





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

LOW NOISE LEVEL HIGH RELIABILITY HIGH PERFORMANCE **Condensate management solution:** Safe and efficient condensate management in air quality systems can be challenging. The design of Sauermann pumps is carefully engineered. Patented technologies ensure that our pumps run quietly and with unmatched reliability.

HIGH PRECISION OUTSTANDING RELIABILITY NUMEROUS APPLICATIONS

Measuring instruments: Sauermann is specialized in the measurement of many indoor air parameters, designed to monitor buildings' aeraulic systems (air conditioning and heating), cold chain protection and thermal machines' combustion efficiency. Thanks to its extensive test laboratories and in-house research and development, Sauermann's measuring instruments ensure reliability and accuracy for all HVAC operators.



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KIMO I BOOK	
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2463 2.8 2.0 10	

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Combustion gas analyzers

A new degree of efficiency



Incinerators

• Gas and diesel engines

Features

Add a digital edge to your combustion analysis



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)	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 7.5 x 3.5 x 1.6"	11,2 x 28 x 5,5 cm 11 x 4.3 x 2"
Weight	350 g - 12 oz	350 g - 12 oz	825 g - 30 oz
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

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.





Common features Si-CA 030 / Si-CA 130

- Predictive maintenance with estimated sensor life & calibration reminders
- Draft & differential pressure measurements
- Calculated CO, % 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 NOx)



Field replaceable precalibrated sensors

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

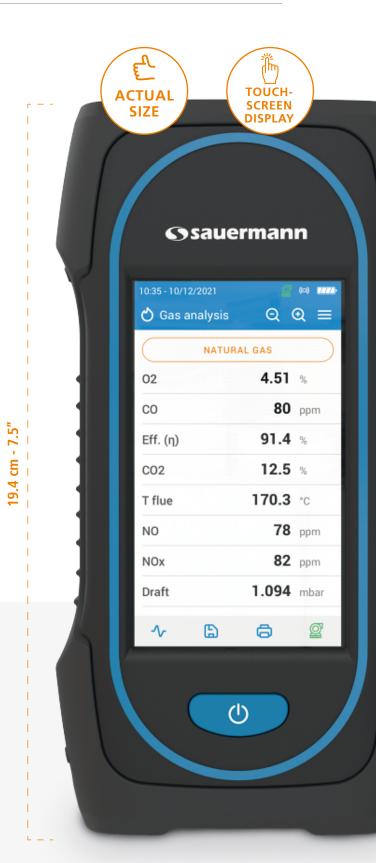
- · Combustion efficiency and excess air calculations
- Protective rubber casing
- Maintenance agreements and extended warranties available
- Emissions values adjusted for reference O,



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



Lightweight, only 350 g (12 oz)



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 O_2 , CO, NO, Low NO, N O_2 , Low NO_2 , SO_2 , Low SO_2 , H_2S , 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
- Customisable gas analysis screen
- Stack gas velocity with Pitot tube
- Draft and differential pressure measurements
- Emissions values adjusted for reference O,
- · 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.





Additional measurements

Gas detection

FG 110

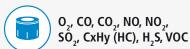
- Detection of gas such as methane (CH₄), LPG (isopropanol and isobutane) and other combustible gases (hydrocarbons)
- · Flexible hose















Gas network

MP 130

Gas tightness special manometer for gas network

• 0 to \pm 500 mbar



- Up to 9 gas sensors
- Low NO, NO₂ and SO₂
- Stack gas velocity
- · Built-in thermoelectric chiller
- Automatic condensate drain
- High accuracy NDIR sensors
- Upgraded memory (2,000 tests)

HVACR Portable

Instruments

Temperature / Humidity / Pressure / Air velocity / Airflow Air quality / Gas detection / Light / Tachometry



Class 50, 110, 210 & 310

The range of portable devices is ideal for technicians responsible for maintaining heating, ventilation, and cooling installations.



