



# Product Overview 2023/24

**Measurement Technology for  
Compressed Air, Gases and Liquids**



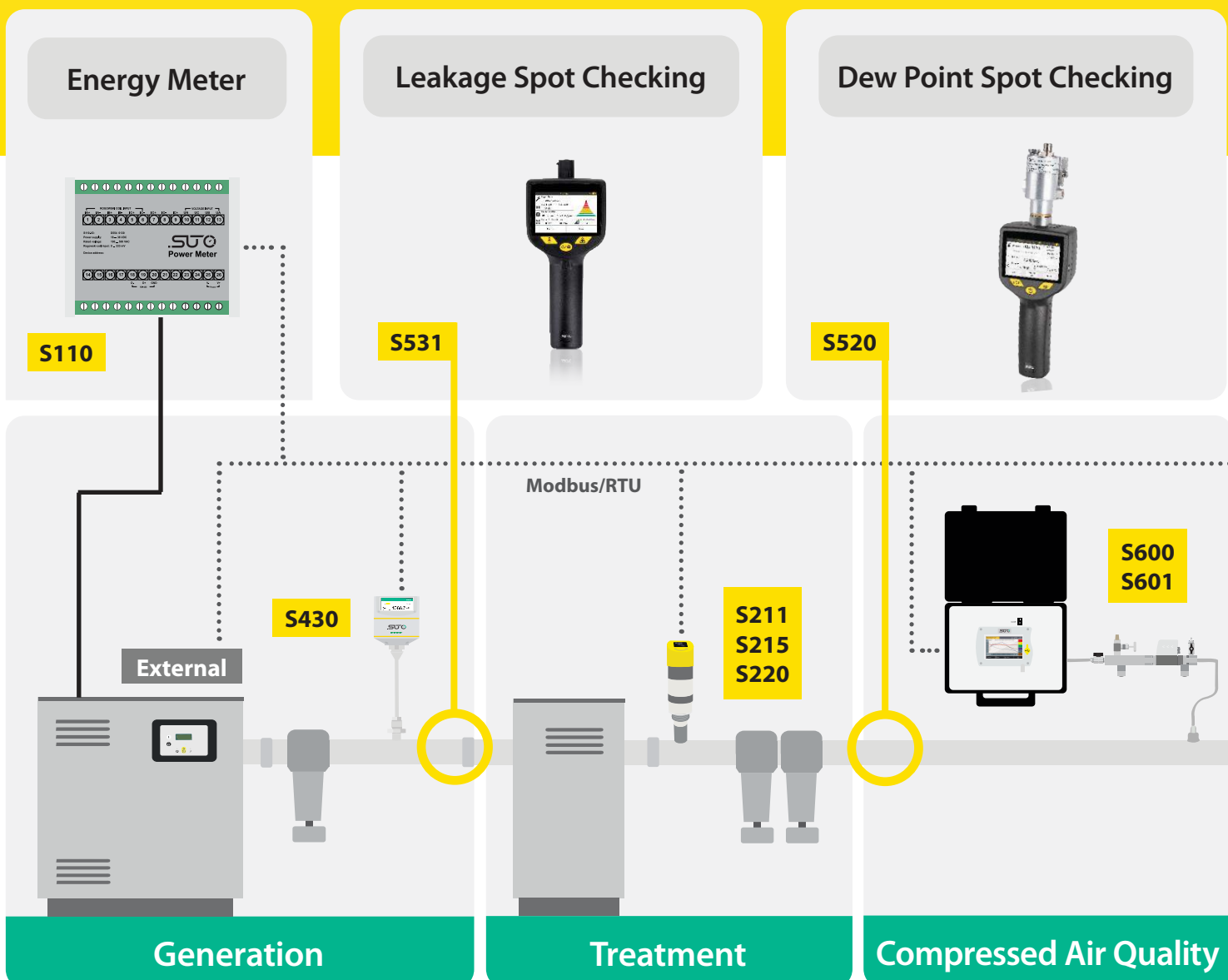
Be smart. Measure it.

# Advanced Measurement Solutions

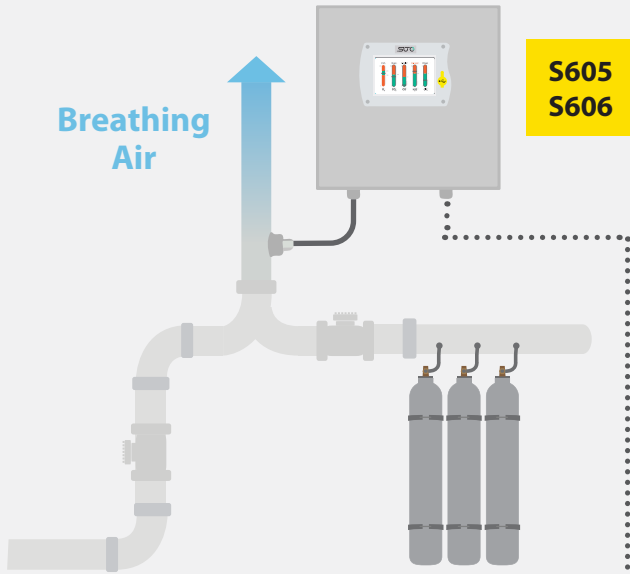
## Compressed Air and Gas Monitoring - get your system under control

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.

