



# S120



## Oil Vapor Monitor



**Opt. 1**

Without Display

**Opt. 2**

With Display



**ACCURATE RESULTS**  
Latest PID sensor technology



**TOUCH SCREEN**  
For easy operation



**EASY INSTALLATION**  
Plug and Play Solution



**COMPACT DESIGN**  
Fits into your application



**DATA LOGGER**  
Integrated as option



**DEW POINT SENSOR**  
Option:  
-100 ... +20 °C Td



## 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/m<sup>3</sup>
- ✔ Various output signals to connect the unit to building management systems
- ✔ PID sensor technology for fast response time and Online monitoring
- ✔ Optional with integrated 5" touch screen display with data logger function
- ✔ Optional with integrated dew point measurement
- ✔ LED indications for status and alarms



## Simple Installation – Outstanding Performance

The S120 is designed to offer users an efficient way of measuring residual oil contents in a compressed air system.

The integrated automatic calibration compensates temperature and humidity drifts in the supplied air, resulting in most accurate, reliable and long term stable measurement results.

The simple plug & play installation, as well as its outstanding performance, makes the S120 the ideal choice when oil vapor needs to be measured and monitored.

## Applications

Oil free compressed air is not an easy task to be achieved. Monitoring is a must in many industries and applications to avoid contamination in products and risks for health of humans.

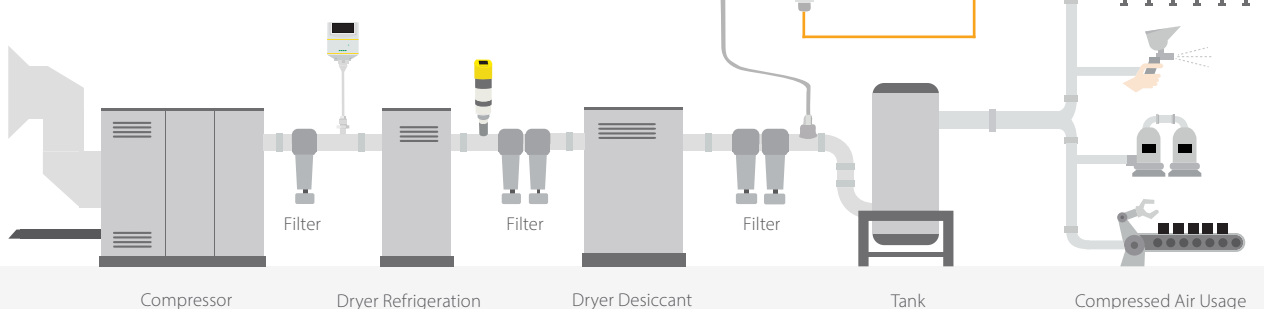
- Medical air
- Pharmaceuticals
- Breathable air for rescue workers and divers
- Food and beverage
- Semiconductor fabs
- Conveyance of hygroscopic food
- High tech processes

## Optional Integrated Dew Point Sensor

To ensure compressed air quality and purity, dew point measurement is an essential key parameter. Therefore, we offer an optional integrated Dew Point Sensor, -100 ... +20 °C Td, to measure both parameters in one compact device with an excellent price performance ratio.



Environmental Contaminants



# Technical Data

## Measurement

| Oil Vapor        |   |
|------------------|---|
| Measuring range  | 0.001 ... 5.000 mg/m <sup>3</sup><br>(Based on 1000 hPa(a), 20 °C,<br>0% relative humidity) |
| Accuracy         | 5% of reading ± 0.003 mg/m <sup>3</sup>   |
| Resolution       | 0.001 mg/m <sup>3</sup>   |
| Selectable units | mg/m <sup>3</sup> / 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 | Piezo resistive pressure sensor            |

| Dew Point (optional) |  |
|----------------------|--|
| Measuring range      | -100 ... +20 °C Td   |
| Accuracy             | ±1 °C Td (0 ... 20 °C Td)<br>±2 °C Td (-70 ... 0 °C Td)<br>±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, 40 VDC, 0.2A   |
| Digital interface   | Modbus/RTU (RS485)<br>Modbus/TCP (Ethernet) & USB<br>(only available for display version) |
| Display (optional)  | 5" color touch screen with a data logger<br>of 100 million measurement values             |

| Supply       |                    |
|--------------|--------------------|
| Power supply | 24 VDC ± 5 %, 10 W |

- 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.

## General Data

|                             |   |
|-----------------------------|---|
| Measuring medium            | Compressed air, N <sub>2</sub> , CO <sub>2</sub><br>(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)<br>0.5 ... 2 bar(g) (optional)<br>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, 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  |
| Approval                    | CE  |





# Ordering

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

## S120 Oil Vapor Monitor

| Order No.    | Description   |
|--------------|---|
| KA66S6041201 | S120, Oil Vapor Monitor, 0.001 ... 5.000 mg/m <sup>3</sup> , 4 ... 20 mA output, RS-485, alarm output, supply 24 VDC, incl. power supply  |
| KA66S6041202 | S120-P, Portable Oil Vapor Monitor, 0.001 ... 5.000 mg/m <sup>3</sup> , 4 ... 20 mA output, RS-485, alarm output, connectable to S551, transport case, incl. power supply   |
| KA66S6041203 | S120, Oil Vapor Monitor, 5" touch screen, 0.001 ... 5.000 mg/m <sup>3</sup> , 4 ... 20 mA output, RS-485, alarm output, supply 24 VDC, incl. power supply   |
| KA66P6041205 | S120-P, Portable Oil Vapor Monitor, 5" touch screen, 0.001 ... 5.000 mg/m <sup>3</sup> , 4 ... 20 mA output, RS-485, alarm output, 24 VDC supply, incl. transport case, power supply  |
| KA66P6041215 | S120-Ambient Portable Oil Vapor Monitor for ambient air, 5" touch screen with data logger, 0.001 ... 5.000 mg/m <sup>3</sup> , 4 ... 20 mA, RS-485 (Modbus RTU), Ethernet (Modbus TCP), alarm output, integrated pump, supply voltage 24V DC, incl. power supply and transport case.  |
| KA66000A1250 | Option: Integrated dew point sensor, -100 ... +20 °C Td (only for KA66S6041203 and KA66P6041205)  |
| KA66A5541203 | Oil vapor zero filter, 1.5 MPa max, with quick connectors at both ends  |
| KA66A5541207 | Replacement kit for zero filter oil vapor analyzer  |
| KA66A5540120 | Option, Transport case S120/130   |
| KA66R2000120 | S120 General service and re-calibration (for all models without Dew Point Sensor option KA66000A1250):<br>- General inspection of the unit<br>- Replacement of tubes and fittings<br>- Cleaning of lamp and sensor<br>- Assembly and test of unit<br>- Calibration of oil sensor<br>- Calibration Certificate   |
| KA66R2000121 | S120 General service and re-calibration with dew point sensor option (for KA66S6041203 and KA66P6041205 with Dew Point Sensor Option KA66000A1250):<br>- General inspection of the unit<br>- Replacement of tubes and fittings<br>- Cleaning of lamp and sensor<br>- Assembly and test of unit<br>- Calibration of oil sensor<br>- Calibration of dew point sensor<br>- Calibration Certificate |



[www.kompauto.com](http://www.kompauto.com)



[sales@kompauto.com](mailto:sales@kompauto.com)