit's single controller seamlessly processes all chromatograms, performs all needed calculations, and reports results in real time, for accurate and timely information on the product in process. Other applications—alarm processors, trending and reporting software, etc.—can access this information as needed. Like the NGC8206, the NGC8209 retains this as historical data, to be referred to later for custody transfer, or to verify transmitter operation performance.

With the NGC8209's easy-to-use, graphical, user-interface software, designated users can directly access information with a laptop PC, or indirectly via a cell phone, satellite, radio or phone modem.

Common NGC applications

- Conventional Natural Gas Quality Applications. Our precise, cost-effective, compact, field-proven analyzers have the capability to handle all flow-measurement calculations, including energy:
 - C₆₊, C₆₊ and H₂S
 - C₇₊, C₇₊ and H₂S
 - C₉₊, C₉₊ and H₂S
- C₃₊ (Landfill). Specialized sample conditioning helps provide accurate, timely Btu calculations as well as oxygen (O₂) and hydrogen sulfide (H₂S) analysis.
- H₂S in Fuel Gas. The NGC8200's rugged Thermal Conductivity Detector measures the H₂S component in fuel gas, which is federally mandated in many locations.
- O₂ and H₂S in Natural Gas. The NGC8200 provides tariff-quality analysis of O₂ and H₂S for natural gas transmission systems, and also helps with safety and pipeline-maintenance issues.
- Composite Sampler Alternative. The NGC8200 provides real-time data at the site, eliminating the problems associated with gathering and transporting sample bottles and waiting for lab results.
- Offshore Applications. The lightweight, small-footprint NGC8200 is ideal for transporting to and operating on offshore sites. Plus, its flow computer capability reduces the amount of equipment needed.
- Complete Energy Metering. Combining a fully API 21.1-compliant flow computer and a world-class Btu analyzer, the NGC8200 provides an overall energy calculation for your metering locations.



ABB analytics

Reassuringly right

There is not an engineer, sales representative, customer service professional or technician on the ABB Totalflow team who doesn't believe in doing the job right every time. It's more than a matter of pride—it's a matter of responsibility. When we tell a customer that our products will deliver the most accurate information in the most efficient manner possible, a lot is at stake. The customer's profitability, for one. And our reputation. Part of our reputation is making sure the customer is satisfied no matter what. So, if a standard product is not enough, our project engineers will create the right solution for your business. Discover how much easier life can be when you go with the 'flow—ABB Totalflow.





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