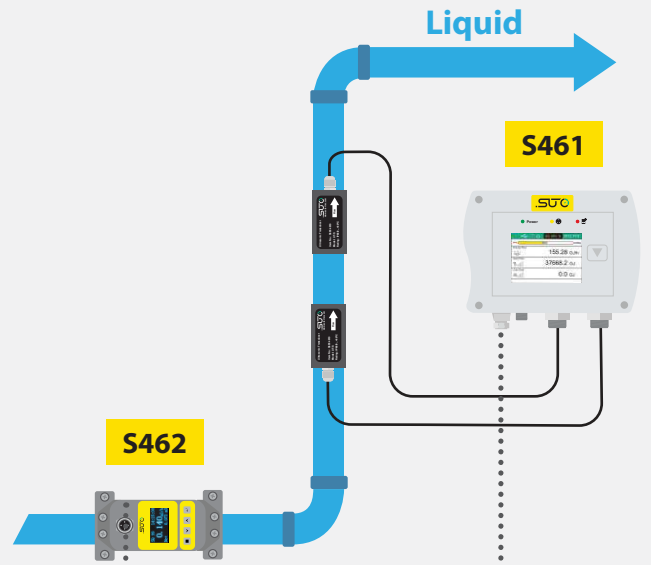
- ✓ System Performance and Reliability
- ✓ Energy Efficiency and Cost Reduction
- ✓ Product Quality and Safety
- ✓ ISO Purity Requirements



## Breathing Air



## Liquids



## Data Logging

**S330**  
**S331**

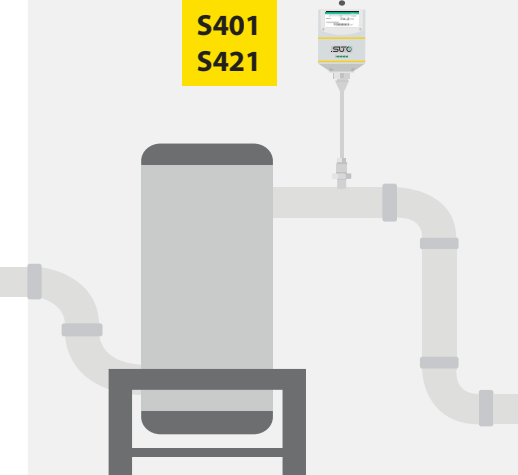


## Data Analysis



**S4M**  
**SaaS**

**S401**  
**S421**

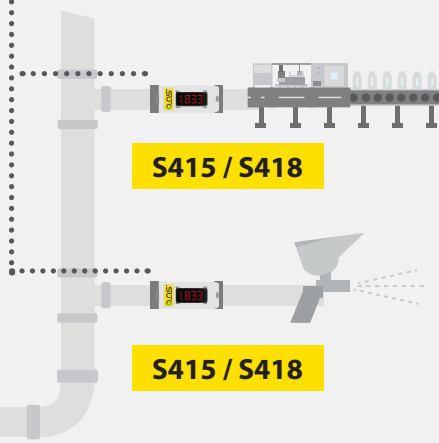


## Distribution

## Modbus/RTU

**S415 / S418**

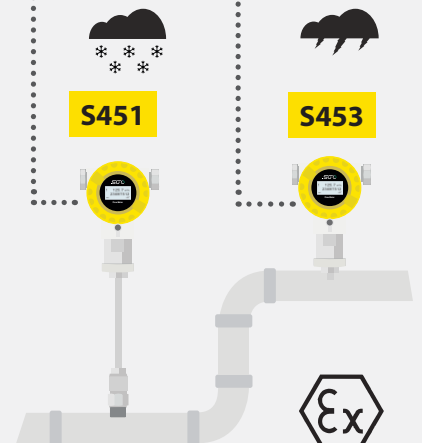
**S415 / S418**



## Point-Of-Use

**S451**

**S453**



## Outdoor/Ex



# Flow and Consumption Meters for Compressed Air and Gases



## Pitot Tube Flow Meter for Wet Air

S430

Insertion



### Installation

Insertion type for pipe sizes of DN32 to DN500 installation under pressure through 3/4" ball valve

### Signal Outputs

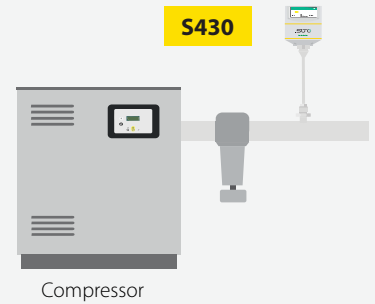
- Isolated 4... 20 mA & Pulse
- Modbus/RTU
- Modbus/TCP
- M-Bus

