



# PROFESSIONAL SOLUTIONS FOR CONDENSATE MANAGEMENT AND INDOOR AIR QUALITY MEASUREMENT













## 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).



## Member of the Verder group, 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.



#### **Heating**



#### Ventilation



Air conditioning



#### Refrigeration

### OUR PRODUCTS & MARKETS

Climate systems engineering: Heating & air conditioning installers, inspection bodies, technical consulting firms, air treatment unit manufacturers, system tuners, operation & maintenance contractors, etc.

High-tech industries:
Pharmaceutical & cosmetics
laboratories, electronics
manufacturers, etc.

Heavy industries: Food processing, paper, automotive, nuclear, etc. **Commercial**: Hospitals, glasshouses, museums, farms, temperature-controlled transport, etc.



#### OUR EXPERTISE

#### ACCREDITED MEASUREMENT LABORATORIES, IN-HOUSE RE-SEARCH AND DEVELOPMENT



Sauermann products and services are backed by cuttingedge facilities and expertise: a team of over 20 experts working at multiple testing and calibration laboratories worldwide, and production lines in France, the United States and China.

Our in-house research and development programme – spearheaded by a young, forward-looking group of 20 engineers and 10 technicians – has three aims: to push the boundaries of innovation in ergonomic design, digital technology and connected objects, to patent our technologies, and to consistently set new standards for electronic and mechanical performance in our products.



Over 20 patents, including our oscillating piston pump technology and the foldable frame system found on our DBM 620 air flow meter.

## Over 800 sq m of laboratory space

Our experts provide adjustment and calibration services for our measurement instruments.

## Customer service staff trained by our experts

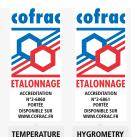
Our team is here to advise and quote you for the service you need.

## After-sales service within our production lines

Our technicians maintain and repair your devices right where they're made.

#### Our measurement expertise covers a wide range of fields:

Pressure	Radiometry	Gas analysis
Temperature	Tachometry	Light measurement
Humidity	Air velocity	Electrical current
Weighing	Air flow	Acoustics



Sauermann Industrie, Laboratories, located in Montpon (FR), accredited to standard NF EN ISO/IEC 17025



Accreditation Sauermann Iberica ENAC UNE EN 17025 : 2017

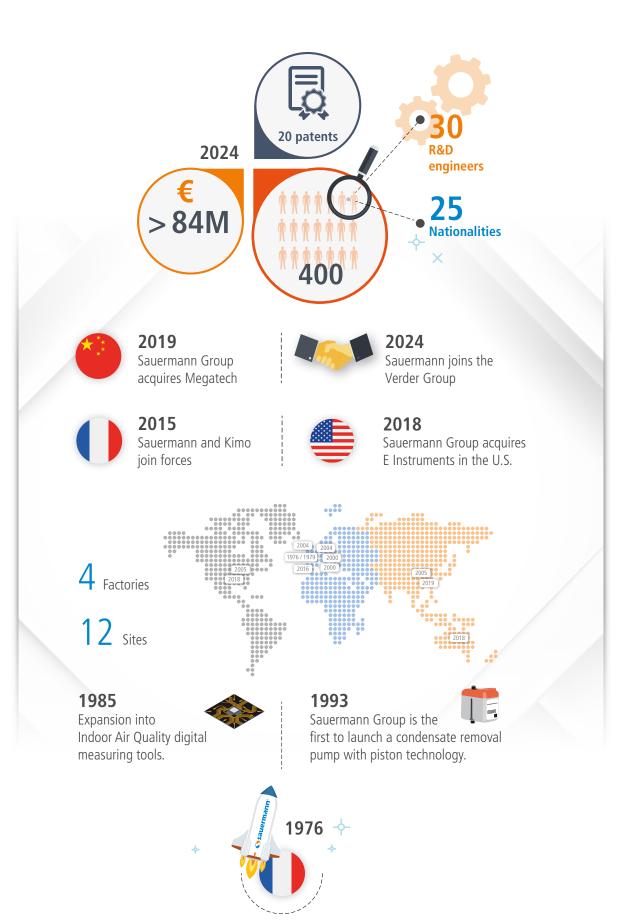








## **Sauermann**<sup>®</sup>



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DIGITAL
MANIFOLD

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## MEASUREMENT INSTRUMENTS

Check. View. Optimise.









Heating

Ventilation Air conditioning Refrigeration



HVACR MEASUREMENT **INSTRUMENTS** 









Sauermann's measurement instruments are backed by a 45-year track record in metrology, delivering unmatched reliability and a user experience that's second to none.

At Sauermann, our experience means we understand the needs of professionals the world over — and design tools to help them do their job better. Our instruments monitor the full spectrum of air quality parameters, catering to the entire HVACR and indoor air quality sector.

Indoor air quality Heat pumps Heating Healthcare High-tech industries Laboratories

Transport Residential, commercial & industrial boilers Environment Refrigeration Cold chain

Energy efficiency Air conditioning Research Livestock farming Combustion efficiency and emissions Agriculture



MANIFOLDS



**ANALYSERS** 





## HVACR measurement instruments

It's all about simplicity

Pressure / Temperature / Humidity / Air velocity / Air flow rate



#### Our portable HVACR instruments cover a broad spectrum of measurements, from temperature, relative humidity and pressure, to air velocity and air flow rate.

We offer a full range of easy-to-use instruments: dual input thermometer (Si-TT3), infrared thermometer (Si-TI3), thermo-hygrometer (Si-HH3), digital differential pressure manometer (Si-PM3), vane thermo-anemometer (Si-VV3), hotwire thermo-anemometer (Si-VH3), gas leak detector (Si-CD3) and refrigerant leak detector (Si-RD3).

What's more, our user-friendly Si-HVACR Measurement MobileApp displays measurement data right on your smartphone or tablet.



## Mobile app

**Si-HVACR Measurement MobileApp** 

With the Si-HVACR Measurement MobileApp, users can view and record measurements in real time.

#### Key features:

- View parameters in user-friendly format
- Access previously saved measurements and charts (average, min. & max. values, etc.)
- Generate reports (PDF, CSV or XML) and add up to four photos











**Backlit LCD screen** 



Low consumption device



Magnetic backing for easy fixing



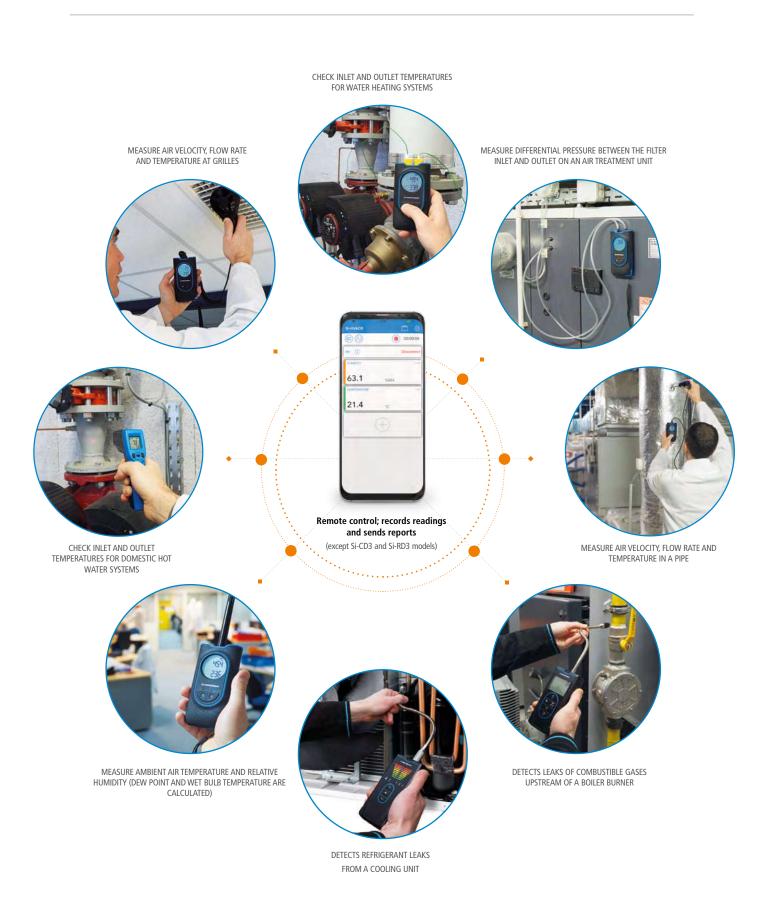
**Carrying bag** 



Calculated values on mobile app

## Applications

#### Our devices provide everything HVACR engineers need for their routine operations











#### Heating

#### **Ventilation Air conditioning**

#### Refrigeration



Tip: a flexible probe keeps the device's sensor in contact with gas pipes in even the hardest-to-reach places.

