

COMBUSTION GAS ANALYZERS

A new degree of efficiency



Combustion gas analyzers

A new degree of efficiency



Our combustion gas analyzers are ideal for maintaining combustion equipment, covering the full range of operations in residential, commercial and industrial applications.

Sauermann offers a range of compact and intuitive analyzers to enhance your performance.

Sauermann's combustion gas analyzers feature the latest digital and metrology technologies, making measurements more reliable and cutting the amount of time heating engineers need to spend on-site. A user experience like no other!

Applications

- Boilers
- Burners
- Water heaters
- Gas and diesel engines
- Furnaces
- Industrial kilns
- Industrial heating systems
- Incinerators



Residential



Commercial



Industrial

Features

Add a digital edge to your combustion analysis



NCI's Preferred Analyzer



Auto pump cut-off for high CO levels (adjustable)



Predictive maintenance with estimated sensor life & calibration reminders



Draft & differential pressure measurements



Mobile phone app for real-time remote display & control



Calculations for Combustion Efficiency, Excess Air, & CO₂%



Data management with automatic logging & report creation



Si-CA 030



Si-CA 130



Si-CA 230

LCD display size	2.8 inches	4.3 inches	4.3 inches
Display resolution	320 x 240 pixels	480 x 272 pixels	480 x 272 pixels
Touch-screen display	No (5 buttons)	Yes (+ on/off button)	Yes (+ on/off button)
Dimensions (H x W x D)	7.5 x 3.5 x 1.6" 9,9 x 19,4 x 4,9 cm	7.5 x 3.5 x 1.6" 9,9 x 19,4 x 4,9 cm	11 x 4.3 x 2" 11,2 x 28 x 5,5 cm
Weight	12 oz - 350 g	12 oz - 350 g	30 oz - 825 g
No. of cells	Up to 3 (O ₂ , CO, NO)	Up to 3 (O ₂ , CO, NO, Low NO)	Up to 6 (O ₂ , CO, NO, Low NO, NO ₂ , Low NO ₂ , SO ₂ , Low SO ₂ , CxHy, H ₂ S)
Max. CO measurement	8,000 ppm	8,000 ppm	50,000 ppm (with dilution)
CO dilution	-	-	✓
Field replaceable pre-calibrated sensors	-	✓	✓
Flue gas velocity with Pitot tube	-	✓	✓
Measurement storage	Smartphone	Internal: 2,000 data points + Smartphone and PC	Internal: 2,000 data points + Smartphone and PC
PC software (wireless & USB)	-	✓	✓
Smartphone app (wireless)	✓	✓	✓
Combustion Applications	Residential, Commercial	Residential, Commercial	Commercial, Industrial



To see our extensive range of other measurement instruments for heating applications, go to www.sauermann.com

Si-CA 030

All the essentials for combustion gas analysis



The Si-CA 030 offers everything heating engineers need to inspect and maintain residential and commercial boilers, with wireless connection to our smartphone app and automatic generation of servicing reports and certificates.



Up to three gas sensors:
O₂, CO and NO (for NOx)



Auto pump cut-off
for high CO levels

- NOx capable with NO sensor
- Quick and easy pump On/Off control
- CO safety monitoring in ambient air

LIGHTWEIGHT
12 oz



NATURAL GAS	
O2	4.51 %
CO	80 ppm
Eff. (η)	91.4 %
CO2	12.5 %
T flue	170.3 °C
NO	78 ppm
NOx	82 ppm
Draft	1.094 mbar

NATURAL GAS	
O2	4.51 %
CO	80 ppm
Eff. (η)	91.4 %
CO2	12.5 %
T flue	170.3 °C



Features Si-CA 030 / Si-CA 130

- Predictive maintenance with estimated sensor life & calibration reminders
- Draft & differential pressure measurements
- Calculated CO₂% value
- CO safety monitoring in ambient air



CO measurement up to
8,000 ppm



Color display

Si-CA 130

Comprehensive, versatile analyzer with touch-screen display



The Si-CA 130 features a touch-screen display and comes with PC-based management software (in addition to the smartphone app) for more in-depth combustion gas analysis. The three field-replaceable cells and sensors offer expanded measurement capability.