Graphical display



Magnetic protective cover

- Wireless and Smart+ probes
- Graphical wide screen
- · Data recording
- · Ergonomic design



IP54 housing



Interchangeable probes & modules

Datalogger

Configure / Measure / Data processing

- Configuration of instruments
- Instruments management
- Reports creation
- Customized channels
- Insert commands
- Insert legends and statistics
- · Add mathematical functions



Class 50, 110 & 210





As per following standards:

NF EN 12464-1 / NF EN 12464-2 NF EN 12193 (only for LX 200 luxmeters)





Hygrometers

HD 50 / 110 HQ 210

- 3 to 98 %RH
- -40 to +180 °C
- -50 to +80 °C_{td}
- CO: 0 to 500 ppm
- CO₂: 0 to 5,000 ppm

Luxmeters

LX 50 / 100 / 200

Illuminance measurement

- 0.1 to 200,000 lux
- 0.01 to 18,585 fc
- · Operating software

Tachometers

CT 50 / 110

- Optical: 60 to 60,000 rpm
- Contact: 30 to 3,000 rpm



Refrigerant leak detector DF 110

- Detection of all the HCFC and HFC refrigerants
- Detection of mixtures 5% hydrogen - 95% nitrogen (Nidron 5)
- Heated diode sensor
- · Flexible hose



Manometers

MP 50 / 51 / 55 / 110 / 111 112 / 115 / 120 / 130 / 210

- · Differential pressure
- \pm 500 Pa to \pm 2,000 mbar
- Air velocity with Pitot tube
- 3 to 85 m/s
- · Atmospheric pressure
- 800 to 1,100 hPa



Anemometers

LV 50 / 110 / 111 / 117 / 130 VT 50 / 110 / 115 / 210

- · Hotwire and telescopic hotwire
- 0.15 to 30 m/s
- Vane probes: Ø14, 70, 100 mm
- 0.3 to 35 m/s
- Airflow: 0 to 99,999 m³/h



The + of class 210 & 310

Designed for the field

An overmoulding made of elastomere protects the instrument, guarantees shockproofing.

Nonstop measurements

This new generation of instruments has an interchangeable and rechargeable Li-ion battery.

Expandable memory (AMI 310)

Internal memory of 1,000 datasets of 20,000 measuring points. Built-in location for a micro-SD memory card.

Interchangeable probes

The new probes utilise a mini-Din connecting cable which is compatible with all probes.

Interchangeable modules

- 1. Climatic conditions
- 2. Thermocouple (4 channels)
- 3. Pressure
- 4. U Coefficient













Multi-function

Class 310

AMI 310

AMI 310 is a multi-probe instrument which can measure up to 6 parameters simultaneously.



Wireless probes



Interchangeable probes & modules



Graphical display



Data processing software



Micro-SD card



Colour wide screen





- Pressure: ±500 Pa / ±2,500 Pa / ±10,000 Pa ±500 mbar / ±2,000 mbar
- Thermocouple: -200 to +1,760 °C
- Pt100: -200 to +600 °C
- · Humidity: 3 to 98 %RH

- CO: 0 to 500 ppm
- CO₂: 0 to 5,000 ppm
- Air velocity: -5 to 35 m/s
- Airflow: 0 to 99,999 m³/h
- Gas detection: 0 to 10,000 ppm
- Tachometry: 30 to 60,000 rpm
- Dew-point: -50 to +100 $^{\circ}$ C_{td}
- Wet temperature: -50 to +100 $^{\circ}$ C_{tw}
- Enthalpy: 0 to 10,000 kJ/kg
- Combination ratio: 0 to 10,000 g/kg
- · Calculation of U coefficient and WBGT index







INDUSTRY / SERVICE SECTOR

Thermometers

Portable instruments

Temperature

Class 210

TM 210

The differential thermometer TM 210 allows the temperature of 4 thermocouple probes to be taken simultaneously and the differential value to be displayed.

This instrument is suitable for any process where it is necessary to control the temperature at several points.

- Temperature: -200 to +1,760 °C
- · 2 Pt100 channels
- 1,000 datasets storage
- · Calculation of U coefficient
- 4 thermocouple inputs



Wireless probes



Elastomere overmoulding



Data processing software



4 inputs

Interchangeable measurement modules





Thermocouple module



U coefficient module

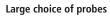




TT 21/22

- 1 or 2 inputs
- Thermocouple K, T
- K: -200 to +1300 °C
- T: -200 to +400 °C





TR 61/62

- 1 or 2 inputs
- Pt100
- -100 to +400 °C



TK 61/62

- 1 or 2 inputs
- Thermocouple K, J, T, S
- -200 to +1,760 °C



Hold/min/max functions



General use

- -20 to 40 °C
- Penetration probe







MONITORING

Indoor air quality monitors

Service, Residential & Commercial Applications

IAQ analysis







Air quality CO 50 / 110

CO 50 / 110 AQ 110 / HQ 210

- CO: 0 to 500 ppm
- CO₂: 0 to 5,000 ppm
- -40 to +180 °C
- 3 to 98 %RH
- 0 to 5 m/s