Pay special attention to joints in the circuit. Check the condition of the filter and replace it if necessary.

Follow the manufacturer's recommendations for replacing the sensor.

Si-RD3

Refrigerant leak detector

## SI-PM3

#### Digital differential pressure manometer

This pocket-sized manometer can take two pressure measurements simultaneously, and you can connect a Pitot tube to measure air velocity and flow rate in a pipe.

Reference: SIPM3



Air velocity and air flow with Pitot tube (optional)



Measuring range: -150 to +150 hPa (-60 to 60 inH,0)





## Si-TT3

#### **Dual input thermocouple thermometer**

This instrument uses thermocouple technology to take two temperature readings at once (between -200 °C/-328 °F and 1 300 °C/2 372 °F). Ideal for checking the inlet and outlet temperatures of water heating systems.

**Reference: SITT3** 



Dual channel K thermocouple (2 probes included)



Accessory: 1 x K thermocouple wire probe class 2, between -40 and +260 °C (40 to 500 °F) (reference: SIACCTC)

## Si-HH3

#### Thermo-hygrometer

This thermo-hygrometer is a turnkey solution for measuring temperature and relative humidity, while dew point and wet bulb temperature are calculated via the accompanying mobile app.

Reference: SIHH3



Measuring range: from 0 to 100%RH





## Si-TI3

#### Infrared thermometer

Sauermann's Si-TI3 infrared thermometer is the ideal solution for contactless diagnosis, inspection and checking of surface temperatures.

Reference: SITI3



Optical: D.S 12:1



## SI-VH3

#### Hotwire thermo-anemometer with telescopic probe

Sauermann's palm-sized Si-VH3 hotwire thermo-anemometer comes with a highly sensitive and accurate telescopic probe that easily measures air flow rate, velocity and temperature.

Reference: SIVH3



80 cm (31.5") telescopic probe with double graduation



## SI-W3

#### Vane thermo-anemometer with built-in vane probe

This thermo-anemometer, which features a vane probe with a long cable, can be used to measure air velocity and temperature at an air vent. Air flow rate is calculated via the accompanying mobile app.

Reference: SIVV3



Air velocity and air flow meter



Large vane probe with 2 m (78.74") cable

15031

## Si-CD3

#### Gas leak detector

The Si-CD3 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).

Reference: SICD3



30 cm flexible probe



Adjustable alarm



## Si-RD3

#### Refrigerant leak detector

The Si-RD3 refrigerant leak detector uncovers leaks of most common refrigerant gases to a high degree of sensitivity, including all HCFC and HFC refrigerants, R1234yf, R1234ze, R290, R600a, and 5% hydrogen—95% nitrogen mixtures (Nidron 5 and Trace-A-Gas).

Reference: SIRD3



30 cm flexible probe



Visual and audio alarm

## Technical information

				7				
	Si-PM3	Si-HH3	Si-TT3	Si-TI3	Si-VV3	Si-VH3	Si-CD3	Si-RD3
Differential pressure	~	-	-	-	-	-	-	-
Air velocity and air flow rate with Pitot tube (optional)	~	-	-	-	-	-	-	-
Relative humidity	-	~	-	-	-	-	-	-
Dew point	-	~	-	-	-	-	-	-
Absolute humidity	-	~	-	-	-	-	-	-
Enthalpy	-	~	-	-	-	-	-	-
Mixing ratio	-	~	-	-	-	-	-	-
Wet bulb temperature	-	~	-	-	-	-	-	-
NTC temperature	-	~	-	-	~	~	-	-
K thermocouple temperature	-	-	~	-	-	-	-	-
Infrared temperature	-	-	-	~	-	-	-	-
Ambient temperature	-	~	-	~	-	-	-	-
Air velocity	-	-	-	-	~	~	-	-
Air flow	-	-	-	-	~	~	-	-
Combustible gases	-	-	-	-	-	-	~	-
Refrigerant gases	-	-	-	-	-	-	-	~
Carrying bag	~	~	~	<b>~</b>	~	~	~	~
Magnet at backside	~	~	~	-	~	~	-	-
Auto shut-off	10 min	10 min	10 min	15 sec	10 min	10 min	0 to 120 min	15 min
Battery life	170 h	250 h	400 h	14 h	120 h	20 h	20 h	> 12 h
Mobile app	~	~	~	~	~	<b>~</b>	-	-
Warranty	2-year	2-year	2-year	2-year	2-year	2-year	2-year	2-year

## Measuring ranges

								•
	Si-PM3	Si-HH3	Si-TT3	Si-TI3	Si-VV3	Si-VH3	Si-CD3	Si-RD3
Differential pressure	-150 to +150 hPa -60 to 60 inH <sub>2</sub> 0	-	-	-	-	-	-	-
Air velocity with Pitot tube (optional)	2 to 80 m/s 394 to 15,748 fpm	-	-	-	-	-	-	
Air flow rate with Pitot tube (optional)	0 to 9,999 m³/h	-	-	-	-	-	-	
Relative humidity	-	0 to 100 %HR	-	-	-	-	-	-
Dew point	-	-40 to +60 °C <sub>Td</sub> -40 to 140 °F <sub>Td</sub>	-	-	-	-	-	-
Absolute humidity	-	0 to 600 g/m³	-	-	-	-	-	-
Enthalpy	-	0 to 10,000 kJ/kg	-	-	-	-	-	-
Mixing ratio	-	0 to 10,000 g/kg	-	-	-	-	-	-
Wet bulb temperature	-	0 to 60 °C <sub>Tw</sub> 32 to 140 °F <sub>Tw</sub>	-	-	-	-	-	-
NTC temperature	-	-20 to +60 °C -4 to 140 °F	-	-	-10 to +60 °C 14 to 140 °F	-10 to +60 °C 14 to 140 °F	-	-
K thermocouple temperature	-	-	-200 to +1,300 °C -328 to 2,372 °F	-	-	-	-	-
Infrared temperature	-	-	-	-40 to +500 °C -40 to 932 °F	-	-	-	-
Ambient temperature	-	-20 to +60 °C -4 to 140 °F	-	0 to 50 °C 32 to 122 °F	-	-	-	-
Air velocity	-	-	-	-	0,4 to 30 m/s 78.7 to 5,905 fpm	0 to 30 m/s 0 to 5,905 fpm	-	-
Air flow rate	-	-	-	-	0 to 9,999 m³/h 0 to 9,999 m³/min 0 to 9,999 m³/s 0 to 9,999 cfm	0 to 9,999 m <sup>3</sup> /h 0 to 9,999 m <sup>3</sup> /min 0 to 9,999 m <sup>3</sup> /s 0 to 9,999 cfm	-	-
CH <sub>4</sub>	-	-	-	-	-	-	0 to 10,000 ppm 0 to 1% vol 0 to 20% LEL	-
Refrigerant gases	-	-	-	-	-	-	-	0 to 3 g/year 0 to 30 g/year 0 to 300 g/year

## 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**

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





**Commercial** 



Q Q =

4.51

91.4

12.5 % 170.3 %

82 ppm

1.094 mbs

80 ppn

co

Eff. (n)

CO2

NOx

## 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, & CO<sub>2</sub>%



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 <sub>2</sub> , CO, NO)	Up to 3 (O <sub>2</sub> , CO, NO, Low NO)	Up to 6 (O <sub>2</sub> , CO, NO, Low NO, NO <sub>2</sub> , Low NO <sub>2</sub> , SO <sub>2</sub> , Low SO <sub>2</sub> , CxHy, H <sub>2</sub> S)
Max. CO measurement	8,000 ppm	8,000 ppm	50,000 ppm (with dilution)
CO dilution	-	-	<b>✓</b>
Field replaceable pre-calibrated sensors	-	~	<b>✓</b>
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)	-	~	<b>✓</b>
Smartphone app (wireless)	~	~	<b>✓</b>
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 CO<sub>2</sub>% value
- CO safety monitoring in ambient air
- Combustion efficiency and excess air calculations
- Emissions values adjusted for reference O<sub>2</sub>
- · 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 CO<sub>2</sub>% value
- CO safety monitoring in ambient air
- Combustion efficiency and excess air calculations
- Emissions values adjusted for reference O<sub>2</sub>
- NOx and low NOx capable (optional)
- One Touch Pump On/Off with Purge
- · Graphical data display
- · Customisable gas analysis screen



Field replaceable precalibrated sensors





**Color display** 





- One touch pump On/Off with purge
- · Graphical data display
- · Customisable gas analysis screen
- Emissions values adjusted for reference O<sub>2</sub>
- 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.

