Continuous Gas Analyzers, in situ

LDS 6

Overview

LDS 6 is a diode laser gas analyzer with a measuring principle based on the specific light absorption of different gas components. LDS 6 is suitable for fast and non-contact measurement of gas concentrations or temperatures in process or flue gases. One or two signals from up to three measuring points are processed simultaneously by one central analyzer unit. The in-situ cross-duct sensors at each measuring point can be separated up to 1 kilometer from the central unit by using fiber-optic cables. The sensors are designed for operation under harsh environmental conditions and contain a minimum of electrical components. By connecting a bypass stream to a separate flow cell, measurements can also be carried out extractively instead of in-situ.

Benefits

The in-situ gas analyzer LDS 6 is characterized by a high operational availability and unique analytic selectivity, and by a broad scope of suitable applications. LDS 6 enables the measurement of one or two gas components or - if desired - the gas temperature directly in the process:

- With high levels of dust load (up to 100 g/Nm³)
- In hot, humid, corrosive, explosive, or toxic gases
- In applications showing strong varying gas compositions
- Under harsh environmental conditions at the measuring point
- Highly selective, i.e. mostly without cross interferences.

Applications

- Process optimization
- Continuous emission monitoring for all kinds of fuels (oil, gas, coal, and others)
- Process measurements in power utilities and any kind of incinerator
- Process control
- Explosion protection
- Measurements in corrosive and toxic gases
- Quality control
- Environmental protection
- Plant and operator safety.

Sectors

- Power plants
- Waste incinerators
- Cement industry
- Chemical and petrochemical plants
- Automotive industry
- Glass and ceramics production
- Research and development.

Special applications

- In addition to the standard applications, special applications are available upon request.

LDS 6 properties:

- Little installation effort
- Minimum maintenance requirements
- High degree of ruggedness
- High long-term stability through built-in, maintenance-free reference gas cell; field calibration is unnecessary
- Real-time measurements.

Moreover, the instrument provides warning and failure messages upon:

- Need for maintenance
- Erroneous self calibration
- Bad signal quality
- Violation of a lower or upper alarm level for the measured variable
- Transmitted amount of light violating an upper or lower limit.
Continuous Gas Analyzers, in situ

LDS 6

**General**

**Design**

The gas analyzer LDS 6 consists of a central unit and up to three in-situ sensors. The connection between the central unit and the sensors is established by a so-called hybrid cable, which contains optical fibers and copper wires. An additional sensor connection cable connects the transmitter and the receiver part of the cross-duct sensor.

**Central unit**

The central unit is housed in a 19" rack with 4 holders for mounting:
- in a swing frame
- in racks with or without telescope rails.

**Display and control panel**

- Large LCD field for simultaneous display of measurement result and device status
- Contrast of the LCD field is adjustable via the menu
- LED background illumination of the display with energy-saving function

**Input and outputs**

- One to three measurement channels with hybrid connections for the sensors at the measuring points
- 2 analog inputs per channel for process gas temperature and pressure
- 2 analog outputs per channel for gas concentration(s) or for gas temperature and concentration
- 6 freely configurable binary inputs per channel for signaling faults or maintenance requests from external temperature or pressure transducers or sensor purging failure.
- 6 freely configurable binary outputs per channel (signaling of fault, maintenance request, function control, transmission limit alarm, concentration limit alarm, store analog output).

**Communication**

Network connection: Ethernet (T-Base-10) for remote diagnostics and maintenance.
Appendix

Conditions of sale and delivery

Terms and Conditions of Sale and Delivery

By using this catalog you can acquire hardware and software products described therein from the Siemens AG subject to the following terms. Please note! The scope, the quality and the conditions for supplies and services, including software products, by any Siemens entity having a registered office outside of Germany, shall be subject exclusively to the General Terms and Conditions of the respective Siemens entity.

For customers with a seat or registered office in the Federal Republic of Germany

The „General Terms of Payment“ as well as the „General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry“ shall apply.

For software products, the „General License Conditions for Software Products for Automation and Drives for Customers with a Seat or registered Office in Germany“ shall apply.

