



## Product Overview 2026

Measurement Technology for  
Compressed Air, Gases and Liquids



Be smart. Measure it.

# Advanced Measurement Solutions

## Compressed Air and Gas Monitoring - get your system under control

The use of compressed air and technical gases in modern production processes has become indispensable. Compressed air is used to drive actuators, machines and to control other automated processes. Technical gases and air are used to conserve food or are even becoming part of the product, like in the beverage production.

**This leads to two crucial aspects:**

1

### Energy Consumption

Air compressors typically convert ~80 ... 90 % of the electrical energy into heat and only 10 ... 20 % into compressed air. This makes compressed air 5 to 10 times more expensive than electricity. Measuring and Monitoring compressors, the consumptions, pressure and flow rates becomes major part in a world with limited energy resources.

2

### Purity and Quality

Having air and gases becoming a part of your product and process means, that we need to have a control system in place, insuring that filtration systems are working as they should, 24 hours a day, 7 days a week. Only by regular measurements or by using monitoring solutions this can be achieved.

## Flow Meters Compressed Air & Gas



P. 6-8

## Leak Detection

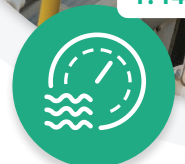


P. 13



P. 17

## Monitoring Software



P. 14

## Flow Meters Liquids & Steam

## Why monitor compressed air and gases?

- ✓ System Performance and Reliability
- ✓ Energy Efficiency and Cost Reduction
- ✓ Product Quality and Safety
- ✓ ISO Purity Requirements



Be smart.  
Measure it.

## SUTO iTEC is Your Expert for Compressed Air and Gas Monitoring

We are a trusted global partner for reliable measurement and monitoring solutions for compressed air and gas systems.

Our wide range of products play a vital role in system processes of leading companies around the world.

Since our foundation in 2005, we offer our customers outstanding service and solutions and continue to innovate dependable measurement technology.

### Dew Point Sensors



P. 9-10

### Air Quality & Purity



P. 11-12



P. 15-16

### Displays / Data Logger / IoT

P. 18



### Energy Meter Other Sensors

## WHY SUTO

### 20 Years of Experience

Decades of hands-on experience ensure reliable, high-performance solutions tailored to industry needs.

### Powered by Innovation

We revolutionize compressed air measurement with smarter, faster, and more efficient technologies.

### Outstanding Service

Worldwide reach with dedicated local service, known for excellent after-sales support.

### Expertise in Every Detail

Deep product knowledge ensures seamless integration, maximum accuracy, and minimal downtime.

# Complete Monitoring of Your System

We provide a full range of monitoring solutions for every stage of your compressed air system:

- 1 Generation** – Flow monitoring of wet air after the compressor. Power meters help monitor compressor efficiency.
- 2 Treatment** – Dew point and air quality measurement ensure process safety.
- 3 Distribution** – Flow and consumption monitoring optimize dry air usage.
- 4 Point of Use** – Monitoring of flow, consumption, and air quality at the consumer level.

**Data Logging and Analysis:** All collected data is transmitted to a smart monitoring software via our data loggers, providing centralized data analysis and reporting.

**Mobile Devices:** For maintenance and troubleshooting, we offer portable measurement devices such as dew point meters and leak detectors, providing flexibility for on-site analysis.

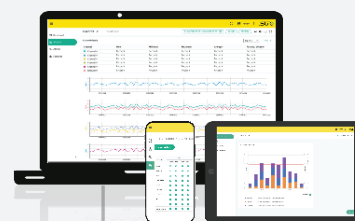
To complete our monitoring solutions, we provide precise measurement technology for **compressed breathing air systems** and **liquid systems**, ensuring reliability across various applications.

## Data Logging

S330  
S331



## Monitoring and Analysis



S4M  
SaaS

S111

S430

3rd-Party

Air Compressor

Filter

**1** Generation

S305

Dryer

Filter

S211  
S215  
S220

S120

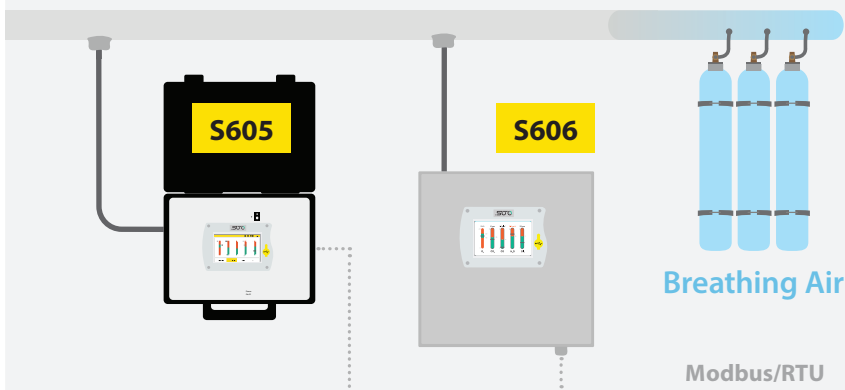
S520



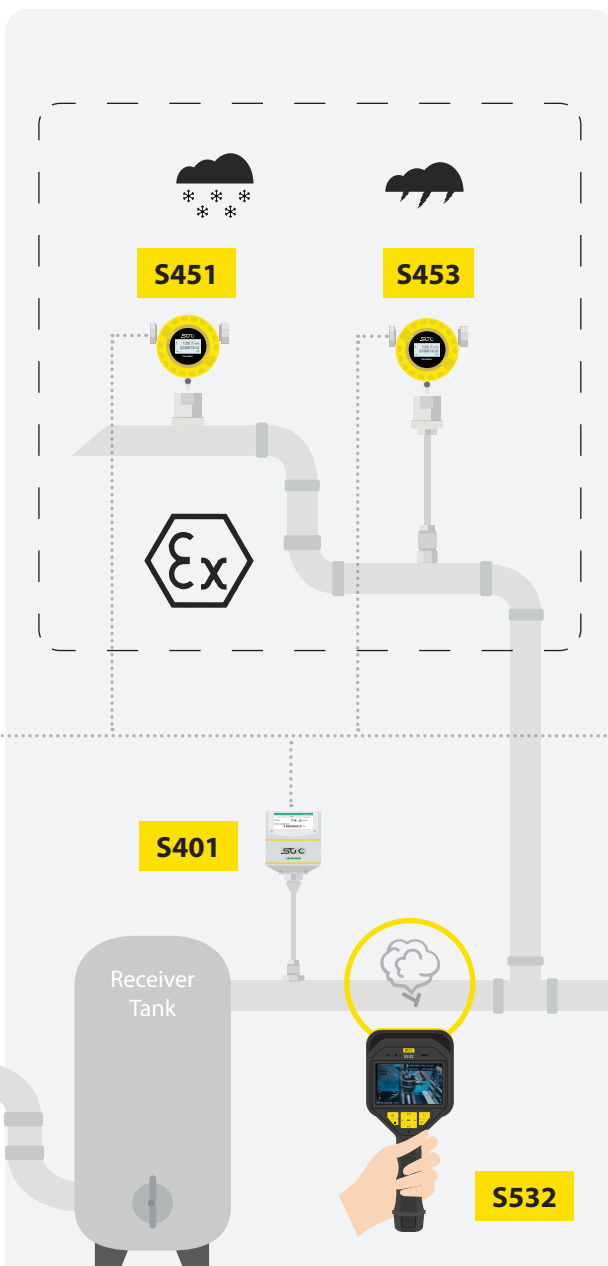
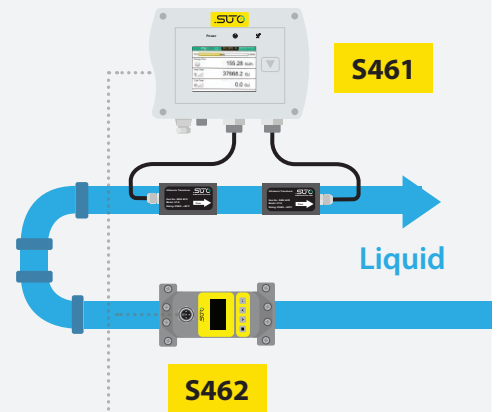
**2** Treatment