- 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**







## Probes and 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.



Double tube extension, 3 m - Ref 27537

Wireless printer - Ref. 27546



SCU for condensate removal - Ref.26811

## Selection guide Technical information

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		Si CA 030	Si CA 120	Si CA 220
Parameter	Measuring range	Si-CA 030	Si-CA 130	Si-CA 230
# of Gas Sensors		2 - 3	2 - 3	2 - 6
0,	0 to 25%	~	~	<b>✓</b>
CO	0 to 8000 ppm	<b>✓</b>	<b>✓</b>	-
CO (H <sub>2</sub> comp.)	0 to 10,000 ppm	-	-	~
CO (with dilution)	100 to 50,000 ppm	-	-	~
CO <sub>2</sub> (calculated)	0 to 99.9%	~	~	~
NO	0 to 5000 ppm	~	~	~
Low NO	0 to 300 ppm	-	~	~
NO <sub>2</sub>	0 to 1000 ppm	-	-	~
Low NO <sub>2</sub>	0 to 100 ppm	-	-	~
NOx (calculated)	0 to 7500 ppm	~	~	~
Low NOx (calculated)	0 to 450 ppm	-	~	~
SO <sub>2</sub>	0 to 5000 ppm	-	-	~
Low SO <sub>2</sub>	0 to 100 ppm	-	-	~
CxHy (HC)	0 to 5%	-	-	~
H <sub>2</sub> S	0 to 500 ppm	-	-	~
Flue temperature	-20 to +1250 °C / -4 to +2282 °F	~	~	<b>~</b>
Air temperature	-40 to +120 °C / -40 to +482 °F	~	~	~
Differential temperature	0 to 1250 °C / 0 to 2282 °F	~	~	~
Pressure/Draft	-200 to 200 mbar / -80 to 80 inH <sub>2</sub> O	~	~	~
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	-	<b>✓</b>	<b>✓</b>
Real time display of data on the smartphone Societies	<b>~</b>	<b>~</b>	<b>~</b>
PC Software	-	<b>~</b>	<b>~</b>
Automatic Data Logging	<b>~</b>	<b>~</b>	<b>~</b>
Rechargeable Battery w/ AC Charger	<b>✓</b>	<b>~</b>	<b>✓</b>

## Available kits

#### 20 main packs

27496	SICA 030 KIT 2AS	0 <sub>2</sub> /CO	180	Vinyl	Si-CA 030 Gas Analyzer Kit 2AS, includes two gas sensors (O <sub>2</sub> , CO), 180 mm Probe rated to 800C with 2 m dual hose, vinyl carrying case, rubber holster, water trap with filter, charger with plug set, USB-C cable, quick start guide, calibration certificate
27498	SICA 030 KIT 2BS	0 <sub>2</sub> /CO	300	Vinyl	Si-CA 030 Gas Analyzer Kit 2BS, includes two gas sensors (O <sub>2</sub> , CO), 300 mm Probe rated to 800C with 3 m dual hose, vinyl carrying case, rubber holster, water trap with filter, charger with plug set, USB-C cable, quick start guide, calibration certificate
27501	SICA 030 KIT 3AS	0 <sub>2</sub> /CO/NO	180	Vinyl	Si-CA 030 Gas Analyzer Kit 3AS, includes three gas sensors (O <sub>2</sub> , CO, NO), 180 mm Probe rated to 800C with 2 m dual hose, vinyl carrying case, rubber holster, water trap with filter, charger with plug set, USB-C cable, quick start guide, calibration certificate
27507	SICA 130 KIT 2AS	0 <sub>2</sub> /CO	180	Vinyl	Si-CA 130 Gas Analyzer Kit 2AS, includes two gas sensors (O <sub>2</sub> , CO), 180 mm Probe rated to 800C with 2 m dual hose, vinyl carrying case, rubber holster, water trap with filter, charger with plug set, USB-C cable, quick start guide, calibration certificate
27508	SICA 130 KIT 2AH	0 <sub>2</sub> /CO	180	ABS	Si-CA 130 Gas Analyzer Kit 2AH, includes two gas sensors (O <sub>2</sub> , CO), 180 mm Probe rated to 800C with 2 m dual hose, ABS hard plastic carrying case, rubber holster, water trap with filter, charger with plug set, USB-C cable, quick start guide, calibration certificate
27509	SICA 130 KIT 2BS	0 <sub>2</sub> /CO	300	Vinyl	Si-CA 130 Gas Analyzer Kit 2BS, includes two gas sensors (O <sub>2</sub> , CO), 300 mm Probe rated to 800C with 3 m dual hose, vinyl carrying case, rubber holster, water trap with filter, charger with plug set, USB-C cable, quick start guide, calibration certificate
27510	SICA 130 KIT 2BH	0 <sub>2</sub> /CO	300	ABS	Si-CA 130 Gas Analyzer Kit 2BH, includes two gas sensors (O <sub>2</sub> , CO), 300 mm Probe rated to 800C with 3 m dual hose, ABS hard plastic carrying case, rubber holster, water trap with filter, charger with plug set, USB-C cable, quick start guide, calibration certificate
27511	SICA 130 KIT 3AS	0 <sub>2</sub> /CO/NO	180	Vinyl	Si-CA 130 Gas Analyzer Kit 3AS, includes three gas sensors (O <sub>2</sub> , CO, NO), 180 mm Probe rated to 800C with 2 m dual hose, vinyl carrying case, rubber holster, water trap with filter, charger with plug set, USB-C cable, quick start guide, calibration certificate
27512	SICA 130 KIT 3AH	0 <sub>2</sub> /CO/NO	180	ABS	Si-CA 130 Gas Analyzer Kit 3AH, includes three gas sensors (0 <sub>2</sub> , CO, NO), 180 mm Probe rated to 800C with 2 m dual hose, ABS hard plastic carrying case, rubber holster, water trap with filter, charger with plug set, USB-C cable, quick start guide, calibration certificate
27522	SICA 2302	0 <sub>2</sub> /CO	300	ABS	Si-CA 230 Analyzer includes two gas sensors (O <sub>2</sub> , CO), 300 mm Probe rated to 800C with 3 m dual hose, ABS hard plastic carrying case, rubber holster, water trap with filter, charger with plug set, USB-C cable, quick start guide, calibration certificate
27597	SICA 2303N	0 <sub>2</sub> /CO/NO	300	ABS	Si-CA 230 Analyzer includes three gas sensors (O <sub>2</sub> , CO, NO), 300 mm Probe rated to 800C with 3 m dual hose, ABS hard plastic carrying case, rubber holster, water trap with filter, charger with plug set, USB-C cable, quick start guide, calibration certificate
27598	SICA 2303NL	0 <sub>2</sub> /CO/NO	300	ABS	Si-CA 230 Analyzer includes three gas sensors (O <sub>2</sub> , CO, Low NO), 300 mm Probe rated to 800C with 3 m dual hose, ABS hard plastic carrying case, rubber holster, water trap with filter, charger with plug set, USB-C cable, quick start guide, calibration certificate
27599	SICA 2304ND	0 <sub>2</sub> /CO/NO/ NO <sub>2</sub>	300	ABS	Si-CA 230 Analyzer includes four gas sensors (O <sub>2</sub> , CO, NO, NO <sub>2</sub> ), 300 mm Probe rated to 800C with 3 m dual hose, ABS hard plastic carrying case, rubber holster, water trap with filter, charger with plug set, USB-C cable, quick start guide, calibration certificate
27600	SICA 2304NS	0 <sub>2</sub> /CO/NO/ SO <sub>2</sub>	300	ABS	Si-CA 230 Analyzer includes four gas sensors (O <sub>2</sub> , CO, NO, SO <sub>2</sub> ), 300 mm Probe rated to 800C with 3 m dual hose, ABS hard plastic carrying case, rubber holster, water trap with filter, charger with plug set, USB-C cable, quick start guide, calibration certificate

## Digital manifolds

Refrigerant handling, maintenance and commissioning





## The smart assistant that makes everyone an expert.

These manifolds can be used to commission and service all types of refrigerant-based installations: heat pumps, air conditioning, refrigeration and reversible systems, from domestic systems to complex industrial machines.

