COMBUSTION GAS ANALYZERS

Industrial, Residential & Commercial Applications

www.sauermanngroup.com
Combustion gas analyzers
Industrial, Residential & Commercial Applications

Robust, ergonomic & compact, the Combustion Analyzers are easy-to-use. Their all-in-one functions: Combustion Gas Analysis, Emissions measurements, Draft, Pressure and Differential Temperature measurements and Ambient CO monitoring make them an ideal partner.

The range includes three instruments allowing measurements of many gases including: O₂, CO, CO₂, NO, NO₂, SO₂, and CxHy. Mobile applications are available for both IOS & Android, and all devices have Bluetooth® function.
Product Overview

Combustion gas analyzers

Si-CA 220

Si-CA 120

Si-CA 320

Monitoring
Configuration

Emissions Measurement
on Boilers, Engines & other
Applications

Wireless printer

PC and mobile
Applications

Optional 5 years Warranty
including:

- Mechanical parts replacement*
- Electronical parts replacement*
- Sensors replacement*

Optional 5 years Maintenance
including:

- Mechanical parts replacement*
- Electronical parts replacement*
- Sensors replacement*
- Automatic calibration date reminder
- Reminder provided for annual maintenance
- Labour costs for maintenance
- Calibration certificate
- Ex-factory shipping ports

*Not included: shipping cost to manufacturer, probe and hose, missing parts, consumables (filters & water trap), damages on the transport case caused by an improper manipulation and/or use. One replacement maximum for each type of cell during the product lifetime.
## Technical Information

**Combustion gas analyzers**

### Parameter | Sensor | Range | Resolution | Accuracy
--- | --- | --- | --- | ---
$O_2$ | Electrochemical | 0 - 25 % | 0.1 % | ±0.2 % vol | ✓ | ✓ | ✓ | ✓

**CO-H$_2$ compensated w/ built-in NOx filter** | Electrochemical | 0 - 8000 ppm | 1 ppm | ±10 ppm <200 ppm ±5 % rdg up to 2000 ppm ±10 % rdg for >2000 ppm | ✓ | ✓ | ✓ | ✓

CO diluted | Electrochemical | 0.8 - 10.00 % | 0.01 % | ±20 % rdg | - | ✓ | ✓ | ✓

$CO_2$ | Calculated | 0 - 99.9 % | 0.1 % | | ✓ | ✓ | ✓ | ✓

NO | Electrochemical | 0 - 5000 ppm | 1 ppm | ±5 ppm <100 ppm ±5 % rdg for >100 ppm | - | Optional | ✓ | ✓

$NO_2$ | Electrochemical | 0 - 1000 ppm | 1 ppm | ±5 ppm <100 ppm ±5 % rdg for >100 ppm | - | Optional | Optional | ✓ | ✓

Low NO | Electrochemical | 0 - 500 ppm | 0.1 ppm | ±2 ppm <40 ppm ±5 % rdg for >40 ppm | - | Optional | Optional | ✓ | ✓

Low $NO_2$ | Electrochemical | 0 - 500 ppm | 0.1 ppm | ±2 ppm <40 ppm ±5 % rdg for >40 ppm | - | Optional | Optional | ✓ | ✓

NOx | Calculated | 0 - 5000 ppm | 1 ppm | | - | Optional | Optional | ✓ | ✓

$SO_2$ | Electrochemical | 0 - 5000 ppm | 1 ppm | ±5 ppm <100 ppm ±5 % rdg for >100 ppm | - | Optional | Optional | ✓ | ✓

Low $SO_2$ | Electrochemical | 0 - 500.0 ppm | 0.1 ppm | ±2 ppm <40 ppm ±5 % rdg for >40.1 ppm | - | Optional | Optional | ✓ | ✓

CxHy (HC) | Pellistor | 0 - 5 % | 0.01 % | ±0.25 vol | - | Optional | Optional | ✓ | ✓

$H_2$S | Electrochemical | 0 - 500.0 ppm | 0.1 ppm | ±5 ppm <125.0 ppm ±4 % rdg for >500.0 ppm | - | - | Optional | ✓ | ✓

Tair | Tc K | -20 to 1250 °C | 0.1 °C | ±0.5°C from 0 to 100°C ±0.5% rdg from 101 to 1250°C | ✓ | ✓ | ✓ | ✓

Tgas | Tc K | -20 to 1250 °C | 0.1 °C | ±0.5°C from 0 to 100°C ±0.5% rdg from 101 to 1250°C | ✓ | ✓ | ✓ | ✓