Up to three gas sensors O₂, CO, and NO or Low NO (for NO_x)



Field replaceable precalibrated sensors

- Auto pump cut-off for high CO levels (user-adjustable)
- NO_x capable with NO sensor (optional)
- One Touch Pump On/Off with Purge
- PC software with wireless and USB connectivity
- Graphical data display
- Customizable gas analysis screen

- Combustion efficiency and excess air calculations
- Protective rubber casing
- Maintenance agreements and extended warranties available
- Emissions values adjusted for reference O₂

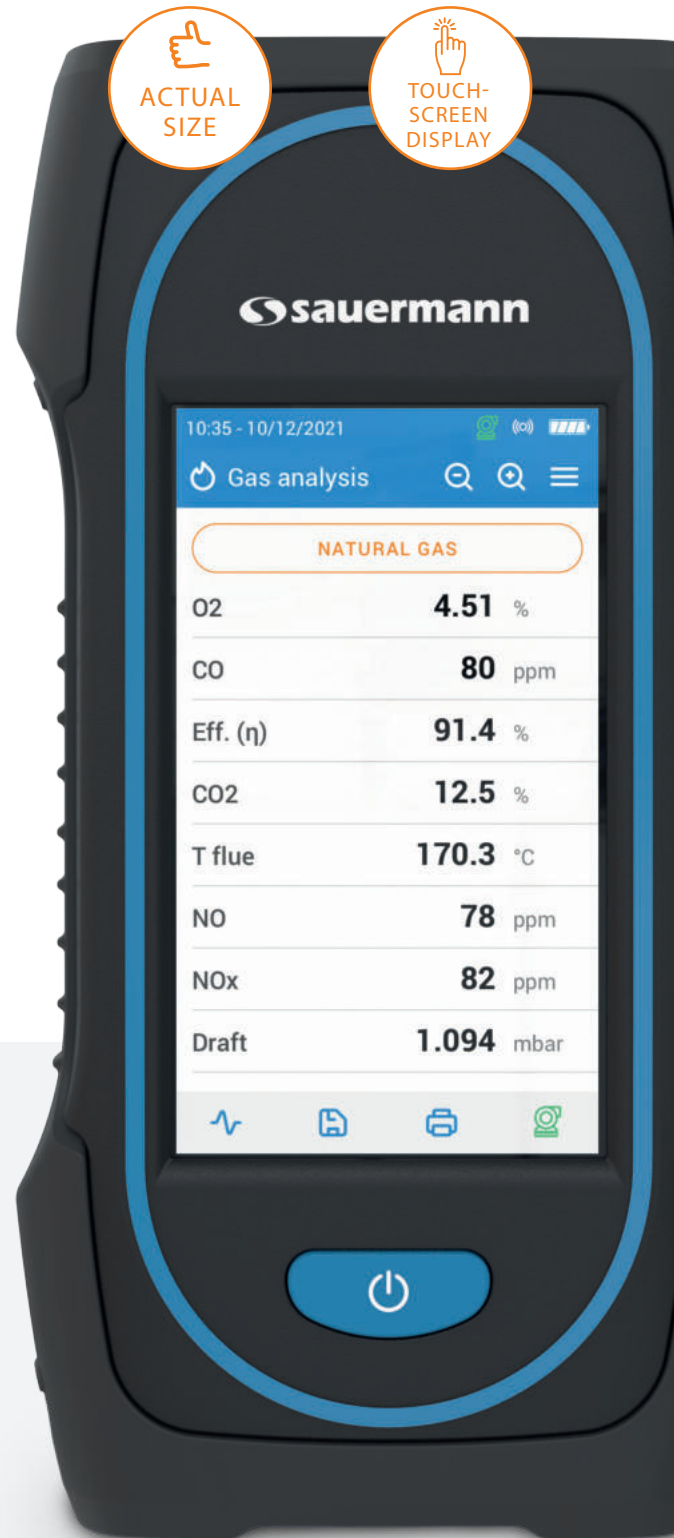


Data management with automatic logging & report creation through app/PC software



Lightweight, only 12 oz (350 g)

7.5" - 19.4 cm



Si-CA 230

State-of-the-art, industrial emissions analyzer



With up to six gas sensors and expanded measurement capabilities, the Si-CA 230 is well suited for boilers, burners, engines, and other industrial combustion applications. And with support for more gases and a high CO tolerance threshold, its versatility makes it the ideal choice across commercial and industrial applications.