Very easy to operate, this equipment features the latest technologies for fast, comprehensive system diagnostics. Its smart digital assistant guides the operator in every situation to help him achieve his objectives in the best possible way.









## Product overview

#### Easy operation and full diagnostics at a glance

The ultimate toolkit for refrigeration, air conditioning, and heating professionals



## Digital refrigerant manifolds



2-way manifold

Si-RM350 (ref. 28138)

4-way manifold

Si-RM450 (ref. 28139)

Battery life 300 hours \*

Memory Up to 9 days of recording

Display Graphic screen; 240 x 128 px

<sup>\*</sup> At 20°C without backlight and wireless communication



## A1 / A2L / A3 refrigerants compatible



## **High-speed NTC temperature** sensors

## Most versatile and futureproof manifold in its range

- Domestic to industrial A/C, heat pumps, refrigeration & reversible systems
- Wired and wireless probes (100 m range)
- 130+ refrigerants supported. Auto updates to industry evolutions

## Lightning-fast response times to speed up operations

- "Parrot" clamp shape optimized for 6 to 42 mm pipes
- Long-lasting high accuracy
- Real time results on manifold and mobile app



## Durable anti-reflective glass screen



## User-friendly troubleshooting with diagnostics

## Crystal-clear easy-to-read display

- Perfect readability in daylight sun
- · Backlit for indoor use
- Industry leading anti-glare design

## Quick and easy to operate in all situations

- 8 integrated measurement programs
- New "Easy Mode" with single pressure port connected
- Efficiency calculations: COP and EER ratings



## Safe and rugged for long data logging



#### New smart assistant app: Sauermann Pilot

## Maximum reliability for deep diagnostics

- Internal memory data-logging up to 9 days with 300h battery life
- Anti-theft padlock slot, rear hook and USB-C wired power supply
- IP54 dust & rain proof body

## Digital tech leveraged to help technicians

- Real time control, readings display and recordings
- Create, sign and send reports with pictures
- Internal detailed customer database management

	Si-RM350	Si-RM450
Pressure valves	3 valves	4 valves
Measuring range	From -1 to 60 ba	r (-14 to 870 psi)
Pressure sensing accuracy	±0.50% o	f full scale
Resolution	0.01 bar / 0.1 psi /	1 kPa / 0.001 MPa

## Probes and accessories



#### Wired temperature clamp

#### Si-RT2 (ref. 28140)

- Innovative "Parrot" shape to handle 6 to 42 mm pipes
- High-speed NTC temperature sensor with high accuracy
- Wide measurement range: -50 to 120°C



#### Wireless temperature clamp

#### **Si-RT7** (ref. 28142)

- Innovative "Parrot" shape to handle 6 to 42 mm pipes
- High-speed NTC temperature sensor with high accuracy
- Quick & Strong wireless auto connection (100 m range)
- Real time readings on manifold and mobile app
- Measurement range: -20 to 85°C
- IP54 dust & rain proof probe





#### Si-RT5 (ref. 28141)

- Easy grip for large pipes up to 100 mm diameter
- High-speed NTC temperature sensor with high accuracy
- Measurement range: -20 to 85°C





### Wireless temp-hygrometer (psychrometer)

#### Si-TH4 (ref. 28145)

- Fast and accurate Dry Bulb and Wet Bulb temperatures
- Outdoor, indoor and in-ducts measurements
- Flexible probe with sliding magnet for easy positioning
- Quick & Strong wireless auto connection (100 m range)
- Real time readings on manifold and mobile app

#### Wireless vacuum probe

#### Si-RV4 (ref. 28143)

- High accuracy Pirani® sensor, 50 microns deep vacuum
- A1, A2L and A3 refrigerants compatible
- Quick & Strong wireless auto connection (100 m range)
- Real time readings on manifold and mobile app
- IP54 dust & rain proof probe





#### Wireless pressure probe

#### Si-RP4 (ref. 28144)

- A1, A2L and A3 refrigerants compatible
- Light and curved design for easy plug-in
- Quick & Strong wireless auto connection (100 m range)
- Real time readings through direct connection to mobile app
- IP54 dust & rain proof probe

#### Digital refrigerant scale

#### Si-RS1 (ref. 28153)

- Extra Large Back-lit LCD Display
- 3 Display Modes (kg, lb, oz)
- 243 lb (110 kg) Capacity
- Strong Aluminum Base
- Rugged, Non-Slip Platform
- Accuracy ±0.05% of Reading





### Two stage Vacuum pump

**Si-RVP1** (ref. 110V : 28155 - ref. 220V : 28154) **Si-RVP2** (ref. 28157) **Si-RVP3** (ref. 28156)

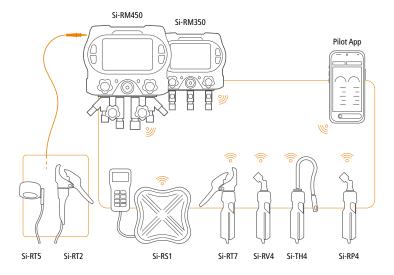
- Motor: 1/3 HP (Si-RVP1) and ½ HP (Si-RVP2 and Si-RVP3)
- Free air displacement (50/60 Hz): 85/70 lit/min (Si-RVP1) and 170/142 lit/min (Si-RVP2 and Si-RVP3)
- Spark free, A2L & A3 refrigerant (Si-RVP3 Europe only)
- Refined cartridge machining process creates an improved surface finish extending the longevity of the pump life
- Expanded internal oil path creates less friction and ultimately less heat
- Upgraded seals insure maximum vacuum

## Mobile app

#### Sauermann Pilot

The Si-RM350 and Si-RM450 manifolds, their probes and accessories can be interconnected independently. Additional functionalities can also be accessed via the new Sauermann Pilot mobile application.

Available on iOS and Android, this app provides invaluable assistance with a precise purpose: to simplify and speed up the work of HVACR professionals.



With the ability to connect to multiple devices simultaneously, the free **Sauermann Pilot** app supports the latest Sauermann and Kimo instruments wirelessly on Apple and Android smartphones and tablets.



Download the app Sauermann Pilot





App Store is a service mark of Apple Inc., registered in the U.S. and other countries. Google Play and the Google Play logo are trademarks of Google LLC.







## Remote visualization and control

Manage the interconnection of probes, vacuum pumps, scale and manifold: ultraaccurate refrigerant handling, measurements and complete diagnostics at a glance!





## Administrative tasks just a click away

Automated paperwork! Record your measurement campaigns and automatically integrate the results into service reports with digital signatures and photos, all adapted to current and future regulatory requirements.





## Easy customer management

Save a complete customer database: contact information, detailed installation type, archived jobs and reports... This database is stored locally and protected so that only the user can access it.











Si-RM350 (x1) Si-RT2 (x2) Si-RT7 (x2) Si-RV4 (x1) Flexibles (x3) Kit 1:28146 • Kit 2:28159 • Kit 3: 28147 • • Kit 4:28160 Kit 5: 28161











		1 1	<b>T T</b>	4	
	Si-RM450 (x1)	Si-RT2 (x2)	Si-RT7 (x2)	Si-RV4 (x1)	Flexibles (x4)
Kit 1:28162	•	•			
Kit 2:28163	•	•			•
Kit 3: 28164	•		•		
Kit 4: 28165	•		•		•
Kit 5: 28148	•		•	•	
Kit 6: 28149	•		•	•	•

## Manifolds

#### 100% mobile application



## Si-RM3

## Smart wireless manifold probes with dual valves

Reference: 25555

The **Si-RM3** manifold comes with two pressure probes (Si-RM1) that accurately measure high side and low side pressure and two temperature probes (Si-RM2) that are used to accurately and simultaneously provide real-time superheat/sub cooling calculations.



