.SUT⊙

Be smart. **Measure it.**

S120
Oil Vapor Analyzer

Intelligent
sensor system —

**helps you to
identify impurities**

Features

PID

**ACCURATE
RESULTS**
Latest PID
senor
technoloygy

**TOUCH
SCREEN**
For easy
operation

**COMPACT
DESIGN**
Fits into your
application

**DATA
LOGGER**
Integrated
as option

S 120
Oil Vapor Analyzer

Benefits

✔ Plug & Play setup with quick connections. Can be used in portable and stationary applications.

✔ Oil vapor measurement in a range of 0.001 to 5.000 mg/m³

✔ Various output signals to connect the unit to building management systems:

 - 4 ... 20 mA analog output
 - Modbus/RTU and Modbus/TCP
   (TCP only with Display version)
 - Alarm Relay

✔ PID sensor technology for fast response time and online monitoring

✔ Optional integrated 5" touch screen display with data logger function

✔ Optional with integrated dew point measurement
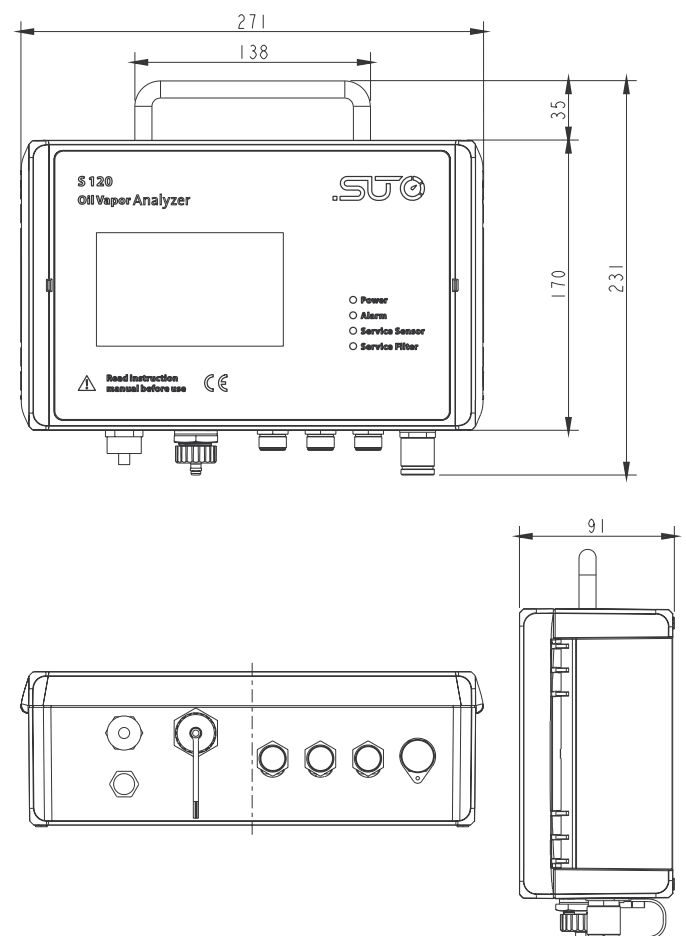
✔ LED indications for status and alarms

The S120 oil vapor sensor monitors the oil content of compressed air and gases permanently or for spot checks when used as portable unit in conjunction with S551. For best accuracy and long term stability, the S120 sensor applies an automatic calibration. Sensor contaminations and sensor life time are monitored and indicated to the user. An 'over range' detection removes the sampling air from the sensor to protect it against contamination.

The simple installation and outstanding performance makes the S120 the ideal choice when oil vapor content needs to be measured and monitored.

🟡 **Power**
🔴 **Alarm**
🟢 **Service Sensor**
🟢 **Service Filter**

LEDs indicate if pre-set alarms are reached, or if filters and sensors need to be serviced. The service indications start blinking 4 weeks before expiring and turn on permanently when a service is immediately required.

