PORTAFID M3/M3K

Technical Information

Using the device to detect and repair leaks (LDAR)

Information as per EU Methane Regulation 2024/1787

Leak detection capacity	Application • Inspection above ground, facilities: ◦ Minimum resolution (MDL): 1 ppm ◦ Capacity: approx. 1.5 – 5 km/h (0.93-3.11 mph) (depending on network topology) ◦ Threshold: 3 – 5 ppm
Purpose	**PORTAFID M3** and **PORTAFID M3K** are portable gas leak detectors that are suitable for the following applications (DVGW G 465-4): • Above ground inspection of underground gas lines • Inspection of accessible pipes and facilities
Intended use	The product is suitable for the following uses: • professional • industrial • commercial The product must only be used for the applications specified in the Purpose.
Limitations	The device must **not** be used for: • Measuring in bar holes • Gas analysis of technical processes • Monitoring liquids The product must not be used in potentially explosive areas. The device must not be tilted during measurement (maximum tilt 30°).

Suitability as per DIN EN 15446:2008

Introduction to standard:

“A portable instrument is used to detect VOC leaks from individual sources. Any detector type is allowed, provided it meets the specifications and performance criteria contained in Clause 5. This procedure is intended to locate the leaks, and to estimate the mass emission rate from individual sources and the total emission of the industrial facility over a reporting period by using:

- *EPA or user-defined correlations whenever possible;*
- *fixed emission factors, in all other cases.“*

VOC: Volatile Organic Compounds
EPA: (U.S.) Environmental Protection Agency

Application of standard:

“The leak sources include, but are not limited to, valves, flanges and other connections, pressure relief devices, process drains, open-ended valves, pump and compressor seal systems, agitator seals, and access door seals.“

The standard cannot be applied to measuring leaks in underground gas pipes.

Specification (Section 4.1)	The product meets the following requirements: 1. Reacts to target gas 2. Detection limit < 10 3. Resolution ±5% (equivalent to 25 ppm at a threshold value of 500 ppm as per EU Methane Regulation) 4. Pump capacity 0.17 – 0.2 l/min 6. Gas sample can be removed individually, inner diameter of probe/probe hose < 3.6 mm (< 0.14″) The product does **not** meet the following requirements: 5. Explosion protection 7. End of measuring range > 5% vol.
Performance criteria (Section 4.2)	The product has the following features: • Correction factor < 10 for CH4 • t90: ◦ Target: < 5 s ◦ Actual: ≤ 5s • Accuracy: ◦ Target: 10% ◦ Actual: 1%