



## Economical Flue Gas Analyzer Si-CA 030



O<sub>2</sub>, CO, CO<sub>2</sub>

# SI-CA 030

## Economical Flue Gas Analyzer

Residential & commercial combustion analyser  
The latest in combustion analysis technology

Compact, Light and Durable Design



Gas sensor O<sub>2</sub> and CO



Data management with automatic logging & report creation



Auto pump cut-off for high CO levels



Lightweight, only 350g (12 oz)



Color display screen

  
**LIGHTWEIGHT**  
**350 g**



### Si-CA 030 Features :

- Quick and easy pump On/Off control
- Predictive maintenance with estimated sensor life & calibration reminders
- Draft & differential pressure measurements
- Calculated CO<sub>2</sub>% value

## Example of analyzer screens (ZH):

|                    |                      |
|--------------------|----------------------|
| 10:38 - 08/08/2021 |                      |
| 烟气分析               |                      |
| 天然气 LACQ           |                      |
| O2                 | 3.61 %               |
| CO                 | 12 mg/m <sup>3</sup> |
| CO2                | 9.9 %                |
| T flue             | 125.9 °C             |
| X Air              | 26.1 °C              |

|                    |                                     |
|--------------------|-------------------------------------|
| 09:58 - 07/08/2021 |                                     |
| 菜单                 |                                     |
| 气泵                 | <input checked="" type="checkbox"/> |
| 烟气分析               |                                     |
| 其他测量功能             |                                     |
| 设置                 |                                     |
| 打印                 |                                     |
| 分析仪信息              |                                     |

|                    |                |
|--------------------|----------------|
| 10:28 - 07/08/2021 |                |
| O2                 |                |
| 类型                 | 电化学式           |
| 量程                 | 0.00 - 25.00 % |
| 最近一次校准信息           | 07/06/2021     |
| 安装                 | 07/06/2021     |
| 输出                 | -103.79 uA     |
| 传感器使用期限预估          |                |

|                    |   |
|--------------------|---|
| 11:28 - 07/08/2021 |   |
| 设置                 |   |
| 常规设置               | > |
| 分析设置               | > |
| 测量单位               | > |
| 存储功能               | > |
| 输出                 | > |
| 打印机                | > |

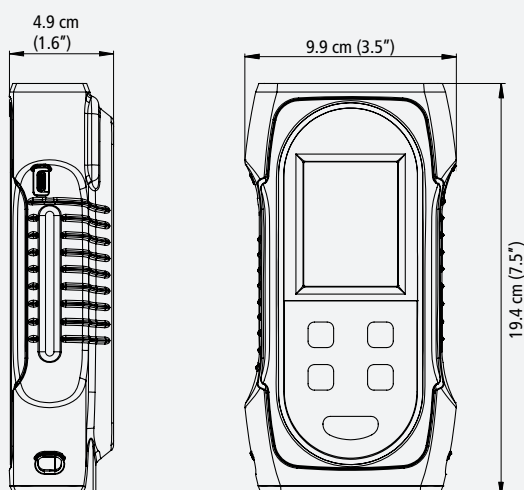


Note: smart phone not included

## Si-CA 030 kit content

- Si-CA 030 analyzer
- O2 & CO gas sensors
- Protective rubber holster
- Flue gas probe (180 mm/ 300 mm) with dual hose
- SCU water trap with filter
- AC power supply / charger
- USB cable
- Free mobile app
- Internal wireless communication module
- Carrying case or box packaging
- Quick start guide
- Calibration certificate

## Dimensions:



- Combustion efficiency & excess air calculations
- Protective rubber holster
- 2 years warranties available
- Emissions values adjusted for reference O2

