

Automation and Drives

For the Trade Press

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In-line process-gas analysis with a considerably expanded field of application

Siemens Automation and Drives (A&D) has added new functions to its LDS 6 diode-laser spectrometer. Featuring long-term stability and low maintenance, the device is used for in-line analysis directly in the process. Now, it also measures oxygen under high pressure, residual moisture and, at the same time, carbon monoxide and carbon dioxide. For example, it is used for monitoring chlorine and other highly corrosive gases in chemical processes and for analyzing gases discharged from converter furnaces in steel production.

In chemical processes, oxygen frequently has to be measured at relatively high gas pressures. The LDS 6 laser analyzer is suitable for in-line measurements up to 5 bar. For this purpose, the process sensor is fitted with pressure-proof stainless-steel flanges and windows ex works. Borosilicate windows in sizes DN65/PN6, DN80/PN16 or ANSI 4 inch/150 lbs are available.

The residual moisture in highly-corrosive media such as chlorine gas is measured directly in the gas flow by the LDS 6, which performs the measurement within seconds and without hysteresis. This is a considerable advantage over conventional methods with electrochemical P205 sensors. The latter require a lot of care and attention and often react very slowly to the ingress of moisture into the medium being monitored.

In steel-production applications, the LDS 6 simultaneously measures the concentration of carbon monoxide and carbon dioxide gases directly in the same volume of process gas. The spectrometer indicates these values within seconds without any delay caused

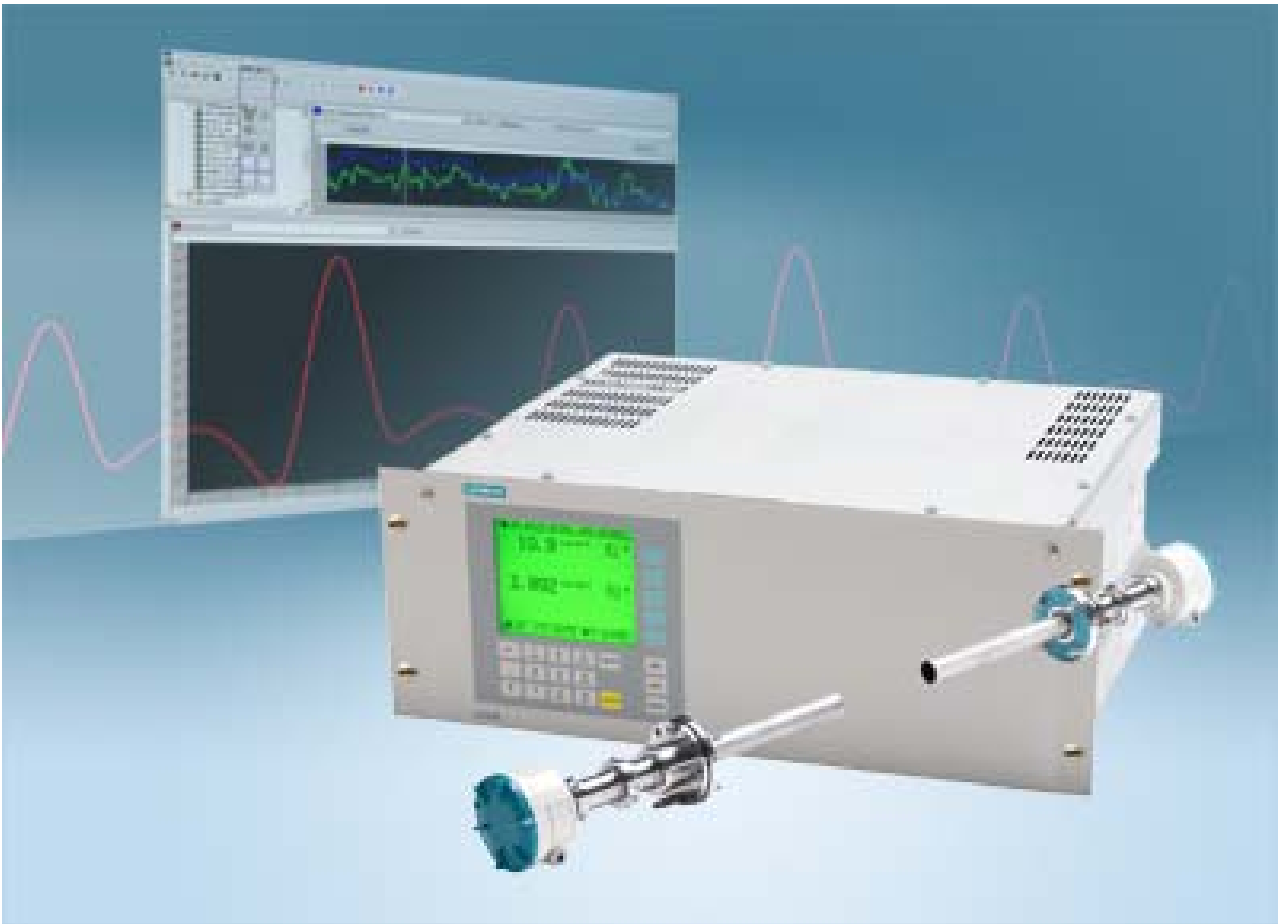
by the need to take and process a sample of the gas. This enables efficient closed-loop control of the process.

The LDS 6 diode-laser spectrometer for process gas analysis is based on a contactless, spectroscopic method of measurement. Its special advantage over conventional methods with extractive gas analysis is the low maintenance effort it requires. Precisely and within seconds, the Siemens spectrometer detects individual components of gas mixtures directly in the process gas flow – without having to take a sample or process the gas being measured. The device performs just as well under extreme process conditions such as high dust concentrations and temperatures or highly corrosive process gases. Specially designed to cope with rough process conditions, the spectrometer is self-calibrating and uses extremely robust process sensors.

Further information in the Internet at: www.siemens.com/analytics

This press release is supplemented by a photo which you can view in the Internet at: www.siemens.com/ad-picture/1310

You can also find the text in the Internet at: www.siemens.com/automation/press



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