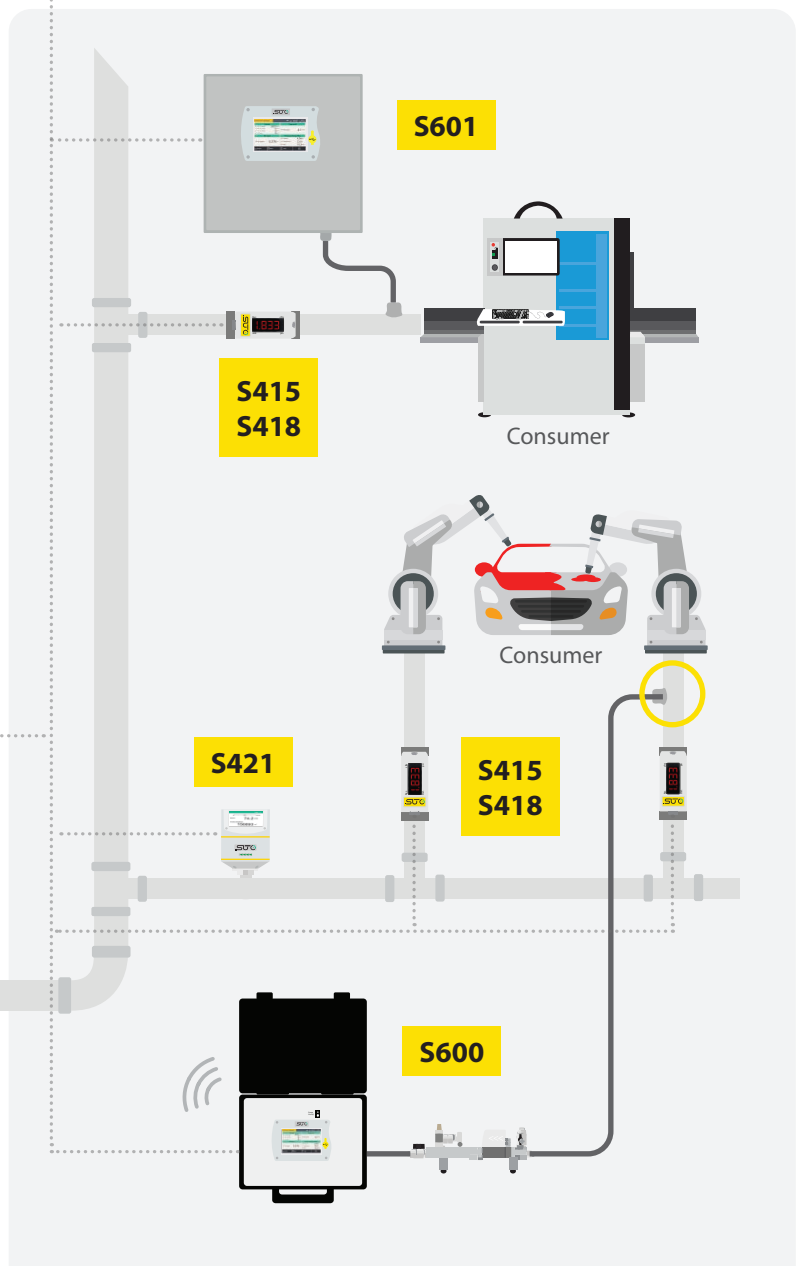
## Breathing Air



## Liquids



### 3 Distribution



### 4 Point-Of-Use



# Flow and Consumption Meters for Compressed Air and Gases



## Thermal Mass Flow Meter

S401

Insertion



### Installation

Insertion type DN25 to DN1000, installation under pressure through 1/2" ball valve

### Signal Outputs

- Isolated 4 ... 20 mA & Pulse
- Modbus/RTU
- Modbus/TCP (PoE support)
- M-Bus

### Application

- Non-intrusive measurement of compressed air and gas consumption in main and distribution lines.
- Used in various industries for energy management, process control, cost allocation, and quality assurance.

S403  
S423



Coming Soon

Distribution

S401



See  
info  
sheet



Easy Installation  
through 1/2" ball  
valve under pressure



Mobile app for  
remote  
configuration



Reliable  
total flow  
measurements



Cost-efficient  
and affordable  
sensor solution

## Thermal Mass Flow Meter

S421

In-line



### Installation

In-line type with measuring section DN15 to DN80 (Thread / Flange)

### Signal Outputs

- Isolated 4 ... 20 mA & Pulse
- Modbus/RTU
- Modbus/TCP (PoE support)
- M-Bus

### Application

- Efficient solution to measure compressed air and gas consumption and flow in main and distribution lines
- Applications in various industries, aiding in energy management, process control, cost allocation and quality assurance

Distribution

S421



S421

See  
info  
sheet



Easy Installation  
with pre-assembled  
measuring section



Mobile app for  
remote  
configuration



Reliable  
total flow  
measurements



IP65 Casing  
provides robust  
protection

## Pitot Tube Flow Meter for Wet Air

S430

Insertion



### Installation

Insertion type for pipe sizes DN32 to DN1000, installation under pressure via 3/4" ball valve.