For customers with a seat or registered office outside of Germany

The „General Terms of Payment“ as well as the „General Conditions for Supplies of Siemens, Automation and Drives for Customers with a Seat or registered Office outside of Germany“ shall apply.

For software products, the „General License Conditions for Software Products for Automation and Drives for Customers with a Seat or registered Office outside of Germany“ shall apply.

General

The prices are in € (Euro) ex works, exclusive packaging.
The sales tax (value added tax) is not included in the prices. It shall be debited separately at the respective rate according to the applicable legal regulations.

In addition to the prices of products which include silver, plump, aluminum and/or copper, surcharges may be calculated if the respective limits of the notes are exceeded. The respective note (e.g. source: German newspaper „Handelsblatt“ in category „deutsche Edelmetalle“ and „Metallverarbeiter“) for silver („verarbeitetes Silber“), plump („Blei in Kabeln“), aluminum („Aluminium in Kabeln“) and copper („Elektrolytkupfer“, „DEL-Notiz“) respectively, of the day the order or rather the on call order is received, is decisive for the calculation of the surcharges.

Surcharges of copper shall be calculated for Drives at a note („DEL-Notiz“) above EUR 225,00 / 100 Kg and for chokes / transformers above EUR 150,00 / 100 kg.

Surcharges shall be charged based on the quantities of the materials which are contained in the relevant products.
Prices are subject to change without prior notice. We will debit the prices valid at the time of delivery.

The dimensions are in mm. Illustrations are not binding.
Insofar as there are no remarks on the corresponding pages, especially with regard to data, dimensions and weights given, these are subject to change without prior notice.

Comprehensive Terms and Conditions of Sale and Delivery are available free of charge from your local Siemens business office under the following Order Nos.:
- 6ZBS310-0KR30-0BA0
  (for customers based in the Federal Republic of Germany)
- 6ZBS310-0KS33-0BA0
  (for customers based outside of the Federal Republic of Germany)
or download them from the Internet:
http://www.siemens.com/automation/mail
(Germany: A&D Mail Online-Help System)

Export regulations

The products listed in this catalog / price list may be subject to European / German and/or US export regulations.
Therefore, any export requiring a license is subject to approval by the competent authorities.

According to current provisions, the following export regulations must be observed with respect to the products featured in this catalog / price list:

AL Number of the German Export List.
Products marked other than “N” require an export license.
In the case of software products, the export designations of the relevant data medium must also be generally adhered to.
Goods labeled with an “AL not equal to N” are subject to a European or German export authorization when being exported out of the EU.

ECCN Export Control Classification Number.
Products marked other than “N” are subject to a reexport license to specific countries.
In the case of software products, the export designations of the relevant data medium must also be generally adhered to.
Goods labeled with an “ECCN not equal to N” are subject to a US re-export authorization.

Even without a label or with an “AL: N” or “ECCN: N”, authorization may be required due to the final destination and purpose for which the goods are to be used.
The deciding factors are the AL or ECCN export authorization indicated on order confirmations, delivery notes and invoices.
Errors excepted and subject to change without prior notice.

A&D/Vu/En 17.03.05

If you have any questions, please contact your local sales representative or any of the contact addresses below.

Siemens AG
A&D PI 2 Process Analytics
Oestliche Rheinbrueckenstr. 50
76187 Karlsruhe
Germany
Tel.: +49 721 595 3180
Fax: +49 721 595 6375
E-Mail: processanalystics@siemens.com
www.siemens.com/processanalystics

Siemens Applied Automation
7101 Hollister Road
Houston, TX 77040
USA
Tel.: +1 713 939 7400
Fax: +1 713 939 9050
E-Mail: saaisales@sea.siemens.com
www.sea.siemens.com

Siemens Pte. Limited
A&D PI 2 Regional Head Quarter
The Siemens Center
60 MacPherson Road
Singapore 348615
Tel.: +65 6490 8702
Fax: +65 6490 8703
E-Mail: splanalytics.sgp@siemens.com
www.siemens.com/processanalystics

If you have any questions, please contact your local sales representative or any of the contact addresses below.