AIRFILTER® ENGINEERING

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Quality and Purity of Compressed Air

OVP 120 OIL VAPOR SENSOR

Features

- Measures oil vapor contents in compressed air and other gases
- Can be used for permanent or in portable applications
- Measures down to 0.003 mg/m³
- Easy connection through sampling hose and quick connect
- Output signals: - 4 … 20 mA
  - RS-485, Modbus/RTU
  - Relay switch (NO)
- PID sensor for highest accuracy
- Service and Alarm indication through LED
- Integrated 5" touch screen and data logger

The new oil vapor sensor OVP 120 monitors oil contents of compressed air and gases permanently or for spot checks when used as portable unit . The simple installation and the outstanding performance makes OVP 120 the ideal choice when oil vapor contents needs to be measured and monitored.

Oil free compressed air is not an easy task to be achieved. Monitoring is a must in many industries and applications to avoid contaminations in products and risks for health of humans. OVP 120 makes this monitoring task affordable and reliable.

For best accuracy and long term stability, the sensor applies an automatic calibration. Sensor contaminations and sensor life time are monitored and will be indicated to the user. An over range detection will remove the sampling air from the sensor to protect it against contamination.

Limits of oil vapor

Compressed air class 1 (EN ISO 8573-1): 0.01 mg/m³
Medical applications (EAB 407/1238): 0.1 mg/m³
Breathing apparatus (EN 12021): 0.5 mg/m³

Technical data OVP 120/121	
Measuring medium	Compressed air and gases free of corrosive, aggressive, caustic and flammable constituents
Measuring range	0.003 … 10.00 mg/m³ (based on 1000 hPa (a), 20 °C, 0% relative humidity)
Sensor type	PID (photoionization detector)
Detection limit	0.003 mg/m³
Accuracy	5% of reading +- 0.003 mg/m³
Operating pressure	3 … 15 barg (higher pressure on request)
Gas humidity	< 40% rel. humidity, no condensation
Sample flow rate	< 2 l/min, measuring gas is released to ambient
Gas connection	6 mm quick connect
Electrical connection	M12 connector
Sensor life time	6000 operating hours. Will be indicated. Sensor exchange by service
Gas temperature	-20 °C ... +50 °C (at inlet)
Ambient conditions	-20 °C ... +50 °C
Transport temperature	-30 °C ... +70 °C
Output signal	4…20 mA (0 … 10 mg/m³) RS-485, Modbus/RTU Relay: NO, 32 VDC / 500 mA
Power supply	24 VDC ± 5%, 8 W
Display & data logger	5" touch screen, 100 million values
Application	Downstream of activated carbon filters Downstream of oil-free compressors Wherever upstream drying and filtration is applied
Casing/dimensions	PC, Al alloy, 271 X 205 X 91 mm
Classification	IP65
EMC	According to IEC 61326-1
Settings	Various sensor settings can be performed through AFE display units or through the related service software
Weight	2400 g
Sample rate	1 s

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Applications

- Medical air
- Pharmaceuticals
- Breathable air
- Marine air
- Food and beverage
- Medical engineering
- High speed trains
- Semiconductor fabs
- Conveyance of hygroscopic food
- High tech processes
- Electronics industry

OVP 120 mounted at the wall for permanent oil vapor monitoring

Portable OVP 120-P with accessories

Power

Alarm

Service Sensor

Service Filter

LED indicate if pre-set alarms are reached, or if filter and sensor needs to be serviced. The service indications start blinking 4 weeks before expiring and are turned on permanently when service is immediately required.

Order no.	Description
0604 1201	OVP 120, oil vapor sensor, 0.003 ... 10 mg/m^3, 4...20 mA output, RS-485, alarm output, 24 VDC supply
0604 1202	OVP 120-P, oil vapor sensor, 0.003 ... 10 mg/m^3, 4...20 mA output, RS-485, alarm output, connectable to S 551, transport case
0604 1203	OVP 120, oil vapor sensor, 5" touch screen, 0.003 ... 10 mg/m^3, 4...20 mA output, RS-485, alarm output, 24 VDC supply
0604 1205	OVP 120-P, oil vapor sensor, 5" touch screen, 0.003 ... 10 mg/m^3, 4...20 mA output, RS-485, alarm output, connectable to S 551, transport case
0554 0029	Coalescing filter, with quick connect at inlet and outlet for 6 mm hose as pre-filter for OVP 120
3200 0120	General service and re-calibration: - General inspection of the unit - Replacement of tubes and fittings - Cleaning of lamp and sensor - Assembly and test of unit - Calibration of oil sensor OVP 120