### Signal Outputs

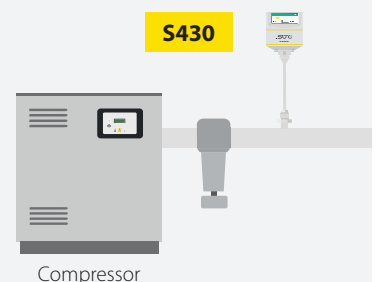
- Isolated 4 ... 20 mA & Pulse
- Modbus/RTU
- Modbus/TCP (PoE support)
- M-Bus

### Application

- Flow, pressure and velocity monitoring at the compressor outlet
- High temperature flow applications
- Compressor efficiency testing with S551 Portable Data Logger and S110-P Power Meter

Generation

S430



Compressor

See  
info  
sheet



Wet air measurement  
at the compressor  
outlet



Fast response  
time for accurate  
results



Easy and  
efficient  
monitoring



Mobile app  
for remote  
configuration



# Flow and Consumption Meters for Compressed Air and Gases



## Compact Thermal Mass Flow Meter

**S415**

**Economic**



### Installation

In-line type: G inner thread connection - DN8, DN15, DN20, DN25, DN32, DN40 or DN50 (ISO 228-1)

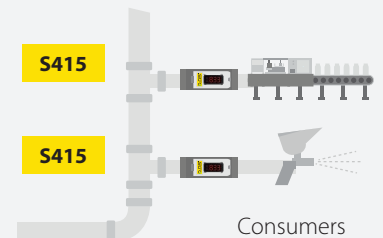
### Signal Outputs

- Isolated 4 ... 20 mA & Pulse
- Modbus/RTU
- M-Bus

### Application

- Low cost and broad monitoring of general processes
- Compressed air flow and consumption monitoring of individual machines and processes to improve efficiency and reliability

**Point-of-Use**



Point-of-use monitoring of compressed air and nitrogen



Cost-efficient and affordable sensor solution



Compact design for easy and flexible installation



Flow conditioner: no straight inlet required

See info sheet



## Compact Thermal Mass Flow Meter

**S418**

**High End**



### Installation

In-line type: G inner thread connection - DN8, DN15, DN20, DN25, DN32, DN40 or DN50 (ISO 228-1)

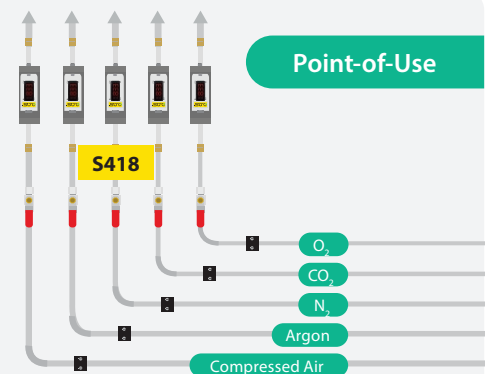
### Signal Outputs

- Isolated 4 ... 20 mA & Pulse
- Modbus/RTU
- M-Bus

### Application

- Accurate compressed air and gas flow monitoring, to discover weak points in the process flow, thus ensuring continuity and profitability.

**Point-of-Use**



Point-of-use monitoring of machines and consumers



Data logger for measurement data recording



Total mass flow: No bypass measurement needed



Compact design for easy and flexible installation

See info sheet



## Compact Thermal Mass Flow Meter

**S418-V**

**Vacuum**



### Installation

In-line type: G inner thread connection - DN8, DN15, DN20 or DN25 (ISO 228-1)

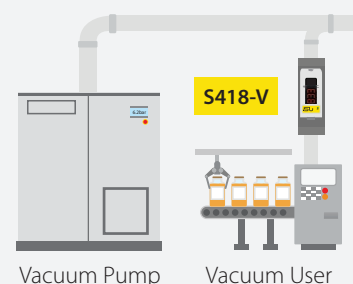
### Signal Outputs

- Isolated 4 ... 20 mA & Pulse
- Modbus/RTU
- M-Bus

### Application

- Performance monitoring of vacuum pumps.
- Monitoring of critical values in vacuum applications which help operators to ensure the process reliability.

**Point-of-Use**



Point-of-use monitoring of vacuum pumps



Vacuum flow with absolute pressure sensor integrated



Accurate Results thanks to integrated flow conditioner



Compact design for easy and flexible installation

See info sheet





# Flow and Consumption Meters for Compressed Air and Gases



## Thermal Mass Flow Meter for Heavy Duty and Ex Applications

S451

Insertion



### Installation

Insertion type DN25 to DN1000, installation under pressure through 3/4" ball valve

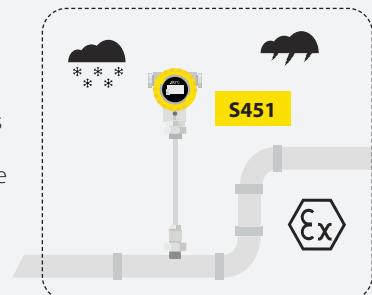
### Signal Outputs

- 2 x 4 ... 20 mA, pulse & Modbus/RTU
- 2 x 4 ... 20 mA, pulse & Ethernet/APL (Modbus/TCP protocol)

### Application

- Outdoor / all-weather flow applications
- Explosive environments
- Cost overview for gas consumption within the distribution network

Outdoor and Ex



Industrial design for harsh environments



Easy Cleaning: All wetted parts stainless steel



Explosion proof for use in Ex-area applications



Pressure and temperature independence

See info sheet



## Thermal Mass Flow Meter for Heavy Duty and Ex Applications

S453

In-line



### Installation

Inline type flow meter with measuring sections from DN25 to DN80 (R-thread / Flange)

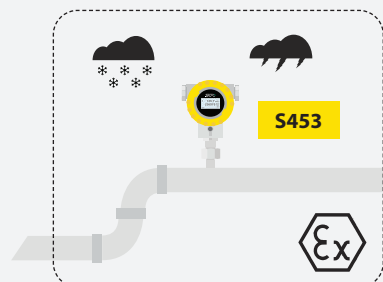
### Signal Outputs

- 2 x 4... 20 mA, pulse & Modbus/RTU
- 2 x 4... 20 mA, pulse & Ethernet/APL (Modbus/TCP protocol)

### Application

- Outdoor / all-weather flow applications
- Explosive environments
- Cost overview for gas consumption within the distribution network

Outdoor and Ex



Industrial design for harsh environments



Easy Installation with pre-assembled measuring section



Explosion proof for use in Ex-area applications



Accurate results and fast response time

See info sheet



## Thermal Mass Flow Direction Switch

S409

Insertion



### Installation

Insertion type DN25 to DN1000, installation under pressure through 1/2" ball valve

### Signal Outputs

- Relay for forward
- Relay for reverse

### Application

- Flow direction switch for reliable indication of flow directions. Flow-Switch can be connected to bi-directional flow meters for direction detection.
- Two separate relays for direction indication

Multiple Locations



Non-intrusive solution for easy installation



Supply via flow sensor for minimal effort



Reliable direction detection



Cost-efficient and affordable sensor

See info sheet





# Dew Point Meters for Compressed Air and Gases



## Dew Point Sensor

**S215** -20 ... +50 °C Td



Optional  
Display

### Installation

G1/2" Process connection for installation directly in process or via measuring chambers.