Applications

• Medical air
• Pharmaceuticals
• Breathable air for rescue workers and divers
• Food and beverage
• Semiconductor fabs
• Conveyance of hygroscopic food
• High tech processes

Dimensions

S120 Oil Vapor Analyzer

Technical Data

Measurement

Oil Vapor

Measuring range	0.001 ... 5.000 mg/m^3 (Based on 1000 hPa(a), 20 °C, 0% relative humidity)
Accuracy	5% of reading ± 0.003 mg/m^3
Resolution	0.001 mg/m^3
Selectable units	mg/m^3 / ppm
Sensor principle	Photo ionization detector

Pressure

Measuring range	0 ... 16 bar(g)
Accuracy	0.5% FS
Resolution	0.01 bar(g) / 0.001 MPa / 0.1 psi
Selectable units	bar(g) (default), MPa and psi (on request)
Sensor principle	Piezzo resistive pressure sensor

Dew Point (optional)

Measuring range	-100 ... +20 °C Td
Accuracy	±1 °C Td (0 ... 20 °C Td)
	±2 °C Td (-60 ... 0 °C Td)
	±3 °C Td (-100 ... -60 °C Td)
Resolution	0.1 °C Td
Selectable units	°C Td / °F Td
Sensor principle	QCM + Polymer

Temperature

Measuring range	0 ... 50 °C
Accuracy	0.5 °C
Resolution	0.1 °C
Selectable units	°C / °F
Sensor principle	NTC

Signal / Interface & Supply

Outputs / Interface

Analogue output	4 ... 20 mA, isolated
Alarm output	Relay, NO, 60 VDC, 1 A
Digital interface	Modbus/RTU (RS485)
	Modbus/TCP (Ethernet) & USB (only available for display version)
Display (optional)	5" color touch screen with a data logger of 100 million measurement values

Supply

Power supply	24 VDC ± 5%, 10 W

General Data

Measuring medium	Compressed air, N$_2$, CO$_2$ (for other gases please contact us)
Sample flow rate	< 2 l/min, measuring gas is released to ambient
Sample rate	1/sec
Gas / Operating temperature	-20 ... +50 °C
Transport temperature	-30 ... +70 °C
Operating pressure	3 ... 15 bar(g)
	0.5 ... 2 bar(g) (optional)
	0.60 ... 1.07 bar(a) (ambient version only)
Gas humidity	< 40% rel. humidity, no condensation
Gas connection	6 mm quick connect
UV lamp lifetime	6,000 working hours or 1 year, whichever comes first
Electrical connection	M12, USB-C, RJ45
Settings	Various sensor settings can be performed through SUTO display units or through the related service software
Housing material	PC, Al alloy
Protection class	IP65
Dimensions	271 x 231 x 91 mm
Weight	2.4 kg
EMC	According to IEC 61326-1

Ordering

Please use the following table to assist in placing your order with our sales staff.

Order No.	Description
S120 Oil Vapor Analyzer	
S604 1201	S120, oil vapor sensor, 0.001 ... 5.000 mg/m^3, 4 ... 20 mA output, RS-485, Alarm output, supply 24 VDC, incl. power supply
S604 1202	S120-P, oil vapor sensor, 0.001 ... 5.000 mg/m^3 , 4 ... 20 mA output, RS-485, Alarm output, connectable to S551, transport case, incl. power supply
S604 1203	S120, oil vapor sensor, 5" touch screen, 0.001 ... 5.000 mg/m^3, 4 ... 20 mA output, RS-485, alarm output, supply 24 VDC, incl. power supply
P604 1205	S120-P, oil vapor sensor, 5" touch screen, 0.001 ... 5.000 mg/m^3, 4 ... 20 mA output, RS-485, alarm, 24 VDC supply, incl. transport case, power supply
P604 1215	S120-Ambient Portable Oil Vapor Analyzer for ambient air, 5" touch screen with data logger, 0.001 ... 5.000 mg/m^3, 4 ... 20 mA, RS-485 (Modbus RTU), Ethernet (Modbus TCP), alarm output, integrated pump, supply voltage 24V DC, incl. power supply and transport case.
A1250	Option: Integrated dew point sensor, -100 ... +20 °C Td (only for S604 1203 and P604 1205)
A554 1203	Oil vapor zero filter, 1.5 MPa max, with quick connectors at both ends
A554 1207	Replacement kit for zero filter oil vapor sensor
A554 0120	Option,Transport case S120/130
R200 0120	S120 General service and re-calibration (for all models without Dew Point Sensor option A1250): - General inspection of the unit - replacement of tubes and fittings - Cleaning of lamp and sensor - Assembly and test of unit - Calibration of oil sensor - Calibration Certificate
R200 0121	S120 General service and re-calibration with dew point sensor option (for S604 1203 and P604 1205 with Dew Point Sensor Option A1250): - General inspection of the unit - replacement of tubes and fittings - Cleaning of lamp and sensor - Assembly and test of unit - Calibration of oil sensor - Calibration of dew point sensor - Calibration Certificate