Easy to use



Fonctions Hold / Min / Max



F

Active Internal Sampling Pump By offering Indoor Air Quality (IAQ) professionals the ability to custom tailor their IAQ Monitors to meet their own specific requirements. Build your Indoor Air Quality monitor to detect for anywhere from one gas measurement (CO_2 only) up to seven total gas sensors in a single IAQ Monitor.

Si-AQ Comfort		CO ₂ , CO, Temperature, %RH, Wet bulb, Dew Point, Barometric pressure
Si-AQ VOC	Select up to 3 gases in total	COV, $\mathrm{CO_2}$, CO, Formaldehyde, $\mathrm{NO_2}$, NO, $\mathrm{O_2}$, $\mathrm{SO_2}$, $\mathrm{H_2S}$
Si-AQ Expert	Select up to <u>7 gases</u> in total	TVOC, CO_2 , CO , Formaldehyde, NO_2 , NO , O_2 , O_3 (ozone), SO_2 , H_2S
Si-AQ Pro	Select up to 3 gases:	CO ₂ , CO, NO ₂ , NO, SO ₂ , H ₂ S, Formaldehyde



Airflow meter

Airflow / Air velocity / Pressure

Airflow meter

DBM 620

Compatible with all air vent types.

- Interchageable hoods
- Quick and easy mounting
- Simultaneous display of airflow and temperature
- Automatic airflow direction (extraction or air blast)
- From 35 to 4,250 m³/h (11 to 1,181 L/s)
- Supplied with 610x610 mm hood and transport case





Switch between hoods quickly and easily



Patented folding frame & space-saving hoods storage



Transport case: compact storage system







Easily edit your reports with the SmartKap application



4 optional hoods are available:

- 2.36 x 2.36 ft (720 x 720 mm)
- 2.36 x 4.33 ft (720 x 1,320 mm)
- 1.38 x 4.99 ft (420 x 1,520 mm)
- 3.35 x 3.35 ft (1,020 x 1,020 mm)



Designed for air velocity measurements on any type of large ceiling vent or diffuser.

- Average air velocity from 24 points
- Telescopic and articulated pole: maximum length 2.05 m, 0 to 90°, positioning strut
- Backpack



PROCESS CONTROL

Data loggers

Kistock

Temperature / Humidity / Pressure / Air quality / Light Current / Voltage / Pulse / Water pressure





Multi Application



2 programmable alarm tresholds



Up to 2,000,000 measuring points



Kilog software (option)



Anti-theft system

With the new range of Kistock stand-alone data loggers and Kilog software, you can collect and analyse all the metrics of industrial climate control engineering processes, monitor the

climatic environment of a chamber and respond to the traceability requirements of agri-food and pharmaceutical industries during transport.





KNT 320



Kilog and Kilog-Lite



Anti-theft kit



Key benefits







Smart and interchangeable

probes (class 320)

- · Advanced technology
- Integrated calibration data



- · Wireless pairing
- · Data visualisation
- Free download



Mini

KH 50 / KT 50

Temperature, humidity

- -40 to +70 °C
- 5 to 95 %RH
- USB connection



Waterproof housing



USB

KH 120 / KT 120

Temperature, humidity

- -40 to +70 °C
- 5 to 95 %RH
- Integrated software
- · USB connector



KT 50 / KT 120 EN 12830





Measuring element

Calibration data

Smart plug

technology

Multi-function

KH 220 / KT 220 / KTT 220

Temperature, humidity, water pressure, light, current, voltage, pulse

- -200 to +1,760 °C
- 5 to 95 %RH
- 0 to 10,000 lux
- 0 to 20 bar
- 0 to 20 mA, 0 to 600 A
- 0 to 10 V



Interchangeable probes



Connected

KT 320 / KTT 320 / KCC 320 KPA 320 / KP 320-321

Temperature, humidity, pressure, atmospheric pressure, air quality, curent, voltage, pulse



- -200 to +1,760 °C
- 5 to 95 %RH
- 0 to 5,000 ppm
- 800 to 1,100 hPa
- -10,000 to +10,000 Pa
- 0 to 20 mA, 0 to 600 A
- 0 to 10 V



Wireless pairing

Sensors

Transmitters

Pressure / Humidity / Temperature / Air velocity Airflow / Air quality / Solar / Light



Industry, clean room, food industry

- For air processing
- Dip switch, keypad and software configuration
- Power supply: 24 V / 115 V / 230 V
- Outputs: 4-20 mA / 0-20 mA or 0-10 V / 0-5 V



Simplified calibration

Electronic board and measuring element connected to the front side of the sensor, which allows to configure and calibrate your device without causing any damage.



