EX-TEC® PM 4 / SNOOPER 4

Technical Information

Using the device to detect and repair leaks (LDAR)

Information as per EU Methane Regulation 2024/1787

Leak detection capacity	Application • Structure: ◦ Minimum resolution (MDL): 1 ppm ◦ Capacity: approx. 3 – 5 m/min (9.84-16.40 ft/min) ◦ Threshold: 5 – 100 ppm
Purpose	The devices are portable, explosion-proof gas concentration measuring devices for: detecting (PM 4, SNOOPER 4) measuring and warning (PM 4) The devices can be used for: • Pinpointing leaks in gas pipes that are not underground (PM 4, SNOOPER 4) • Assessing the risk of explosion in work areas (PM 4) • Identification of gas components (PM 4) The devices are suitable for the following applications (DVGW G 465-4): • Warning (PM 4) • Measuring (PM 4) • Structure (PM 4, SNOOPER 4)
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. The devices may be used, for example, to measure the following gases (depending on the device model and additional equipment): • methane CH4 / propane C3H8 / town gas
Limitations	The devices must **not** be used for: • Pinpointing leaks in underground gas pipes • Gas analysis of technical processes • Monitoring liquids The device's gas input or the connected probe must be as close as possible to the gas to be measured. High temperatures (> 40 °C) (> 104 °F) reduce the service life of the sensors and rechargeable batteries.

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.

The information below only applies to models with a pump and only for gas type CH4.

Specification (Section 4.1)	The product meets the following requirements: 1. Reacts to target gas 2. Detection limit < 10 ppm in structure applications 3. Resolution ±5% (equivalent to 25 ppm at a threshold value of 500 ppm as per EU Methane Regulation) 4. Pump capacity 0.1 – 0.25 l/min 5. Explosion protection II2G Ex d e ib IIB T4 Gb 6. Gas sample can be removed individually, inner diameter of probe/probe hose < 3.6 mm (< 0.14″) 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: 7 s (ppm range), 10 s (% vol. range) The product meets the requirements of the DVGW G465-4 code of practice and can be used to detect leaks without restriction in the structure application. The T90 time is irrelevant for quantifying the leak volume. • Accuracy: ◦ Target: 10% ◦ Actual: 30% (ppm range), 5% (% vol. range)