Air Quality Monitor

Stop worrying about the quality of your compressed air !

Let the Air Quality Monitor (AQM) do the real-time monitoring, in compliance with the ISO 8573-1 standard, of all vital parameters like particles, dew point, oil vapor and pressure concentration.

Air Quality Monitor

The Air Quality Monitor (AQM) provides 24/7 control and monitoring, in compliance with the ISO 8573-1 standard, of the quality of your compressed air. In addition, you can analyze the obtained values, build graphs and trends and even store the received information, thanks to **SMART**LINK, which has been integrated into the AQM.

Particle measurement

0.1 < d ≤ 0.5 µm
0.5 < d ≤ 1.0 µm
1.0 < d ≤ 5.0 µm

Dew point measurement

100 to +20°C Td

Oil vapor measurement

0,001 bis 5,000 mg/m³

Benefits

All-in-one device that measures the three most vital parameters – particle concentration, dew point and oil vapor

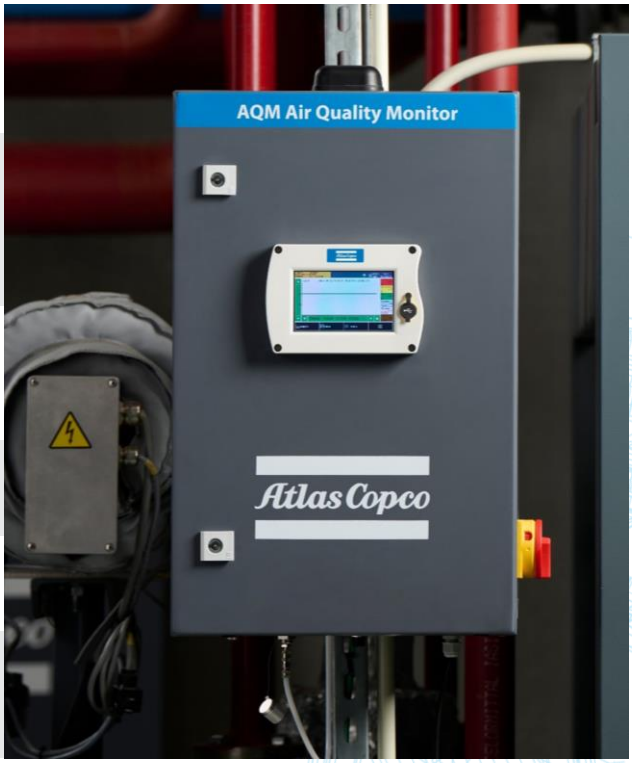
Plug & Play. The wall-mounted cabinet is easy to install – only a power supply and the connection to compressed air is needed

Limited downtime thanks to the easy and timely replacement of the calibrated sensor frame

Online monitoring via an Integrated Data Logger

Live data are sent and stored in **SMART**LINK.

Air Quality Plan. A service contract to give full control to Atlas Copco.



Product Description

Atlas Copco's Compressed Air Quality Monitor (AQM) is the latest technology and an easy-to-use package to continuously measure and monitor air contaminants such as particle concentration, dew point and oil vapor.

24/7 Control and Monitoring

As polluted air can critically affect the product quality, it can lead to significant production losses or even breakdown. By carrying out periodic compressed air inspections, you can quickly respond to contamination incidents and take the necessary actions. However, this does not give you the continuous assurance that everything is going well with the quality of your compressed air. Therefore, we present you the AQM, a tool that ensures a continuous and real-time monitoring.

