



MEASURING INSTRUMENTS

Export General Catalogue









ABOUT US



For more than 45 years, Sauermann 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).



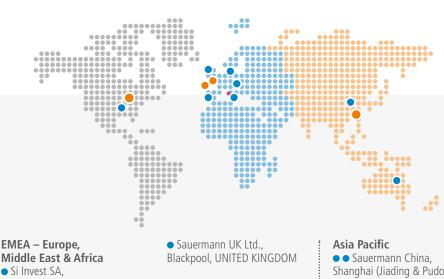
Sauermann Group operates two main brands:

- The Sauermann brand, through condensate removal pumps, instruments and accessories, primarily addresses the needs of Heating, Ventilation, A/C or 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 **Measurement instruments**: Sauermann 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 programme, Sauermann instruments deliver the accuracy and reliability that HVACR engineers need.

LOW SOUND LEVEL **LOW FAIL RATE HIGH PERFORMANCE**

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



North America Sauermann N.A. Corp., New York, Langhorne, USA

Middle East & Africa Si Invest SA. Brussels, BELGIUM Sauermann Industrie S.A.S, Chevry-Cossigny, Montpon, FRANCE

 Sauermann GmbH, Leingarten, GERMANY

 Sauermann Iberica, Barcelona, SPAIN

 Sauermann Italia S.r.l, Bologna, ITALY

Shanghai (Jiading & Pudong),

 Sauermann Australasia, Sydney, AUSTRALIA

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Combustion gas analysers Asian State Stat	HVACR portable
Data loggers	
KIMO NA DO DK	Sensor
246 3Pa 2 18 %	transmitters 1 2

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Combustion gas analyzers

A new degree of efficiency



Sauermann offers a range of compact and intuitive analysers 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

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



Residential



Commercial



Industrial

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.



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 030	SI-CA 130	SI-CA 230
LCD display size	2.8"	4.3"	4.3"
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	8000 ppm	8000 ppm	50 000 ppm with dilution
CO dilution	-	-	✓
Field replaceable pre-calibrated sensors	-	✓	~
Flue gas velocity with Pitot tube	-	~	~
Measurement storage	Smartphone	Internal: 2000 data points + Smartphone and PC	Internal: 2000 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.sauermanngroup.com

Combustion gas analyzers

A new degree of efficiency



All the essentials for combustion gas analysis

Si-CA 030

- Calculated CO₂% value
- CO safety monitoring in ambient air
- Combustion efficiency and excess air calculations
- Emissions values adjusted for reference O₂
- NOx capable with NO sensor
- Quick and easy pump On/Off control



Color display



Auto pump cut-off for high CO levels

Comprehensive, versatile analyzer with touch-screen display Si-CA 130

- Calculated CO₂% value
- · CO safety monitoring in ambient air
- Combustion efficiency and excess air calculations
- Emissions values adjusted for reference O₂
- NOx and low NOx capable (optional)
- One Touch Pump On/Off with Purge
- · Graphical data display
- · Customisable gas analysis screen





Color display



Field replaceable precalibrated sensors



State-of-the-art, industrial emissions analyzer

Si-CA 230

- Ergonomic, light weight and durable design
- One touch pump On/Off with purge
- · Graphical data display
- · Customisable gas analysis screen
- Emissions values adjusted for reference O₂
- CO safety monitoring in ambient air



Total NOx & Low NOx Capable



Field Replaceable Pre-Calibrated Sensors

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.

- · PC software with USB and 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



Download Sauermann Combustion app







Accessories

Customize your own analyzer



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



Smart air temperature probe with 2 m cable Pt100 temperature probe
Ambient CO probe
Ambient CO₂ probe



Double tube extension, 3 m



180 mm flexible probe



180 mm, 300 mm & 750 mm, and 1 m & 1.5 m probes



Wireless printer



Draft probe



Differential pressure kit



Smoke pump



SCU for condensate removal

HVACR Portable

Instruments

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



Class 50, 110, 210 and 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 and 210





HQ 210

- 3 to 98 %RH
- -40 to +180 °C
- -50 to +80 °C_{td}
- CO: 0 to 500 ppm
- CO₂: 0 to 5000 ppm



Luxmeters

LX 50

Illuminance measurement

- 0 to 10 000 lux
- 0 to 929 fc



Tachometers

CT 50 / 110

- Optical: 60 to 60 000 rpm
- Contact: 30 to 3000 rpm



Refrigerant leak detector Si-RD3

- 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

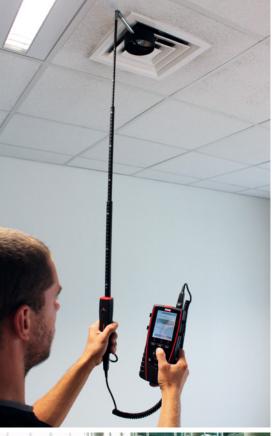
- Differential pressure
- ±500 Pa to ±2000 mbar
- Air velocity with Pitot tube
- 3 to 85 m/s
- · Atmospheric pressure
- 800 to 1100 hPa



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 and 310

Designed for the field

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

Nonstop measurements

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

Expandable memory (AMI 310)

Internal memory of 1000 datasets of 20 000 measuring points. Built-in location for a micro-SD memory card.