## Si-RM13

## Combined manifold with smart wireless probes and 2-channel by-pass

Reference: 25558

This Si-RM13 combines the sturdiness of the analog manifold with digital smart wireless temperature (Si-RM1) and pressure probes (Si-RM2). This premium package includes a traditional 2-channel analog manifold body (by-pass type) with flexible hoses and a durable block made of anodised aluminum.



Ergonomic design (45° angle)



Built-in Schrader® core



Measurement during charging



Accurate measurement of high and low pressure



Real time superheat and subcooling calculations



Wireless connectivity (range up to 30 metres)

#### **Technical data**

	Si-RM1
Measuring range	-1 to 60 bar
Pressure sensing accuracy	$\pm 0.5\%$ of full scale
Overload	65 bar
Burst pressure	150 bar
Battery life	250 h
Protection	IP54

	Si-RM2
Measuring range	-40 to 150 °C
Temperature accuracy	±1.3 °C
Temperature sensor	High-accuracy NTC thermistor
Pipe diameter	6 to 42 mm
Cable	2 m length
Protection	IP54









Air conditioning

Heating

Refrigeration



Sauermann's **Si-RV3** vacuum probe supports the quick, safe evacuation of refrigeration systems and heat pumps with highly accurate measurements. It has an ergonomic design, an excellent Si-Manifold app with wireless connectivity up to a range of 30 metres, and a high-precision Pirani® sensor that provides deep vacuum measurements.

It also provides H<sub>2</sub>O evaporation temperature on the Si-Manifold app in real time. A second connector allows for the discharging of the refrigerant, and a built-in Schrader® core avoids any gas leakages when you connect the hose.

Reference: 25554



Ergonomic design (45° angle)



Built-in Schrader® core



High accuracy Pirani® sensor



Vacuum measurement during evacuation



Wireless connectivity (range up to 30 metres)

#### **Technical data**

#### Si-RV3

Measuring range	25,000 to 5 microns
Pressure sensing accuracy	$\pm 10\%$ of the measured value $\pm 10$ microns
Overload	10 bar
Burst pressure	27.5 bar
Battery life	250 h
Protection	IP54

#### **Download the Si-Manifold**







## Si-Manifold

#### All-in-one mobile app

The **Si-Manifold app** for iOS and Android provides wireless connectivity up to a range of 30 metres. It has the ability to store and update up to 126 refrigerants, including environmentally-friendly low global warming potential (GWP) and natural refrigerants.

Pressure, condensation/evaporation, pipe, and ambient temperatures are instantly provided on the Si-Manifold app, as are vacuometer measurements. Providing these measurements eliminates the need for manual calculations.



#### Everything you need in one app

- Data logging
- · Tightness test
- · Pressure target settings
- Vacuum function
- Heating and cooling functions
- etc.

#### **User friendly**

 Easy-to-read digital gauge, table and graphic visualisations.

#### Save and export

- Export reports in PDF, CSV and XML formats for sending by email.
- Dataset can be saved and restarted. This function is very useful for long operations.



Wireless connectivity (range up to 30 metres)



Stores up to 126 refrigerants



Gauge, table and graphic visualisations



**Export reports** 

#### Accessories for our manifold range



**R410 gas connector** Reference: 25830



Flexible hoses Reference: 25831



Velcro® temperature probe Reference: 26140



**Extension cable** Reference: 26141

## Services

#### **Expert metrology laboratories at your service**





#### **Customer Service Portal**

For all repair, return and calibration requests, sign in to our Customer Service Portal.



Accessible 24/7



Quick and simple



**Real-time** tracking

sauermann.site/help

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: servicing and repairs on the same sites as our production lines, cell replacement and calibration, plus a hotline, on-premise services and training.



**Hotline** 



After-sales services



**Calibration and** adjustments



**Training** 

#### Our experts, based in 800 sq m of laboratory space, provide adjustment and calibration services for all types of measurement instrument:

- Pressure
- Temperature
- Humidity
- Air velocity
- Air flow
- Gas analysis
- Weighing
- Radiometry
- Tachometry
- Light measurement
- Electrical current
- Acoustics



# CONDENSATE REMOVAL PUMPS

#### **Detect. Remove. Protect.**



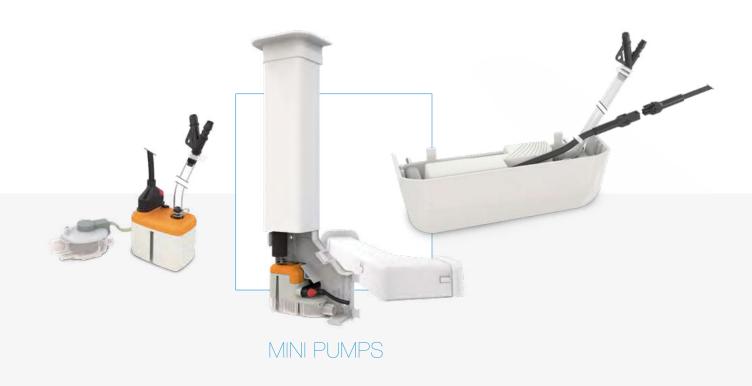




Air conditioning

Heating

Refrigeration









## Our condensate removal pumps feature a cutting-edge design that makes them global best-sellers.

Sauermann pumps are compatible with all condensate-generating systems, from domestic air conditioning units to powerful industrial-grade combustion boilers. Drawing on 45 years of experience in designing condensate removal pumps, our R&D team has developed a range of products that strike the perfect balance between versatility, flexibility, power and reliability.









## Mini pumps

**Exclusive technology, unmatched reliability** 

Detect and remove condensates from air conditioning units



Our mini pumps feature an exclusive, patented electromagnetic piston technology that sets the gold standard for reliability and whisper-quiet operation.

Our range is compatible with all types of indoor and outdoor system, including all console, split and cassette-type air conditioning units. All our condensate removal pumps are discreet in design, quick and easy to maintain and built to last.



Some of the most reliable mini pumps money can buy



Whisper-quiet operation

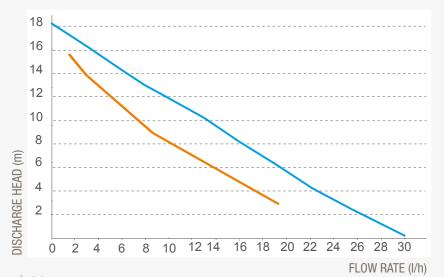
# Mini pumps A solution for every application Si-30 ABOVE-UNIT Si-20 IN-UNIT Omega Pack INSIDE UNIT Delta Pack BESIDE UNIT

## Applications

#### Mini pumps

		Equipment					Location				
	Air conditioning										
	Wall-mounted	Cassettes	Cabinet coolers	Floor-standing	Ducted unit	Suspended ceiling unit	Inside the unit	Wall-mounted (in trunking)	Wall-mounted (under the unit)	False ceiling	
	DELTA PACK	~	-	-	-	-	-	-	~	-	-
- INTEREST	Si-10 UNIVERS'L	-	~	-	~	~	~	~	-	-	~
	OMEGA PACK 2	~	-	-	~	-	-	-	-	~	-
3	Si-20	~	-	-	-	-	~	~	~	-	-
	Si-30 Si-33	<b>~</b>	-	-	~	-	~	-	-	-	~
	PE5000 PE5100 PE5200	~	~	-	-	-	-	-	-	-	~

#### **Actual flow rates**



— Si-33 — Si-20 / Si-30 / Si-10 UNIVERS'L / OMEGA PACK 2

## DELTA PACK

#### For wall-mounted air conditioning units

The Delta Pack includes an elbow design that can be easily opened by hand by a simple finger push — no tool is needed. Its streamlined design complements wall-mounted air conditioning units. It includes the Si-10 Univers'L pump, which incorporates Sauermann's latest piston pump technology. The whisperquiet pump also comes with insulating foam inside the corner piece and on the pre-installed drain pipe.

Air conditioning

#### **References:**

80 x 60 mm cream RAL 9001: DP10CE06UN23 80 x 60 mm signal white RAL 9003: DP10CE05UN23



Easy to install



Wide trunking



Whisper-quiet operation

#### **DELTA PACK kit content**

Si-10 Univers'L piston pump - Clear PVC tube (int.  $\emptyset$  6 mm, L: 1 m, foam-insulated over 800 mm), fitted with a "drain safe device" connector - 1.5 m lockable plug-in power cable, with 2 power wires and 2 NC safety contact wires - 2-part elbow - Ceiling duct cover - Rubber elbow/split gasket - 650 mm rubber tube (int.  $\emptyset$  15 mm) - Vent pipe - 6 screws and plugs for fixing duct and elbow - 4 double wire clamps  $\emptyset$  16 mm, 1 double wire clamp  $\emptyset$  6 mm - 750 mm duct, 80 x 60 mm.