Differential temperature | Calculated | 0 to 1250 °C | 0.1 °C | - | ✓ | ✓ | ✓ | ✓

Pressure/Draft | Semiconductor | -4 to 80 inH$_2$O -10 to 200 hPa | 0.001 inH$_2$O 0.01 hPa | ±1 % rdg from -10 to -2.01 hPa ±0.02 hPa from -2.00 to 2.00 hPa ±1 % rdg from 2.01 to 200 hPa | ✓ | ✓ | ✓ | ✓

Excess air | Calculated | 0 - 850 % | 1 % | - | ✓ | ✓ | ✓ | ✓

Efficiency | Calculated | 0 - 100 % | 0.1 % | - | ✓ | ✓ | ✓ | ✓

Efficiency (condensation) | Calculated | 0 - 120 % | 0.1 % | - | ✓ | ✓ | ✓ | ✓

### Wireless Bluetooth® Printer

- Optional
- Optional
- Optional

**FIELD-REPLACEABLE Pre-Calibrated Sensors**

- ✓
- ✓
- ✓

**QR code app**

- ✓
- ✓
- ✓

**Real time display of data on the smartphone**

- ✓
- ✓
- ✓

**PC Software & USB Cable & Bluetooth®**

- ✓
- ✓
- ✓

**Automatic Data Logging**

- ✓
- ✓
- ✓

**Internal Memory (# of Tests)**

- 2,000
- 2,000
- 2,000

**Rechargeable Battery w/ AC Charger**

- ✓
- ✓
- ✓

**Display Screen**

- Multicolor
- Multicolor
- Multicolor
**Si-CA 120 Ordering Information**

<table>
<thead>
<tr>
<th>Item #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Si-CA 120-NP</td>
<td>Si-CA 120-NP Kit with Standard Probe</td>
</tr>
<tr>
<td>Si-CA 120-NP-GS</td>
<td>5 years Warranty for Si-CA 120-NP analyzer</td>
</tr>
<tr>
<td>Si-CA 120-NP-T5</td>
<td>5 years Maintenance for Si-CA 120-NP analyzer</td>
</tr>
<tr>
<td>Si-CA 120-NP-P</td>
<td>Si-CA 120-NP with Differential Pressure Manometer Kit (2 Hoses)</td>
</tr>
<tr>
<td>Si-CA 120-NP-P-GS</td>
<td>5 years Warranty for Si-CA 120-NP-P analyzer</td>
</tr>
<tr>
<td>Si-CA 120-NP-P-T5</td>
<td>5 years Maintenance for Si-CA 120-NP-P analyzer</td>
</tr>
</tbody>
</table>

**Si-CA 220 Ordering Information**

<table>
<thead>
<tr>
<th>Item #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Si-CA 220-NP-2</td>
<td>Si-CA 220-NP Kit with O₂ &amp; CO Gas Sensors &amp; CO Dilution Auto-Range to 10%, Upgradeable to 3 &amp; 4 Gas sensors</td>
</tr>
<tr>
<td>Si-CA 220-NP-2-GS</td>
<td>5 years Warranty for Si-CA 220-NP-2 analyzer</td>
</tr>
<tr>
<td>Si-CA 220-NP-2-T5</td>
<td>5 years Maintenance for Si-CA 220-NP-2 analyzer</td>
</tr>
<tr>
<td>Si-CA 220-NP-3</td>
<td>Si-CA 220-NP Kit with O₂, CO, NO/NOₓ Gas Sensors &amp; CO Dilution Auto-Range to 10%, Upgradeable to 4th Gas Sensor</td>
</tr>
<tr>
<td>Si-CA 220-NP-3-GS</td>
<td>5 years Warranty for Si-CA 220-NP-3 analyzer</td>
</tr>
<tr>
<td>Si-CA 220-NP-3-T5</td>
<td>5 years Maintenance for Si-CA 220-NP-3 analyzer</td>
</tr>
<tr>
<td>Si-CA 220-NP-N</td>
<td>Si-CA 220-NP Kit with O₂, NO, NOₓ/NOₓ, NO, Gas Sensors &amp; CO Dilution Auto-Range to 10%</td>
</tr>
<tr>
<td>Si-CA 220-NP-N-GS</td>
<td>5 years Warranty for Si-CA 220-NP-N analyzer</td>
</tr>
<tr>
<td>Si-CA 220-NP-N-T5</td>
<td>5 years Maintenance for Si-CA 220-NP-N analyzer</td>
</tr>
<tr>
<td>Si-CA 220-NP-S</td>
<td>Si-CA 220-NP Kit with O₂, CO, NO/NOₓ, SO₂ Gas Sensors &amp; CO Dilution Auto-Range to 10%</td>
</tr>
<tr>
<td>Si-CA 220-NP-S-GS</td>
<td>5 years Warranty for Si-CA 220-NP-S analyzer</td>
</tr>
<tr>
<td>Si-CA 220-NP-S-T5</td>
<td>5 years Maintenance for Si-CA 220-NP-S analyzer</td>
</tr>
</tbody>
</table>