### Application

- Flow and velocity monitoring of the compressor outlet
- High temperature flow applications

Generation

S430



Compressor

✓ **Wet Air**  
Measurement at the compressor outlet

✓ **Fast response time**  
For accurate results

✓ **Easy Monitoring**  
Effective measurements

✓ **Mobile App**  
For remote configuration

✓ **Stable Results**  
No mechanical wear parts

## Thermal Mass Flow Meter

S401

Insertion



### Installation

Insertion type DN25 to DN500, installation under pressure through 1/2" ball valve

### Signal Outputs

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

### Application

- Non-intrusive 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

S401



Tank

✓ **Easy Installation**  
Through 1/2" ball valve under pressure

✓ **Mobile App**  
For remote configuration

✓ **Total Flow**  
Reliable measurements

✓ **IP65 Casing**  
Provides robust protection

✓ **Cost-efficient**  
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
- M-Bus

### Application

- Non-intrusive 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

✓ **Easy Installation**  
With measuring section

✓ **Mobile App**  
For remote configuration

✓ **Total Flow**  
Reliable measurements

✓ **IP65 Casing**  
Provides robust protection

✓ **Cost-efficient**  
Affordable sensor solution





# 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 or DN32 (ISO 228-1)

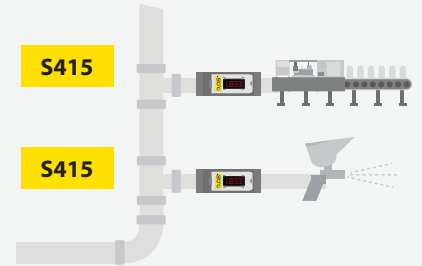
### Signal Outputs

- 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

Affordable sensor solution



### Total Mass Flow

No bypass measurement



### Compact Design

For easy and flexible installation



### Flow Conditioner

No straight inlet required

## Compact Thermal Mass Flow Meter

S418

High End



### Installation

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

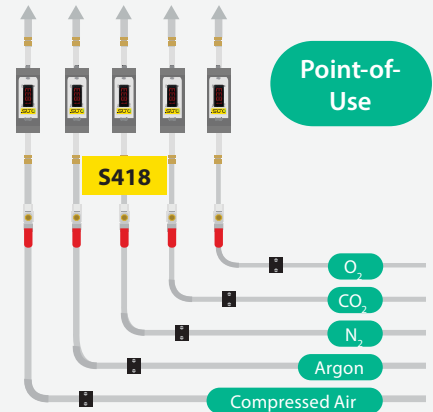
### Signal Outputs

- 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

Easy recording of measurement data



### Total Mass Flow

No bypass measurement needed



### Compact Design

For easy and flexible installation



### Flow Conditioner

No straight inlet required

## Compact Thermal Mass Flow Meter

S418-V

Vacuum



### Installation

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

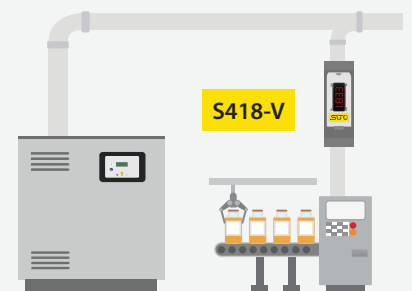
### Signal Outputs

- 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

Abs. Pressure Sensor integrated



### Accurate Results

Integrated flow conditioner



### Total Mass Flow

No bypass measurement needed



### Compact Design

For easy and flexible installation



# 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

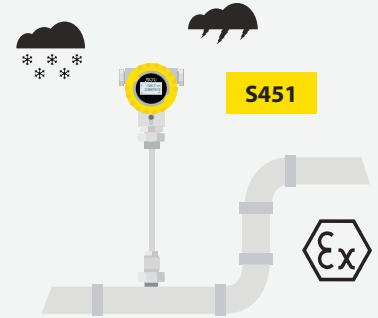
### Signal Outputs

- 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

Outdoor and Ex



### Industrial Design

For outdoor applications



### Easy to Clean

All wetted parts stainless steel



### Explosion Proof

Use in Ex-area applications



### Accurate Results

Very fast response time



### High Stability

Pressure & temperature independent

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

**S453** In-line



### Installation

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

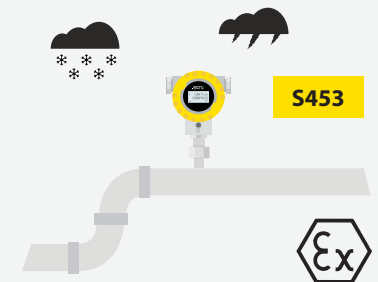
### Signal Outputs

- 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

Outdoor and Ex



### Industrial Design

For outdoor applications



### Easy to Clean

All wetted parts stainless steel



### Explosion Proof

Use in Ex-area applications



### Accurate Results

Very fast response time



### High Stability

Pressure & temperature independent

## Thermal Mass Flow Direction Switch

**S409** Insertion



### Installation

Insertion type DN25 to DN500, installation under pressure through 1/2" ball valve