## SI-10 UNIVERS'L

#### Replacement pump for trunking corner pieces

For wall-mounted and floor-standing air conditioning units

The Si-10 Univers'L can replace the majority of corner piece-mounted pumps. It is also suitable as a replacement for Sauermann's Si-10 and SI 1082 models.

Reference: SI10CE03UN23





#### **Technical data**

Si- 10 UNIVERS'L	
20 l/h	
10 m (flow rate = 4 l/h)	
22 dBA	
ON: 16, OFF: 11, Safety: 19	
230 V ~ 50 Hz 14 W	
115 °C (auto-reset)	
IPX4	

\*According to EN ISO 3744. Measured at LNE lab, pump operating with water, out of application.

## OMEGA PACK 2



#### Installation under the unit

Designed to be placed under a wall-mounted air conditioner, the **Omega Pack 2** is an all-in-one solution for optimum condensate drainage.

In a very compact design, the Omega Pack 2 incorporates a new-generation pump equipped with Sauermann's latest patented piston pump core and a large tank insulated to prevent condensation.



Reference: OP20CE04UN23



Compact, elegant design. Pure white (RAL 9003).



Isolated tank: prevents condensation forming on the pump.



Quick & easy single plug connector.

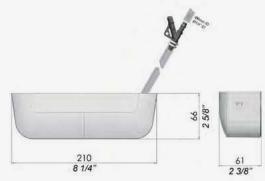






#### Kit content

1 Omega Pack 2 with integrated piston pump, detection unit and 0.2 m length connector. 1 Soft transparent PVC tube int.  $\emptyset$  6 mm, 1 m length, factory fitted with pre-mounted "Drain Safe Device". 1 power & alarm cable, 1.5 m length with connector. 1 soft PVC tube, 250 mm length, int.  $\emptyset$  15 mm. 2 screws + 2 plugs + 2 washers. 3 rislans.



	Omega Pack 2
Max. flow rate	20 l/h
Max. discharge head	10 m - débit = 4 l/h
Sound level at 1 m*	≤ 22 dB(A)
Detection levels (mm)	On: 24 mm; Off: 20 mm; Safety: 27 mm
Safety switch	NF 5 A résistif – 250 V
Thermal protection (overheating)	115 °C (auto-reset)

<sup>\*</sup>Le niveau sonore dépend des conditions et du support d'installation.



#### Installation inside the unit

The **Si-20** sets a new record for its slim casing design, allowing it to easily fit inside any type of air conditioning unit or lineset cover.

Offering best-in-class performance and sound levels for a mini pump of its size, this model delivers unmatched reliability.

Reference: SI20CF02UN23





Discreet integration inside the split. The slimmest mini pump money can buy (27 x 27 mm).



Plug and play



Last gen. patented pump core.



Size minimum



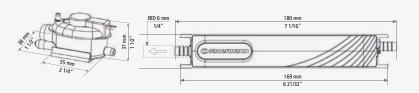
Easy to install



Highly reliable

#### Kit content

1 Piston pump with connectors: 1.5 m power supply cable, pump cable 0.2 m. 1 Detection unit with connector (1.5 m power cable) Clear PVC tube int. Ø 6 mm - L 60 mm, fitted with pre-mounted "Drain Safe Device" connector. PVC tube int. Ø 6 mm - L 0.63 m, fitted with insulating foam. Detection unit installation kit: rubber elbow 90° int. Ø 15 mm x L 152 mm - vent tube int. Ø 4 mm x L 75 mm - mounting rail - adhesive - 3 double wire clamps - 3 tie wraps, 2.5 x 200 mm. 1 attachment unit: 1 mounting plate + 1 rubber damper.



	Si-20
Maximum flow rate	20 l/h
Maximum discharge head	10 m (flow rate = 4 l/h)
Pump sound level at 1 m*	19 dBA
Detection levels (mm)	ON: 16, OFF: 11, Safety: 19
Mains supply	30 V~ 50 Hz - 15 W
Thermal protection	115 °C (auto-reset)
Protection	IPX2

## Si-30 / Si-33

## Air conditioning

#### Mini pumps with float detection

The pump mechanism inside the Si-30 and Si-33 models is specially designed by Sauermann to remove condensates produced by air conditioning units.

#### **References:**

Si-30: SI30CE02UN23 Si-33: SI33CE01UN23



Patented Sauermann technology, specifically designed for removing condensates from air conditioning systems.





The pre-installed anti-siphon connector eliminates the risk of siphoning.





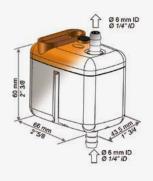
The mounting plate means the pump can be mounted on a wall, hung on the ceiling or affixed directly to a pipe.



Fits into any location

#### Kit content

Pump - Clear PVC tubing (int. Ø 6 mm, L: 1 m), fitted with a pre-mounted "drain safe device" connector - Anti-vibration mounting bracket - 1.5 m lockable plug-in power cable with NC safety contact wires - 6 tie wraps - Detection unit (SI2958) with installation kit: rubber elbow 90° (int. Ø 15 mm, L: 60 mm), vent tube, mounting rail, adhesive.



Si-30	Si-33
20 l/h	30 l/h
3 m	3.3 m
10 m (flow rate = 4 l/h)	> 13 m (flow rate = 8 l/h)
20 dBA	34 dBA
ON: 16, OFF:	11, Safety: 19
230 V ~ 50 Hz 14 W	230 V ~ 50 Hz 21 W
IP.	20
	20 I/h 3 m 10 m (flow rate = 4 I/h) 20 dBA ON: 16, OFF:

<sup>\*</sup>According to EN ISO 3744. Measured at LNE lab, pump operating with water, out of application.

## PE 5000 / PE 5100 PE 5200



## Peristaltic pumps for wall-mounted split units, suspended ceiling units, ducted units and cabinet coolers up to 8 kW

These peristaltic pumps are among the most compact models money can buy. They combine whisper-quiet operation with practical and clever design features: the detachable and replaceable head (PE 5001) and tubes (PE 5002) reduce maintenance work and cost.

The **PE 5000** is controlled by a signal from the air conditioning compressor.

The **PE 5100** is equipped with two temperature probes. The **PE 5200** is controlled by a remote detection unit fitted with a 3-level float (on/off/alarm).



**PE 5000** 



PE 5100







#### References:

PE5000: PE5000SIUN23 PE5100: PE5100SIUN23 PE5200: PE5200SIUN23

#### Kit contents

Common items included in installation kit: Pump - Cable (1.7 m) including 2 power supply wires- Sliding plastic bracket - Adapter (Ø 15 - 6 mm), pale yellow rubber (35 mm, Ø 15 mm).

Additional items in PE 5100 kit: 3.5 m cable for 2 thermal probes (ambient air cap and cold air cap).

Additional items in PE 5200 kit: Detection unit with 3-level float - Power supply cable (1.5 m) with NC safety contact - Detection unit installation kit: vent tube (75 mm,  $\emptyset$  4 x 6 mm), self-adhesive mounting rail.

Removable and replaceable heads and tubes:

PE5002: replacement tube PE5001: replacement tube

#### **Technical data**

	PE 5000 / PE 5100 / PE 5200
Maximum flow rate	6 l/h
Maximum discharge head	12 m
Pump sound level at 1 m*	≤ 30 dBA
Detection levels PE 5200 (mm)	ON: 16, OFF: 11, Safety: 19
Mains supply	230 V~ 50/60 Hz -75 W
Protection	IPX4

 $^{\star}\text{According}$  to EN ISO 3744. Measured at LNE lab, pump operating with water, out of application.

## Tank pumps Powerful and built to last

For managing large volumes of condensate



Sauermann tank pumps are built for power and durability, so they can withstand even the toughest conditions.

Our tank pumps are specially designed for high-powered air conditioning, heating and refrigeration systems that generate large volumes of condensate. They're also built to handle hot, acidic, biofilm-heavy and other special types of condensate.

