

## Automation and Drives

For the Trade Press

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### **Micro gas chromatograph rapidly determines the calorific value of natural gas**

**A new process gas chromatograph from Siemens Automation and Drives (A&D) based on micro-technology rapidly and precisely determines the calorific value of natural gas. The main use of Sitrans CV is for custody transfer of natural gas. Examples are pipeline monitoring, gas transfer and distribution stations as well as gas liquefaction and regasification of LNG terminals. The device has a rugged and explosion-proof housing, is compact and is suitable for use in extreme conditions from -20 to +55 degrees Celsius. Sitrans CV can be mounted directly next to natural-gas pipelines and delivers measuring results in less than three minutes.**

The new Sitrans CV process gas chromatograph determines all the necessary information on the quality of natural gas such as its calorific value, Wobbe index and density which are necessary in the many varied applications of the natural-gas industry, especially in the case of gas custody transfer. The accuracy of the measurement is independent of the pressure of the sample and the ambient temperature. A display on the device shows the measuring results. The device uses miniaturized detectors and valves made with MEMS (micro-electro-mechanical systems) technology. As a result, Sitrans CV only consumes a minimum amount of carrier gas and electricity. Furthermore it does not need an analyzer shelter. The detectors are highly linear so that only one calibration gas is needed. This reduces the operating costs and increases availability. Due to automatic optimization of the measuring parameters every time calibration is carried out, the new device is also highly reliable.

The new process gas chromatograph determines the chemical composition, the superior and inferior calorific values, the Wobbe index and the density of natural gas in accordance with ISO 6976. Measurement components are methane up to nonane, nitrogen and carbon dioxide. Due to an internal sample switch function, up to four sample streams can be measured successively. The measuring accuracy is better than 0.1 per cent and the repeatability better than 0.01 per cent. The detection limit for pentane and higher hydrocarbons is between 10 and 50 ppm.

Due to its modular design the device can be maintained quickly and easily. All the analytical components, including the oven, are integrated in an "analytic module" which can be replaced within five minutes through plug & play. This reduces the overall maintenance time to half an hour. The Windows-based software is very user-friendly, simple and clear. A password protection system prevents unauthorized access to the device's parameters and results of analysis while a logbook documents all alarms and manipulations.

Further information on the Internet at: [www.siemens.com/sitranscv](http://www.siemens.com/sitranscv)

This press release is supplemented by a photo which you can view on the Internet at: [www.siemens.com/ad-picture/1328](http://www.siemens.com/ad-picture/1328)



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