### Signal Outputs

- 4 ... 20 mA 2-wire + SDI
- 4 ... 20 mA 3-wire + SDI
- 4 ... 20 mA 3-wire + Modbus/RTU

### Measured Gases

Air / CO<sub>2</sub> / N<sub>2</sub> / O<sub>2</sub> / Argon

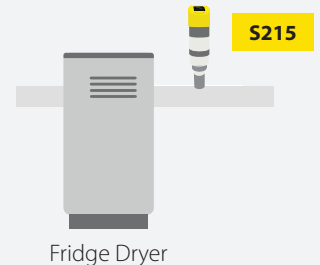
### Operating pressure

- 0 ... 1.6 MPa
- Optional 35.0 MPa

### Application

Dew point measurements after fridge dryers

### Treatment



Fridge Dryer



Compact design  
for easy and flexible  
installation



-20 ... +50 °C Td  
After fridge  
dryers



Integrated  
pressure sensor  
(option)



High Precision  
± 2 °C Td  
Accuracy

See  
info  
sheet



## Dew Point Sensor

**S211** -60 ... +20 °C Td



Optional  
Display

### Installation

G1/2" Process connection for installation directly in process or via measuring chambers.

### Signal Outputs

- 4 ... 20 mA 2-wire + SDI
- 4 ... 20 mA 3-wire + SDI
- 4 ... 20 mA 3-wire + Modbus/RTU

### Measured Gases

Air / CO<sub>2</sub> / N<sub>2</sub> / O<sub>2</sub> / Argon

### Operating pressure

- 0 ... 1.6 MPa
- Optional 35.0 MPa

### Application

Dew point measurements after desiccant dryers

### Treatment



Desiccant  
Dryer



Compact design  
for installation  
anywhere



-60 ... +20 °C Td  
After desiccant  
dryers



Integrated  
pressure sensor (option)



Long term  
stable for low  
maintenance costs

See  
info  
sheet



## Dew Point Sensor

**S220** -100 ... +20 °C Td



Optional  
Display

### Installation

G1/2" Process connection for installation directly in process or via measuring chambers.

### Signal Outputs

- 4 ... 20 mA 2-wire + SDI
- 4 ... 20 mA 3-wire + SDI
- 4 ... 20 mA 3-wire + Modbus/RTU

### Measured Gases

Air / CO<sub>2</sub> / N<sub>2</sub> / O<sub>2</sub> / Argon

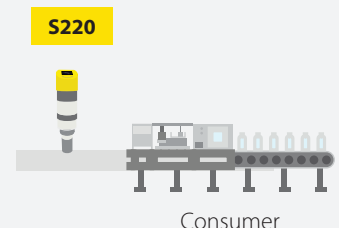
### Operating pressure

0 ... 1.6 MPa

### Application

Dew point measurements in high tech requirements and conditions

### Point-of-use



Consumer



Dual sensor solution  
(QCM + polymer) for  
high accuracy



-100 ... +20 °C Td  
for high tech  
applications



Compressed  
Air Quality  
Monitoring



Precise and stable  
measurement  
(± 2 °C Td Accuracy)

See  
info  
sheet







# Dew Point Meters for Compressed Air and Gases



## Dew Point Transmitter for Ex Applications

**S230** -100 ... +20 °C Td

**S231** -50 ... +20 °C Td



### Installation

G1/2" Process connection for installation directly in process or via measuring chambers

### Signal Outputs

- 4 ... 20 mA (isolated)
- Modbus/RTU

### Measured Gases

Air / CO<sub>2</sub> / N<sub>2</sub> / O<sub>2</sub> / Argon

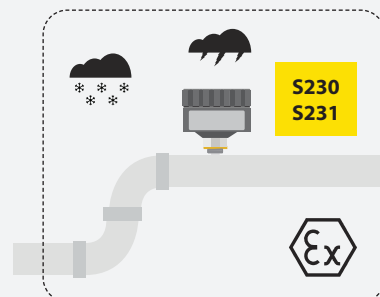
### Operating pressure

- -0.1 ... 1.6 MPa (S230)
- -0.1 ... 35 MPa (S231)

### Application

- Dew point measurement in explosive environments
- Outdoor / All-weather dew point measurement applications

### Outdoor and Ex



Explosion proof for use in Ex-area applications



Low dew point measures down to -100 °C Td



Industrial design for rough environment



Dual sensor system for full range precision

See info sheet



## Dew Point Monitor

**S305** -60 ... +20 °C Td

-20 ... +50 °C Td



### Installation

Stationary Installation  
easy process connection via 6 mm quick connect

### Signal Outputs

4 ... 20 mA 3-wire

### Measured Gases

Air / CO<sub>2</sub> / N<sub>2</sub> / O<sub>2</sub> / Argon

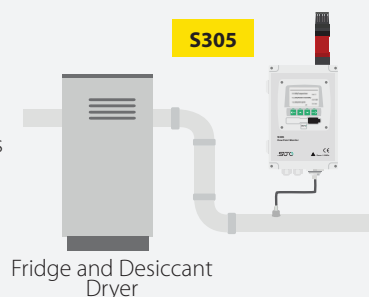
### Operating pressure

0.3 ... 1.5 MPa

### Application

- Monitor fridge and desiccant driers
- Simple after market installation
- Process humidity monitoring and notification in case of alarms

### Dryer Monitoring



Plug & Play solution for simple and fast connection



Alarm indication with internal relays or alarm units



-60 ... +50 °C Td  
Range depending on model



Fast response time for efficient monitoring

See info sheet



## Portable Dew Point Meter

**S520** -100 ... +20 °C Td

-60 ... +50 °C Td



### Installation

Point-of-use spot checking with easy process connection via 6 mm quick connect

### Operating pressure

-0.1 ... 1.5 MPa(g) (at least 0.3 MPa is needed for the measuring chamber supplied with the instrument)

### Measured Gases

Air / CO<sub>2</sub> / N<sub>2</sub> / O<sub>2</sub> / Argon

### Signal Outputs

- Internal data logger
- On site print outs
- USB interface for data transfer

### Application

- ISO 8573-1 dew point audits
- Dew point checks at the point of use
- Drier performance checks
- Measure absolute humidity in units like ppm or mg/m<sup>3</sup>

### Mobile Measurements



Smart device with dew point prediction



Flexible dew point meter for on-site live data



Low dew point, down to -100 °C Td



Dew point audits according to ISO 8573-1

See info sheet





# Air Quality Instruments for Compressed Air and Gases



## Oil Vapor Monitor

**S120** Display & Data Logger



### Installation

Easy process connection  
via 6 mm quick connect

### Signal Outputs

- 4 ... 20 mA (isolated)
- Modbus/RTU
- Modbus/TCP (available for display version)
- Alarm Relay: NO, 40 VDC, 0.2 A
- USB

### Pressure Range

- 3 ... 15 bar(g) / 0.5 ... 3 bar(g) (optional)
- 600 ... 1070 hPa abs. (Ambient version only)

### Measured Gases

Compressed Air, Nitrogen N<sub>2</sub>, Carbon dioxide CO<sub>2</sub> (software setting)

### Application

Permanent monitoring of oil content in compressed air and gas systems to ensure crucial processes in:

- Medical and pharma industry,
- Food and beverage,
- Semiconductor fabs
- High tech applications