## Applications Keep complex systems protected

	Capacity			Equipment							Location				
					4			SEC.							
			Air-cond.		Heating			Refrig.							
		Domestic use	Intensive use	Domestic air conditioning	Cassette Ducted unit Multi-cassette system	Domestic gas-fired condensing boiler	Domestic oil-fired condensing boiler	Dehumidifier	Small refrigerated display cabinet	Large refrigerated display cabinet	Floor-standing	Wall-mounted	Under-unit	In-unit	En faux plafond
	Si-83	~	-	~	-	~	-	-	-	-	<b>~</b>	~	~	-	-
	Si-82	-	<b>~</b>	-	~	~	-	~	~	-	<b>~</b>	~	-	-	-
	SI 1805	-	<b>~</b>	-	~	~	-	-	~	-	-	-	~	-	-
	SI 1830	-	<b>~</b>	-	-	-	~	-	-	-	-	~	~	~	-
	Si 1850	-	~	-	~	~	-	-	-	~	~	-	-	-	-
	Si-60	-	-	~	<b>~</b>	-	-	~	-	-	-	-	-	~	~
	Si-1931	-	<b>~</b>	-	-	-	-	-	-	~	<b>~</b>	-	~	-	-













Air conditioning

#### Heating

Refrigeration

## For cassette, multi-cassette and ducted air conditioning systems, dehumidifiers, small refrigerated display cabinets and gas-fired condensing boilers

The **Si-82** is designed for easy installation in any situation: floor-standing, wall-mounted or hanging on the ceiling. The pump can remove up to 500 litres per hour and can withstand acidic and charged condensates, making it ideal for air conditioning and refrigeration systems.

#### **References:**

**PACK 1:** SI82CE01UN23

PACK 2 + pH Safe: SI82CE03UN23





Removable cable for easy installation and maintenance.



Non-return valve for easily connecting Ø 10 mm pipes. Four condensate inlets with caps.



Mounting points for floor-standing, ceiling and wall-mounted installation. Reversible tray.



Quick power connection



Easy hydraulic connection

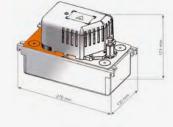


Fits into any location

#### Kit contents

PACK 1: One-piece centrifugal pump - Tank (2 I) — Built-in non-return valve (10 mm ext.  $\varnothing$ ) - Plug-in cable: power (2 m, European plug) and NC safety contact (1.5 m, bare ends) - Straight connector (ext.  $\varnothing$  10 mm / ext.  $\varnothing$  6 mm) - 2 screws + 2 plugs.

PACK 2: One-piece centrifugal pump with tank (2 l) - Plug-in cable: power (2 m, European plug) and NC safety contact (1.5 m, bare ends) - Clear PVC tube: int. Ø 10 mm, 5 m - Flexible adapter (int. Ø 15-20-24-32-40 mm) - 2 screws + 2 plugs. The PACK 2 + pH Safe



option includes one pH Safe 1 neutralization cartridge.

	Si-82
Maximum flow rate	500 l/h
Maximum discharge head	5 m (flow rate = 50 l/h)
Pump sound level at 1 m*	< 45 dBA
Detection levels (mm)	ON: 53, OFF: 42, Safety: 64
Mains supply	230 V ~ 50/60 Hz - 70 W
Protection	IP20

<sup>\*</sup>According to EN ISO 3744. Measured at LNE lab, pump operating with water, out of application.

Suitable as a replacement for the SI 1800 and SI 1805 models.

SI-83





Air conditioning

#### Heating

## For domestic air conditioning systems and domestic gas-fired condensing boilers

The Si-83 is more compact than any other pump in its class. With five condensate inlet options and a slimline profile (just 129 mm), it's ideal for installing under domestic gas-fired condensing boilers (up to 40 kW). The SI83CE43UN23 model comes with a neutralization cartridge that effectively neutralizes the acidic condensates produced by domestic gas-fired condensing boilers. The versatile Si-83 pump is also perfect for domestic air conditioning systems (up to 20 kW).

The pump even comes with its very own smartphone app – the Si-83 MobileApp – that makes installation both simple and intuitive.







#### **References:**

**PACK 1:** SI83CE01UN23 **PACK 2:** SI83CE42UN23

Pack 2 + pH Safe: SI83CE43UN23



Easier to install than anything in its class



Neutralization

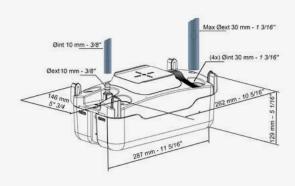


Si-83 MobileApp

#### Kit contents

PACK 1: Centrifugal pump with 2 l tank - Removable non-return valve, ext. Ø 10 mm - 1.8 m power cable, plug - Built-in safety switch, 1 m wires, plug, NC contact - 2 screws + 2 plugs - Straight connector and tie wrap for 6 mm int. Ø tubes.

PACK 2: Centrifugal pump with 2 l tank - Removable non-return valve, ext. Ø 10 mm - 1.8 m power cable, plug - Built-in safety switch, 1 m wires, bare ends, NO contact in Pack 2 - 2 screws + 2 plugs - Multi adapter to be used for Ø 15/17 - 20 - 24/25 - 32 - 40 mm tubes - Clear PVC tubing, int. Ø 10 mm, 5 m. The PACK 2 + pH Safe option includes one pH Safe 1 neutralization cartridge.



	Si-83
Maximum discharge head	5,4 m (65 l/h)
Maximum pressure (flow rate 0)	5,7 m
Pump sound level at 1 m*	<45 dBA
Operating cycle	7%, non-continuous
Mains supply	230 V~ 50 Hz - 115 W – 1.4 A
Protection	IP44





Heating

Air conditioning

## For cassette, multi-cassette and ducted air conditioning systems, small refrigerated display cabinets and gas-fired condensing boilers

The **SI 1805** is designed for easy installation in any conditions.

The pump can remove up to 500 litres per hour, making it ideal for air conditioning and refrigeration systems. The robust SI 1805 pump easily withstands the charged, high-temperature and acidic (pH > 3.4) condensates produced by gas-fired condensing boilers.

#### Reference:

SI1805SIUN23



**High capacity** 



Compact



Ultra-reliable Can be installed anywhere



#### Kit content

Pump - 2 screws + 2 plugs - 2 m power cable with European plug, safety switch cord: 1 m, 2 wires (NC contact).

#### **Dimensions**

L 195 x W 130 x H 132 mm

	SI 1805
Maximum flow rate	500 l/h
Maximum discharge head	5,4m
Pump sound level at 1 m*	≤ 47 dBA
Detection levels (mm)	ON: 27, OFF: 21, Safety: 32
Mains supply	230 V~ 50/60 Hz -90 W
Protection	IP20

 $<sup>^{\</sup>star}\text{According}$  to EN ISO 3744. Measured at LNE lab, pump operating with water, out of application.

## SI-1830 / SI 1850







#### For oil-fired condensing boilers

The **Si-1830** is built for use in the toughest conditions. It easily withstands the charged (e.g. oil residues), hot and highly acidic condensates produced by oil-fired condensing boilers.

Its watertight case protects the motor from acidic fumes and water splashes.

The Si-1830 can also be installed without its tank, directly in the condensate tray.

The 3.8 litre tank means the **SI 1850** can remove up to 1,100 litres per hour, making it suitable for high-powered air conditioning and refrigeration systems. The robust SI 1850 pump easily withstands the charged, high-temperature condensates produced by gas-fired condensing boilers.

#### References:

SI1830SCUN23 SI1850SIUN23



High performance



Rugged design



#### Kit contents

Si-1830: Pump with 0.5 l tank - 1.5 m power cable with European plug, safety switch cord: 1 m, 2 wires (NC contact) - Installation kit: 2 screws + 2 plugs, clear PVC tube (int.  $\emptyset$  10 mm, 5 m), flexible adapter ( $\emptyset$  15-24-32-40 mm).

SI 1850: One-piece centrifugal pump with 3.8 l tank - Built-in non-return valve, ext.  $\varnothing$  10 mm.

#### **Dimensions**

Si-1830: L 190 x W 80 x H 100 mm SI 1850: L 305 x W 152 x H 257 mm

	SI 1830	SI 1850
Maximum flow rate	400 l/h	1 100 l/h
Maximum discharge head	3,7 m	10 m
Pump sound level at 1 m*	≤ 43 dBA	≤ 66 dBA
Detection levels (mm)	ON: 32, OFF: 25, Safety: 39	ON: 81, OFF: 48, Safety: 101
Mains supply	230 V~ 50/60 Hz 75 W	230 V~ 50 Hz 200 W
Protection	IPX4	IP20

<sup>\*</sup>According to EN ISO 3744. Measured at LNE lab, pump operating with water, out of application.