**Si-CA 320 Ordering Information**

<table>
<thead>
<tr>
<th>Item #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Si-CA 320-NP-SDS</td>
<td>Si-CA 320-NP Kit with O₂, CO, NO, NOₓ, SO₂ Gas Sensors &amp; CO Dilution Auto-Range to 10%, Upgradeable to 6th Gas Sensor*</td>
</tr>
<tr>
<td>Si-CA 320-NP-SDS-GS</td>
<td>5 years Warranty for Si-CA 320-NP-SDS analyzer</td>
</tr>
<tr>
<td>Si-CA 320-NP-SDS-T5</td>
<td>5 years Maintenance for Si-CA 320-NP-SDS analyzer</td>
</tr>
<tr>
<td>Si-CA 320-NP-SDC</td>
<td>Si-CA 320-NP Kit with O₂, CO, NO, NOₓ, CxHy(HC) Gas Sensors &amp; CO Dilution Auto-Range to 10%, Upgradeable to 6th Gas Sensor*</td>
</tr>
<tr>
<td>Si-CA 320-NP-SDC-GS</td>
<td>5 years Warranty for Si-CA 320-NP-SDC analyzer</td>
</tr>
<tr>
<td>Si-CA 320-NP-SDC-T5</td>
<td>5 years Maintenance for Si-CA 320-NP-SDC analyzer</td>
</tr>
<tr>
<td>Si-CA 320-NP-SSC</td>
<td>Si-CA 320-NP Kit with O₂, CO, NO, SO₂, CxHy(HC) Gas Sensors &amp; CO Dilution Auto-Range to 10%, Upgradeable to 6th Gas Sensor*</td>
</tr>
<tr>
<td>Si-CA 320-NP-SSC-GS</td>
<td>5 years Warranty for Si-CA 320-NP-SSC analyzer</td>
</tr>
<tr>
<td>Si-CA 320-NP-SSC-T5</td>
<td>5 years Maintenance for Si-CA 320-NP-SSC analyzer</td>
</tr>
<tr>
<td>Si-CA 320-NP-SSH</td>
<td>Si-CA 320-NP Kit with O₂, CO, NO, SO₂, H₂S Gas Sensors &amp; CO Dilution Auto-Range to 10%, Upgradeable to 6th Gas Sensor*</td>
</tr>
<tr>
<td>Si-CA 320-NP-SSH-GS</td>
<td>5 years Warranty for Si-CA 320-NP-SSH analyzer</td>
</tr>
<tr>
<td>Si-CA 320-NP-SSH-T5</td>
<td>5 years Maintenance for Si-CA 320-NP-SSH analyzer</td>
</tr>
<tr>
<td>Si-CA 320-NP-6DSH</td>
<td>Si-CA 320-NP Kit with O₂, CO, NO, NOₓ, SO₂, H₂S Gas Sensors &amp; CO Dilution Auto-Range to 10%, Upgradeable to 6th Gas Sensor*</td>
</tr>
<tr>
<td>Si-CA 320-NP-6DSH-GS</td>
<td>5 years Warranty for Si-CA 320-NP-6DSH analyzer</td>
</tr>
<tr>
<td>Si-CA 320-NP-6DSH-T5</td>
<td>5 years Maintenance for Si-CA 320-NP-6DSH analyzer</td>
</tr>
<tr>
<td>Si-CA 320-NP-6DSC</td>
<td>Si-CA 320-NP Kit with O₂, CO, NO, NOₓ, SO₂, CxHy(HC) Gas Sensors &amp; CO Dilution Auto-Range to 10%, Upgradeable to 6th Gas Sensor*</td>
</tr>
<tr>
<td>Si-CA 320-NP-6DSC-GS</td>
<td>5 years Warranty for Si-CA 320-NP-6DSC analyzer</td>
</tr>
<tr>
<td>Si-CA 320-NP-6DSC-T5</td>
<td>5 years Maintenance for Si-CA 320-NP-6DSC analyzer</td>
</tr>
</tbody>
</table>