### Signal Outputs

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

### Application

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

Two separated relays for direction indication

Multiple Locations



### Easy Installation

Non-intrusive solution



### Mobile App

For remote configuration



### Total Flow

Reliable measurements



### IP65 Casing

Provides robust protection



### Cost-efficient

Affordable sensor solution



# Dew Point Meters for Compressed Air and Gases



## Dew Point Sensor

**S211**

**-60 ... +20 °C Td**



### 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

Optional Display

### Measured Gases

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

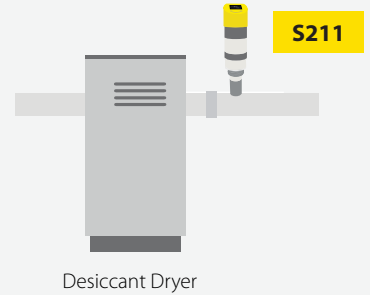
### Operating pressure

- 0 ... 1.6 MPa
- Optional 35.0 MPa

### Application

Dew point measurements after desiccant dryers

### Treatment



Desiccant Dryer

✓ **Compact Design**  
Installation anywhere

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

✓ **Pressure Sensor**  
Integrated as option

✓ **High Precision**  
± 2 °C Td Accuracy

✓ **Long term stable**  
Low Maintenance Costs

## Dew Point Sensor

**S215**

**-20 ... +50 °C Td**



### 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

Optional Display

### Measured Gases

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

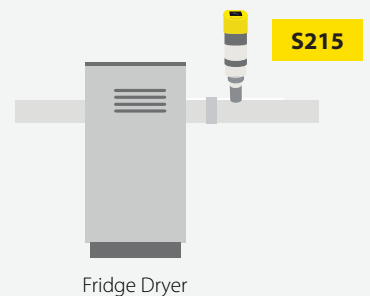
### Operating pressure

- 0 ... 1.6 MPa
- Optional 35.0 MPa

### Application

Dew point measurements after fridge dryers

### Treatment



Fridge Dryer

✓ **Compact Design**  
Installation anywhere

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

✓ **Pressure Sensor**  
Integrated as option

✓ **High Precision**  
± 2 °C Td Accuracy

✓ **Long term stable**  
Low Maintenance Costs

## Dew Point Sensor

**S220**

**-100 ... +20 °C Td**



### 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

Optional Display

### Measured Gases

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

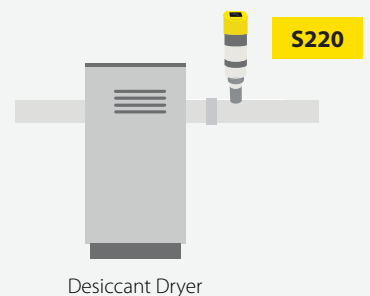
### Operating pressure

- 0 ... 1.6 MPa

### Application

Dew point measurements in high tech requirements and conditions

### Treatment



Desiccant Dryer

✓ **Compact Design**  
Installation anywhere

✓ **-100 ... +20 °C Td**  
For high tech applications

✓ **Compressed Air Quality**  
Monitors humidity

✓ **Precise Measurement**  
± 2 °C Td Accuracy

✓ **Pressure Sensor**  
Integrated as option



# 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.

### Operating pressure

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

### Measured Gases

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

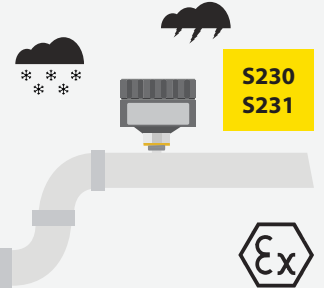
### Signal Outputs

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

### Application

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

## Outdoor and Ex



**Explosion Proof**  
Use in Ex-area applications

**Low Dew Point**  
Measures down to -100 °C Td

**Industrial Design**  
For rough environment

**Precise Measurement**  
Unique QCM technology

**Dual Sensor System**  
Full range precision

## Dew Point Monitor

**S305** -50 ... +20 °C Td

-20 ... +50 °C Td



### Installation

Stationary Installation easy process connection via 6 mm quick connect

### Operating pressure

- 0.3 ... 1.5 MPa

### Measured Gases

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

### Signal Outputs

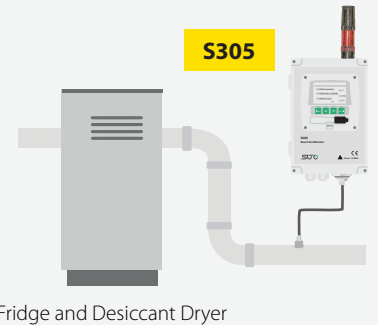
- 4 ... 20 mA 3-wire

### Application

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

## Dryer Monitoring

**S305**



**Plug & Play**  
Simple and fast connection

**Fast Response Time**  
Time-efficient

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