### Point-of-use and others

**S120**



Consumer

See  
info  
sheet



✓ Plug & Play oil  
vapor monitoring  
solution

✓ Latest PID sensor  
technology for  
fast response time

✓ Data logger  
to store values

✓ Dew Point Sensor  
Option: -100 ...  
+20 °C Td

## Laser Particle Counter

**S130** ECO (0.3 < d ≤ 5.0 µm)

**S132** PRO (0.1 < d ≤ 5.0 µm)



### Installation

Easy process connection  
via 6 mm quick connect

### Signal Outputs

- Modbus/RTU
- Alarm Relay: NO, 40 VDC, 0.2 A
- USB

### Pressure Range

0.3 ... 1.5 MPa

### Measured Gases

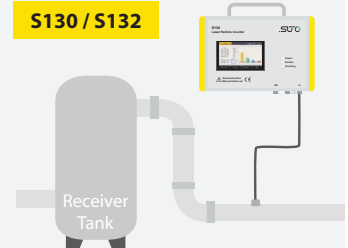
Compressed Air, Nitrogen N<sub>2</sub>, Carbon dioxide CO<sub>2</sub> (software setting)

### Application

- Permanent particulate measurement and monitoring of compressed air and gases in high tech applications.
- Fulfilling requirements according to compressed air standard ISO 8573-4.

### Distribution and others

**S130 / S132**



Receiver  
Tank

See  
info  
sheet



✓ Particle measure-  
ment according  
ISO 8573

✓ Plug & Play  
solution for easy  
installation

✓ Pro Version S132  
Smallest channel  
0.1 < d ≤ 0.5 µm

✓ Eco Version S130  
Smallest channel  
0.3 < d ≤ 0.5 µm

## Portable Compressed Air Purity Analyzer

**S600** 5 in 1 Plug & Play



### Installation

Easy process connection  
via 6 mm quick connect

### Signal Outputs

- Modbus/RTU
- Modbus/TCP
- USB
- 4G/LTE Modem (optional)

### Pressure Range

3 ... 15 bar(g) / 0.5 ... 3 bar(g) (optional)

### Measured Gases

Compressed Air, Nitrogen N<sub>2</sub>, Carbon dioxide CO<sub>2</sub> (software setting)

### Application

- Air quality measurements in medical, pharmaceutical, food and beverage and other applications
- Compressed air quality audits following the ISO 8573-1
- High tech applications with strict air purity requirements

### Mobile Measurements

**S600**



See  
info  
sheet



✓ All in one solution:  
dew point, particle  
and oil vapor

✓ Software guided  
measurement for  
high precision

✓ Ultra-portable  
and compact  
design

✓ PDF Report  
generator for  
ISO 8573-1 audits



# Air Quality Instruments for Compressed Air and Gases



## Stationary Compressed Air Purity Monitor

S601

5 in 1 Plug & Play



### Installation

Robust wall mountable cabinet with 6 mm hose connection

### Signal Outputs

- Modbus/RTU (RS485)
- Modbus/TCP (Ethernet)
- USB

### Pressure Range

0.3 ... 1.5 MPa

### Measured Gases

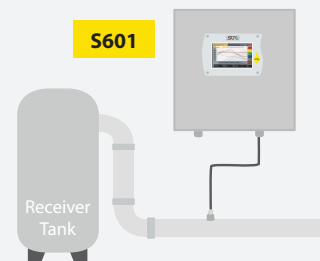
Air / CO<sub>2</sub> / N<sub>2</sub> / O<sub>2</sub> / Argon

### Application

- Permanent measurement and monitoring of compressed air quality in high tech applications with strict purity requirements, such as medical air, pharmaceuticals, food and beverage, etc.
- Ensuring compressed air quality standards as stated in ISO 8573-1.

### Treatment

S601



See  
info  
sheet



All-in-one solution to measure ISO 8573-1 parameters



24/7 compressed air quality and purity monitoring



Integrated data Logger for online monitoring



Plug & Play operation, no configuration

## Portable Breathing Air Analyzer

S605

6 in 1 Plug & Play



### Installation

Easy-to-carry case with easy process connection via 6 mm quick connect

### Signal Outputs

- Modbus/RTU (RS485)
- Modbus/TCP (Ethernet)
- USB
- 4G/LTE Modem (optional)

### Measured Gases

Breathing air gases

### Inlet Pressure

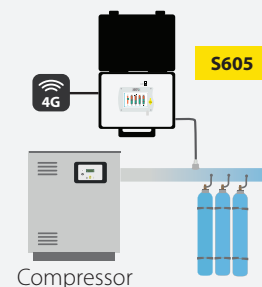
3 ... 15 barg, External pressure reducer allow up to 350 bar process pressure

### Application

- Regular checks of breathing air systems in various sectors as fire fighting, diving, spray painting, chemical industry, offshore and high tech applications.
- Meeting requirements of international standards such as EN 12021 or CFR 1910.134(d).

### Point-of-use

S605



See  
info  
sheet



All in One: O<sub>2</sub>, CO<sub>2</sub>, CO, H<sub>2</sub>O, Oil, Pressure



Plug & Play with simple and fast connection



Ultra-portable and compact design



Powerful PDF breathing air report generator

## Stationary Breathing Air Monitor

S606

6 in 1 Plug & Play



### Installation

Wall mountable cabinet with 6 mm hose connection

### Signal Outputs

- Modbus/RTU (RS485)
- Modbus/TCP (Ethernet)
- USB

### Measured Gases

Breathing air gases

### Inlet Pressure

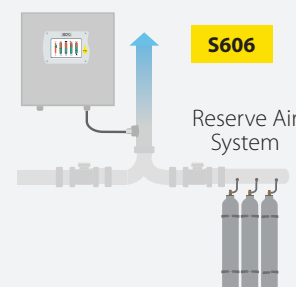
3 ... 15 barg, External pressure reducer allow up to 350 bar process pressure

### Application

- Permanent monitoring of breathing air systems and filling stations for crucial industries and sectors like fire fighting, diving, spray painting, chemical industry, offshore and high tech applications.
- Meeting requirements of international standards such as EN 12021 or CFR 1910.134(d).

### Generation

S606



See  
info  
sheet



All in One: O<sub>2</sub>, CO<sub>2</sub>, CO, H<sub>2</sub>O, Oil, Pressure



Permanent monitoring with alarm information



Single gas inlet for a convenient setup



Robust metal cabinet for rough environments



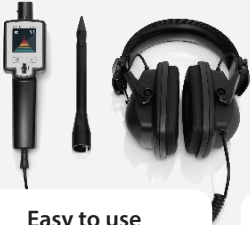
# Leak Detection for Compressed Air and Gases



## Ultrasonic Leak Detector

S530

Portable



### Application

Leak detection in compressed air or gas systems such as refrigerators

- Ultrasonic
- With focus tube and focus tip
- Integrated laser pointer

### Benefits

- Easy to use handheld device for simple leak surveys.
- Identifies leaks in compressed air systems which helps to save energy and reduce compressed air costs

✓ Easy to use solution to find leaks in minutes

✓ Laser pointer for quick spot leak detection

✓ Compact design for flexible usage

✓ Noise isolated headset for inaudible signals

See info sheet



## Smart Ultrasonic Leak Detector

S531

Portable



### Features

The S531 helps users quickly locate and record leaks in compressed air, gas and pneumatic systems.