## SI-60



For ducted air conditioning systems and cabinet coolers

The Si-60 pump with built-in tank (0.37 L) is suitable for air conditioning units up to 20 kW. This pump is equipped with Sauermann's piston pump technology specifically designed for removing condensates, and with a reliable anti-clogging detection system for use in all types of environment.install in any location.

Reference: SI60CE01UN23



Twist-lock power cable for secure connection.



Reliable anti-clogging detection system for use in all types of environment.



Top and bottom condensate inlet. Can also be installed directly in the tray.

#### Kit content

Pump - Lockable plug-in 1.5 m cable with NC safety contact wires - Installation kit: adapter (int. Ø 15-20-24-32-40 mm), 90° rubber connector (int. Ø 15 mm, L: 60 mm), 90° plastic connector for int. Ø 6 mm flexible tube, 1 2.5  $\times$  100 mm tie wrap.

#### Technical data

	Si-60
Maximum flow rate	20 l/h
Maximum discharge head	10 m (flow rate = 4 l/h)

0.5 L

#### **Dimensions**

L 168 x W 90 x H 88 mm

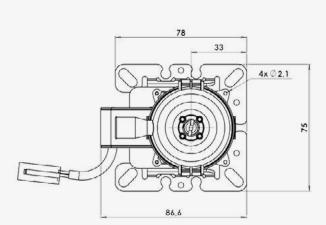
## SI-2052

## Maintenance kit for cassette-type systems with centrifugal pump

The **Si-2052** pump can be used as a replacement for some Sauermann pumps installed in series on cassette-type and ceiling-mounted air conditioning units up to 20 kW.

The centrifugal technology inside this pump is specially designed to remove condensates quietly and continuously in any type of environment.

Reference: SI2052SIUN23







Technical data	SI 2052
Maximum flow rate	100 l/h at 200 mm
Maximum discharge head	0.9 m (24l/h)

## Si-1931



#### Dairy pump for refrigerated display cabinets

Specially designed to handle condensate from supermarket refrigerated display cabinets, the Si-1931 pump also offers a proven solution against the formation of biofilm with its Gel-clear tablet.

The compact design of the pump facilitates installation under low-slung display cabinets.

- Ultra-flat profile: 80 mm high.
- Three inlet points: top, right or left.
- Keeps the condensate drain clear.
- Reduces water leaks by more than 90%.
- · Prevents the formation of biofilm and extends pump life.

#### Reference:

SI1931CE01EU23



#### Kit content

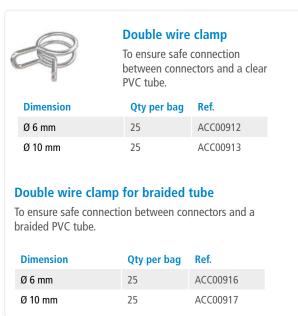
Dairy pump with a power cable (NO safety contact) and a 13 mm outlet - Outlet adapter,  $\emptyset$  10 mm - Hard plastic inlet adapter,  $\emptyset$  40 mm - 2 Gel-clear tablets.

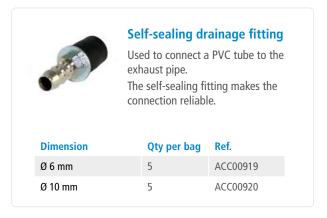
	Si-1931
Flow rate at 6 m	700 l/h
Maximum discharge head	24.6 m
Protection	IP20
Pump dimensions	L 610 x W 235 x H 80 mm
Tank volume	6.5

## Accessories

#### Accessories suitable for all makes and applications

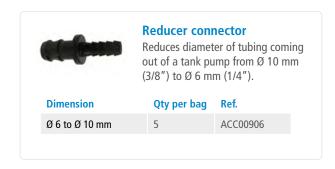












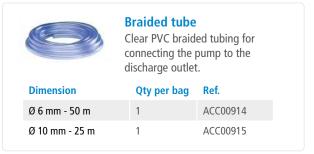


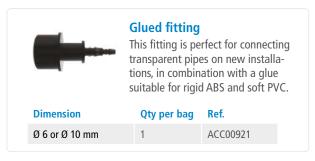








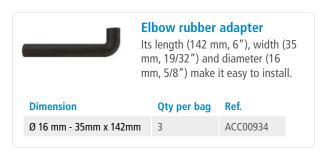






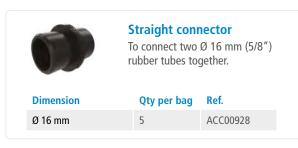
## **Detection mini pumps**

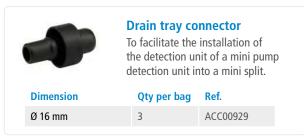


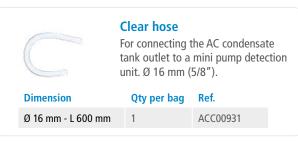


















# with the Si-2958 detection unit. Dimension Qty per bag Ref. 3 m 1 ACC00942 5 m 1 ACC00943 Replacement floats for the detection blocks of bi-blo piston pumps (A) and monobloc piston pumps (B).

## Replacement floats for the detection blocks of bi-block piston pumps (A) and monobloc piston pumps (B). Compatible Qty per bag S12958 detection unit 5 ACC00946 Si-10 Univers'L 5 ACC00947



#### **Centrifugal pumps**



#### Push fit fitting tank connector

To channel condensate through the side of the tank. For 32 mm (1" 1/4) tubes

Dimension	Qty per bag	Ref.
Ø 32 mm	1	ACC00940





#### Rubber condensate inlet adapter

To channel condensate into a tank pump through a PVC tube.

Dimension	Qty per bag	Ref.
Ø 25 to Ø 20 mm	3	ACC00936
Ø 32 to Ø 20 mm	3	ACC00937
Ø 40 to Ø 20 mm	3	ACC00938





### **Anti-biofilm**

### Ge Rep

#### **Gel-clear tablets**

Replacement tablets for Si-1931 pumps fitted to refrigerated display cabinets.

Extension cable for use with the Si-2958 detection unit

To increase the length between the detection unit and the pump – for use

Dimension	Qty per bag	Ref.
-	1	SPSI93T1
-	10	SPSI93T10



#### Neutralization



#### pH Safe 1

Neutralization cartridge for use with the Si-82 and Si-83 pumps to effectively neutralize the condensates produced by gas-fired condensing boilers. Capable of neutralizing up to 800 litres of acidic condensates per year at pH3.

Dimension	Qty per bag	Ref.
-	1	PH0100SIUN23



#### pH Safe 2

For neutralizing the condensates produced by gas-fired condensing boilers. Capable of neutralizing up to 6 litres of acidic condensates per hour at pH3.

Dimension	Qty per bag	Ref.
-	1	PH02CE01UN00



#### **Miscellaneous**



#### **Priming squeezie bottle**

After the installation or the maintenance of a condensate removal pump, this bottle helps start or clean the system.

	•		,
Dimension		Qty per bag	Ref.
-		1	ACC00944



## Sauermann online

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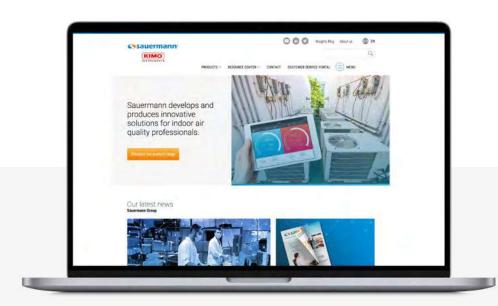


Detailed specifications and photos of all our measurement instrument and pump ranges.

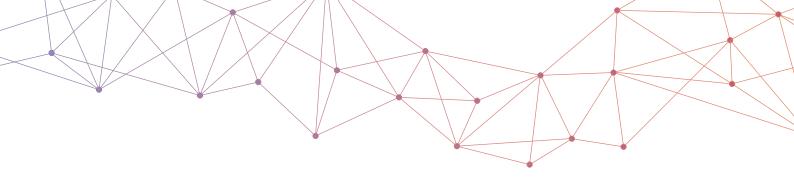
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