**Precise Measurement**  
± 2 °C Td Accuracy

**Alarm Indication**  
With internal relays or alarm units

## Portable Dew Point Meter

**S520** -100 ... +20 °C Td

-50 ... +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



**S520**

**Smart device**  
Dew point prediction

**Pressure Sensor**  
Various humidity units

**Low Dew Point**  
Measures down to -100 °C Td

**Data Logger**  
Integrated mass storage

**Dew Point Audits**  
Indication of classes





# 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

- 0.3 ... 1.5 MPa
- 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 and high tech applications

### Point-of-use

**S120**



**Accurate Results**  
Latest PID sensor technology

**Compact Design**  
Can be installed anywhere

**Easy Installation**  
Plug and Play Solution

**Data Logger**  
Storage of 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.

### Point-of-use

**S130 / S132**



**Particle Measurement**  
According ISO 8573

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

**Data Logger**  
To save and print data

**Easy Installation**  
Plug and Play Solution

**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

0.3 ... 1.5 MPa

### Measured Gases

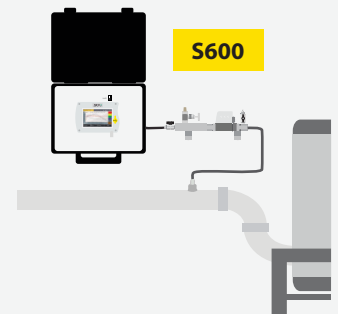
Compressed Air, Nitrogen N<sub>2</sub>, Carbon dioxide CO<sub>2</sub> (software setting)

### Application

- Air quality measurements in medical, pharmaceutical, food and beverage and other applications
- Compressed air quality audits in regards to the ISO 8573-1
- Monitoring of high tech applications with strict air purity requirements

### Mobile Measurements

**S600**



**All in One**  
Dew point, particle and oil vapor

**Touch Screen**  
For easy operation

**Portable Unit**  
Can be carried with one hand

**High Precision**  
Accurate measurements

**Compact Design**  
Makes it unique

**4G/LTE Option**  
For data transfer



# Air Quality Instruments for Compressed Air and Gases



## Stationary Compressed Air Purity Monitor

**S601** 5 in 1 Plug & Play



### Installation

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

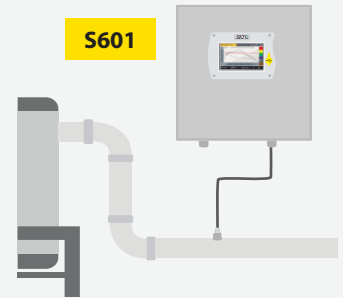
Air / CO<sub>2</sub> / N<sub>2</sub> / O<sub>2</sub> / Argon

### 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



- ✓ **All in One**  
Dew point, particle and oil vapor
- ✓ **Easy to Use**  
User-friendly design
- ✓ **Data Logger**  
Storage of measurements
- ✓ **High Precision**  
Accurate measurements
- ✓ **Permanent Monitoring**  
24/7 quality measurements
- ✓ **Robust Cabinet**  
For rough industrial applications

## Portable Breathing Air Analyzer

**S605** 6 in 1 Plug & Play



### Installation

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

### Signal Outputs

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

### Inlet Pressure

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

### Measured Gases

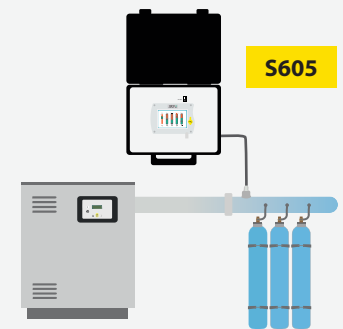
Breathing air analysis

### Application

Regular checks of breathing air systems in various sectors as fire fighting, diving, spray painting, chemical industry, offshore and high tech applications.

Meet requirements of international standards such as EN 12021 or CFSR 1910.134(d).

### Point-of-use



- ✓ **All in One**  
O<sub>2</sub>, CO<sub>2</sub>, CO, H<sub>2</sub>O, Oil, Pressure
- ✓ **Plug & Play**  
Simple and fast connection
- ✓ **Ultra Portable**  
With one hand
- ✓ **High Precision**  
Accurate measurements
- ✓ **Compact Design**  
Simple and efficient
- ✓ **PDF Generator**  
Powerful PDF Reporting

## Stationary Breathing Air Monitor

**S606** 5 in 1 Plug & Play



### Installation

Wall mountable cabinet with 6 mm hose connection.