- Ultrasonic Technology
- With focus tube and focus tip
- Integrated laser pointer
- Trumpet, to focus the sound waves

✓ Leak detection even from distance

✓ Big memory for leak records, photos and voice recording

✓ Integrated camera for leak photos

✓ Data analysis and loss calculation

See info sheet



Free LMS License

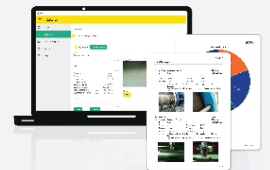
### Application

Easy-to-use handheld device identifies leaks in compressed air and gas systems, helping to save energy and reduce compressed air costs

## Leak Management Software

LMS

Local Installation



### Installation

Local installation for easy setup and local data storage

### Application

The Leak Management Software (LMS) enables companies to properly manage their leakage detection and repair activities.

## Acoustic Leak Camera

S532

Portable



### Features

- 64 low-noise MEMS microphones
- 4.3" LCD touch screen with visual overlay
- Adjustable frequency range from 0 kHz to 96 kHz
- 64 GB SD card for 20,000 images and 60 hours of video
- Integrates with SUTO Leak Management Software (LMS)

✓ Detects leaks up to 150 meters

✓ Real-time leak visualization

✓ Built-in camera for leak photos

✓ Data analysis and loss calculation

See info sheet



Free LMS License

### Application

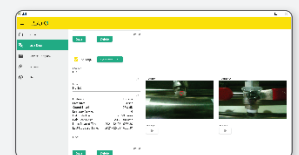
- **Compressed Air Systems:** Detects and manages leaks.
- **High Voltage Systems:** Identifies partial discharges.
- **Industrial Maintenance:** Streamlines detection and recording.

LMS

+

S531/S532

The LMS works seamlessly with the S531 and S532 leak detectors. Detect leaks in the field with the S531/S532 and later import them into the LMS software for quantitative leakage data and powerful reporting.



See info sheet





# Flow and Consumption Meters for Liquids and Steam



## Ultrasonic Flow Meter for Liquids

S461

Clamp-On



### Installation

Clamp-On Installation for pipe sizes of DN40 ... DN1200, Versatile installation options for the display unit

### Signal Outputs

- Isolated 4 ... 20 mA (Analog option)
- Switch output, normally open, max. 40 VDC, 0,5 A (Pulse option)
- Modbus/RTU(Standard)
- Modbus/TCP and PoE (Option)

### Application

Actual flow and total consumption monitoring in:

- Cooling / Heating / Process Water
- Purified Water Measurement
- Fuel, Oils, Petroleum Products
- Water Treatment
- Food / Beverage
- Sanitary
- Hydraulic System Test
- Pharmaceutical Industry

Multiple Locations



See  
info  
sheet



Non-Invasive  
through clamp-  
on sensors



Smartphone  
app for easy  
configuration



Energy Meter  
Monitors heat  
exchangers



Easy installation  
Various installation  
options anywhere

## Compact Ultrasonic Flow Meter for Liquids

S462

Clamp-On



### Installation

- Clamp-On for pipe sizes: DN10, DN15, DN20, DN25, DN32 and DN40
- Can be installed on stainless steel pipe, carbon steel pipe, copper pipe or plastic pipe.

### Signal Outputs

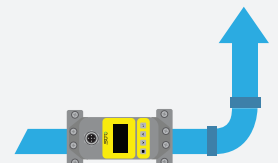
- Isolated 4 ... 20 mA (Analog)
- Modbus/RTU

### Application

Clean fluid measurements in:

- Cooling / Heating / Process Water
- Purified Water Measurement
- Fuel, Oils, Petroleum Products
- Water Treatment
- Food / Beverage
- Sanitary
- Hydraulic System Test
- Pharmaceutical Industry

Multiple Locations



S462

See  
info  
sheet



Clamp On:  
No contact  
to medium



Advanced Transit  
Time Correlation  
Technology



Cost-efficient  
and affordable  
sensor solution



Stationary:  
Connectable  
to S330/S331

## Vortex Flow Meter for Steam

S435

In-Line



### Installation

Intermediate flange installation for pipe sizes from DN40 ... DN300

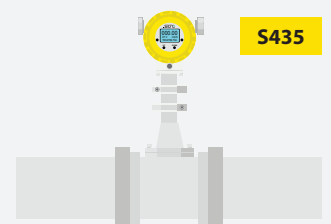
### Signal Outputs

- 4 ... 20 mA
- Pulse
- Modbus/RTU

### Application

- Measures the saturated steam flow and consumption to ensure the process quality.
- The integrated consumption counter allows to calculate steam usage for each consumer in the system.

Steam Pipes



S435

See  
info  
sheet



Effective and  
inexpensive  
measurements



Local display for  
easy configuration  
and live values



Vortex flow  
measurement for  
accurate results



Temperature sensor  
with automatic  
density adjustment





# Displays / Data Logger and IIoT for Data Logging and Visualization



## Display for Sensors

**S320** Local installation



### Installation

- Panel mounting (standard)
- Wall mounting
- Hat rail holder (only in connection with wall mounting casing)

### Sensor Inputs

- 1 input for SUTO flow/ dew point sensor
- 1 input for analog sensor 0 ... 20 mA, 0 ... 10 V

### Application

Convenient data reading from difficult-to-access sensors.



User-friendly design for easy usage



USB Interface Configuration with S4C software



Alarm function with optional alarm settings



Signal digital and analog inputs

See info sheet



## Display and Data Logger

**S330** Display

**S331** Data Logger



Compact



Flex

### Inputs

#### 2 digital inputs:

- SDI Sensors (up to 2 SDI sensors)
- Modbus Sensors (up to 16 Modbus sensors)

#### 2 analog inputs (option):

- 0 ... 20 mA, 4 ... 20 mA
- 0 ... 10 V
- Pulse

### Outputs

- Modbus/TCP (Ethernet)
- Modbus/RTU (RS 485)
- USB

### Installation

- Panel mounting (standard)
- Wall mounting

### Application

Central unit of a compressed air monitoring system displaying and recording all relevant parameters in a compressed air system (Flow, consumption, dew point, pressure, temperature, power consumption, compressor status etc.).