Monostats

PST / HST / TST / COST / CO2ST 1 RCR relay

- ± 100 Pa to $\pm 2,000$ mbar
- 5 to 95 %RH
- -100 to +400 °C
- CO: 0 to 500 ppm
- CO₂: 0 to 5,000 ppm



CP / HM / TH / TM / CTV / CR / LR / CO 1 or 2 analogue outputs

- ± 100 Pa to $\pm 2,000$ mbar
- 800 to 1,100 hPa
- 5 to 95 %RH
- -100 to +400 °C
- 0 to 30 m/s

- 0 to 1,500 W/m²
- 0 to 10,000 lux
- CO: 0 to 500 ppm
- CO₂: 0 to 5,000 ppm









CO/CO, sensors

Sauermann designed CO/CO₂ transmitters in order to meet with requirements of new norms and decrees on air quality.

Multi-function

Class 210-R

CP / TH / TM / CTV / COT

2 analogue outputs2 RCR relaysCalculation functionsAutomatic autozero

- $\pm 100 \text{ Pa to } \pm 2,000 \text{ mbar}$
- 0 to 100 %RH
- -100 to +400 °C
- CO: 0 to 500 ppm
- CO₂: 0 to 5,000 ppm
- 3 to 85 m/s (with Pitot tube) (CP 210)
- 0 to 30 m/s (with hotwire) (CTV 210)





SQR/3 option

Connected to DEBIMO measuring blades, CP 210-R can calculate air velocity and airflow in a duct, from differential pressure.

Multi-function

High-precision transmitters



Multi-function sensor

Si-C320

Graphical touch screen Display and measure 4 parameters simultaneously IP66 housing, VHP resistant 4 RCR relays (option) 4 analogue outputs Wireless communication with mobile application (option)

- From -10 000 to +10 000 Pa CO: from 0 to 500 ppm
- From 0 to 100 %HR
- From -80 to +150 °C
- From 0 to 30 m/s
- From 0 to 99 999 m³/h
- CO₂: from 0 to 10 000 ppm
- COVT : from 0 to 1000 ppb
- CO₂eq : from 400 to 2000 ppm



Multifunction for VAC and IAQ applications



4 analogue outputs



4 visual and audible alarms



RS-485 interface for **Modbus RTU protocol**



Other calculated parameters

Absolute humidity, dew point, specific humidity, humidity temperature, enthalpy and freezing point.



Interchangeable probes

Si-C320 and Si-CPE320 Temperature / Humidity / Air velocity / CO / CO₂, ...





Flush-mount multi-function sensors Si-CPE320

- Special for clean room
- · Front calibration
- 3 analogue outputs: 0-5/10 V or 0/4-20 mA
- From -250 Pa to +250 Pa



Calibration on the front side



3 visual and audible alarms



Brushed stainless steel 316L front face



Large display sensor



Multi-function sensor

CA 310

- 1 SPI-2 or MVA card input
- 3 RCR relays
- 3 analogue outputs: 0-5/10 V or 0/4-20 mA
- 3 visual and audible alarms
- From -10 000 to +10 000 Pa
- From 0 to 100 %HR
- From -50 to +180 °C
- From 3 to 85 m/s
- From 0 to 99 999 m³/h
- CO: from 0 to 500 ppm
- CO₂: from 0 to 5000 pp
- From 800 to 1100 hPa
- From 0 to 10 V
- From 0 to 20 mA



Interchangeable probes

CA 310

Temperature / Humidity / AIr velocity / CO / CO₂, etc.