### Signal Outputs

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

### Inlet Pressure

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

### Measured Gases

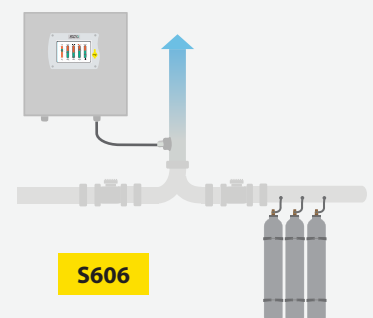
Breathing air analysis

### Application

Permanent Monitoring of all crucial breathing air parameters, to ensure that the breathing air is safe for health and the process.

Crucial Industries and sectors rely on a reliable breathing air supply, e.g. fire fighting, diving, spray painting, chemical industry, offshore and high tech applications.

### Generation



- ✓ **All in One**  
O<sub>2</sub>, CO<sub>2</sub>, CO, H<sub>2</sub>O, Oil, Pressure
- ✓ **Permanent Monitoring**  
24/7 monitoring
- ✓ **Data Logger**  
Storage of measurements
- ✓ **Alarm Function**  
Accurate measurements
- ✓ **Easy to Use**  
Simple and fast connection



# Leak Detection for Compressed Air and Gases



## Ultrasonic Leak Detector

(for Compressed Air, Gas and Pneumatic Systems)

**S530** Portable



### Application

Leak detection in compressed air or gas systems such as refrigerators

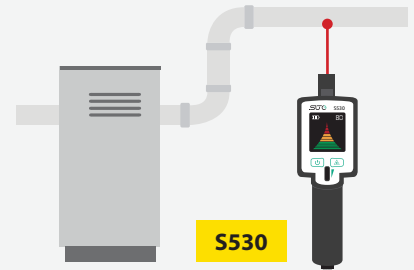
- Ultrasonic
- With focus tube and focus tip
- Integrated laser pointer

### 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

Mobile Measurements



✓ **Easy To use**  
Find leaks in minutes

✓ **Laser Pointer**  
Quick spot the leak

✓ **Compact Design**  
Can be used anywhere

✓ **Noise Isolated Headset**  
Inaudible signals easily to be heard

✓ **Long Battery Life**  
For long working hours

## Smart Ultrasonic Leak Detector

(for Compressed Air, Gas and Pneumatic Systems)

**S531** Portable



### Application

The S531 helps users quickly find and record leakages in their compressed air, gas and pneumatic system.

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

### Free LMS License

When purchasing a S531 ultrasonic leak detector set, one free LMS license is included.

Mobile Measurements



✓ **Wireless Connection**  
Wireless connection to headset

✓ **Mass Storage**  
Big memory for leak records, photos and voice recording

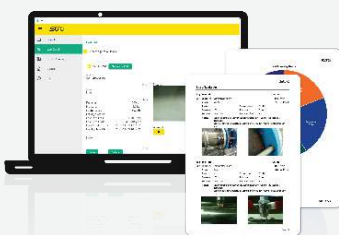
✓ **Leak Parts Photo**  
Camera to take photo of leak locations

✓ **Data Analysis**  
Export data to LMS for statistics and repair

✓ **Loss Calculation**  
Air loss calculation in m<sup>3</sup>/h or in local currency

## Leak Management Software

**LMS** Local Installation



### Installation

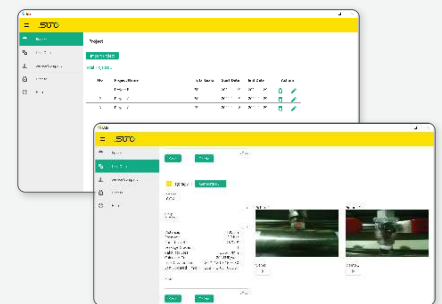
Local installation for easy setup and local data storage

### Application

The Leak Management Software (LMS) enables companies to properly manage their leakage detection and repair activities. The software comes as a local installation on a PC.

### LMS + S531

The LMS works seamlessly with the S531 Ultrasonic Leak Detector. Recording leaks in the field using the S531 and later importing them to LMS software enables users to gather quantitative leak loss data and easily create powerful reports.



✓ **Simple Interaction Design**  
Quick and intuitive operation steps

✓ **Local Installation**  
Easy installation and local data storage

✓ **Personalized Configuration**  
Company logo, contact person etc.

✓ **Extensive Analysis Report**  
Leak report with all relevant data

✓ **One-Click Import and Update**  
Import and update new leak data



# 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. 40VDC, 0,5 A (Pulse option)
- Modbus/RTU(Standard)
- Modbus/TCP and PoE (Option)

### Application

Measures the actual flow and total consumption of various liquids

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

### Multiple Locations



### Non-Invasive

Through clamp-on sensors



### Smartphone App

Easy configuration



### Energy Meter

Monitors heat exchangers



### Easy installation

Various installation options



### Data Logger

8 million samples



### Compact Design

Can be installed anywhere

## Compact Ultrasonic Flow Meter for Liquids

S462

Clamp-On



### Installation

Clamp-On for pipe sizes of DN20 ... DN40  
Can be installed on stainless steel pipe, carbon steel pipe, copper pipe or plastic pipe.