Interchangeable probes

The probes use 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



Data processing software



Interchangeable probes & modules



Micro-SD card



Colour wide screen





- Pressure: ±500 Pa / ±2500 Pa / ±10 000 Pa ±500 mbar / ±2000 mbar
- Thermocouple: -200 to +1760 °C
- Pt100: -200 to +600 °C
- · Humidity: 3 to 98 %RH

- CO: 0 to 500 ppm
- CO₂: 0 to 5000 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 °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 +1760 °C
- 2 Pt100 channels
- 1000 datasets storage
- · Calculation of U coefficient
- 4 thermocouple inputs



Wireless probes



Elastomere overmoulding



Data processing software



Interchangeable measurement modules







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

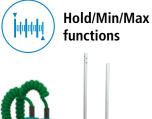
- 1 or 2 inputs
- Pt100
- -100 to +400 °C



Large choice of probes

TK 61/62

- 1 or 2 inputs
- Thermocouple K, J, T, S
- -200 to +1760 °C





General use

- -20 to 40 °C
- Penetration probe







MONITORING

Indoor air quality monitors

Service, Residential & Commercial Applications

IAQ analysis







CO meters

CO 50

- CO: 0 to 500 ppm
- Temperature: -20 to +80 °C
- · Hold function
- · 2-line display

CO 110

- CO: 0 to 500 ppm
- Temperature: -20 to +80 °C
- CO max display, two configurable alarm thresholds
- 4-line display





- Hygrometry, temperature, CO₂ & CO gases and air velocity measurement (depending on models)
- Up to six measurements simultaneously
- Two inputs for Pt100 temperature (-200 to +600°C)
- Large graphic display
- Interchangeable measurement modules:
 1 device = several possible ranges & parameters
- Supplied with calibration certificate



Air quality AQ 110

- CO₂: 0 to 5000 ppm
- Temperature: -20 to +80 °C
- Hold function and min-max values, selection of units
- 4-line display



Air flow meter

Air flow / Air velocity / Pressure

Air flow meter

DBM 620

Compatible with all air vent types.

- · Interchangeable 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 1181 L/s)
- Supplied with 610 x 610 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 1320 mm)
- 1.38 x 4.99 ft (420 x 1520 mm)
- 3.35 x 3.35 ft (1020 x 1020 mm)

Remote velocity grid

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 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.





Key benefits





Mobile application

- Wireless pairing
- · Data visualisation
- Free download



Smart and interchangeable

probes (class 320)

- Advanced technology
- · Integrated calibration data



Mini

KH 50 / KT 50

Temperature, humidity

- -40 to +70 °C
- 5 to 95 %RH
- USB connection
- KH 50: IP20
- KT 50: IP65



USB

KH 120 / KT 120

Temperature, humidity

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







Multi-function

KH 220 / KT 220 / KTT 220

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

- -200 to +1760 °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 5000 ppm
- 800 to 1100 hPa
- -10 000 to +10 000 Pa
- 0 to 20 mA, 0 to 600 A
- 0 to 10 V



Wireless pairing

Transmitters

Regulation and monitoring of HVAC

Pressure / Temperature / Humidity / Air velocity and air flow / Air quality / Solar / Light / Atmospheric pressure



Designed and manufactured in France, Sauermann and Kimo's range of transmitters can be used in all industries, in the service sector or in OEM.

From the simplest to the most elaborate, these advanced measuring instruments can be adapted to any type of application thanks to their configuration and calculation possibilities.



Configurable outputs



Visual and audible alarm



Tightness ABS housing

Overview **Transmitter sensors Pressure** Air velocity **Temperature** Humidity **Changeover relays** CO / CO₂ **Analogue outputs Ethernet connection MODBUS** protocole Multifunction **Solar radiation / Light** Flush-mount display **Sauermann Control** app **LCC-S software**

Monostats & classes 110/210

Transmitter sensors

Pressure

PST / CP 110 / CP 116 / CP 210-R

- ±100 Pa to ±10 000 Pa
- 3 to 85 m/s
- 800 to 1100 hPa (CP 116)
- -100 to +400 °C (CP 210-R)









Humidity

HST / TH 110 / HM 110 / TH 210-R

- 0 to 100 %HR
- -40 to +180 °C

Air velocity

CTV 110 / CTV 210-R

- 0 to 30 m/s
- 0 to 99 999 m³/h
- 0 to +50 °C





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.



