



# aerotracer

## *improving time and cost efficiency in maintenance procedures*

Born as a joint product between the companies AIRSENSE Analytics and Lufthansa Technik, the **aerotracer** was especially developed to answer the needs of airlines, engine manufacturers and maintenance providers regarding the identification of unknown smells or compounds in the airplane.

The **aerotracer** allows within short time to detect and identify common volatile compounds used *in* and *for* the aircraft, like hydraulic fluids or lubricating oils, and it is sensitive enough to rate odour concentrations into a sensing scale.

The **aerotracer** is used to support the ground maintenance staff, assisting them with the identification of unknown compounds. For example, if a liquid spot is detected near the wheel gear, the raised question is if it is a lubricant, grease or another substance. As

the **aerotracer** can decisively distinguish these products, it allows the ground staff to quickly take a decision on the actions to follow.

Besides the **aerotracer** is also used when *cabin oil smells* are reported. By following a specific run up procedure it can be concluded if the smell has its origine in one of the engines - and which is it - or if it is coming from another source, like the APU. In this particular case, identification and quantification ratings will be indicated.

The **aerotracer** offers the advantage of learning immediately about the source of the problem, allowing to act directly on its origin and it excludes therefore unnecessary procedures, relevant to reducing the total downtime of the airplane.

The **aerotracer**, a joint product from:

**AIRSENSE**  
ANALYTICS



**Lufthansa Technik**

## Description of aerotracer's different applications:

### “Oil smell“ Application

The **aerotracer** is used inside the cabin to detect the provenience of oil smells and quantify them.

### Test Bench Application

At Overhaul facilities, the **aerotracer** will be looking after the presence of derived oil in compressor bleed.

### „Maintenance“ Application

The **aerotracer** is used to identify a range of substances used for and around the aircraft, ideal for supporting ground staff during maintenance procedures.

### Detected Compounds:

- **Fuel**
- **Glycol**
- **Shock Strut Fluid**
- **Engine Oils**
  - Mobile Jet Oil II
  - Aero Turbo Oil
  - Esso 2380
- **Hydraulic Fluids**
  - Aero Fluid 4
  - Skydrol 500 B
  - Shock Strut Fluid
- **Glues**
  - 3 M Glue 847
  - 3 M Glue 1022
  - Pattex
- **Lubricants**
  - Grease 7
- **Corrosion Inhibitors**
  - Royco 11
  - Royco 64
  - Ardrox AV
  - Dinitrol AV

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## aerotracer technical data

**Operation Modes :** engine oil and maintenance

**Combined sensor technology:** ion mobility spectrometer, photo ionization detector, electrochemical cell, metal oxide sensors;

**Sampling System:** internal pumps, internal sample dilution system

**Measurement Time:** usually some seconds to less than 1 minute

**Identification:** available with visible results on the display

**Display:** graphical display integrated

**Interface:** Serial port – RS-232

**Data Logger:** mini SD card

**Power:** rechargeable battery or direct power supply

**Weight:** 4.2 kg (8.4 lbm) (without battery)

**Dimensions:** approx. 395 x 112 x 210 mm (approx. 15.7 x 4.5 x 8.4 in)

**For more information contact us:**

AIRSENSE Analytics GmbH  
Hagenower Str. 73  
19061 Schwerin  
Germany  
Tel: +49 385 3993 280  
Fax: +49 385 3993 281

**AIRSENSE**  
A N A L Y T I C S