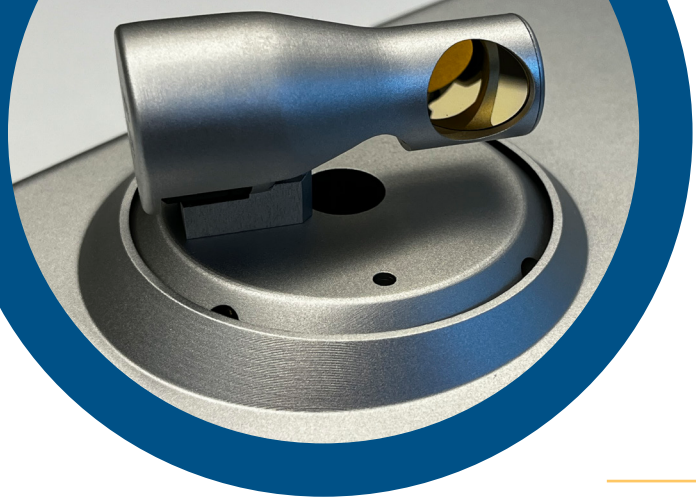




FluxSense

Ultralight and
compact instrument
for rapid emission
measurements &
leak search.

SOF-XPLORER

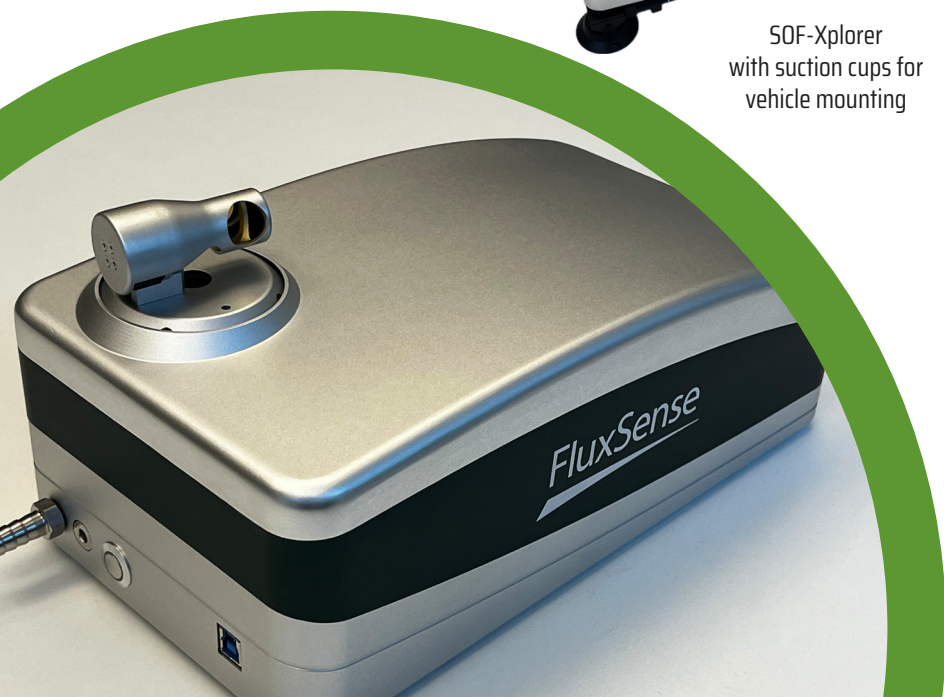
The ultralight and compact SOF-Xplorer is a novel instrument for emissions monitoring using the Solar Occultation Flux method (standardized according to EN17628). It's based on a mid-infrared spectrometer equipped with a thermoelectrically cooled MCT detector. A custom rapid and sensitive solar tracker automatically directs the sunbeam into the spectrometer.

The instrument can be easily deployed on the roof of a car or mounted on a UAV platform. Geo-tagged measurement results are displayed in real-time to allow for efficient source screening and emissions monitoring. By combining the data with wind speed and direction the vertical column data (mg/m^2) can be converted to gas mass fluxes (kg/h).

The SOF-Xplorer is available in two configurations, one tailored for optimal alkane detection (a) and another, multi-species version (b) for ammonia, alkenes and other gases.



SOF-Xplorer
with suction cups for
vehicle mounting



SPECIFICATIONS (version IV)

	SOF-Xplorer
Configurations	a) Alkanes b) Multi Species (alkanes, alkenes, ammonia...)
Dimensions (LxWxH)	18 x 16 x 32 cm
Weight	4.3 kg
Power	Charging voltage: 12 VDC Charging adapter for 110/230V, 50/60Hz included Total power consumption: < 10 W
Battery Capacity	2 x 50 Wh
Detector type	MCT Thermoelectrically cooled
Time resolution	1-4 s
Wavelength range	a) 2-6 μm b) 2-12 μm
Spectral Resolution	1-8 cm^{-1} configuration dependent
Sensitivity	a) $\sim 2.5 \text{ mg}/\text{m}^2$ alkanes b) $\sim 5 \text{ mg}/\text{m}^2$ alkanes, $\sim 5 \text{ mg}/\text{m}^2$ ammonia
Interface	USB
Accessories	GPS receiver Vehicle mounting kit Flight case