### Signal Outputs

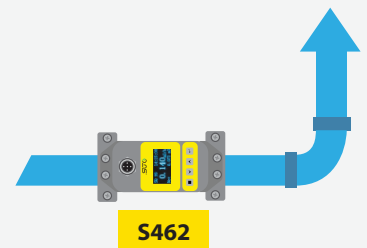
- Isolated 4 ... 20 mA (Analog)
- Modbus/RTU

### 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



### Clamp On

No contact to medium



### TTC

Transit Time Correlation Technology



### Compact Design

Can be installed anywhere



### Cost-efficient

Affordable sensor solution



### Portable

Connectable to S551



### Stationary

Connectable to S330/S331

## Vortex Flow Meter for Steam

S435

In-Line



### Installation

Wafer type for pipe sizes of DN40 ... DN300

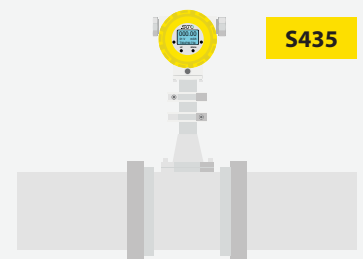
### Signal Outputs

- 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



### Easy Monitoring

Effective and inexpensive measurements



### Local Display

For easy configuration and live values



### Accurate Results

Vortex flow measurement



### Total Flow

High accuracy and reliable measurements



### Temperature Sensor

Automatic density adjustment



## 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.

### Data Visualization



### Easy to Use

User-friendly design



### USB Interface

Configuration with S4C software



### Alarm

Optional alarm settings



### Power Supply

Flexible power supply



### Easy installation

Wall or panel mountable



### Signal Inputs

Digital and analog input

## Display and Data Logger

S330

Display

S331

Data Logger



### 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.).

### Inputs

#### 2 digital inputs:

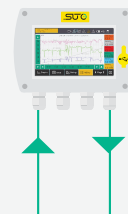
- SDI Sensors (up to 2 SDI sensors)
- Modbus Sensors (up to 16 Modbus sensors)

#### 2 analog inputs (option):

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

### Data Logging

S331



### Outputs

- Modbus/TCP (Ethernet)
- Modbus/RTU (RS 485)
- USB
- 2 Alarm relay outputs



### IIoT Support

Connection to S4M software



### Versatile Connection

16 sensors inputs



### Data Distribution

Via Modbus/RTU & Modbus/TCP



### Touch Screen

5" large color LCD



### Strong Protection

IP65 Casing



### Data Logger

100 million values

## Portable Display and Data Logger

S551

Portable



### Installation

Portable solution: Carrying case for a flexible and efficient usage at the point-of-use

### Sensor Inputs

Up to 20 sensors inputs:

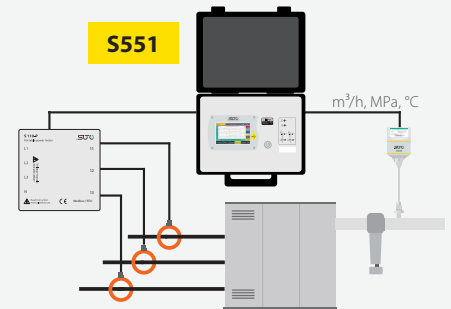
- 2 x SDI
- 2 x analog
- 16 x Modbus

### Application

The ideal data logger for energy analysis (ISO 50001) and air audits (ISO 11011).

### Multiple Locations

S551



### Auto Detect

SDI or Modbus SUTO sensors



### Versatile Connection

20 sensors inputs



### 4G/LTE Modem

Remote monitoring and logging (optional)



### Touch Screen

5" large color LCD



### Strong Protection

IP65 Casing



### Back-Up Power

Battery as back-up power





# Monitoring and Application Software and Apps



## Smart Compressed Air System Monitoring Software

S4M

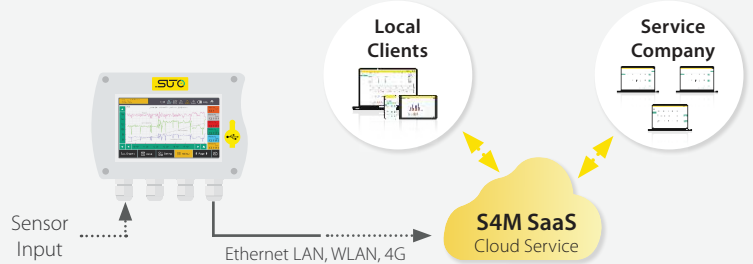
SaaS Cloud



### Benefits

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

### Monitoring, Visualization and Analysis



- ✔ Process Value Visualization
- ✔ Extensive Data Analysis
- ✔ Customer Management
- ✔ Alarms & Notifications
- ✔ Monitoring & Optimization
- ✔ Powerful Report Module
- ✔ Personalized Interface
- ✔ Location Management

