

## SIDOR Gas Analyzer

Simplified, Better and Really Good Value:  
New Standards for Extractive Photometer

### Sovereign in its discipline

With long term measuring stability never before achieved – the SIDOR measures the gas components CO, NO, SO<sub>2</sub>, CO<sub>2</sub>, CH<sub>4</sub> and O<sub>2</sub> dependent of the measuring tasks.

Thereby it meets all requirements for:

- emission monitoring according to 2001/80/EC and 27<sup>th</sup> FICA
- combustion optimization of small boilers
- exhaust measurements in power stations.

With the innovative SIDOR, SICK focuses on standardization and optimization of the measurement technology. That pays off, at the latest, when calculating operational costs.

The SIDOR is an extractive operating gas analyzer for measuring 1 or 2 gas components. With the addition of an electrochemical or paramagnetic measuring cell (option), oxygen can be measured as well.

The availability of numerous freely configurable digital inputs and outputs make the construction of a complete system much simpler.

### Application fields

- Power stations
- Cement plants
- Waste incineration plants
- Crematories
- Chemical industry
- Bio fermentation or landfill gas



### SIDOR key features

- Detector with high long-term stability, that means:
  - test gas calibration required only after months of operation
  - automatic re-adjustment with ambient air
  - no calibration cuvette
- Insensitive to fluctuations and contamination:
  - new signal processing
- Simple to repair
  - field repairable
- Paramagnetic oxygen measurement
  - use of the OXOR-P

**Instrument concept – analysis with a system**

Basic instrument with enclosure (19" housing, 3 RU), electronics, keypad, display, software, gas connections (6 mm PVDF) with

- integrated sample gas pressure correction
- SIDOR module for the measurement of 1 IR component

**Options**

- 2<sup>nd</sup> SIDOR module for measurement of another IR component
- OXOR-E O<sub>2</sub> module (electrochemical) or OXOR-P (paramagnetic)
- sample gas pump
- moisture sensor
- flow sensor
- 6 mm SWAGELOK gas connections
- ¼" SWAGELOK gas connections

**Additional advantages**

- Thanks to its short enclosure SIDOR can be installed anywhere, where space is a problem or replacement of older analog instruments is required.
- Fully automatic and low maintenance operation with control functions for process measurements, adjustment as well as self-monitoring and fault diagnostics.
- Easy to understand texts on a large LC display and help menus in different languages make the operation of the instrument very easy.

**The SIDOR facts**

- Long term stability  
The intelligent signal processing and highly stable detector provide the highest degree of long term signal stability available to date. The stability of the detectors means that adjustment is only required quarterly and then only with inert gas or measuring component-free ambient air. Sample gas pressure compensation is included as standard.
- Repairability on site  
The innovative concept serves for very comfortable repair possibilities. For example, the cuvette can be exchanged locally without difficult adjustment. This is due to the symmetrical cuvette construction, which locks into the correct position in the optical bench.
- Exchange of other instrument components  
The exchange of other instrument components is just as simple and quickly to do; the highly precise production of the sub-components allows a local repair to be made without the need for a complicated temperature adjustment in the factory.



The following measuring ranges are available:

SIDOR	Measuring ranges			
	Measuring components	Smallest measuring range		Largest measuring range
Carbon monoxide CO	0 ... 60 ppm	0 ... 75 mg/m <sup>3</sup>	0 ... 100 vol.%	0 ... 1.250 g/m <sup>3</sup>
Carbon dioxide CO <sub>2</sub>	0 ... 500 ppm	0 ... 980 mg/m <sup>3</sup>	0 ... 100 vol.%	0 ... 1.965 g/m <sup>3</sup>
Methane CH <sub>4</sub>	0 ... 5000 ppm	0 ... 3500 mg/m <sup>3</sup>	0 ... 100 vol.%	0 ... 716 g/m <sup>3</sup>
Sulfur dioxide SO <sub>2</sub>	0 ... 35 ppm	0 ... 100 mg/m <sup>3</sup>	0 ... 3 vol.%	0 ... 86 g/m <sup>3</sup>
Nitric oxide NO	0 ... 93 ppm	0 ... 125 mg/m <sup>3</sup>	0 ... 3 vol.%	0 ... 40 g/m <sup>3</sup>
Laughing gas N <sub>2</sub> O	0 ... 100 ppm	0 ... 200 mg/m <sup>3</sup>	0 ... 100 vol.%	0 ... 1.965 g/m <sup>3</sup>
Oxygen (electrochemical) O <sub>2</sub>	0 ... 10 vol.%		0 ... 25 vol.%	
Oxygen (paramagnetic) O <sub>2</sub>	0 ... 3 vol.%		0 ... 100 vol.%	
Carbon monoxide CO; special range for crematoriums	0 ... 75/3000 mg/m <sup>3</sup>			