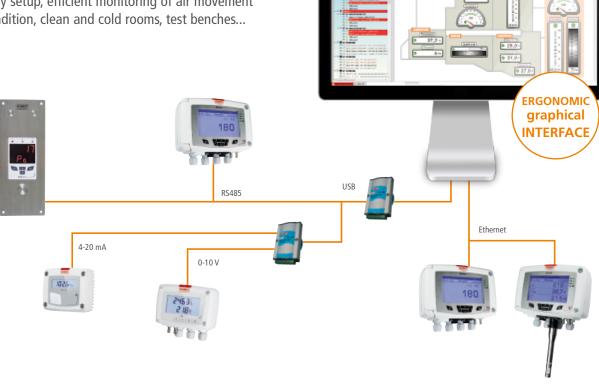
Data acquisition system

Pressure / Humidity / Temperature / Air velocity and Airflow

Data acquisition system

Configure / Display / Process / Export data

Easy setup, efficient monitoring of air movement condition, clean and cold rooms, test benches...



Calibration benches

Pressure / Humidity / Temperature

Pressure generator

GP 500

Calibration in laboratory or on-site High accuracy Automatic auto-zero





The pressure generator allows to adjust and calibrate measurement instruments in laboratory or on-site.

- -2,500 to +2,500 Pa
- -10,000 to +10,000 Pa

Temperature

Probes

Thermocouple / Pt100 Head / Cable / ABS Probes









Measuring range -200 to +1,150 °C



Calibration -200 to +1,500 °C



Pt100 probes



Thermocouple probes

CRYO and Wire probes

ABS head

Connection head

Liquid column manometers

Differential pressure



Inclined

- 0-5 to 0-80 mmH₂O
- Units: Pa, daPa...



Vertical

- From 0-100 mmH₂O to 0-2.6 bar
- Units: mbar, Pa...





Differential pressure switch Si-DPMS

• Setting ranges in Pa: 20-200, 50-500, 200-1000, 500-2500, 1000-5000

ACCESSORIES

To fit any installation with proper connections



- Liquid for manometer
- Tubes, junctions
- Pressure connections, wall-crossing connection...

Our expertise

Manufacturing / Laboratories / R&D





Customer service portal

For all requests concerning repair, returns or calibration, connect to our Customer Service Portal.







Accessible 24h/7

Quick and simple

Real-time tracking

Sauermann.site/Help

State-of-the-art facilities and highly skilled staff

The Sauermann Group relies on cutting edge expertise, with more than 20 experts working in 1500 m² of testing and calibration laboratories around the world, with production lines in France, the United States and China. Our research

and development is conducted in-house by a young team of 20 engineers and 10 forward-thinking technicians. Their quest for innovation and patents is focused on ergonomics, digitalisation and connected devices, along with the constant improvement of the electronic and mechanical quality of our measuring instruments and condensate pumps.

Our in-house laboratories offer testing, adjustment and calibration services for a wide range of measuring instruments.

They are also one of the pillars of our high quality after-sales service. Our after-sales service covers multiple state-of-the-art activities to address all parameters related to indoor air quality.



Calibration and adjustment



Repair / maintenance



Hotline



Since more than 45 years, Sauermann has been developing its expertise in metrological services in many fields:

- Temperature
- Hygrometry
- Air flow rate
- Air velocity
- Pressure
- Gas analysis
- Weighing
- Radiometry
- Tachymetry
- Luxmetry
- Electricity



A new degree of efficiency

ADD A DIGITAL EDGE TO YOUR COMBUSTION ANALYSIS

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





View and check from your smartphone

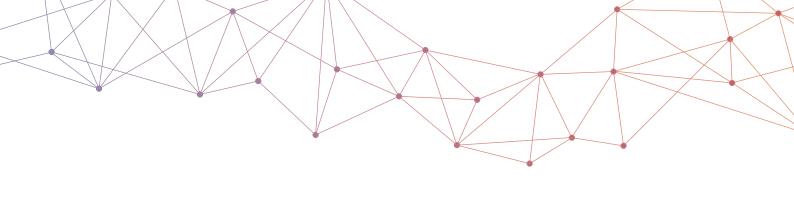


Generate and export measurement reports



Up to 6 calibrated gas sensors



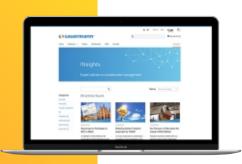


Professional solutions for condensate management and indoor air quality measurement



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

sauermanngroup.com/insights



Sauermann on YouTube

Head to our YouTube channel for tutorials, webinars and product guides.

youtube.com/sauermanngroup



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