Up to Six Gas Sensors. Can include O₂, CO, NO, Low NO, NO₂, Low NO₂, SO₂, Low SO₂, H₂S, and CxHy



CO Dilution auto-range with measurements to 50,000 ppm



Total NOx & Low NOx Capable



Field Replaceable Pre-Calibrated Sensors



Features: Si-CA 230

- Ergonomic, light weight, & durable design
- Data management with automatic logging & report creation
- Predictive maintenance with estimated sensor life & calibration reminders
- One touch pump On/Off with purge
- PC software with wireless and USB connectivity
- Auto pump cut-off for high CO levels
- Graphical data display
- Customizable gas analysis screen
- Stack gas velocity with Pitot tube
- Draft and differential pressure measurements
- Emissions values adjusted for reference O₂
- CO safety monitoring in ambient air
- Protective rubber holster
- Maintenance contracts and extended warranties available



Mobile app

Sauermann Combustion

The Sauermann Combustion app lets you control your Si-CA analyzer remotely, view measurement results in real time, and customise them before exporting in the format of your choice.



- Free apps for iOS & Android mobile devices
- PC software with USB & wireless connectivity
- Fast, easy wireless connection
- Remote live view of combustion analysis data as list or graph
- Remote control to change settings
- Data saving, including automatic logging
- Report creation in PDF, CSV (for Excel) and XML formats
- Databases for customers, operators, & equipment

Download Sauermann Combustion app



Warranty

All devices come with a two-year warranty against manufacturing defects (subject to assessment by our after-sales department).

To find out more about our extended warranties and maintenance plans, please visit our website, or contact our Customer Service Department.



Selection guide

Technical information





Si-CA 030

Si-CA 130

Si-CA 230

Parameter	Measuring range	Si-CA 030	Si-CA 130	Si-CA 230
# of Gas Sensors		2 - 3	2 - 3	2 - 6
O ₂	0 to 25%	✓	✓	✓
CO	0 to 8000 ppm	✓	✓	-
CO (H ₂ comp.)	0 to 10,000 ppm	-	-	✓
CO (with dilution)	100 to 50,000 ppm	-	-	✓
CO ₂ (calculated)	0 to 99.9%	✓	✓	✓
NO	0 to 5000 ppm	✓	✓	✓
Low NO	0 to 300 ppm	-	✓	✓
NO ₂	0 to 1000 ppm	-	-	✓
Low NO ₂	0 to 100 ppm	-	-	✓
NOx (calculated)	0 to 7500 ppm	✓	✓	✓
Low NOx (calculated)	0 to 450 ppm	-	✓	✓
SO ₂	0 to 5000 ppm	-	-	✓
Low SO ₂	0 to 100 ppm	-	-	✓
CxHy (HC)	0 to 5%	-	-	✓
H ₂ S	0 to 500 ppm	-	-	✓
Flue temperature	-4 to 2282 °F / -20 to 1250 °C	✓	✓	✓
Air temperature	-4 to 248 °F / -20 to 120 °C	✓	✓	✓
Differential temperature	0 to 2282 °F / 0 to 1250 °C	✓	✓	✓
Pressure/Draft	-80 to 80 inH ₂ O / -200 to 200 mbar	✓	✓	✓
High accuracy draft	-500 to +500 Pa	-	✓	✓
Excess air	0 to 999%	✓	✓	✓
Efficiency	0 to 100% (Gross/HHV)	✓	✓	✓
Efficiency (condensation)	0 to 125% (Net/LHV)	✓	✓	✓
Stack Gas velocity	0 to 99 m/s / 0 to 19,500 fpm	-	✓	✓
Application		Residential/ Light Commercial	Residential/ Commercial	Commercial/ Industrial

Features

Wireless Printer		Optional	Optional	Optional
Field-Replaceable Pre-Calibrated Sensors		-	✓	✓
Real time display of data on the smartphone	 	✓	✓	✓
PC Software		-	✓	✓
Automatic Data Logging		✓	✓	✓
Rechargeable Battery w/ AC Charger		✓	✓	✓

Accessories

Customize your own analyzer



Our combustion gas analyzers are available in many different configurations, with a wide range of accessories to choose from. Contact our Customer Service team for more information about our kits and accessories, and for guidance on choosing the right options for your needs.