## Parameter Specifications

| Parameter                 | Sensor          | Measuring range                                   | Resolution                            | Accuracy <sup>(1)</sup>                                                              | T <sub>90</sub> Response time |
|---------------------------|-----------------|---------------------------------------------------|---------------------------------------|--------------------------------------------------------------------------------------|-------------------------------|
| O <sub>2</sub>            | Electrochemical | 0 ~ 25%                                           | 0.01%                                 | ± 0.2% vol                                                                           | < 30 s                        |
| CO                        | Electrochemical | 0 ~ 8,000 ppm                                     | 1 ppm                                 | ± 8 ppm (0 ~ 159 ppm)<br>± 5% rdg (160 ~ 2,000) ppm<br>± 10% rdg (2,001 ~ 8,000 ppm) | < 40 s                        |
| CO <sub>2</sub>           | Calculated      | 0 ~ 99.9%                                         | 0.1%                                  | -                                                                                    | -                             |
| Flue temperature          | TcK             | -20 ~ + 1,250 °C<br>-4 ~ + 2,282 °F               | 0.1 °C<br>0.1 °F                      | ± 2 °C or ± 0.5% rdg <sup>(2)</sup><br>± 3.6 °F or ± 0.5% rdg <sup>(2)</sup>         | -                             |
| Air temperature           | NTC or TcK      | -20 ~ + 120 °C<br>-4 ~ + 248 °F                   | 0.1 °C<br>0.1 °F                      | ± 2 °C<br>± 3.6 °F                                                                   | -                             |
| Differential temperature  | Calculated      | 0 ~ 1,250 °C<br>0 ~ 2,282 °F                      | 0.1 °C<br>0.1 °F                      | -                                                                                    | -                             |
| Pressure / Draft          | Semiconductor   | -200 ~ + 200 mbar<br>-80 ~ +80 inH <sub>2</sub> O | 0.01 mbar<br>0.001 inH <sub>2</sub> O | ± 1% rdg ± 0.03 mbar<br>± 1% rdg ± 0.012 inH <sub>2</sub> O                          | -                             |
| Excess air                | Calculated      | 0 ~ 999%                                          | 1%                                    | -                                                                                    | -                             |
| Efficiency                | Calculated      | 0 ~ 100% (Gross / HHV <sup>(3)</sup> )            | 0.1%                                  | -                                                                                    | -                             |
| Efficiency (condensation) | Calculated      | 0 ~ 125% (Net / LHV <sup>(4)</sup> )              | 0.1%                                  | -                                                                                    | -                             |

<sup>(1)</sup>All accuracies indicated in this document were stated in laboratory conditions at 20 °C (68 °F) and 1013 mbar and can be guaranteed for measurement carried out in the same conditions. <sup>(2)</sup>Accuracy given for the analyzer only. <sup>(3)</sup>For Higher Heating Value / <sup>(4)</sup>For Lower Heating Value

## General Features

|                                 |                                                                                                                                                                                                                                                            |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dimensions                      | 19.4 x 9.9 x 4.9 cm (7.5 x 3.5 x 4.9")                                                                                                                                                                                                                     |
| Weight                          | 350 g (12 oz)                                                                                                                                                                                                                                              |
| Display                         | Color display screen; Size: 320 x 240 pixels                                                                                                                                                                                                               |
| Keypad                          | 5 keys                                                                                                                                                                                                                                                     |
| Material                        | ABS-PC                                                                                                                                                                                                                                                     |
| Protection                      | IP42                                                                                                                                                                                                                                                       |
| Connection                      | - Wireless: class 2 range, range frequency from 2402 MHz to 2480 MHz with a transmit power of 1 dBm.<br>Range up to 15 m (50 ft), depending on smartphone radio strength.<br>Minimum required versions: Android 8.0, iOS 12.4, BLE 4.0 Low Energy<br>- USB |
| Power supply                    | Rechargeable battery, USB power supply<br>Li-Ion 5100 mA/h 3.6 V battery / Power supply voltage of the mains unit: 100-240 Vac, 50-60 Hz<br>Mains unit: 5 Vdc/2A                                                                                           |
| Battery                         | Battery life > 8 h; Charging time: Fully charge: < 6.5 h; 50%: < 2.5 h                                                                                                                                                                                     |
| Environmental conditions of use | Temperature: from -5 to 45 °C (23 to 113 °F),<br>Hygrometry: in non-condensing conditions (< 85% RH)<br>Maximum altitude: 2000 m (6561')                                                                                                                   |
| Storage temperature             | From -20 to 50 °C (-4 to 122 °F)                                                                                                                                                                                                                           |
| Languages                       | Chinese, English, French, German, Spanish, Italian, Portuguese                                                                                                                                                                                             |
| European Union Directives       | 2014/53/EU (RED); 2015/863 EU (RoHS 3)                                                                                                                                                                                                                     |
| Regulations                     | EN 50379-1 and EN 50379-2; UNI 10389; UL & cUL Certification;<br>BS 7967:2015; BS EN 50543:2011; UNE 60670-10; ES.02173.ES; TÜV SÜD Certification                                                                                                          |

Si-CA 030 Optional accessories

| Part number                                        | Description                                                                                                                               | Illustration                                                                         |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 27532 (180 mm)<br>27533 (300 mm)<br>27534 (750 mm) | 180 mm probe, 2 m dual hose, SCU water trap<br>300 mm probe, 3 m dual hose, SCU water trap<br>750 mm probe, 3 m dual hose, SCU water trap |    |
| 27546                                              | Remote wireless printer                                                                                                                   |   |
| 27537                                              | 3 m dual hose extension                                                                                                                   |    |
| 27538                                              | Differential pressure hose kit                                                                                                            |   |
| 28186                                              | SCU S+M (Sample Conditioning Unit).<br>Factory mounting.                                                                                  |  |