IIoT Support: Connection to S4M software



Versatile connection with 16 sensors inputs

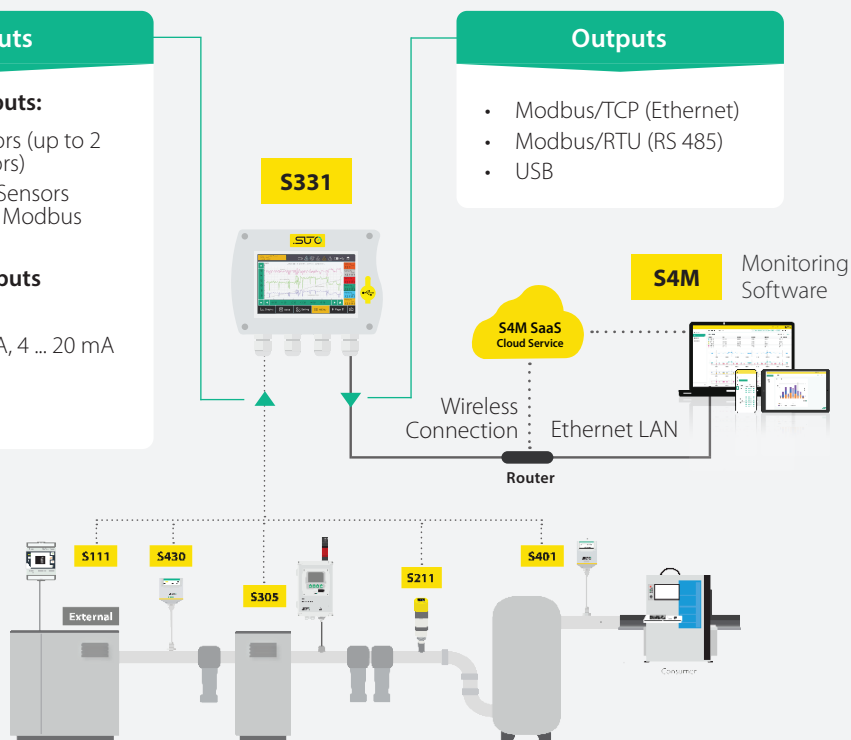


Large 5" color LCD touch screen



Data Logger with 100 million values

See info sheet





# Displays / Data Logger and IIoT for Data Logging and Visualization



## IoT Gateway

**S335**

**Gateway**



### Inputs

- **Modbus/RTU**  
Up to 16 sensors or third party slaves are supported
- **Modbus/TCP**  
Coming soon – This feature will be available with an upcoming firmware update

### Outputs

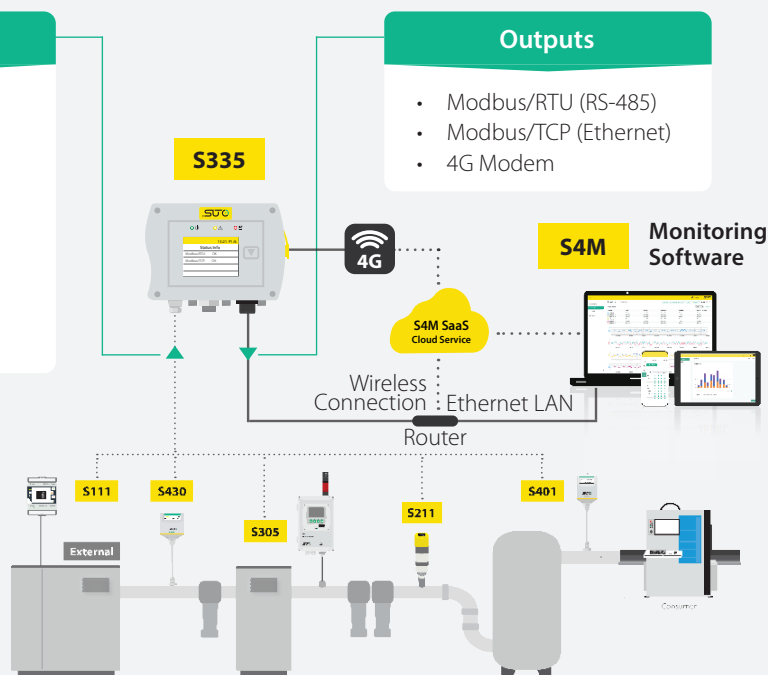
- Modbus/RTU (RS-485)
- Modbus/TCP (Ethernet)
- 4G Modem

### Installation

- 35 mm DIN hat rail mounted
- Wall mounting

### Application

Centralized data hub with gateway function for seamless integration and operation.



**Universal sensor compatibility**



**Integrated web server S4C-Web**



**Simplified configuration**



**Supports up to 16 Modbus/RTU sensors**

See info sheet



## Portable Display and Data Logger

**S551**

**Portable**



### Inputs

Up to 20 sensors inputs:

- 2 x SDI
- 2 x analog
- 16 x Modbus

### Outputs

- Modbus/RTU
- Modbus/TCP
- 4G/LTE (optional)

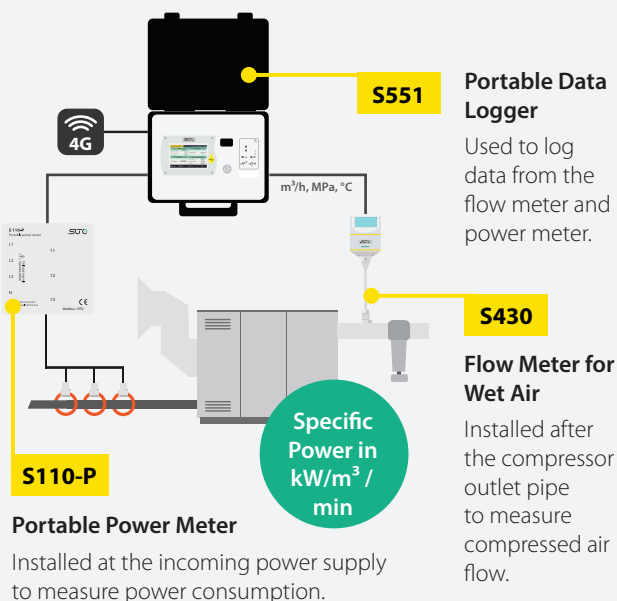
### Portable solution

Carrying case for a flexible and efficient usage at the point-of-use.

### Application

- The ideal data logger for energy analysis (ISO 50001) and air audits (ISO 11011).
- Compressor efficiency testing (see illustration).

### Multiple Locations



**Auto detection of SDI or Modbus SUTO sensors**



**Versatile connection with 20 sensors inputs**



**4G/LTE Modem for remote monitoring and logging (optional)**



**Large 5" color LCD touch screen**

See info sheet





# Application Software and Smartphone Apps

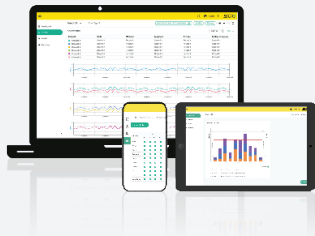


## Smart Compressed Air System Monitoring Software

### Monitoring, Visualization and Analysis

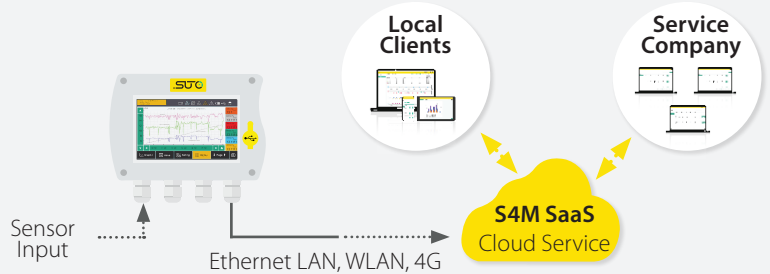
S4M

SaaS Cloud



#### Benefits

- All-in-one monitoring solution for compressed air systems.
- The powerful software features helps users to get their compressed air system under control