Temperature

TST / TM 50 / TM 110 / TM 210-R

- -100 to +400 °C
- IP65 protection







${\rm CO}$ / ${\rm CO_2}$ transmitters

Kimo designed CO / ${\rm CO_2}$ transmitters in order to meet with requirements of new standards and decrees on air quality.

CO CO 110 / COST-S

• 0 to 500 ppm

CO_2

CO 112 / COT 212-R / CO2ST-S

- 0 to 5000 ppm
- 0 to +50 °C

Solar radiation / Light

CR 110 / LR 110

- 0 to 1500 W/m²
- 0 to 10 000 Lux







LCC-S software

Configuration software for monostats, class 110, 210 and 310 transmitters

- Compatible with the whole range
- Configure your devices
- Save data
- View your measurements in real time
- Protection
- Adjustable alarm thresholds
- Save a configuration to apply it to other devices



3784%

Multi-function

High-precision transmitters



Multi-function transmitter

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)

- -10 000 to +10 000 Pa
- 0 to 100 %HR
- -80 to +150 °C
- 0 to 30 m/s
- 0 to 99 999 m³/h
- 800 to 1100 hPa
- CO: 0 to 500 ppm
- CO₂: 0 to 10 000 ppm
- COVT: 0 to 1000 ppb
- CO₂eq: 400 to 2000 ppm
- 800 to 1100 hPa



Multifunction for VAC and IAQ applications



4 analogue outputs



RS-485 interface for Modbus RTU protocol



4 visual and audible alarms



 $24 \, V_{DC} / 24 \, V_{\Delta C}$ power supply

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 / CO, / Pressure



Flush-mount multi-function transmitter

Si-CPE320

Special for clean room
Front calibration
Simultaneous display of 1 to 3
parameters
ABS IP66 housing, vaporized hydrogen
peroxide resistant
3 configurable analogue outputs
MODBUS Output

• Measuring range: from -250 to +250 Pa



3 visual and audible alarms



Brushed 316L stainless steel front panel



Touch screen

Flush-mount display

Si-ATE320

Special for clean room Simultaneous display of 1 to 3 parameters ABS IP66 housing, vaporized hydrogen peroxide resistant MODBUS Output



Large display transmitter



Multi-function transmitter

CA 310

1 SPI-2 or MVA card input 3 RCR relays Digital output (option) Supplied with adjusting certificate

- 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 ppm
- From 800 to 1100 hPa
- From 0 to 10 V
- De 0 à 20 mA



Probes for CA 310

Temperature / Humidity / Air velocity / CO / CO₂ / Pressure...

NEW TECHNOLOGIES

Touch control and mobile application

Full Si-C320 and Si-CPE3220 setup



Trend indicator: up to 4 parameters displayed simultaneously



History: chart display



Touch screen

No physical buttons: better sealing and less mechanical failure



Simultaneous display of up to 4 measurements Chart form display



Full device setup







Sauermann Control app

It is also possible to control and configure the class 320 transmitters with a computer, a smartphone or a tablet via the Sauermann Control application, which allows the user to manage all the device's parameters via its wireless connection module (USB wired for computers). This app can also easily update the firmware of the instrument and its probes.

- Wireless connection with iOS and Android
- Full device control
- Downloading recorded measurements
- One-click firmware update
- Remote measurement viewing

Calibration benches

Pressure / Humidity / Temperature



Pressure generator

GP 500

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



Hygrometry bench

GH 500

Calibration of several instruments simultaneously. Multi-probe ventilated measuring chamber.

• 10 to 85 %HR





Laboratory or on-site calibration



High accuracy



Automated or scheduled calibration

Salt solutions

KSH11 / KSH44 / KSH85

Humidity source to test class 110, 210 and 310 portable instruments and transmitters.





Temperature

Probes

Thermocouple / Pt100 Head / Cable / ABS probes



CRYO and Wire probes



ABS head



Connection head



Measuring range -200 to +1150 °C



Calibration -200 to +1500 °C



Pt100 probes



Thermocouple probes

Liquid column manometers

Differential pressure



Inclined

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



Vertical

- 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 re-

search and development is conducted inhouse 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

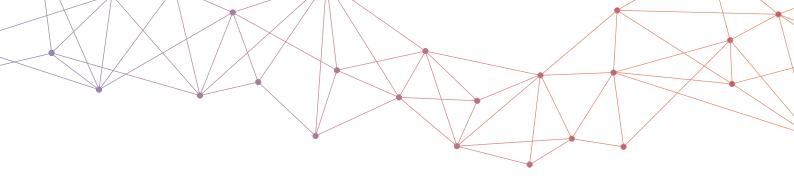


Hotline



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

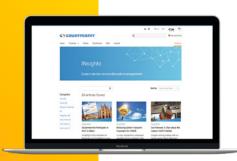
- Temperature
- Hygrometry
- Air flow rate
- Air velocity
- Pressure
- Gas analysis
- Weighing
- Radiometry
- Tachymetry
- Luxmetry
- Electricity



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





More information sauermanngroup.com