Part number	Description	Si-CA 030	Si-CA 130	Si-CA 230	
27544	Draft probe	✓	✓	✓	
27532 (180 mm) 27533 (300 mm) 27534 (750 mm) 27535 (1 m) 27536 (1.5 m)	Probe sizes: 180 mm, 300 mm & 750 mm, and 1 m & 1.5 m	✓	✓	✓	
27546	Wireless printer	✓	✓	✓	
27537	Double tube extension, 3 m	✓	✓	✓	
27538	Differential pressure kit	✓	✓	✓	
24646	Smartairtemperature probe with 2 m cable	✓	✓	✓	
11994	Smoke pump	✓	✓	✓	
27547	Ambient CO probe	✓	✓	✓	
27548	Ambient CO ₂ probe	✓	✓	✓	
26811	SCU for condensate removal	✓	✓	✓	

HVAC essentials

The extra tools you need



Thermo-Hygrometer with Integrated Probe

Si-HH3

The palm-sized Saueremann Si-HH3 thermo-hygrometer easily measures relative humidity and temperature.



Differential Pressure Manometer

Si-PM3

The palm-sized Saueremann Si-PM3 digital differential pressure manometer easily measures pressure.



Infrared Thermometer

Si-TI3

The palm-sized Saueremann Si-TI3 infrared thermometer is key to diagnose, inspect and check any temperature, with the advantage of using “no-contact” technology.



Dual Input Thermometer K Thermocouple

Si-TT3

The palm-sized Saueremann Si-TT3 dual input thermometer easily measures K thermocouple temperature.



Vane Thermo-Anemometer with Integrated Probe

Si-VV3

This advanced portable manometer features two high-precision piezoresistive sensors, meaning it can be used to take standard and differential pressure measurements – all with a battery life of 180 hours.



Combustible Gas Leak Detector

Si-CD3

This gas leak detector is perfect for quickly and easily detecting even the slightest leaks of various combustible gases (methane, propane, isobutane, LPG and other hydrocarbons).

ABOUT US



For more than 45 years, Sauer mann Group has designed, manufactured and sold products and services dedicated to the industrial and HVACR markets. The Group specifically focuses on the detection, measurement and control of indoor air quality (IAQ).

sauer mann

KIMO
INSTRUMENTS

Member of the Verder group, Sauer mann group operates two main brands:

- The **Sauer mann** brand, through condensate removal pumps, instruments and accessories, primarily addresses the needs of Heating, Ventilation, A/C and Refrigeration contractors.
- The **Kimo** brand, through measuring instruments, meets the air management needs in light commercial and industrial installations.

HIGH ACCURACY
UNMATCHED RELIABILITY
MULTIPLE APPLICATIONS

LOW SOUND LEVEL
LOW FAIL RATE
HIGH PERFORMANCE

Measurement instruments: Sauer mann measurement instruments monitor a broad spectrum of indoor air quality parameters and serve a wide range of applications, from building ventilation (heating and air conditioning) systems, to cold-chain installations and combustion gas analysis. Backed by our testing laboratories and in-house research and development program, Sauer mann instruments deliver the accuracy and reliability that HVACR engineers need.

Condensate management solutions: Safe and effective condensate management for air quality systems can be a challenge. Sauer mann pumps are designed to look good, while our patented piston technology delivers whisper-quiet operation and unrivalled reliability.



North America

● Sauer mann N.A. Corp.
Hauppauge, NY, USA,
Yardley, PA, USA

EMEA – Europe, Middle East & Africa

● Si Invest SA
Brussels, BELGIUM

● Sauer mann Industrie
S.A.S
Chevry-Cossigny,
Montpon, FRANCE

● Sauer mann GmbH,

Leingarten, GERMANY

● Sauer mann UK Ltd.
Blackpool, UNITED KINGDOM

● Sauer mann Iberica
Barcelona, SPAIN

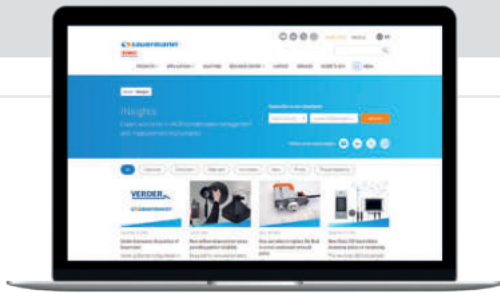
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Sydney, AUSTRALIA

Professional solutions for condensate management and indoor air quality measurement



INsights

Case studies, useful information and practical advice for HVACR and indoor air quality professionals.

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