Process Value Visualization



Extensive Data Analysis



Customer and Location Management



Alarms & Notifications



Powerful Report Module

See info sheet



## Data Analysis Software

### Data Visualization and Analysis

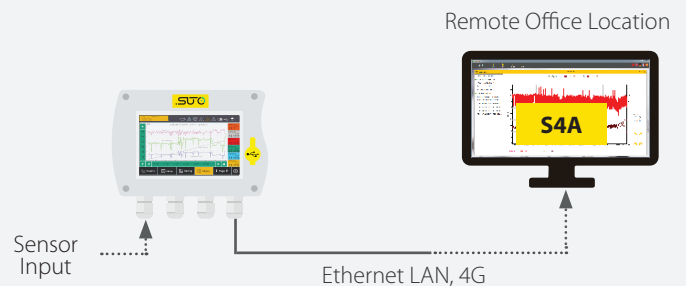
S4A

Local



#### Download

- The S4A Software is offered for free and the latest version can be downloaded from the SUTO iTEC homepage, no registration or subscription needed: [www.suto-itec.com](http://www.suto-itec.com)



Powerful graphic analysis



Analysis on Exported Files (.XLSX and .CSV)



Remote connection and readout of SUTO data loggers



Online reading via USB, Ethernet or WLAN connection

See info sheet



## Free Mobile Apps

### Data Visualization and Configuration

S4C-FS

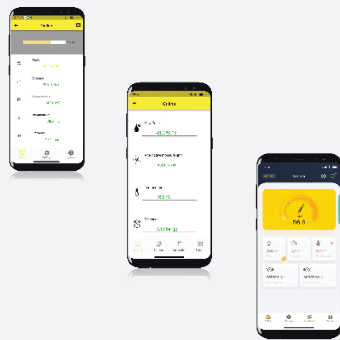
Gas Flow

S4C-DP

Dew Point

S4C-US

Liquid Flow



#### Applications

- SUTO iTEC Smartphone Apps are free to use.
- Wireless real-time data readings with S4C-FS App.
- User-friendly design and intuitive workflows.
- Operate entirely from your smartphone.
- Online configuration, settings, and user calibrations for SUTO iTEC devices.

#### Signal Outputs

- Wireless connection from smartphone to SUTO Sensors
- No PC needed



Free smartphone app for remote configuration



User-friendly design for easy usage



Online reading of live measurement data



Wireless connection to devices in hard-to-reach places

See info sheet





## Three-Phase Multi-Functional Smart Meter

Generation

S111

Stationary



### Installation

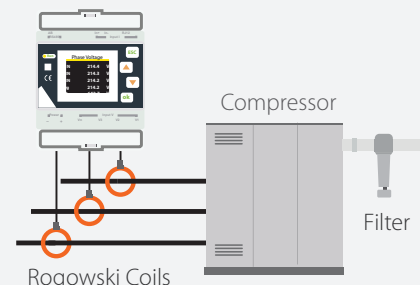
- DIN rail installation for power cabinets
- Rogowski coils with snap-on connection.

### Signal Outputs

- Modbus/RTU

### Application

The main application is to measure the power consumption and the accumulated energy consumption of electrical 3-phase consumers, like compressors, driers and oxygen/nitrogen generators.



Multi-functional:  
3-phase, 1-phase



Modbus / RTU Interface  
can connect to any  
Modbus-Master



User-friendly  
design and  
setup



Identifying  
compressor  
efficiency

See  
info  
sheet



## Additional Sensors

S010/S011

Pressure



### Signal Outputs

- S010: 4 ... 20 mA
- S011: Modbus/RTU
- S020: 4 ... 20 mA (available in 2 sizes)
- S030: 4 ... 20 mA
- S040: Modbus/RTU

See  
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sheet



S020

Temperature



See  
info  
sheet



S030

Electrical Current



See  
info  
sheet



S040

Atmospheric Sensor



See  
info  
sheet



Industrial design  
for various  
applications



4...20 mA or  
Modbus/RTU  
outputs



Cost-efficient  
affordable  
sensor solutions



Strong  
protection  
IP65 casing



Easy and  
flexible  
installation



## Calibration and Certification

(Re-) Calibration

Flow

Calibration

Dew Point

Calibration

Oil Vapor

Calibration

### SUTO iTEC Calibration

- SUTO iTEC owns high tech calibration facilities in Germany, Hong Kong and China
- Flow calibration under pressure and a wide range for highest accuracy
- Real gas calibration system for technical gases
- References and certificates are traceable to national standards

See  
info  
sheet



### Flow Calibration

- Accuracy:  $< 0.5\%$  o. RDG
- Range: 0... 260 m/s (20°C 1000 mbar)
- Pressure: 0... 0.7 MPa
- Pipe sizes: DN8... DN100
- Medium: Compressed Air and technical Gases
- References: Sonic Nozzles, Laminar Flow Elements, Turbine Meter, Coriolis Meter



### Dew Point Calibration

- Accuracy Frost/Dew point:  $\leq \pm 0.1$  °C
- Accuracy Temperature:  $\leq \pm 0.07$  °C
- Calibration Range: -70... +20 °C Td
- Reference: MBW 373 Dew Point Hygrometer / Dew Point Mirror



### Oil Calibration

- Accuracy:  $>0.5$  ppm,  $\pm 1.8\%$  uncertainty ;  $< 0.5$  ppm  $\pm 2.5\%$  uncertainty
- Gas: Isobutylene in synthetic air
- Reference: Traceable & certified gas
- Range: 0.000... 10.000 mg/m<sup>3</sup>
- Multiple activated carbon filtration system for accurate zero-point calibration

## SUTO iTEC Exchange Calibration Service



The exchange calibration service eliminates down time and enables users to have a seamless record of their measurements.

The user receives in advance a calibrated instrument with calibration certificate and the same instrument settings. The on-site instrument is then switched against the calibrated one and returned to the supplier.

Products from the following categories are **included** in the SUTO iTEC Exchange Calibration Service:

**Dew Point Meters**

**Air Quality Instruments**

## When Should You Calibrate Your Sensor?

- Recommended at least once per year unless otherwise stated:
  - S120 Oil Vapor Analyzer – once per year or 6000 hours
  - O<sub>2</sub>, CO<sub>2</sub> and CO sensors in S605 & S606 – reference gas calibration once per year and replaced every 24 months
- When there is doubt about the accuracy of results
- When there has been high contamination or faults in the system the sensor is installed

## Beyond Recalibration

► Did you know that SUTO iTEC's Recalibration Service includes expert cleaning and inspection?

You not only benefit from precision calibration but also expert cleaning and inspection.

Learn more about our (re-)calibration process on our website [www.suto-itec.com](http://www.suto-itec.com).





[www.suto-itec.com](http://www.suto-itec.com)



Be smart. Measure it.



**Talk to an Expert**

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