All vital parameters in one device

- ✓ Particle measurement (0.1 < d ≤ 0.5 µm, 0.5 < d ≤ 1.0 µm, 1.0 < d ≤ 5.0 µm)
- ✓ Pressure Measurement (0.3 … 1.5 MPa)
- ✓ Dew point measurement (100 to +20°C Td)
- ✓ Oil vapor measurement (0,001 bis 5,000 mg/m^3)

Compliant with the ISO 8573-1 Standard

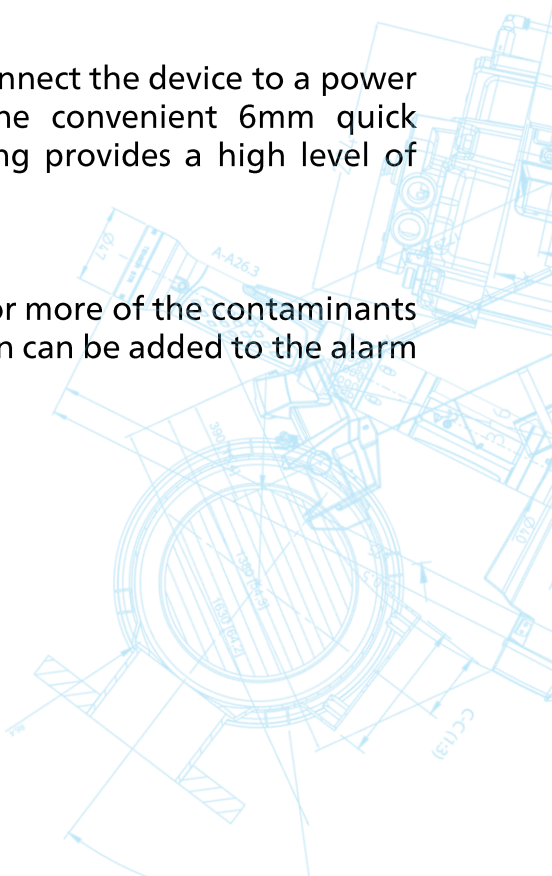
As the AQM uses the most advanced technologies, it allows you to control your air purity parameters in compliance with the ISO 8573-1 standard. All particle, dew point and oil vapor contamination data is continuously monitored and stored in **SMART**LINK, our comprehensive platform that guards the full performance of your compressed air system.

No configuration thanks the Plug & Play device

The AQM is a Plug & Play device. You only have to connect the device to a power source and a compressed air source, by using the convenient 6mm quick connector. In addition, the rugged IP54 wall housing provides a high level of protection in industrial environments.

Alarm indication

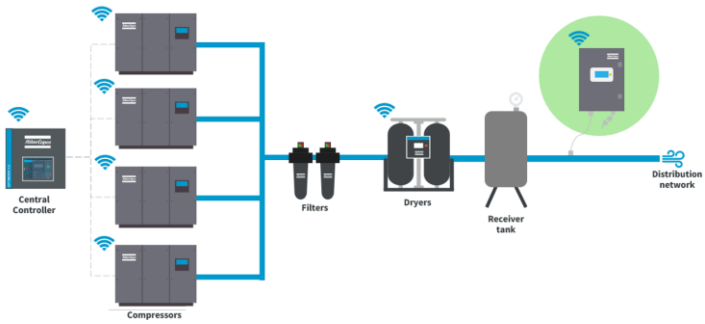
You can set alarm points to get warnings when one or more of the contaminants hit a selected limit. If needed, an external light or siren can be added to the alarm as well.

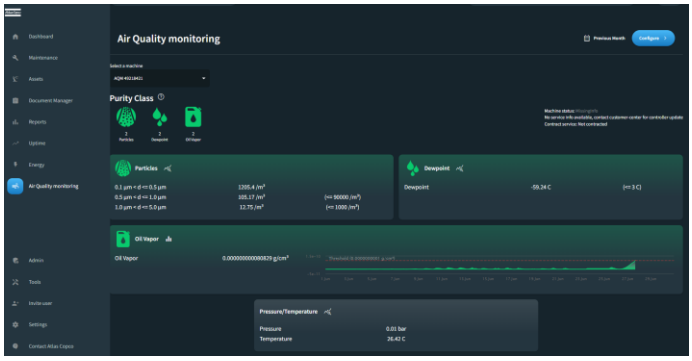


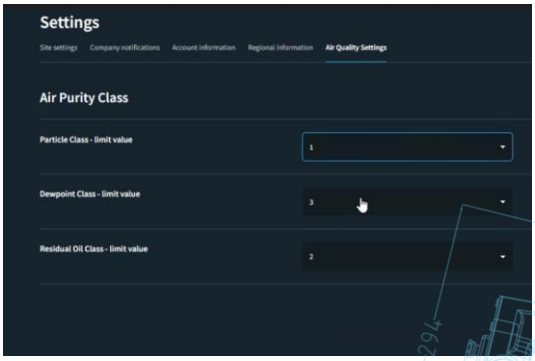
SMARTLINK

SMARTLINK, Atlas Copco's comprehensive platform that guards the full performance of your compressed air system, is integrated in the AQM and offers multiple advantages:

- ✓ Have your own Atlas Copco designed local visualization screen instead of paying a high cost to get monitoring integrated in your system.
- ✓ Get access to all parameters and notifications, which can be checked remotely via your local network.
- ✓ Customize the monitoring settings depending on your needs.







Air Quality Plan

Do you no longer want to worry about the quality of your compressed air? Sign up for our Air Quality Plan (AQP). This plan is a real-time monitoring contract, which is compliant with the ISO 8573-1 Standard and offers you the all-in support to keep your air quality on track, sensitive equipment protected, products fresh and reputation safeguarded.

Check out our dedicated AQP Production Specification Sheet to know more.

AQM Measurement

Particle concentration	
Counting efficiency	According to ISO 21501-4 50% @ 0.1 < d ≤ 0.15 µm 100% @ 0.15 µm < d
Selectable units	cn/m³, cn/ft³
Measuring range	0.1 < d ≤ 0.5 µm 0.5 < d ≤ 1.0 µm 1.0 < d ≤ 5.0 µm
Sensor	Laser optical particle counter
Pressure Dew Point	
Accuracy	± 1 °C Td (0 ... 20 °C Td) ± 2 °C Td (-70 ... 0 °C Td) ± 3 °C (-100 ... -70 °C Td)
Selectable units	°C, °F
Measuring range	-100 to +20 °C Td
Sensor	QCM + Polymer
Response time (t90)	-20 °C Td -> -60 °C Td = < 240 sec -60 °C Td -> -20 °C Td = < 30 sec @ 4 l/min
Oil vapor	
Accuracy	5 % of value +/- 0.003 mg/m³
Detection limit	0.003 mg/m³
Resolution	0.001 mg/m³
Selectable units	mg/m³
Measuring range	0.001 to 5.000 mg/m³
Sensor	PID (Photoionization detector)
UV lamp lifetime	1 year or 6000 working hours, whichever comes first
Sampling rate	1 sec.
Temperature	
Accuracy	± 0.3 °C
Measuring range	-30 to +70°C
Sensor	Pt100
Pressure	
Accuracy	0.5 % FS
Measuring range	0.1 to 1.5 MPa (g)
Sensor	Piezo resistive sensor
Reference conditions	
Selectable conditions	ISO1217 20°C 1000 mbar

AQM Interface, Supply and Signal

Fieldbus	
Protocol	Modbus
Update rate	1 per second
Alarm output	
Relay	2 x Changeover Relay (freely programmable)
Rating	230 VAC, 3A
Power supply	
Voltage supply	100 to 240 VAC, 50/60 Hz
Current consumption	50 VA

AQM General Data

Configuration	
Others	Device comes pre-configured Configuration can be done via touch screen
Update rate	1 per second
Display	
Integrated	Touch screen, Size: 5”, Resolution: 800 x 480 px
Data Logger	
Storage	Internal, 100-million values
Miscellaneous	
Electrical connection	Touch screen, Size: 5”, Resolution: 800 x 480 px
Protection class	IP54 (cover lid closed)
Approvals	CE
Process connection	Micro quick connector, full passthrough, male (1.5 m hose + coupling)
Weight	15 kg
Operating conditions	
Medium	Compressed air
Medium quality	ISO8573-1: 4.4.4 or better
Medium temperature	0 to + 40°C
Medium humidity	< 40% rH, no condensation
Operating pressure	0.3 to 1.5 Mpa (g)
Ambient temperature	0 to +50°C
Ambient humidity	0 to 90% rH
Storage temperature	-10 to +70°C
Transport temperature	-10 to +70°C

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