*All Configurations Available With Low NO, Low NO₂ and/or Low SO₂ Sensors

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**Si-CA 320-NP Kit with O**

- 5 years Warranty
- 5 years Maintenance
- 5 years Warranty

**Si-CA 220-NP-2**

- 5 years Warranty
- 5 years Maintenance
- 5 years Warranty

**Si-CA 220-NP-3**

- 5 years Warranty
- 5 years Maintenance
- 5 years Warranty

**Si-CA 220-NP-N**

- 5 years Warranty
- 5 years Maintenance
- 5 years Warranty

**Si-CA 220-NP-S**

- 5 years Warranty
- 5 years Maintenance
- 5 years Warranty

**Si-CA 320-NP-SDS**

- 5 years Warranty
- 5 years Maintenance
- 5 years Warranty

**Si-CA 320-NP-SDC**

- 5 years Warranty
- 5 years Maintenance
- 5 years Warranty

**Si-CA 320-NP-SSC**

- 5 years Warranty
- 5 years Maintenance
- 5 years Warranty

**Si-CA 320-NP-SSH**

- 5 years Warranty
- 5 years Maintenance
- 5 years Warranty

**Si-CA 320-NP-6DSH**

- 5 years Warranty
- 5 years Maintenance
- 5 years Warranty

**Si-CA 320-NP-6DSC**

- 5 years Warranty
- 5 years Maintenance
- 5 years Warranty

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**Options**

**Si-CA 220 & 320 Long Probe & Hose**

- 750 mm probe
- 800 °C max
- 3 m Dual Hose

**Si-CA 220 & 320 Long & High Temp Probe & Hose**

- 1 m or 1.5 m Probe
- 1200 °C max
- 3 m Hose

**Hose Extentions**

- 3 m Length Available

**Kits content**

- Long Lasting Rechargeable Battery & AC Charger
- Gas Sampling Probe & Hose
- Water Trap with Filter Cartridge
- Magnetic Protective Housing
- PC Software & USB Cable
- Operating Manual & Quick Start Guide
- Calibration Certificate
- ABS Hard Carrying Case

**Standards**

- RoHS & RAEE
- EN 50379-1
- EN 50379-2

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*All Configurations Available With Low NO, Low NO₂ and/or Low SO₂ Sensors*
Applications
Windows PC and mobile (iOS & Android)

Mobile
- Real-time data reading
- Data logging
- Reports creation
- QR code Scanning

PC
- Instrument Data Identification Display
- Analyzer Configuration
- Remote Display of Real-Time Analysis from the Portable Analyzer and Data Saving
- Display and/or Exportation or Deletion of Stored Analysis

NO, O₂, CO, NOx, SO₂, CxHy (HC)
Field Replaceable Sensors
Sensors Diagnostic
Auto-Zero in the Flue

Automatic, True High-Efficiency Calculations for All Condensing Systems
Full Color Graphic Display
iOS and Android Mobile Applications

Optional wireless Bluetooth® printer
Long Lasting Rechargeable Battery & AC Charger
PC Software with Bluetooth®
Services
Calibration / Hotline / Maintenance

To complement our range of measuring instruments, a team of more than 40 people offers a wide range of services, such as calibration and adjustments, after-sales support, hotline, on-site services and training.

Our team of experts will accompany you throughout your project and will adapt to your needs thanks to more than 40 years of experience and our sophisticated laboratory equipment.

Our laboratories, spanning over 1,500 m², allow us to offer you all kinds of metrological services related to:

- Temperature
- Humidity
- Air velocity
- Air flow
- Pressure
- Combustion
- Weighing
- Radiometry
- Tachometry
- Light measurement
- Electrical current

Customer service portal
For any repair, calibration or device feedback requests, log in to our Customer Service Portal.

Accessible 24/7
Fast and easy-to-use
Follow-up in real time

http://kimo-en.custhelp.com
Manufacturer of innovative solutions for the measurement and control of indoor air quality.

Customer service portal
Use our customer service portal to contact us.

http://kimo-en.custhelp.com

Accredited temperature laboratory as per ISO 17025 standard
KIMO can perform COFRAC calibrations on any type of thermometer (measuring chain, Pt100, thermocouple, etc.) within a range from -70 to +200°C in thermostatic chambers and in baths.

Accredited hygrometry laboratory as per ISO 17025 standard
KIMO can perform COFRAC calibrations on any type of hygrometer within a range from 10 to 95 %RH, for a dry temperature from +10 to +50°C.