Si-CA 030 Ordering information

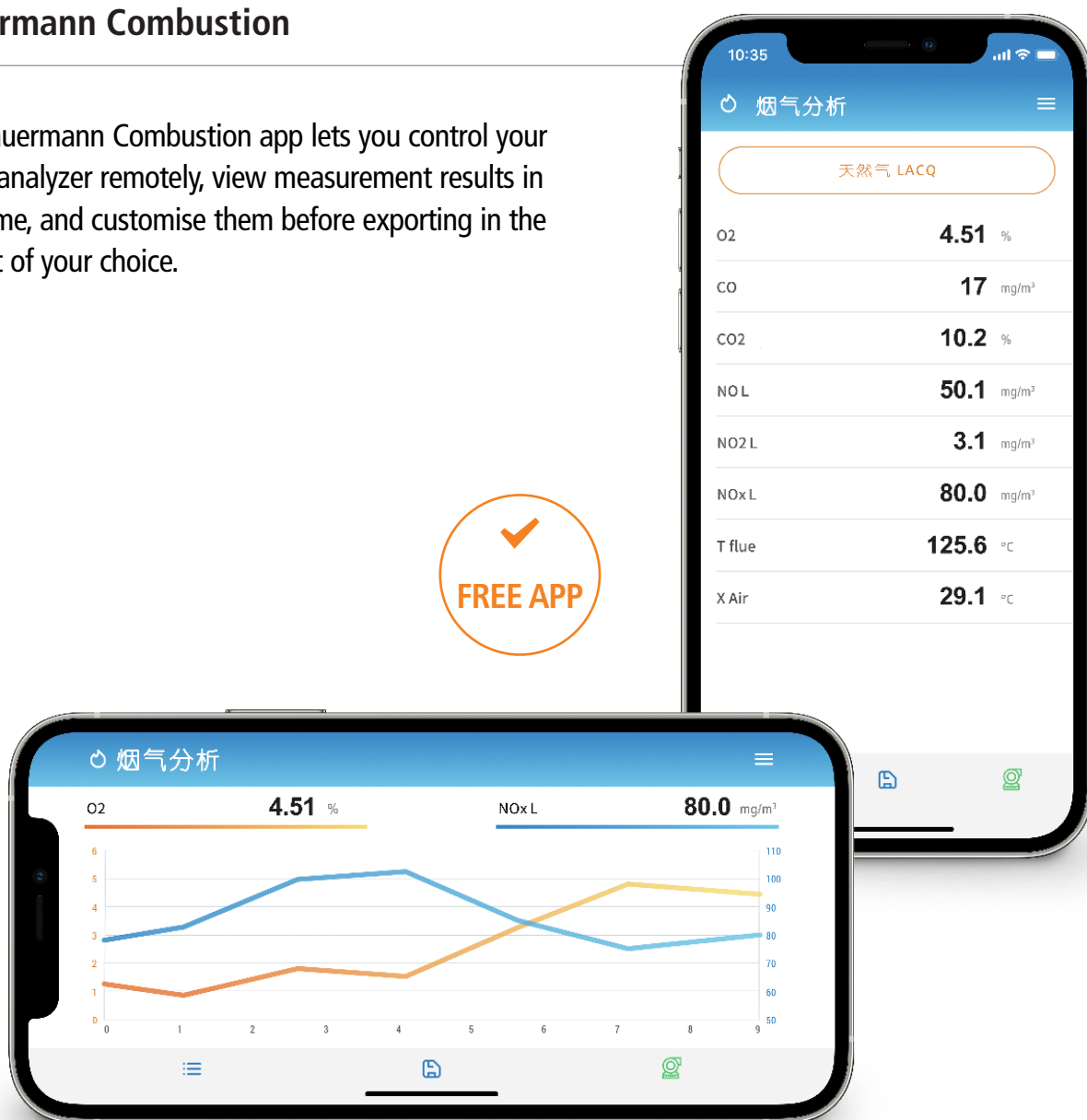
| Reference | Item #            | Description                                                                                                                                                                                                                                    |
|-----------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 27495     | Si-CA 030 Kit 2AC | includes two gas sensors (O <sub>2</sub> , CO), 180 mm probe rated to +800 °C (1472 °F) with 2 m dual hose, protective rubber holster, SCU water trap, charger, USB cable, quick start guide, calibration certificate, cardboard box packaging |
| 27498     | Si-CA 030 Kit 2BS | includes two gas sensors (O <sub>2</sub> , CO), 300 mm probe rated to +800 °C (1472 °F) with 3 m dual hose, protective rubber holster, SCU water trap, charger, USB cable, quick start guide, calibration certificate, carrying bag            |



