

SF₆-Tracer



**Detection and Monitoring of
smallest SF₆-Leakages**

SF₆-Tracer- The ideal Tool for Trace Detection of SF₆

The SF₆-Tracer is a highly accurate, reliable and stable quantitative gas monitoring system. The applied technology is based on photo-acoustic infrared spectroscopy. This physical and non-destructive working principle implies that the SF₆-Tracer -compared to other detectors- achieves highest accuracy due to the integrated temperature and pressure compensation while measuring SF₆- traces down to 5ppb_v. Water vapor interference can be excluded through the installed acquisition and cross-compensation of the moisture content while customers can choose for compensations of further VOCs being present that might interfere the measurement's preciseness. The reliability and accuracy of measurement results is ensured by regular self tests of the system.

Due to the physical working principle the SF₆-Tracer requires no consumables and beyond that very low maintenance. Re-calibration is recommended once a year and can be executed by the operator.

The monitoring system is easy to operate through either of the two user interfaces:

- a front panel with its push buttons and display providing short self-explanatory texts
- an all-embracing PC Software with graphical interface

Both interfaces allow to set-up the SF₆-Tracer's parameters (e.g. sample integration time), carry out a measurement either manually or automatically, display the concentration in real time or forward the result to the process control system provided through the software. Moreover the SF₆-Tracer can be operated either on-line and offline selecting and defining relevant parameters required by the operator.

Technical Specification	
Measurement Principle	Photoacoustic Infrared Spectroscopy
Detection Limit	6 ppb _v or 6x10 ⁻⁹ mL/sec. (at a flow rate of 60 mL/min)
Dynamic Range	6 – 60,000 ppb _v
Resolution	1 ppb _v
Sensor Characteristics	Auto compensation temperature and pressure Moisture: Cross-compensation up to 80% up to 31°C
Response T90	~ 15 sec.
Repeatability	1% of measured value
Pumping Rate	30cm ³ /s sample tube 5cm ³ /s measurement chamber
Range Drift	+/- 2,5% (of value per 3 month)
Temperature Operation	5 - 40°C
Calibration	Every year (carried out by customer)
Alarms	2 adjustable level – audible and visible
Relays	2 user defined relays (user defined)
Data Storage	Available (internal memory) Software 7304 (cable WL0945 included)
Communications	IEEE 488 and RS232
Power	100 – 240V AC, 50-60Hz
Dimensions	395 x 175 x 300 mm
Weight	9 kg
Enclosure	IP 20
Compliance	CE, UL and URL Safety: EN/IEC 61010-1