

# SELMA

## Mobile Laboratory for Natural Gas Leak Detection

SELMA is designed for high-accuracy inspection (leak detection from 0.1 ppm) of a wide range of gas facilities: from gas fields and gas transport system to gas consumers. The system can be installed on any vehicle – a passenger car, a lorry, an off-road or a segway. The high economy of the laboratory is due to the optimal speed of inspection – up to 50 km/h. The device can be operated in a completely unmanned mode. Measurement readings with GLONASS/GPS position are stored in the device.

Remote  
laser detector

Surface air sampling  
bumper system



Finds leaks 30m upwind

It is possible to see the leak through the glass or a window

Fits the trunk

Remotability

Touch-sensitive control

Pinpointing

Cross country

Inexpensive inspection

If the leak is higher than the set level, automatic e-mail alarm

Any chassis



Software for data processing, recording, inspection reporting

SELMA	
Average inspection speed	20-50 km/h
Horizontal scanning angles	-180° ÷ +180°
Vertical scanning angles	-20° ÷ +70°
Laser type	Diode, Class I
Laser emission wavelength	165 micron
Laser emission power	15 mW
Leak stable detection zone	60 m
Gas concentration measurement range	0-100 %
Sensitivity: Roof version	20 ppm·m
Sensitivity: Bumper version	0.1 ppm
Selectivity to other gases	<(1/10 <sup>4</sup> )
Water vapour influence	No
Operation temperature	-10 ÷ 40 °C
Storage temperature	-40 ÷ 50 °C
Number of operators	1 or unmanned mode

up to 150 Productivity  
to km/day

50 km/h

Optimal inspection speed  
(max. speed is 90 km/h)

**SELMA Roof and MPB applications:**  
main pipelines, gas pipeline branches, block valve stations, gas distribution plants, underground gas storage facilities, gas field search, gas distribution networks in urban and rural settlements.