# 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 app 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

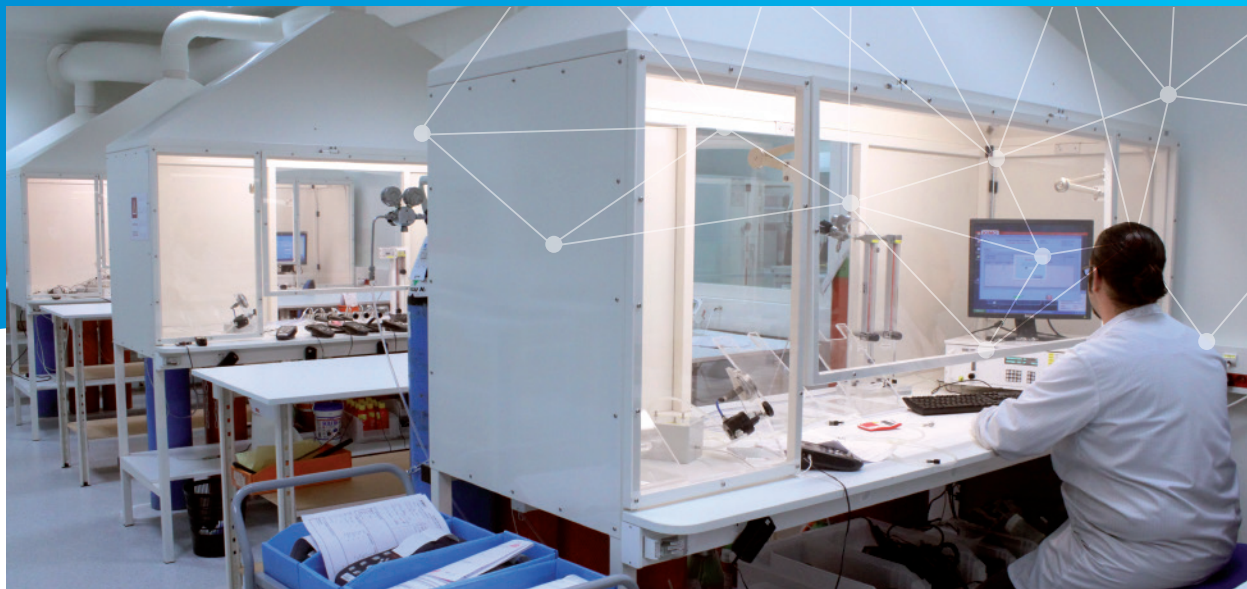
### Download Sauermann Combustion app



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# Services

Expert metrology laboratories at your service



## After-sales service

Our combustion gas analyzers are backed by experts at our metrology laboratories at every stage of their life cycle: from design through to maintenance. Working from a dedicated combustion gas analysis room, our specialists offer a broad range of services.



## Calibration and adjustments

Before returning your products, we will ensure that it has been tested.



## Hotline

**021-6100 1877**

## IN OUR LABORATORIES

- Regulated environment laboratories
- Cofrac ISO 17025:2017 accreditation in temperature and hygrometry

- Customised measurement points
- Diagnostics, repair, and maintenance
- Adjustment for KIMO / Sauermann instruments



Temperature



Hygrometry



Pressure



Air flow



Air velocity



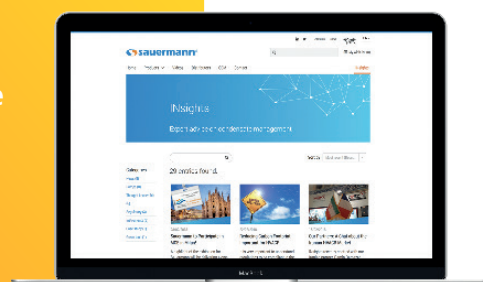
Air quality

Manufacturer of innovative solutions  
for the measurement and control  
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## INsights

Case studies, useful information and practical advice  
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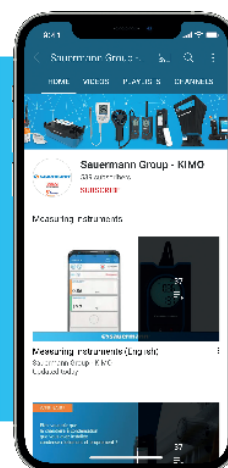
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