## Smart Compressed Air System Monitoring Software

S4M

SaaS Cloud

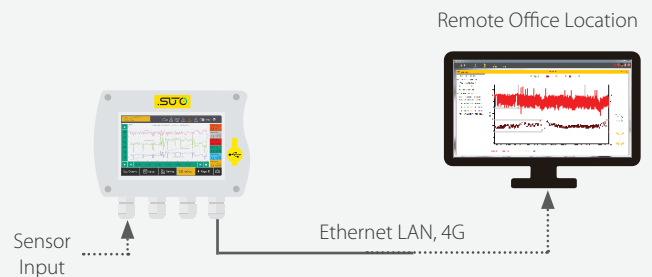


### Download

The S4A Software is offered for free and the latest version can be downloaded from the SUTO homepage, no registration or subscription needed.

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

### Data Visualization and Analysis



- ✔ **Graphic Analysis**  
Powerful graphic analysis
- ✔ **Analysis on Exported Files**  
Export data to the .XLSX and .CSV file
- ✔ **Free to use**  
No payment or subscription needed
- ✔ **Readout of Screenshots**  
Read screenshots from SUTO S331
- ✔ **Online Reading**  
Via USB, Ethernet or WLAN connection

## Free Mobile Apps

S4C-FS

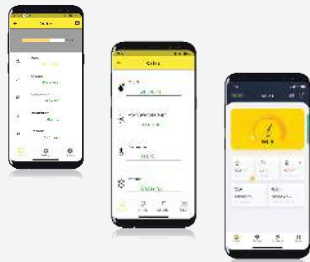
Gas Flow

S4C-DP

Dew Point

S4C-US

Liquid Flow



### Smartphone Applications

#### Applications

- SUTO Smartphone Apps are completely free to use
- Wireless real-time data readings of SUTO Flow Meters through S4C-FS App
- User friendly design with intuitive workflows
- Everything runs from your smartphone
- Online configuration, settings and user calibrations of compatible SUTO devices

#### Signal Outputs

- Wireless connection to SUTO Sensors for on-site readings and configuration
- No PC needed

- ✔ **Free Smartphone Apps**  
For remote Configuration
- ✔ **Easy to Use**  
User-friendly design
- ✔ **Online Reading**  
Live measurement data
- ✔ **Wireless Connection**  
Connection to devices in hard-to-reach places



# Current Meter, other Sensors and Calibration Service



## Power Meter

**S110** Stationary

**S110-P** Portable



### Installation

DIN rail installation for power cabinets or portable version with rugged housing

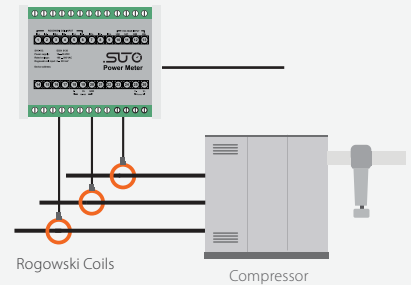
### Signal Outputs

- Isolated 4 ... 20 mA (Analog)
- 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.

## Generation



**Multi-functional**  
3-phase, 1-phase



**Modbus / RTU Interface**  
Connects to any Modbus-Master



**Easy Installation**  
User-friendly design and setup



**Compressor Performance**  
Identifying compressor efficiency



**Rogowski Coils**  
Wide range, highly accurate

## Other Sensors

**S010** Pressure

**S020** Temperature

**S030** Electrical Current



### Installation

Easy installation in compressed air systems (for more information visit [www.suto-itec.com](http://www.suto-itec.com))

### Signal Outputs

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

### Application

Industrial equipment for manifold applications

- Hydraulic and pneumatic systems
- Industrial engines
- HVAC/R equipment
- Spraying systems
- Cooling systems



**Industrial Design**  
For various applications



**4 ... 20 mA Output**  
Easy connection



**Easy Installation**  
User-friendly and compact design



**Cost-efficient**  
Affordable sensor solutions



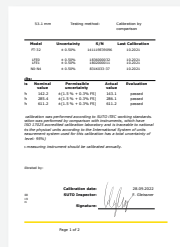
**Strong Protection**  
IP65 Casing

## Calibration and Certification

**Flow** Calibration

**Dew Point** Calibration

**Oil Vapor** Calibration



### SUTO Calibration

- SUTO owned high tech calibration facilities in Germany, Hong Kong SAR and Mainland 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

## 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.



**Flow Calibration**



**Dew Point Calibration**



**Oil Vapor Calibration**



**Particle Calibration**



**Pressure Calibration**



**Temperature Calibration**



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



Be smart. Measure it.



## Talk to an Expert

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